4 June 2018

TO:        Yazhen Wang, Professor and Chair, Department of Statistics
FROM:      John Karl Scholz, Dean
RE:        Completion of Academic Program Review:
            • Statistics, B.A., B.S., M.A., and Ph.D., with
              o MS-Statistics, Options in Biostatistics and in Data Science
              o Ph.D., Option in Biostatistics

CC:        Cal Bergman, Associate Dean for Student Academic Affairs, L&S
            Elaine Klein, Associate Dean for Academic Planning, L&S
            Sarah Kuba, Academic Planner, Academic Planning and Institutional Research
            Gloria Mari-Beffa, Associate Dean for the Natural and Mathematical Sciences, L&S
            Lisa Martin, Associate Dean, Graduate School
            Jocelyn Milner, Vice Provost and Director, Academic Planning and Institutional Research
            James Montgomery, Associate Dean for Fiscal Initiatives, L&S
            Jennifer Noyes, Associate Dean for Operations and Staff
            Parmesh Ramanathan, Associate Dean, Graduate School
            Eric Wilcots, Deputy Dean, L&S

On March 20, 2018, the L&S Academic Planning Council considered materials submitted with respect to the review of academic programs enumerated above. In the course of the council’s deliberations, members were provided with the self-study you and your colleagues submitted, as well as report submitted prepared by a committee of faculty who used that self-study as the foundation for its discussions with faculty, staff and students. As you know, we also provided the department with an opportunity to review the report and offer correction of factual errors. Deputy Dean Eric Wilcots led the committee’s discussion.
In discussion, the committee praised the quality and integrity of this review, noting in particular the clear delineation of strengths and concerns, and excellent advice offered by the review committee. Those commendations encompass several avenues for improvement, from detailed suggestions about curriculum, to more general advice about the relationship between the standard program and the non-pooled tuition programs, and how best to ensure that all students have an excellent learning experience in Statistics.

Members were pleased to see confirmation of the good progress you and your colleagues have made toward improving departmental climate, and shared the committee’s sense that you are to be commended for improvements in TA training and mentorship and efforts to institute more systematically assessment procedures that will guide decisions the department makes about what works well for students. Council members agreed that these changes are headed in the right direction, and would particularly like to encourage you and your colleagues to heed the advice offered by the committee with respect to improvement of the various gateway courses. As one member noted, enacting changes in those courses (for example, to reduce DFW rates for First Generation College students) will have an impact on learning well beyond your own department and programs, affecting programs across the university and the lives of students well beyond the time they spend with us. As such, members regard this as a high priority as you turn your attention to undergraduate curriculum, and as you consider expanding programs to meet the needs of a diverse array of students.

The L&S APC approved a motion to consider the review complete, and wish you all the best as you consider the committee’s advice.
Review of Academic Programs in the Department of Statistics
February 12, 2018

I. Introduction and charge
In August 2017 a committee consisting of Lauren Ritters (Chair), David Baum, Jenna Nobles, Jignesh Patel, and Monica Turner (GFEC representative) was charged with the review of the academic programs in the Department of Statistics.

In November 2017, the review committee conducted a series of interviews with members of the Statistics Department that included meetings with 1) split appointment faculty, 2) junior and newly tenured faculty, 3) the gateway courses committee, 4) the TA instruction committee, 5) senior faculty, 6) the climate committee, 7) directors of traditional MS/PhD programs and the VISP/MSDS programs and curriculum committee, 8) traditional MS and PhD students (some with full and some with split appointment faculty mentors), 9) VISP/MSDS graduate students, 10) the department chair, 11) the director of the undergraduate major, and 12) undergraduate students. This report is based on the material gathered in the interviews and the self-study report prepared by the department.

The committee focused its review on the following areas that were emphasized in the self-study and during interviews: the graduate programs, the undergraduate major, gateway courses, revenue programs, infrastructure, climate and decision-making processes. This report summarizes strengths of the program, areas of concern and lists recommendations for improvement and continued success in this already strong and rapidly growing department.

