Extended Length in Rank Among Associate Professors: The Problem, Its Implications, and Strategies to Address It

Executive Summary

Career advancement is vital to job satisfaction. However, in academia, many faculty—especially women faculty—remain at the associate professor rank for an extended length of time or are never promoted from associate to full professor. Why does this problem exist, and what are its implications? What are best practices for addressing this issue? This paper reviews data on the career advancement and satisfaction of associate professors at the Rochester Institute of Technology (RIT), and it addresses these questions. It describes initiatives to broaden the definition of scholarship and considers the merits of doing so. It shows how both faculty and their institutions will benefit from effective strategies to reduce the length in rank as associate professor.

At RIT, data show that the overall representation of women faculty across ranks in predominantly STEM colleges remained relatively flat from 2010 to 2017. Further, the overall number of RIT associate professors with greater than nine years in rank increased substantially from 2010 to 2017. This was driven by an increase in the number of RIT associate professors with an extended length in rank in predominantly STEM colleges. Data from the 2016 Collaborative on Academic Careers in Higher Education (COACHE) Faculty Job Satisfaction Survey at RIT show a number of areas of concern with RIT's promotion system, including the clarity of promotion criteria, clarity of promotion standards, and the extent to which department culture encourages promotion. Additional areas of concern from the 2016 COACHE survey include the effectiveness of and support for post-tenure mentoring at RIT.

Research has identified several challenges with regard to faculty promotion systems, including a lack of transparency regarding the promotion process, lack of clarity about the promotion process, and lack of support for the career development needs of associate professors (Baldwin et al., 2008; Buch et al., 2011; Terosky et al., 2014; Trower, 2011a). Failure to promote associate professors to full professors has a range of potential, adverse consequences (Modern Language Association, 2009).

This paper examines strategies that universities are using to address the problem of extended length in rank among associate professors. For example, RIT has recently revised its policy on promotion to full professor to help address this problem (Rochester Institute of Technology, 2017) and has launched a peer support group to help faculty who are preparing their promotion packages (Rochester Institute of Technology, n.d.). The Ohio State University is working toward a system in which some faculty are able to earn promotion based largely on research and others based largely on teaching (Jaschik, 2010), and it has published a guide on best practices to support promotion to full professor (The Ohio State University, n.d.).

For associate professors who have remained at the rank of associate professor for ten years or longer post-tenure, Rutgers University allows the balance among the promotion criteria to consider excellent and significant contributions to teaching and service (Rutgers University, 2014). The University of Michigan recommends that associate professors have a formal promotion plan and receive annual reviews to determine whether they are prepared for a review for promotion to full professor (University of Michigan, 2004). Moreover, the University of North Carolina Charlotte has developed a six-step "mid-career faculty planning process" that focuses attention on meeting the needs of female associate professors and creating an environment that is free of gender bias (Buch et al., 2011). Further, the University of Arkansas has instituted a formal *Associate Professor Advancement Program* for associate professors who have held that rank for at least seven years. They are given funds to help "jump start" their research agendas. They work with an approved mentor, who is a tenured faculty member at the university, who will guide them through the promotion process (University of Arkansas, n.d.).

This paper explores additional research-based strategies to address the problem of extended length in rank among associate professors, such as holding orientation workshops for new associate professors, reducing the service burden on mid-career tenured faculty, instituting standardized policies that regularly assess promotion timing, and providing resources such as grant-writing support to associate professors. In addition, it examines an initiative in the University of California system to increase faculty's use of existing family-friendly policies (University of California, 2007) and an initiative at Virginia Polytechnic Institute and State University (Virginia Tech) that, in decisions related to promotion, limits the "look-back" period of promotion to five years. This initiative at Virginia Tech gives faculty who have been off-track time to get back on course without penalty (Mathews, 2014). Moreover, this paper explores various initiatives to broaden the definition of scholarship with regard to promotion, including adding more flexibility in the path to promotion to full professor.

Based upon benchmarking and literature research, the authors of this paper recommend the following ten strategies for institutions of higher education to address the problem of extended length in rank among associate professors:

- Broaden the definition of scholarship, as a consideration for promotion to full professor.
- Design and implement a program to educate promotion committees on promotion policy, the
 influence of unconscious bias on decision making, the importance of consistency in the evaluation of
 candidates, and the importance of efficiency in the promotion process. For more specific
 recommendations on how to help committees discuss important topics before the evaluation of
 candidates, please refer to the Appendix ("Questions to Consider during Promotion & Tenure Review
 Processes: Understanding How Unconscious Bias Influences Decision Making").
- Require associate professors to present their work to their department every three years for feedback
 and network development. Benchmark the University of Michigan's policy. Studies have provided
 evidence that, for graduate students, timely and regular feedback from faculty shortens the time to
 degree (Latona & Brown, 2001; Maher, Ford, & Thompson, 2004; Seagram, Gould, & Pyke, 1998).
- Consider allowing promotion candidates to define their desired "look-back" period (with a set minimum length) for their promotion review.
- Align the service load of associate professors more strategically with their scholarship and teaching interests.
- Hold orientation workshops for new associate professors, with the goal of helping them to map out plans for their promotion to full professor.
- Devote resources, such as grant-writing support, to support associate professors' scholarship.
- Set up mentoring groups, in which full professors mentor associate professors and support them towards their goal of being promoted to full professor. Include mentoring of associate professors as a critical component of the annual Plan of Work of full professors.
- Set up annual reviews of associate professors, to assess their progress towards their goals of being promoted to full professor.
- Set the expectation that promotion to full professor is an expected professional goal.

