

Guidelines for the Evaluation of Assistant Professors – Statistics

March 10, 2018

These guidelines are meant to help evaluate the level of progress of a tenure-track assistant professor. Members of the assistant professor's mentoring committee, as well as the entire Primary Committee, should follow these guidelines when evaluating the assistant professor's progress toward tenure.

According to the general criteria, available at the webpage <https://www.purdue.edu/provost/faculty/promotion/index.html>, a successful candidate should have a significant record of accomplishment as a faculty member and show promise of continued professional growth and recognition. Hence, the evaluation by the Primary Committee should lead to explicit answers to the following questions:

1. Is the faculty member making satisfactory progress toward establishing a significant record of accomplishments expected for promotion to associate professor with tenure? What is the evidence?
 - a. Research: Assess the quality, depth, and impact of research.
 - b. Teaching: Evidence of good performance and suggestions to improve.
 - c. Service (University and Profession).
 - d. Mentoring of both undergraduate and graduate students.

2. Does the faculty member show promise of continued professional growth and recognition? What is the evidence? Are there opportunities that the faculty member should consider to further establish him/herself at the university, national, and/or international level?

Supplementary Specifics and Examples

March 30, 2021

For the first set of questions, assessments of achievements and accomplishments based on evidence are key for the evaluations of assistant professors. Suggested minimal requirements and thresholds are as follows:

1.a.i. High quality papers in at least one research area, demonstrating great potential in both the depth and independence of research. The Primary Committee should encourage "high risk and high impact" research work, and/or multidisciplinary research. They should also recognize that for assistant professors working on the most challenging problems in Statistics, or conducting research in non-core Statistics areas, it may take more time for the assistant professors to produce papers, secure grants, and graduate PhD students.

For Actuarial Science faculty, top journals include the top 4 international actuarial academic journals

- Insurance: Mathematics and Economics,

- North American Actuarial Journal,
- Scandinavian Actuarial Journal, and
- ASTIN Bulletin.

Other good journals include

- European Actuarial Journal
- Annals of Actuarial Science
- Journal of Risk and Insurance

1.a.ii. At least one external research grant as either a PI or major Co-PI. Examples of significant achievements for grants are NIH R01 grants (typically as a Co-PI statistician or biostatistician) and multi-year NSF grants in which the assistant professor is the Lead PI at Purdue University. It is important to note that it is an achievement for an assistant professor to be part of a multi-institution NSF grant, so long as they are the Lead PI at Purdue University. Grants from the Department of Defense (e.g., DARPA, ONR, and Army) and the Department of Energy would also be significant accomplishments, but they are typically more difficult to obtain for assistant professors of Statistics compared to NIH and NSF grants.

For Actuarial Science faculty, grants from the SOA and CAS constitute their primary funding opportunities. Although they may involve substantially smaller monetary amounts than grants from other funding agencies, they are still competitive, and are valued in Actuarial Science.

1.d.i. Supervise students with *strong evidence for their satisfactory progress*. Specifically, for assistant professors who conduct research in core Statistics areas, it is expected that they supervise at least one PhD student from start to finish, and that the student should graduate with a PhD and have employment (either in academia, industry, or consulting) prior to the assistant professor going up for tenure. For assistant professors who conduct research in actuarial science or any other, non-core Statistics areas, the minimum expectation for them is that they serve as members of doctoral dissertation committees for PhD students in Statistics. As it may be more difficult to attract Statistics PhD students to conduct research in non-core Statistics areas, it is not expected that assistant professors in actuarial science or other non-core Statistics areas serve as the Chairs of doctoral dissertation committees for PhD students in Statistics.

For Actuarial Science faculty, it should be noted that Actuarial Science at Purdue University is only an undergraduate program, and so it would be extremely difficult for such faculty to supervise any graduate student. As the current Actuarial Science program serves a large number of undergraduate students, it is important to recognize the service of research experiences provided to such undergraduates.

2.i. We expect assistant professors to have *strong outside review letters* from randomly chosen top experts in their research areas for promotion to associate professor with tenure.

Guidelines to Evaluation of Associate Professors – Statistics
March 10, 2018

These guidelines are meant to help evaluate the progress of a tenured associate professor. Members of the associate professor's mentoring committee, as well as the entire Primary Committee, should follow these guidelines when evaluating the associate professor's promotion case.

According to the general criteria, available at the website <https://www.purdue.edu/provost/faculty/promotion/index.html>, successful candidates for promotion to professor should be recognized as authorities in their fields of specialization by external colleagues -- national and/or international, as may be appropriate in their academic disciplines -- and be valued for their intramural contributions as faculty members. Hence, the evaluation by the Primary Committee should lead to explicit answers to the following questions:

1. (In most cases these questions apply to research only, with possible exceptions.) Is the faculty member making satisfactory progress towards becoming a recognized authority internationally? What is the evidence? What opportunities do you suggest the faculty member consider in the future? Examples of evidence and indications include, but are not limited to:
 - a. national or international awards,
 - b. keynote, plenary, and invited talks at international conferences,
 - c. editorial boards of major journals,
 - d. successful competitive grant funding,
 - e. organizing or serving on program committees of workshops and conferences,
 - f. publications in top-tier journals and/or conference proceedings that are comparable to top-tier journals with high impact, and
 - g. high citations of publications.
2. Is the faculty member on track to meet expectations for a full professor in terms of teaching, service, and mentoring? What improvements are needed? The faculty member is expected to have graduated several PhD students who have had great job placements, and to be an effective mentor of both graduate and undergraduate students.

Supplementary Specifics and Examples

March 30, 2021

For the previous set of questions, assessments of impact and reputation are key for the evaluations of associate professors. Suggested minimal requirements and thresholds are as follows:

1.f.i. The associate professor has become a known expert based on their high quality of papers in at least one research area. Their expertise can be assessed by determining whether their papers have been cited by active top experts in the research area.

1.d.i. Continued awarding of research grants from the NSF, NIH, Department of Defense, Department of Energy, and other major funding agencies as either the Lead PI at Purdue University or the major Co-PI Statistician/Biostatistician.

2.a. Graduated several PhD students with great job placements, or who have secured academic positions (which could serve as further evidence of high-quality research).

1.a.i. We expect associate professors to receive strong review letters from randomly chosen top experts in their research areas for promotion to full professor.

It is important to note that the Primary Committee should encourage “high risk and high impact” research work and/or multidisciplinary researches.