II. Graduate programs
Strengths
The Department of Statistics has an outstanding record of graduate student placement after graduation, which is showcased on the department’s webpage and excellent for recruitment. Graduate students felt welcome and found it easy to gather information about the program informally from faculty and other students. The process for matching incoming students with temporary advisors seems to work well and the students we met reported being well supported in the process of finding a lab.

With respect to training and coursework, the split appointment faculty provide benefits to graduate students by bringing expertise on real world problems and novel statistical approaches. The statistical consulting course, Stat 698, is extremely popular with the students and serves an important function of preparing students to work as statisticians. The new qualifying exam structure for graduate students has been a great help in moving students through the program and retaining students who conduct applied research.

Most graduate students who request TA positions in statistics receive them, and others find TA positions in other departments. A few students are supported by RA positions. In recent years there have been marked improvements in the process for making TA assignments. Appointments are now made much earlier than before, so students know which course they are teaching well before the semester begins. This gives students more time to prepare and facilitates TA training.
Also, there is more emphasis on TA training and mentorship, including a new method of training for gateway courses that pairs an experienced TA with a newer TA. The department is considering a process for assessing TA performance (and having consequences when it is substandard). We are optimistic that these positive developments will continue.

Despite some divides among the students, there have been marked improvements in the social environment. The climate committee should be commended for this work. Happy hours and the annual holiday party serve to bring together the statistics community and help bridge the divide between international and domestic students.

**Concerns**
The department does not recruit other than by providing information on the web page, and there were concerns about the department’s limited success in recruiting domestic applicants, especially from targeted minorities. Although faculty mentioned recruitment “visiting days” the graduate students we met were not aware of them. Apart from the admissions committee, faculty are not provided access to graduate student applications nor are the faculty at large asked for input. Although mathematical ability is clearly required for graduate-level work in statistics, some concerns were raised about the relative weighting of test scores vs. other indicators of research potential among applicants and how this might make it difficult to recruit diverse domestic students. While the process for placing graduate students in labs is generally working, students and faculty raised concerns about the ability of students to explore the full range of advisors. There were also concerns that the TA/RA pay and teaching load may negatively impact graduate student recruitment.

With respect to coursework and training, the statistical consulting course does not have adequate capacity given the demand and students often take it later than they would like. Students also expressed interest in being able to take this course more than once. Other courses include a range of students and are aimed at middle ground and not quite hitting the needs of either MS or PhD students. Students felt that reducing elective requirements would be a plus since it slows down progress to degree. Finally, there were concerns that course material varies widely based on who is teaching.

The program has few opportunities for broader professional development. Students for the most part do not present in lab meetings or conferences limiting their practice in scientific communication. Students with certain advisors are encouraged or required to publish, other students are not asked to publish. Likewise, some students meet regularly in groups or with faculty, some do not. A few of the students interviewed wished these aspects of professional training were implemented universally. Although not necessarily a negative (some valued the flexibility), there is considerable variation across faculty in expectations about publication, conference attendance, and time to degree.

There has been much improvement in TA training and placement with a few challenges remaining. In particular, the new, additional TA training requires extra time. More senior TAs find TA training to be helpful, but would prefer more specialized training as they gain experience. TA loads can vary quite a bit from class to class.
Issues related to climate and diversity do remain. The student body is numerically dominated by two groups: native English speakers and Chinese-speaking students. A few students and faculty raised concerns about there being a cultural division between Chinese and domestic students, which might be making domestic students feel uncomfortable and might make it harder to recruit the best domestic graduate students. This is exacerbated by the revenue generating programs being entirely composed of Chinese students. Some faculty expressed concerns that some international students can spend 5 years in the program and leave without a good command of English.