I. Introduction

Research has shown that the vast majority of full professors are men and that it takes women faculty longer to be promoted than men faculty. West and Curtis (2006) found that at all institutions nationwide in 2005-2006, women held only 24% of full professor positions. A Modern Language Association Survey (2009) found that on average, and across institutions, the average time to promotion for female associate professors is 8.2 years, compared with 6.6 years for men. At Penn State University (2007), a study found that for associate professors who had not been promoted in the first six or seven years at that rank, the likelihood of promotion gradually tailed off. For faculty who held the rank of associate professor for more than 12 years, relatively few were subsequently promoted. Men had higher rates of promotion than women.

For most faculty members, mid-career is the stage at which most scholarly achievements occur and they assume important leadership and management roles (Baldwin & Chang, 2006). It is in the best interest of institutions to support post-tenure faculty, so that they remain productive and vital (Trower, 2011b).

II. Data on the Career Advancement and Satisfaction of Associate Professors at RIT

Two key data sources related to the career advancement and satisfaction of associate professors at RIT are the National Science Foundation (NSF) Indicator data for RIT and the results of the Collaborative on Academic Careers in Higher Education (COACHE) Faculty Job Satisfaction Survey (administered at RIT in 2016).

NSF Indicator Data for RIT

Figure 1 shows the percentage of women faculty across ranks at RIT in 2010 and 2017 in predominantly *science, technology, engineering, and mathematics (STEM) colleges* (Rochester Institute of Technology, Institutional Research and Human Resources). Predominantly STEM colleges at RIT are the College of Applied Science and Technology (CAST), the College of Science (COS), the B. Thomas Golisano College of Computing and Information Sciences (GCCIS), the Golisano Institute of Sustainability (GIS), and the Kate Gleason College of Engineering (KGCOE). As illustrated, women faculty's overall representation in predominantly STEM colleges at RIT stayed relatively flat. From 2010 to 2017, their representation at the associate professor rank increased. However, their representation at the assistant professor rank decreased. At the full professor rank, women faculty's representation in predominantly STEM colleges stayed relatively flat from 2010 to 2017. Table 1 shows the percentages, as well as the corresponding counts, of women faculty across ranks at RIT in predominantly STEM colleges, in 2010 and 2017.

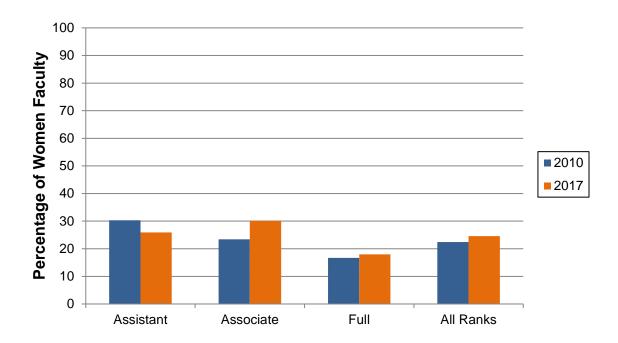


Figure 1. Percentage of Women Faculty across Ranks at RIT in Predominantly STEM Colleges, 2010 vs. 2017.

Table 1. Percentage (Count) of Women Faculty across Ranks at RIT in Predominantly STEM Colleges, 2010 vs. 2017

	Percentage of Women Faculty		
Rank	2010	2017	
Assistant	30.34% (27)	25.93% (21)	
Associate	23.40% (33)	30.14% (44)	
Full	16.67% (24)	17.99% (25)	
All Ranks	22.46% (84)	24.59% (90)	

Figure 2 shows the percentage of women faculty across ranks at RIT in 2010 and 2017 in *non-predominantly STEM colleges* (Rochester Institute of Technology, Institutional Research and Human Resources). Non-predominantly STEM colleges at RIT are the College of Imaging Arts and Sciences (CIAS), the College of Liberal Arts (COLA), the College of Health Sciences and Technology (CHST), the National Technical Institute for the Deaf (NTID), and the Saunders College of Business (SCB). As shown, women faculty's overall representation in non-predominantly STEM colleges at RIT increased slightly during this time period. From 2010 to 2017, changes in representation data varied greatly by rank. Women faculty's representation at the assistant professor rank in non-predominantly STEM colleges decreased slightly from 2010 to 2017. However, their representation at both the associate professor rank and the full professor rank increased. Table 2 shows the percentages, as well as the corresponding counts, of women faculty across ranks at RIT in non-predominantly STEM colleges, in 2010 and 2017.

