

Department of Statistics- Standards for Promotion and Tenure

The following standards for promotion and tenure apply the UM system philosophy articulated in CRR 320.035 to the discipline/Department of Statistics. **(11/07/2019)**

Principles common to Evaluation of Candidates for both Associate and Full Professor

1. Promotion not only recognizes candidates' record of accomplishment, but also reflects a projection that candidates will continue to be productive scholars, educators, and citizens throughout their career. Thus, the evaluation of past accomplishment must be tempered with an informed judgment about the trajectory of candidates' work and the likelihood of future productivity. Evidence of a positive trajectory includes steadily accumulating research productivity and intellectual leadership, increasing efforts/success at securing external funding, expanded service to the Department, College, University, and profession, and continued growth as a teacher and mentor, as elaborated below.
2. The typical workload distribution for faculty in Statistics is 40% (research), 40% (teaching), and 20% (service). In the event that candidates have alterations to their workload over the evaluation period (e.g., joint collaborative appointments, external funding that reduces teaching obligations), the evaluation will focus proportionately on their revised workload distribution. Although this may most commonly result in a reduced emphasis on teaching, evidence of successful classroom teaching is necessary. Development of mentoring skills is generally not excused by workload alterations. Successful mentorship is indicated by the timely progression of graduate students through the program and their ultimate success in securing positions in their field, and can include providing undergraduate students with research experiences.

Standards for Promotion to Associate Professor

Research/Scholarship

1. A candidate for promotion and tenure is expected to have demonstrated potential and considerable progress toward developing a national reputation in the discipline. That is, the candidate is expected to demonstrate a "scholarly identity" in their field built on productively publishing impactful research. Although the entire record is evaluated, emphasis is placed on original work conducted and published while at MU. Senior-authored publications in strong journals of the broader discipline and in top-tier journals of the candidate's field are the clearest demonstration of a scholarly identity (note: in Statistics the "senior author" is typically the first author, but some subject matter journals have different listing approaches and that will be taken into account). Publications in which the candidate's student is the first author are viewed as equivalent to a senior-authored publication by the candidate. Given the wide variation of publication opportunities depending on Statistics subfield, it is not possible to specify a required number of publications. The key determination is that the candidate is emerging as a leader in their area of Statistics.

In many subdisciplines of Statistics, collaboration is often essential to produce high quality, innovative research. Indeed, many important questions are addressed increasingly by interdisciplinary teams. Consequently, coauthored works with impact on the field(s) are also valued highly. However, a pattern of publication where the candidate is routinely a junior author on teams that include former advisors and mentors does not adequately contribute to a scholarly identity and thus, while valuable, is not sufficient for promotion and tenure. Participation on collaborative research teams is viewed positively if the candidate's expertise is crucial to the work, corresponds to novel method development, or the candidate is an equal partner with other collaborators (as

evidenced by shared credit on joint grant proposals and/or authorship order on publications). Publications in which the candidate is a consultant (defined here to be a situation in which the candidate has provided statistical consulting that uses relatively simple existing methods) is valued positively but is not sufficient for promotion and tenure unless specified as such in the original offer letter. The candidate will indicate in their dossier which, if any, publications fall into the “collaborative” and “consulting” categories with appropriate justification.

2. The candidate’s research portfolio should include a growing body of work that makes significant contributions to the discipline. Contributions of statistical methodology to application areas of Statistics within the candidate’s specialty will also be viewed positively. The assessment of the significance of these contributions is based partly on the quality of the journals where research is placed and other metrics (e.g., reputation in the field, citation rates, author impact ratings). The significance of contributions to the discipline, methodological contributions to application areas (if applicable), and scholarly identity are also heavily based on the judgment of external reviewers who can assess the candidate’s dossier from the perspective of the discipline in the context of their own accomplishments.

Although peer-reviewed journal articles are the most notable indicator of research productivity, other forms of knowledge dissemination can be a valuable supplement. In general, monographs are preferred to edited books, although edited volumes, and chapters published in scholarly edited volumes, do augment an already strong record by demonstrating the candidate’s visible identity in the field. Software packages, patents, entrepreneurial activities, book reviews, conference posters and papers, encyclopedia entries, and commentaries are of comparatively less importance in evaluating a case for tenure, though they do contribute to visibility and identity and of course are important means of facilitating student involvement in research dissemination and publication processes.