Graduate students do not have a clear venue through which they can voice opinions about the program. Graduate student representatives apparently exist, but they do not attend faculty meetings and do not serve as members (even if non-voting) of departmental committees. Additionally, faculty indicated that there were graduate student representatives who were permitted to attend meetings, however the graduate students we spoke to were not aware of this, making the committee wonder how representatives are appointed and how effectively they are able to represent student concerns. Graduate students are not routinely nominated for awards, and measures of productivity (e.g., awards, publications, conference presentations) are not tracked.

**Recommendations**

1. We suggest the department consider new mechanisms for recruiting graduate students that include more concerted attempts to recruit domestic graduate students (e.g., reaching out to regional universities). At a minimum, the web presence could provide more information about current students, departmental culture, etc.

2. We suggest the department allow faculty outside the admissions committee to access graduate student applications and to make suggestions.

3. Graduate student professional development goals should be articulated as part of graduate student learning goals, and we suggest the use of individual development plans (IDPs). Having ongoing discussions about the broad array of skills--beyond technical expertise--that PhD students need to be successful in an academic environment that is changing rapidly is critical. Resources and input from the Graduate School might be helpful here.

4. We recommend that all PhD students are provided the opportunity to publish papers and to present data informally in lab meetings or at conferences as part of professional development.

5. We suggest the department consider formalizing peer-mentorship (pairing new graduate students with more experienced students when they enter the program), which was recommended by the students.

6. We suggest the department consider allowing students to take the statistical consulting class for credit multiple times and adding additional sections. The department may also consider the student suggestion of reducing elective course requirements and providing more flexibility in terms of class requirements.
7. The department is encouraged to consult with LaRuth McAfee (office of diversity, inclusion and funding) for advice on how to better integrate the domestic and international students.

8. We recommend the department consider the voice of graduate students in decision making (e.g., have graduate student representatives attend faculty meetings, place students on hiring and select standing committees). This will also serve as professional development for the students involved.

9. We suggest the department track graduate student awards and publications annually to assess/document progress and to showcase success and improve recruitment efforts.

III. Undergraduate Major

Overview
The undergraduate major is strong and expanding rapidly. This expansion likely reflects the growing demand among students for training in quantitative and data-science fields, which means this growth is likely to continue for a few years. This positive trend bodes well for the department in the long run. However, in the shorter run, care will be needed to manage enrollment pressures on key courses and ensure that all majors are receiving the academic support that they need. The current students that we met (not a random sample) were quite happy with the program, citing a few outstanding TAs and instructors, and a very good undergraduate advisor as key factors. Assessment efforts have historically been weak (surprisingly so for a program focused on quantitative inferences!), which means that the program is somewhat in the dark about what does and does not work for students. However, going forward the department plans to conduct surveys of students every 2 years, and is instituting ways to better track students post-graduation. Furthermore, the department has shown it is very responsive to student feedback, which leads us to be optimistic that the new assessment strategy will help the program improve consistently. The committee identified some areas of concern that the program might consider dealing with even before new assessment data are available.

Concerns and Recommendations
1. Undergraduates would like help developing improved computational skills.
   a. Consider expanding the introduction to R course and encouraging students to take it simultaneously with or soon after their introductory courses.
   b. Consider revising the curriculum to integrate more computer science requirements or electives.
2. Undergraduates said that they did not find it easy to join research groups, depriving them of important opportunities to develop skills in applying their statistical knowledge. This is surprising since many science labs would be especially eager to recruit statistics undergraduates.
   a. Consider offering occasional advising meetings on how to find a research lab and posting a how-to document on the program’s website.
3. The undergraduates we spoke with did not find much benefit in the statistics club.
   a. Some faculty or staff involvement in the club might be advisable for a short time to help gauge its strengths and weakness.
4. Students commented that class sizes are very large, even for capstone classes. This makes the learning experience less personal and means that the number and depth of
assignments have been cut. Undergraduates thought this had to do with the addition of VISP students, but we do not have data to assess this.

a. Consider a curriculum review with the aim of generating a few, smaller upper division courses just for Statistics majors. Students also raised the possibility of allowing undergraduates into some graduate classes.