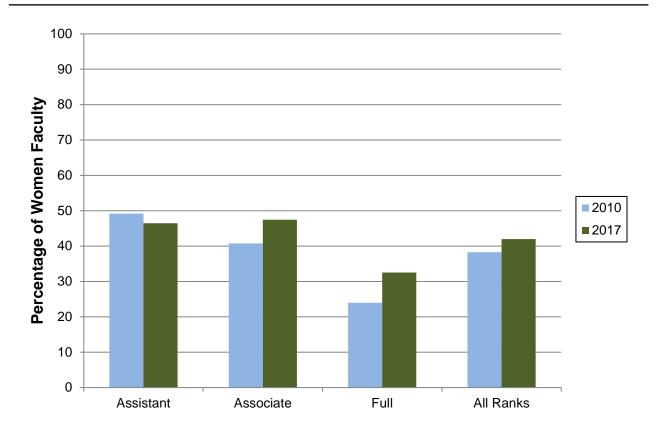


Figure 2. Percentage of Women Faculty across Ranks at RIT in Non-Predominantly STEM Colleges, 2010 vs. 2017

Table 2. Percentage (Count) of Women Faculty across Ranks at RIT in Non-Predominantly STEM Colleges, 2010 vs. 2017

	Percentage of Women Faculty		
Rank	2010	2017	
Assistant	49.18% (60)	46.46% (46)	
Associate	40.74% (66)	47.45% (65)	
Full	23.97% (29)	32.54% (41)	
All Ranks	38.27% (155)	41.99% (152)	

Additional NSF Indicator data (Rochester Institute of Technology, Institutional Research and Human Resources) show that the number of RIT associate professors with a length in rank (LIR) of greater than nine years increased overall from 2010 to 2017, for both men and women faculty (Figure 3). In predominantly STEM colleges, there was a striking increase in the number of associate professors with a LIR of greater than nine years, for both women and men faculty. However, in non-predominantly STEM colleges, the number of associate professors with a LIR of greater than nine years decreased from 2010 to 2017, particularly for women faculty. This shows that the problem with extended length in rank of RIT associate professors is focused on faculty in RIT's predominantly STEM colleges.

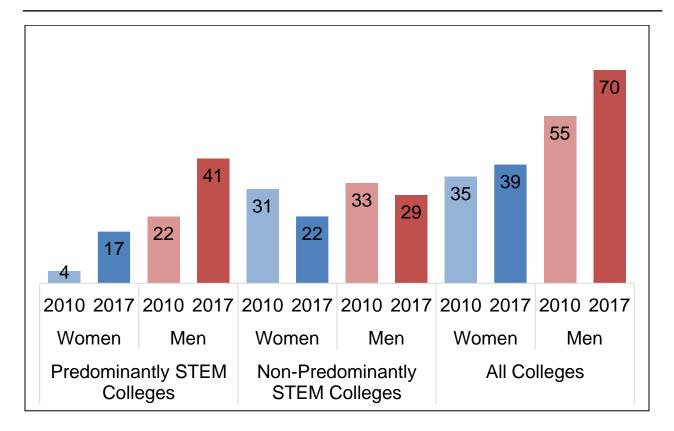


Figure 3. Number of RIT Associate Professors with Years in Rank (YIR) > 9 Years, 2010 vs. 2017, by STEM Designation of College

As described above, the NSF Indicator data reveal a lack of advancement of RIT associate professors in predominantly STEM colleges. Are there procedural issues with RIT's promotion system that could contribute to the problem of extended length in rank among associate professors? The 2016 COACHE Faculty Job Satisfaction Survey at RIT revealed a number of areas of faculty concern with regard to RIT's system of promotion to full professor.

2016 COACHE Faculty Job Satisfaction Survey at RIT

The results of the 2016 COACHE Faculty Job Satisfaction Survey at RIT (response rate: 51%) identified promotion to full professor as an area of high concern among RIT tenured faculty. Respondents rated their satisfaction on a series of items, on a Likert scale of 1 to 5 (with "1" being "Very dissatisfied" and "5" being "Very satisfied"). Table 3 shows RIT faculty's mean ratings for items related to promotion. It shows how RIT's faculty satisfaction ratings compare with ratings at its self-identified peer institutions (Lehigh University, Syracuse University, Tulane University of Louisiana, Virginia Polytechnic Institute and State University, and Worcester Polytechnic Institute) and with ratings of the overall cohort of institutions that participated in the COACHE Survey.

As Table 3 shows, RIT faculty satisfaction on most measures related to promotion to full professor fell in the bottom third among peer institutions. Likewise, RIT faculty satisfaction on the vast majority of measures related to promotion to full professor fell in the bottom 30% among the entire COACHE cohort.

Survey results revealed that another key area of concern for RIT faculty is post-tenure mentoring. The mean satisfaction rating of RIT tenured faculty on the survey item "There is effective mentoring of tenured associate professors in my department" was only 2.39. Further, the mean satisfaction rating of

RIT tenured faculty on the survey item "My institution provides adequate support for faculty to be good mentors" was only 2.59.