Additional Considerations

As interdisciplinary research and new fields continue to emerge, not all research activity may fit comfortably into traditional “disciplinary” expectations. The following should be considered:

- **Interdisciplinarity:** Candidates are encouraged to pursue innovation wherever promising, even at the edges of disciplinary boundaries or between them. Reviewers at all levels should be open to the possibility that work “on the edges” or straddling two fields may eventually transform research agendas in fundamental ways that are not always easily recognized by scholars within the home discipline. A candidate’s interdisciplinarity may require the adaptation of departmental expectations/criteria and procedures (e.g., selecting reviewers from outside traditional areas so the candidate’s contributions can be assessed by properly knowledgeable judges.)
- **New forms of Scholarly Communications:** New forms of digital scholarly communication continue to emerge as means of knowledge dissemination. Although peer-reviewed publications are given greater weight than those that are not, candidates are responsible for providing evidence of the value of their publication outlets.
- **Impact on Diverse Communities.** Reviewers should consider how communities outside of the academy may be transformed by a candidate’s work. Candidates should describe how their research activity targeted for non-academic audiences intersects with work targeted to a scholarly community. Public scholarship will not supplant expectations for publications targeted to peer professional communities, but it may supplement that work. Evidence for “public

scholarship” includes panel/commission and other technical reports, policy white papers, and strategic plans for community/civic/government groups.

3. The research profile should include a record of application(s) for external funding as Principal Investigator, or co-PI. Co-I, Investigator, or Consultant applications are also valued, though as with scholarship, research leadership is an important criterion. The ability to obtain a significant grant is viewed as strong support for the candidate’s program of research and indicative of a positive research trajectory. Although federal grants are typically weighted most heavily, candidates can pursue funding from other sources as appropriate to their area of study. In general, the competitive nature of the funding source will be a primary consideration in determining the impact on the candidate’s profile, and competitive funding sources that return full F&A will be viewed favorably.

Teaching/Mentoring

The usual teaching load for faculty during the probationary period is equal to 3 courses per academic year. Newly appointed faculty will often have teaching releases during their first and/or second year. Any exceptions to the teaching load outlined in the candidate’s original offer, for example, those resulting from especially large and/or complex classes, should be explained by both the candidate in their dossier materials and in the Chair’s evaluation letter.

1. Candidates must demonstrate teaching competence at both the undergraduate and graduate level. If annual reviews conducted prior to the promotion evaluation have indicated problems in teaching, the Department Promotion Committee will consider the success of the remediation plan, and view positively evidence of improving performance in the classroom. Successful teaching may be demonstrated by written student and peer evaluations; not just by numerical rating forms. Successful efforts to develop new courses, new approaches to active learning, and creative strategies for educating students will be viewed especially positively.

2. Evaluation of teaching includes the candidate’s profile of mentoring undergraduate and graduate students, and as applicable, post doc supervision. Mentoring includes supervision of senior/ honors’ thesis and other independent student research, directing masters’ and doctoral research and serving on graduate committees, among other contributions. Successful mentoring is gauged by student and peer feedback, as well as placement of undergraduate mentees in high-quality jobs or graduate programs, and placement of graduate students in post-doctoral fellowships, faculty positions, government, or in industry. That is, at both the undergraduate and graduate level, successful mentoring occurs when student outcomes are commensurate with student career goals. Student success in securing funding, presenting posters or papers at conferences, and scholarly publication are among other important indicators. Teaching and mentoring awards of course provide compelling evidence of effectiveness.

Although candidates may not have successfully graduated their own graduate student by the time of tenure review, it is expected that the candidate has advised or co-advised, or is advising or co-advising a PhD student by this time. A candidate may provide a justification of extenuating circumstances that have prevented them from advising (co-advising) a PhD student, but should at least demonstrate concerted efforts to develop the skills to be a quality mentor. Quality mentoring reflects a commitment to help students reach their scholarly and professional goals/potential and is generally viewed as an essential role of faculty in the Department.

Service

Service is evaluated in terms of candidates' contributions to the Department's intellectual community and to faculty governance. Positive evidence includes (but is not limited to) attending faculty meetings and serving on departmental committees, participating in reading groups, program meetings and colloquia; and contributing to the recruitment of graduate students and faculty. The expectation for promotion and tenure emphasizes departmental service and often does not include broader college and campus/university service at this career stage, although such service is valued.

Although the primary service consideration for promotion to Associate Professor is at the Department level, service to the candidate's profession is valued and is also an important means toward establishing a scholarly identity. Especially strong candidates will typically demonstrate an emerging profile of contribution to the profession. Examples of valued professional service at this stage include serving as a reviewer in the scholarly peer review process of journals, granting agencies or conferences, running for office or volunteering for service in professional societies (e.g., Sections of the ASA), and conference/workshop organization.

Departmental expectations for early promotion and tenure.

Following the UM CRR, the Department expects that recommendations for promotion and/or tenure before the sixth year should be rare and restricted to truly exceptional cases. A truly exceptional case worthy of consideration for early promotion and tenure will typically include:

- Multiple, sustained peer-reviewed publications in elite journals of the field
- Successful and significant external federal funding as PI or Co-PI.
- Recognition by the discipline as being a leader in the field (e.g., society awards, plenary talks).