5. Undergraduates noted that some of their classes seem designed for students in diverse majors and do not always hit the mark for the statistics students.

a. This complaint may not be soluble, but is worth considering as part of a general curriculum review.

6. Undergraduates indicated that, although rare, in collaborative settings such as office hours, Chinese students may communicate with one another (and sometimes with the professor) in Mandarin, leaving English speakers out of the conversation.

a. It might be possible to create a video or written introduction to the program that addresses these cultural issues. It could emphasize both the importance of being inclusive and also the value to all students of the program’s global diversity, which will help graduates better navigate real-world work environments.

7. Undergraduate students expressed frustration at a lack of career advice from the program. For example, none of the students that we interviewed knew of the Successworks.

a. Advising sessions focused on career options are a good idea, as well as documents on the website. Every effort should be made to direct students to Successworks.

8. Undergraduates complained that lines for advisors can be long and that appointments can be difficult to schedule.

a. In the long run a sufficient number of qualified advisors needs to be hired, but until then it might help to offer regular group advising sessions on special topics (such as getting to do research or statistics careers).

9. The material presented to the review committee left it unclear whether and how strategic review of the undergraduate curriculum and list of course offerings occurs. As one illustration, it was unclear whether the department has a strategic plan for using summer session and/or online courses to take pressure off bottleneck courses. Likewise, the possibility of adding computational coursework needs due consideration.

a. We recommend that a strategic planning committee be convened or that the standing curriculum committee be charged with regular review and updating of major requirements.

IV. **Gateway courses**

**Overview**
The gateway courses offered by Statistics play a critical role in many majors in the natural and social sciences. The department has shown a clear appreciation for the important service that these courses provide to other units on campus and has worked effectively in recent years to update the curriculum, greatly improve TA training, and significantly enhance consistency among different sections of the same course by achieving greater stability in staff and generating a repository of course materials. However, while the general trajectory is very positive, the committee did identify areas of concern.
Concerns and recommendations

1. Demand in the gateway courses remains robust and there is some sense that students in other majors may not always get into their chosen class as early in the degree as would be optimal.
   a. To reduce enrollment pressure the department might consider offering online versions of at least 301 and 371 in summer session.
2. The proportion of 1st generation and minority students receiving Ds and Fs is too high in several of the gateway courses.
   a. The formation of an expanded learning center and targeted TA-training related to diverse student needs are strategies worth considering.
   b. The implementation of alternative classroom configurations and active-learning pedagogy is worth exploring, perhaps under the umbrella of the REACH program.
3. Gateway courses are primarily taught by instructional academic staff (including graduate student lecturers) rather than faculty. While there may be good financial reasons to adopt this model it does raise concerns about turnover and quality control. However, the committee also had no meetings scheduled with staff, yet they are most involved with these courses.
   a. As part of a strategic and budgetary vision the department might consider assigning at least one faculty member to serve as a regular instructor in each gateway course. This individual could help establish institutional memory and provide an important oversight and mentorship function.
   b. The department might need to direct more resources to support and retain high quality teachers.
4. There seems to be a lack of a clear plan for assessing the degree to which the gateway courses are meeting their learning goals.
   a. An updated assessment plan, developed in consultation with campus experts and with input from stakeholder majors, is recommended
5. While the development of a repository of course materials is commended, the committee was led to believe that the resource is not well organized, limiting its effectiveness.
   a. Investing in building a durable and organized framework of storing and sharing instructional materials for these courses could be developed, perhaps with input from DoIT AT and/or LSS.

V. Revenue Programs

Strengths
The department has developed two major revenue generating programs, Master of Science Degree Data Science Option (MSDS) and Visiting International Student Program (VISP). These have grown rapidly and promise to bring resources, which can provide benefits that extend to all members of the department. Further growth in these programs is warranted, provided they continue to provide both sufficient funding to support their own administrative staff and instructional needs, as well as a healthy amount of additional funding that can be used to improve the experiences of regular undergraduates and graduate students.