Table 3. RIT Tenured Professors' Mean Satisfaction Ratings on 2016 COACHE Survey Items Related to Promotion to Full Professor

Key: For Peer Comparisons: ↑ Results fall in top third; ↔ Results fall in middle third; ↓ Results fall in bottom third

<u>For Cohort Comparisons</u>: ↑ Results fall in top 30%; ↔ Results fall in middle 40%; ↓ Results fall in bottom 30%

Item	RIT Mean Satisfaction Rating	RIT's Ranking among Peer Institutions	RIT's Percentile among Entire COACHE Cohort
Ability to balance	3.14	\leftrightarrow	\leftrightarrow
teaching/research/service			
Reasonable expectations: Promotion	3.24	\downarrow	\downarrow
Department culture encourages promotion	3.17	\leftrightarrow	\downarrow
Clarity of promotion process	3.46	\downarrow	\downarrow
Clarity of promotion criteria	3.32	\downarrow	\downarrow
Clarity of promotion standards	3.08	\downarrow	\downarrow
Clarity of body of evidence for promotion	3.33	\downarrow	→
Clarity of time frame for promotion	3.23	\leftrightarrow	\leftrightarrow
Clarity of whether I will be promoted	2.74	\	↓

III. Reasons for Extended Length in Rank as Associate Professor

Low satisfaction with the clarity of promotion criteria, as indicated by RIT tenured faculty in the 2016 COACHE Survey (see Table 3), may be a key underlying factor in faculty's extended length in rank as associate professor. In a survey of 1,775 tenured associate and full professors at seven public universities, Trower (2011a) found that associate professors are less satisfied than full professors on factors such as clarity of promotion criteria. In a survey of faculty by the Modern Language Association (2009), women faculty cited lack of clarity in criteria for promotion to professor and an increasing amount of work as obstacles to promotion. Mid-career years may be marked by exhaustion, doubt, and even depression. Some associate professors feel trapped by a tight, competitive academic job market (Wilson, 2012).

Researchers at Michigan State University, through semi-structured interviews of 20 post-tenure professors and 20 department chairs, identified several challenges with regard to attaining promotion (Baldwin et al., 2008). Associate professors cited increased workload, lack of clarity in promotion criteria, neglect, absence of motivating goals, and confusion as to how their career should progress. Women faced the special challenge of having higher service demands than men. Chairs and directors noted that they had limited training to understand the needs of mid-career faculty. The opportunity for increased professional development among campus leaders is reflected in the results of RIT's 2016 COACHE Survey. In that survey, RIT tenured faculty gave a low rating (2.91 out of 5) when asked how often they experience their institution cultivating new leaders among faculty.

In a study of women associate professors at the University of North Carolina Charlotte, Buch and colleagues (2011) found that perceived barriers to promotion included a lack of support for the career

development needs of associate professors, a lack of transparency and clarity regarding promotion criteria, and disproportionate service demands that interfere with progress toward full professor. In a study of women associate professors at a major research university. Terosky and colleagues (2014) found that a common theme, especially among those at or above median time in rank, was to resign themselves to one of three possible paths if their service loads did not lessen: "permanently remaining" at the associate level, actively stopping the pursuit of promotion, or investigating career options outside of their university or academia.

IV. Implications of Extended Length in Rank as Associate Professor

Failure to promote associate professors to full professor has a range of implications, including weakening or loss of morale of associate professors, possible weakening of respect from colleagues and institutional leaders for their contributions, and loss of financial gain represented by a promotion. A COACHE report in 2014, based on responses from full-time, tenure-stream faculty at public research universities that had recently participated in its project, found that associate professors rated their job satisfaction lower than that of assistant and full professors, with rare exception (Mathews, 2014). The pattern of dissatisfaction was even more pronounced for those at the associate rank longer than five years.

When large numbers of faculty choose not to pursue promotion, it may have serious adverse consequences for faculty governance. As the Modern Language Association's Committee on the Status of Women in the Profession has stated, as the large numbers of professors who entered the academy in the early 1970s (including many full professors) begin to retire, "academic units will be left without a sufficient number of senior colleagues to take the lead in forming an intellectual vision and in gathering the institutional will to project self-governing academic units into the future" (Modern Language Association, 2009; p. 27). The committee has expressed its concern that the lack of leadership at the rank of full professor, especially in small departments, may compromise intellectual agendas and faculty governance by forcing the appointment of members from outside of the department to fulfill the role of chair (Modern Language Association, 2009). If this occurs at RIT, it would even further increase the need to conduct regular reviews of the effectiveness of governance. In the 2016 COACHE Survey, RIT tenured faculty rated the overall effectiveness of shared governance a mean 2.91 out of 5. Further, they rated their agreement with the statement that their institution systematically reviews the effectiveness of decision-making processes a mean 2.77 out of 5.

As described above, many of the reasons underlying extended length in rank among associate professors, as well as the implications, are apparent. What strategies are universities using to address this problem?

V. Benchmarking: Strategies that Universities are Using to Address the Problem

This section will describe efforts at universities to address the problem of extended length in rank as associate professor.

Rochester Institute of Technology

Rochester Institute of Technology (RIT) has recently revised its policy on promotion to full professor to address the problem of extended length in rank. RIT Policy E06.0 (*Policies on Faculty Rank and Promotion*) now emphasizes that candidates for promotion to full professor are evaluated as to whether they have a record that is deemed excellent overall, but that they do *not* need to be excellent in all three categories (quality and scope of scholarship, effectiveness of teaching, and service) to attain promotion. This allows, for example, a candidate who has excelled in two of the areas with continued growth, development, and accomplishment in a third area, to be promoted (Rochester Institute of Technology, 2017).

In 2017, a peer support group called the P-Cubed (Promotion Package Preparation) Group was launched at RIT, through a collaboration between the National Science Foundation-funded AdvanceRIT team and RIT's Council for the Representation & Engagement of Women Faculty (CREW). Open to all faculty and all genders, it meets for members to obtain support in preparing their promotion packages (Rochester Institute of Technology, n.d.).