Standards for Promotion to Professor

Criteria for promotion to professor generally mirror those articulated for promotion to associate professor with the critical differences that relevant accomplishments are expected to reflect, not emerging leadership, but a national and preferably internationally prominent scholarly identity as a leader sustained over time. This should be demonstrated in research and scholarship, but teaching or service contributions that result in a national reputation in the area will be considered favorably.

Research/Scholarship

1. A candidate for promotion to the rank of Professor is expected to demonstrate a scholarly identity that is sustained over time and results in national and/or international prominence in the field of study. This will generally be obtained by a pattern of leadership in programmatic, impactful research that is consistently published in top tier journals of the field. The visibility and prominence of research is attested by senior-authored publications in major journals, with the understanding that a publication in which a candidate's current student is the first author is treated as a senior-author credit for the candidate.

Indicators of visibility and prominence are reflected in program(s) of research that influences the way a discipline or sub-discipline thinks about problems or opportunities in the field. It is reflected in the quality of journal placements, and by author citation and impact metrics. It is based on the judgment and recommendations of eminent external reviewers who can assess the candidate's file from the perspective of their experience and prestigious accomplishment in the field or discipline. Although the entire body of work is considered in the evaluation, there is an emphasis on the pace, quantity and

quality of scholarly publication in the post-tenure period, and as relevant, with particular weight on the productivity while at MU.

2. Candidates for promotion to Professor are expected to have a credible profile of extramural funding from government agencies or foundations, as appropriate to the candidate's research. Serving as (Co) PI best meets this expectation, although candidates can also meet this expectation as Co-I (or functional equivalent) so long as the candidate can provide demonstrable evidence that a major aspect of the project could not be executed without his or her leadership and/or expertise. Although a successful record of grant funding can validate the quality of a candidate's program of research, such funding is a means to an end, and is not necessary nor sufficient for promotion. However, the absence of a notable funding profile will require strong evidence of scholarly excellence, professional influence and visibility in the field. In addition, the context surrounding the absence of extramural funding should be explicitly addressed in the review. For instance, clear and strong evidence of the ability to maintain a highly visible research profile without external funding, or an active record of grant-seeking together with scores near the funding threshold could mitigate the absence of funding.

3. A critically important criteria for promotion to Professor is the prominence of the candidate's overall profile of professional visibility. A full professor should exhibit leadership in the field, helping to define the important areas and issues in their area of specialization. The combination of service to the profession and program of research contributes to the candidate's level of national/international visibility. Evaluation of the candidates' prominence in the field are based heavily on the letters from external reviewers.

Indicators of prominence include (but are not limited to): 1) having an identifiable, high-profile, and cohesive program of research; 2) the ability to obtain external grant funding; 3) serving as an editor or associated editor for a journal or serving on multiple editorial boards; 4) receiving invitations to give addresses (especially at prominent meetings of national associations or disciplinary organizations); 5) holding an office in a national or international professional organization; 6) serving as a reviewer or participating in a study section or panel for a federal granting agency (e.g., NIH, NSF); or 7) being named as a fellow of the ASA, IMS, or an elected fellow of the ISI (or other equivalent awards).

Teaching/Mentoring

The usual teaching load for faculty is currently 4 courses per academic year. Any exceptions to teaching load should be explained by both the candidate in their dossier materials and in the Chair's evaluation letter.

1. Promotion to Professor will require evidence that a candidate has made strong contributions to formal and informal aspects of teaching and mentoring, demonstrating ability and success beyond that articulated in the disciplinary standards for promotion to Associate Professor with Tenure.

2. Successful mentoring at graduate level is necessary. Candidates for full professor are expected to demonstrate quality mentorship at the PhD level (advising or co-advising) and success in fostering the professional growth of their students toward the student's goals. This should be reflected in successfully graduating mentees, placement of mentees in post-doctoral fellowships, faculty positions, government or industry, or other outcomes commensurate with the students' goals, student success in securing funding, presenting posters or papers at conferences and scholarly publication, among other indicators. Candidates who have not advised or co-advised PhD students may provide a justification as to extenuating circumstances, which will be evaluated by the Department P&T Committee.

Service

There is a strong expectation that the candidate for promotion has made significant contributions to faculty governance and/or operations at the level of the Department, College or University. This would normally involve showing leadership on Department or College committees, initiatives, or service.

A record of service to the discipline or profession is also a necessary part of a strong application for promotion. This can take many forms, including service in a leadership role in a professional society, serving as associated editor of journals, serving on editorial boards, or serving on grant-review panels, among other examples.