In addition to revenue, the growth of the VISP/MSDS programs has generated a set of new Statistics courses on campus (e.g., 601/602), as well as the incentive to develop new courses on an ongoing basis. Many of these courses are quickly filled by VISP/MSDS students, but in some
cases they grow the offerings from the Statistics department for all students. Students and faculty indicated a need for continued course development for these programs, including a new methods class and, potentially, lower-level versions of existing classes.

The current VISP/MSDS students describe their experiences in the program in very positive terms. They expressed particular enthusiasm about the mentorship and leadership from Prof. Shao. Students feel comfortable attending office hours and asking for feedback. The professional development geared toward graduate school application and internship placement is a strength of the program.

**Concerns**

The most pressing concern raised about VISP and MSDS is the mismatch between the intended growth of these programs and the ongoing demand for multiple academic staff, administrators, and coordinators. Continuing to grow the programs will be particularly difficult if additional advisors are not added. Current students indicated that the staff are excellent, but sometimes too busy to help. For example, finding someone to look over a resume is challenging.

At present, there is only one academic advisor for these programs. This advisor – Professor Shao – does much more than teaching for the community. He runs a number of sessions that the students value. In addition to providing needed support for Prof. Shao, the committee expressed some concern about whether a succession plan is in place at which time Prof. Shao is no longer interested in taking on this role. Involving another academic advisor may be important for the long run stability and continuity of this program.

A few additional concerns were noted for the VISP & MSDS programs:

1) The decision-making process for allocating the expected revenue from these programs was not clear to faculty or staff.

2) Right now the programs are not profit-generating but are expected to become so in the future.

3) With respect to recruiting, teaching and advising, a few faculty raised concerns that the VISP/MSDS students have strong interests in pursuing theoretical training but need more skills in applied research and in working on group projects.

4) Expanding recruitment plans to other countries and universities to diversify the student body in the programs is desirable, though has been challenging to implement so far.

5) Providing support for informal interaction for these students could continue to be developed. For example, currently the MSDS/VISP students were not aware of the department’s fall festival gathering.

6) There is a tension between the desire of some to keep the MSDS/VISP students separate from the traditional undergraduate and graduate students and the potential climate issues that arise from not integrating these communities.
**Recommendations**

1) Given the growth trajectory of VISP/MSDS programs, additional faculty advisors and staff coordinators are needed (a) to sustain the program, (b) to provide sufficient advising for the VISP/MSDS students, and (c) to reduce strain on the primary Statistics department staff.

2) We support faculty interest in increasing the diversity of students in the VISP/MSDS programs. A plan for supporting this is needed. For example, it was mentioned that efforts to expand recruitment to Brazil fell through because of lack of resources.

3) Adding classes to the programs that involve more interactive learning and applied projects will diversify the training students receive.

4) We suggest the department develop long-term plans for use of VISP/MSDS funds. This may require some consideration about funds for additional department staff—both advising and support for the main administration.

5) Another key area is to get more input from the staff on decisions that are related to the revenue generation programs, which the staff contributes to in a significant way.

**VI. Infrastructure**

**Concerns**

A number of concerns were raised about space. The quantity of space is a serious concern. The graduate students are spread across campus. Visitors do not have an office to use. Several people expressed concerns that the four new hires this year would not have offices in the department. The shared, communal space for the department is also limited. VISP and MSDS students have nowhere within the department to go between classes.

Others raised concerns about the quality of the space that is available. The dated building may negatively impact faculty and graduate student recruitment. Specific requests for space sufficient to host teleconferencing and for more shared computing resources were repeated through the interviews.

**Recommendations**

1) The reallocation of space or acquisition of additional, contiguous space within the building would benefit graduate students and faculty. If the current trajectory of increasing enrollment continues, the demand for space will become more pressing.