The Ohio State University

The Ohio State University (OSU) is working toward providing options in which some faculty earn promotion based largely on research and others earn promotion based largely on teaching (Jaschik, 2010). It is seeking to end the complete dominance of research considerations in promotion reviews. One goal is to develop good criteria for the measurement of faculty impact in teaching and service, for promotions to full professor. Faculty who are promoted based largely on research could have their careers reshaped with that focus, whereas faculty who are promoted based largely on teaching could have career expectations adjusted to focus more on teaching (Jaschik, 2010).

OSU is creating alternate paths for promotion to full professor, such as giving faculty credit for directing research centers that obtain grants, rather than strictly for obtaining individual research grants and publishing (Wilson, 2012). It has published a guide for full professors and tenure initiating unit chairs/directors on best practices to support promotion to full professor (The Ohio State University, n.d.). Examples of best practices from this guide include the following:

- Professors as a whole should provide leadership to create a unit-wide expectation that attaining promotion to full professor is an expected professional goal, one that is part of normal progress in an academic career.
- In their annual review evaluations of full professors, Tenure Initiating Unit (TIU) Heads should include mentoring of associate professors.
- The Promotion and Tenure Chair and Committee should consider a formal review of all associate professors every year, to make sure they know what is needed to be promoted to full professor and that they are on track to achieve promotion.

Rutgers University

The Rutgers University Policy on promotion states, "Rigorous standards are applied for the assessment of scholarship, artistic accomplishment, librarianship, extension practice, and/or extension scholarship in consideration for promotion to Professor or equivalent ranks" (Rutgers University, 2014). However, for associate professors who have remained at the rank of associate professor for ten years post-tenure, Rutgers allows the balance among the promotion criteria to consider excellent and significant contributions to teaching and service (Rutgers University, 2014). This alternate promotion method is known as the "Ten-Year Rule," but it is not widely used (Rutgers University, 2011).

A survey of current and past administrators (deans and chairs) at Rutgers, conducted by the Rutgers Faculty and Personnel Affairs Committee (FPAC), revealed several reasons that the Ten-Year Rule is not widely used (Rutgers University, 2011). For example, some administrators were very opposed to the application of the rule because they believe that research productivity is critical for promotion and that the Ten-Year Rule lessens the criteria for promotion. Some faculty have the impression that it is more difficult to be promoted under the Ten-Year Rule than under the standard promotion criteria and that they would be viewed as second-class for going up for promotion under the Ten-Year Rule. Several administrators were unaware of the existence of the Ten-Year Rule, and some administrators indicated that they were ideologically opposed to the premise of the Ten-Year Rule.

University of Michigan

In a report, the University of Michigan Gender in Science and Engineering Subcommittee on Faculty Evaluation and Development recommends that faculty who are promoted to associate professor with tenure receive a review in their third year in rank. This results in a formal promotion plan. It recommends that associate professors receive annual reviews to determine whether they are prepared for a review for promotion to full professor. It states that the normal amount of time for a faculty member to remain at the associate professor level before promotion to full professor should be approximately six years, but that faculty may be reviewed for promotion before that time if appropriate (University of Michigan, 2004).

University of North Carolina Charlotte

The University of North Carolina Charlotte has a mid-career mentoring program for associate professors (Buch et al., 2011). The university developed and implemented a six-step "mid-career faculty planning process" for associate professors that became the focal point of several separate mid-career mentoring initiatives. It focuses particular attention on meeting the needs of female associate professors and creating an environment that is free of gender bias. The steps are as follows:

- 1. **Articulate Your Career Goals.** This involves defining the faculty member's area of distinction, setting a time frame for promotion, establishing shorter-term goals to help attain promotion, and aligning activities with departmental needs and expectations.
- Understand Promotion Criteria. This step includes examining college and departmental
 criteria, seeking clarity when necessary; attending an NSF ADVANCE-sponsored Faculty Forum
 on the pathways to professor; discussing criteria and promotion guidelines with the chair, deans,
 mentor, and others; and examining samples of recently promoted candidates in a faculty
 member's area.
- 3. **Conduct a Self-Assessment.** This involves assessing one's career trajectory thus far, including one's strengths and the areas in which one needs to develop.
- 4. **Write a Mid-Career Plan.** This involves mapping out a general plan and matching one's skills, strengths, and performance expectations to one's career choices and works. In addition, it involves continuously examining one's plan.
- 5. **Discuss Plan with Mentor and Chair.** This step includes seeking input on how realistic one's plan and timetable are, obtaining resources and implementing one's plan, aligning the plan with performance criteria, and aligning the plan with departmental needs.
- 6. **Implement the Plan.** This final step includes putting the plan into action, revising it when needed, and regularly reviewing the plan with one's mentor and chair.

University of Arkansas

At the University of Arkansas, the *Associate Professor Advancement Program* is designed to guide associate professors to become stronger candidates for promotion to full professorship (University of Arkansas, n.d.). Associate professors who have held that rank for at least seven years are selected to participate in this program and receive up to \$1,000 to help "jump start" their research agendas. They work with an approved mentor, who is a tenured faculty member at the University of Arkansas who will guide them through the promotion process over the course of the year. The mentor and associate professor work together to define research agendas or refocus past agendas. The mentor's responsibilities include writing a brief report on the progression and accomplishments of the associate professor assigned to him or her. Full professors who serve as mentors receive \$500 for their development accounts.