**VII. Climate and decision making**

**Strengths**

In the past, the department has faced various issues related to the climate and the process for internal decision-making. Significant changes have been made with respect to these issues that are commendable. Big decisions are now discussed and voted on at the faculty meetings and thus provide a mechanism for the faculty to provide input on the decisions that are made. A new democratic process has been put into place for deciding on the next chair of the department. It is recommended that the faculty consider pushing forward with this positive momentum to further improve how decision on big issues are made.
Junior faculty reported being well treated and mentored in a very supportive manner. Faculty with theoretical and applied emphases are finding common ground (e.g., they agree on discussing big data science as a future direction), and there is increased respect between these two groups. Split appointment faculty also indicated satisfaction in terms of being included fully in the department.

Concerns
Although there was consensus that departmental decision-making processes were becoming more transparent, there could still be improvement in this area. Specifically concerns were raised about a lack of transparency related to teaching assignments, decisions about merit-based raises, and hiring decisions.

With respect to hiring, decisions are made by hiring the applicant that appears best in the applicant pool without consideration of how that person fits the current needs or future goals of the department. The committee was presented with opposing opinions about the extent to which junior faculty are able to provide input related to hiring decisions, and although there is increased respect between faculty with theoretical and applied emphases, there are concerns about how this will play out with upcoming hiring decisions. The department does not have an official vision statement or a clear process to collectively discuss a vision / articulate any medium-term plans. However, the chair indicated that this task has been allocated to the revenue committee so this may be newly underway.

In addition to these concerns related to transparency and decision making, the central departmental administrator was described as juggling multiple jobs. She has much of the institutional knowledge and is critical to the department, yet she is at times overburdened which can contribute to a negative climate.

Recommendations
1. One suggestion is to continue the momentum of seeking input from the junior faculty members for key decisions, especially faculty hiring, and opening up the entire process of decision making on such issues. Some departments conduct straw votes for faculty candidates with the junior faculty in the room and then conduct a binding Executive Committee vote in which the junior faculty are invited and present. We encourage the department to consider such a move. Junior faculty have perhaps the strongest interest in faculty who may be colleagues for decades to come, and their voices should be heard.

2. Another suggestion that the committee strongly encourages is to accelerate the effort to create a vision document for the department that is approved by the faculty. It is recommended that in such a document, the department sketch out an outline of the composition of the faculty over the next two decades, focusing on areas that they want to grow in. It is also recommended that the mid-career faculty (newly-tenured) play a critical role in the drafting of this vision document. It is encouraged to go even beyond this suggestion to allow the mid-career faculty play a leading role in drafting the vision document.
3. Processes for merit-based raises should be developed and approved by the faculty.

4. We suggest the department consider balancing and rotating committee assignments to facilitate faculty involvement in decision-making processes.

5. We recommend that processes for course assignment are made transparent. The department may consider a new model of course assignment that 1) allows faculty to teach courses in areas that most closely match areas of expertise and skill and by 2) allowing faculty to take course ownership or teach as part of a team in a same set of courses.

6. We recommend the formation of a faculty awards committee to nominate faculty annually for internal awards (i.e., teaching awards, Vilas, Romnes, Kellett awards) and possibly external awards, as well.

7. The requirements and timeline for submission of tenure materials should be transparent. Teaching evaluations for tenure should be carried out in a routine way.

8. We suggest that responsibilities and institutional knowledge be shared by additional administrative personnel and that input from faculty be requested and incorporated into annual staff evaluations. It will also be necessary to increase the number of departmental staff, particularly with the growth of the revenue-generating programs.

9. We recommend that the agenda at faculty meetings not be cut due to time constraints (as this contributes to a sense that all voices are not heard) and that agenda items be solicited regularly. If time is an issue, then faculty should consider meeting more than once/month or increasing the duration of the monthly meeting.
Response to Review of Academic Programs  
Department of Statistics, University of Wisconsin - Madison  
March 5, 2018

The Department of Statistics greatly appreciates the committee’s thoughtful review, constructive report, and kind encouragement. The committee’s summary of program strengths, areas of concerns, and recommendations for improvement and continued success is extremely helpful and will play an essential role in the further development and expansion of our academic programs as the department continues to grow and excel.