VI. Additional Research-Based Strategies to Address the Problem

Based on the results of focus group interviews and other research, Misra and Lundquist (2015) provide a number of recommendations for how to improve support for mid-career faculty. They have found that associate professors often bear disproportionately heavy service loads compared with their junior and senior colleagues. This service burden pulls mid-career faculty away from research, but evaluation for promotion is based almost exclusively upon research. Misra and Lundquist recommend providing clear guidelines for promotion that align with the institution's mission, developing mentoring programs that help faculty members focus their work time on the factors that will be evaluated, and developing strategies to lessen service burdens on faculty. In addition, they recommend having standardized policies that regularly assess promotion timing rather than forcing candidates to self-nominate or wait to be nominated by a superior.

Baldwin and colleagues (2008) conducted a study of mid-career tenured faculty, department chairs, and school directors at Michigan State University (MSU) to "map the terrain" of the mid-career faculty experience. They invited a group of 20 mid-career faculty and 20 department chairs and school directors who work with mid-career faculty at MSU to share their experiences and needs, as well as to describe how they might be better supported. Based upon their findings, the authors recommend that institutions hold orientation workshops for new associate professors, provide bridge funding between external grants, offer ample merit raises, and provide grant-writing support. Further, they recommend that chairs alternate teaching loads (one semester heavier, one lighter) to allow faculty to focus on grant writing/research. They recommend that Promotion and Tenure Committees meet annually with the department chair or associate chair to ask how the committee can help each faculty member, provide a mentoring committee that stays intact until a faculty member attains the rank of full professor, and give associate professors full reviews every other year.

The Modern Language Association (2009), based upon the results of a survey of its members at the associate and full professor level, offers a number of recommendations to reduce the length in rank as associate professor. It recommends establishing clear guidelines and paths to promotion from associate to full professor, offering a substantial salary increase with promotion to full professor, creating mentoring programs for associate professors, and devoting specific resources to support associate professors' scholarship.

VII. Benchmarking: Factoring In Leaves of Absence in Promotion Committee Decisions

Research shows that two major obstacles to faculty's use of existing family-friendly policies are the lack of knowledge about such policies and the fear that using such policies will have negative repercussions on their careers (Mason et al., 2005). Williams and colleagues (2006) found that between 1992 and 1999, more than 500 faculty members at Penn State University became new parents. Only seven parental leaves were reported, none by men. The researchers found that some academic departments systematically discouraged or penalized faculty who wished to take leave under the Family and Medical Leave Act. For example, in a survey of faculty working in the University of California system, one female faculty member stated, "All of the maternity benefits were lumped under the same heading by the chair as 'unfair advantage.' I saw the two other women with young children get punished on reviews for not getting enough published even though they 'had time off and had more time to write.' I wasn't going to risk it' (Frasch et al., 2009).

Some universities are taking steps to change this. For example, the University of California has published a Chairs and Deans Toolkit (2007) that provides background, resources, and best practices on the use of family-friendly policies. It states: "Review committees should be directed to focus on quality and total quantity of scholarly productivity rather than time since degree or job hire so that faculty who slow down

due to family obligations are not unduly penalized in the peer review process" (p. 11). In promotion decisions, Virginia Polytechnic Institute and State University (Virginia Tech) limits the "look-back" period of promotion to five years. This gives faculty who have been off-track time to get back on course without penalty (Mathews, 2014).

VIII. Initiatives to Broaden the Definition of Scholarship

Many initiatives are focused on broadening the definition of scholarship for promotion. In a seminal book, Boyer (1990) challenges the merits of a reward system that pushes faculty toward research and publication and away from teaching. He proposes that discovery, integration of knowledge, teaching, and service be viewed as scholarship. Based upon a study of data from the National Survey of Postsecondary Faculty 1992-93, Fairweather (2002) found that only a small percentage of faculty in all types of four-year institutions achieved high levels of output in both research and teaching. He advocates that faculty who are less productive in research increase the departmental average teaching productivity, whereas faculty who publish extensively contribute to aggregate research productivity goals.

O'Meara (2006) conducted a national study of 729 Chief Academic Officers (CAOs) or their designees of four-year institutions to investigate the impact of policy efforts to encourage multiple forms of scholarship in faculty roles and rewards. She found that campuses that initiated policy reforms to encourage multiple forms of scholarship were significantly more likely than their counterparts to report a broader set of criteria used to assess scholarship. In addition, CAOs at campuses that initiated policy reforms reported a greater congruence between institutional mission and faculty priorities.

One initiative that has gained ground in recent years is a teaching tenure track. A report by the American Association of University Professors (2010) rebuts the idea that tenure is solely for research purposes and provides models for a teaching tenure track. For example, it indicates that in 2002, the American Association of University Professors (AAUP) chapter at Western Michigan University negotiated a contract that provided tenure for "faculty specialists." This was formerly a non-tenure-track group that included lecturers, clinical instructors, and certain other academic professionals. The "faculty specialist" category was converted to the tenure stream, such that new appointments made after the conversion were tenure-stream appointments. Another example in the report is that a collective bargaining contract between the Pennsylvania State System of Higher Education and the Association of Pennsylvania State College and University Faculties (APSCUF) features a contract provision that allows the conversion of non-tenure-track instructors to the tenure track if they have served for five full, consecutive academic years in the same department and are recommended for conversion by the majority of the tenure-track faculty in the department (American Association of University Professors, 2010).

According to a report by Sanders (2011), versions of teaching-stream positions exist in many publicly funded universities in the Canadian province of Ontario and are increasingly common elsewhere. The University of British Columbia has a tenure-track "teaching stream" (University of British Columbia, n.d.). Teaching-stream professors spend up to 80% of their time teaching and have little or no research obligation (Chiose, 2015).

At RIT, discussions have emerged on adding more flexibility in the path to promotion to full professor. Former RIT Provost Jeremy Haefner (2014) wrote a thought paper that explored the possibility of having flexible pathways to promotion at RIT. Candidates would <u>not</u> need to be evaluated as excellent in all three areas (teaching; research, scholarship, and creative work; and service including leadership) to warrant promotion. Professor Patrick Scanlon (2014) advocates applying flexible criteria for promotion to full professor at RIT. RIT has recently revised its policy on promotion to full professor to help address the problem of extended length in rank. As described above, RIT Policy E06.0 (*Policies on Faculty Rank and Promotion*) now states that candidates for promotion to full professor are evaluated as to whether their

record is deemed excellent overall, but that they do *not* need to be excellent in all three categories (quality and scope of scholarship, effectiveness of teaching, and service) to attain promotion (Rochester Institute of Technology, 2017).

IX. Top Ten Recommendations to Address the Problem of Extended Length in Rank among Associate Professors

Based upon the benchmarking and literature research we have conducted for this paper, we recommend the following as the top ten strategies for institutions of higher education to address the problem of extended length in rank among associate professors:

- Broaden the definition of scholarship, as a consideration for promotion to full professor.
- Design and implement a program to educate promotion committees on promotion policy, the
 influence of unconscious bias on decision making, the importance of consistency in the
 evaluation of candidates, and the importance of efficiency in the promotion process. For more
 specific recommendations on how to help committees discuss important topics before the
 evaluation of candidates, please refer to the Appendix ("Questions to Consider during Promotion
 & Tenure Review Processes: Understanding How Unconscious Bias Influences Decision
 Making").
- Require associate professors to present their work to their department every three years for feedback and network development. Benchmark the University of Michigan's policy. Studies have provided evidence that, for graduate students, timely and regular feedback from faculty shortens the time to degree (Latona & Brown, 2001; Maher, Ford, & Thompson, 2004; Seagram, Gould, & Pyke, 1998).
- Consider allowing promotion candidates to define their desired "look-back" period (with a set minimum length) for their promotion review.
- Align the service load of associate professors more strategically with their scholarship and teaching interests.
- Hold orientation workshops for new associate professors, with the goal of helping them to map out plans for their promotion to full professor.
- Devote resources, such as grant-writing support, to support associate professors' scholarship.
- Set up mentoring groups, in which full professors mentor associate professors and support them towards their goal of being promoted to full professor. Include mentoring of associate professors as a critical component of the annual Plan of Work of full professors.
- Set up annual reviews of associate professors, to assess their progress towards their goals of being promoted to full professor.
- Set the expectation that promotion to full professor is an expected professional goal.

X. Conclusion

This paper has reviewed the reasons that the problem of extended length in rank for associate professors exists, as well as the implications for faculty and their institutions. It has provided examples of initiatives at several universities and other research-based recommendations for addressing this issue. Moreover, it has examined the benefits of initiatives to broaden the definition of scholarship. Finally, it has provided ten recommendations for institutions of higher education to address the problem of extended length in rank among associate professors. It is critical to improve support for post-tenure faculty, so that they are fulfilled in their careers, productive in their work, and vital in advancing the mission of their institutions.

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APPENDIX:

Questions to Consider during Promotion & Tenure Review Processes Understanding How Unconscious Bias Influences Decision Making

- 1. Is the feedback provided within external/internal letters consistently valid, constructive, pertinent, and useful to the career development of the faculty member under review [1]? Do letters include basic features while aligning the candidate with their critical job responsibilities [2]? Compared with recommendation letters written on behalf of men, research has shown that letters written on behalf of women were shorter and more likely to lack basic features, such as a statement of how the letter writer knew the applicant, concrete references to the applicant's record, or evaluative comments about the applicant's traits or accomplishments [3]. Letters written on behalf of women had more "doubt raisers" (hedges, faint praise, and irrelevancies) and were four times more likely to refer to their personal lives, compared with letters written on behalf of men [2,3,4]. Research has also shown that in recommendation letters, descriptions of men more closely align with critical job requirements (i.e., research record and ability) compared with descriptions of women [3].
- 2. What approaches to evaluating collaboration might be appropriate [1]? With regard to collaboration, identify the advantages and disadvantages to collaborating [1]. Research has found that women prefer collaborative work more than their male peers do [5]. Address the difficulties and complexities related to the assessment of collaboration for tenure and promotion [1]. Is the work of women faculty members unfairly attributed to a research director or collaborators, despite contrary evidence in publications or letters of recommendation [4]? Is less credit given to women faculty because the research was not done alone? Are collaborators viewed as equal contributors, or is one viewed in a secondary or assisting role?
- 3. How will you weigh student teaching evaluations, and what other mechanisms will you use to evaluate teaching effectiveness? Some scholars have found gender to have no (or very little) influence on evaluations of teaching, whereas other scholars have found gender to affect evaluations significantly [6,7,8], in which case findings generally show that student teaching evaluations are more negative for women faculty [9-19] with possible implications extending to award considerations [20]. Other possible alternative evaluation methods may include alumni ratings, peer ratings, informal student surveys, self-assessment statements, syllabi and other course documents, examples of student work, and teaching portfolios [6,21,22].
- 4. Is a heavy service burden evident in the candidate's portfolio [1]? Many possible conditions exist for excessive service. For women and minority candidates who report spending more time on service commitments than their male and majority peers, respectively, it could lead to evaluation penalties for their not saying "no" to excess service, when saying "no" is sometimes not a viable option for them [1, 23]. Are there any additional positive benefits to the institution when the female or minority faculty members participate in this type of service [1]?