Below are factual errors and possible misunderstandings that have been noted so far.

Section II Graduate Programs
- Page 1, section II, second paragraph under “Strengths”: The statistical consulting course is Stat 998, not Stat 698.
- Page 3, second paragraph: Graduate student representatives are expected to attend faculty meetings (which we call “statistics department meetings” to be more inclusive). Given that other students are not aware of graduate student representation at the department meetings, the role of representatives (or not) is duly noted. It is also our tradition to include graduate students in committees such as admissions and social, but there may have been lapses in oversight and communication in recent years due to turnover and shortage of staff.
- Page 4, recommendation #9 at top: Some recognition of student successes (e.g. ENAR student paper awards) is broadcast.

Section III Undergraduate Major
- Page 4, under overview: The department has engaged in assessment including the new campus initiative to assess learning goals of academic programs on an annual basis. The department also routinely conducts exit surveys of our majors (BS, MS, and PhD) in addition to the campus-level surveys. We note that assessment, while critical, is at a relatively early stage for this university. It is not always straightforward to design, implement, analyze, and interpret assessment and we welcome opportunities to collaborate with other units on campus (e.g. DoIT) to do this systematically and do it right.
- Page 5, recommendation #4 at top: Undergraduate class sizes have indeed increased, but this has to do with budget constraints, reduced number of faculty, and increased numbers of statistics majors. The attribution of larger undergraduate class sizes to VISP students seems to be a misunderstanding of some of our undergraduates. Quite the contrary, VISP has helped to ease budget constraints and allowed the department to offer more undergraduate electives each semester, addressing undergraduate majors’ past concerns that there was very limited choice of electives.

Section IV Gateway Courses
- Page 6, recommendation #4: The recent revision of the gateway courses was done with a great deal of stakeholder input via, for example, the campus adviser network and face-to-face interviews with key departments/programs requiring these courses. We recognize the need for continuing input, but note that the idea of gathering stakeholder input is something that has been in play for some time.

Section V Revenue Programs
- Page 7, concern #5: The annual mid-autumn festival party in the department is traditionally organized by the third-year graduate students for primarily graduate
students, staff, and faculty and their family and friends. Therefore, in Fall 2017, the MSDS students were invited while the VISP students were not. We will communicate with the graduate student organizers in the future and explore the possibility of including VISP students (and undergraduate majors).

In addition, we have been making new progress that was not noted in our self-study and the review report. For example,

- Page 4, recommendation #1 in Section III: This is already done: several sections of “Intermediate R” and “Advanced R” courses have been offered every semester recently, and course pre-requisites require students to take the “Introduction to R” course early.
- Page 4, recommendation #2 in Section III: We are moving in that direction. In Fall 2017, we started to implement a new procedure for senior honors students to do their honors project as statistical consultants in a lab outside of statistics. We would like to extend this option further beyond honors in the major.
- Page 9, recommendation #1 in Section VII: The department has opened the process of faculty hiring to assistant professors in the faculty search that is currently underway.

Finally, many of the concerns and recommendations in the report have to do with budget and human resource constraints. In particular, our progress in hiring new faculty, teaching staff, academic advisers, and administrative staff has been outpaced by the growth in enrollment, majors, and new degree programs. The existing processes built over the last few decades were intended for a modestly sized department and need substantial revision to address the current, unprecedented growth. It will continue to take time, resources, and multiple iterations to experiment and learn in the development of sound policies, efficient processes, stewardship of resources, effective communications, and strong teams with diverse membership. We are grateful for the unwavering support by the L&S leadership to grow our academic programs, build an efficient infrastructure, and experiment with new ideas. We ask for their continued guidance and support, as well as patience as we move forward.