- 5. How will the committee account for gaps in the candidate's record, leaves of absence, or tenure clock extensions [1]? Gaps during the review period can be evaluated in various ways such as by viewing achievements as cumulative. Extensions to the tenure probationary period should not increase the expectations for an individual faculty member's achievements towards tenure [24]. If the candidate for tenure had received an extension to his/her tenure probationary period, the reasons behind this extension will not be disclosed within the committee's letter [25].
- 6. Consider how gender shapes expectations for family responsibilities. Does parental status of a candidate affect arguments for or against a case [1]? Traditionally, men with families are viewed as stable, settled, and committed to career, whereas women with families are expected to put family first and thus not considered to be serious about their careers [1,4].
- 7. What is *your* responsibility as a reviewer to notice and address potential issues of bias for the committee [1]? Becoming aware of and minimizing bias is a collective endeavor. As a committee member, is the expectation that members will inform the committee of possible bias issues in the review process for a particular candidate? Is the expectation that members will discuss bias that they or others exhibit?

Recommendations for Reducing Unconscious Bias in Promotion & Tenure Review Processes

- 1. Require committee members to participate in a bias literacy workshop. Research provides evidence that educational interventions lead to a reduction in unconscious bias [26,27].
- 2. Recognize and accept that all of us are subject to the influence of bias and assumptions, despite good intentions. Avoid considering yourself as "objective" [2,4].
- 3. Diversify promotion and tenure review committee membership by race, gender, rank (if appropriate), hearing status, age, etc. This will provide committee members with visible reminders that excellence comes in diverse forms. It will increase group members' motivation to respond equitably [4].
- 4. Discuss criteria that your review committee will use before evaluating candidates, and apply the criteria consistently [4].
- 5. Devote sufficient time and attention to evaluating each candidate, and minimize distractions [4].
- 6. Minimize time pressure and stress from competing tasks [28].
- 7. Evaluate the entire package of each candidate [4].
- 8. Recognize how the differential power/status of committee members shapes group discussions [29].
- 9. Use an inclusive rather than an exclusive decision-making process (such as considering why a candidate should be granted tenure or promotion rather than why they should be denied). This will cause evaluators to pay more attention to the merits of individual candidates and less attention to their membership in a specific demographic group [4].
- 10. Periodically evaluate the criteria being used during the review process and the manner in which the committee implements the review process [4]. In the process, develop better criteria for the measurement of faculty members' impact in teaching and service.



11. Hold tenure and promotion review committee members responsible for fair and equitable evaluations [4]. In addition, hold them responsible for decisions based on concrete information, not on vague assertions or assumptions [4].

Other Resources:

- AdvanceRIT Project Resources on Career Success and Benchmarking
 - https://www.rit.edu/nsfadvance/
- Gender Equality in Engineering Advocacy Tips, A National Imperative, NDSU
 - http://wied.asee.org/AdvTips.html
- "Solving the Equation" AAUW publication
 - http://www.aauw.org/research/solving-the-equation/
- Facebook, Managing Unconscious Bias
 - https://managingbias.fb.com/
- Implicit Association Test, Project Implicit, Harvard University
 - https://implicit.harvard.edu/implicit/takeatest.html
- The Impact of Implicit Bias from Ohio State University, Part 1 Bias and Schemas,
 - http://www.youtube.com/watch?v=UZHxFU7TYo4&feature=plcp
- Video: AAMC, "What You Don't Know: The Science of Unconscious Bias and What To Do About It in the Search and Recruitment Process"
 - https://surveys.aamc.org/se.ashx?s=7C7E87CB561EC358
- NCWIT Checklist for Reducing Unconscious Bias in Job Descriptions/Advertisements
 - http://www.ncwit.org/resources/ncwit-checklist-reducing-unconscious-bias-jobdescriptionsadvertisements
- How Can Reducing Unconscious Bias Increase Women's Success in IT?
 - Avoiding Gender Bias in Recruitment/Selection Processes (Case Study 2): http://www.ncwit.org/resources/how-can-reducing-unconscious-bias-increase-womens-success-it-avoiding-gender-bias
- Video: Unconscious Bias and Why It Matters For Women & Tech
 - http://www.ncwit.org/resources/unconscious-bias-and-why-it-matters-women-and-tech
- Students: How Do Stereotype Threats Affect Retention? Better Approaches to Well-Intentioned, but Harmful Messages (Case Study 1)
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