

## **From Student Organization Leadership to Excelling at Tenure-service Requirement**

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## **Lessons Learned: From Student Organization Leadership to Excelling at Tenure Service Requirements**

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### **Abstract**

The purpose of this “Lessons Learned” paper is to investigate how former graduate student leaders can employ their experiences to achieve and excel in service requirements as junior tenure-track faculty members. Research skills, and increasingly teaching ability, have been core to the graduate student curriculum, and match the majority of faculty tenure requirements. However, preparation for the service requirement is often overlooked at both the graduate student and faculty level. While a small part of the overall tenure package, there is an unspoken presumption that faculty members will be able to serve effectively and efficiently. In STEM curricula, the development of interpersonal skills is often overlooked. While this may not be an impediment in research communications, faculty may have a difficult time adapting to highly social university, local community, or governmental service organizations. The authors reflect on how their time as graduate student leaders, in student government, student organizations, and campus committees, influenced their ability to maximize impact while efficiently balancing time spent. The authors’ service portfolios span a range of fields – as student organization advisors, committee members, or advisory board members – in diverse types of institutions (from research universities to undergraduate teaching colleges) and have each balanced their personal and professional goals with their commitments. While not all junior faculty may have comparable graduate student leadership backgrounds, the authors provide broadly applicable suggestions, from one junior faculty member to another, discussing ways to maximize prior experiences to excel in the tenure service requirement category. This “Lessons Learned” paper should be presented as a lightning talk.

### **Keywords**

Student Leadership, Service Requirements, Tenure Track, Faculty Development

### **Introduction**

In recent years, there were increased efforts for preparation and development of higher education faculty. Examples include: teaching best practices seminars for existing faculty members, teaching preparation programs for graduate students, and research grant writing programs for graduate students and junior faculty. These programs and practices have shown significant improvements in junior faculty’s performance as course instructors and researchers [1]–[9]. However, this does not account for the full tenure review requirements, specifically overlooking the service requirement. Previous work has quantified service as the most ambiguous review category [10]–[15]. In the experience of the authors, service activities are not often subject to formative feedback during annual review processes and there is not a clear guideline if the work is sufficient. Nonetheless, we have observed that our previous student leadership activities,

particularly during graduate school, have allowed us to exceed supervisor expectations with regard to service. All four of the authors intersected during graduate school via student government and have since gone on to different types of institutions. All of us have recognized the importance of our graduate student leadership roles in our current, though junior, faculty service roles.

The objectives of this work are to review the existing, though sparse, research on tenure-track faculty service requirements and compare to our own “lessons learned” as junior faculty. We outline recommendations for current graduate students and faculty advisors on how to approach student leadership during graduate school as a method to develop future faculty members. Here, we wish to highlight one method by which graduate students, specifically future faculty candidates, could be better prepared for faculty service obligations.

### **Faculty Service in Existing Literature**

Faculty service requirements in the tenure package are considered minor compared to teaching and research obligations. The relative amounts in these three categories differ by institution and academic appointment type. Available documents from the authors’ current institutions suggest that service requirements for tenure-track faculty positions generally compose 20% of the total workload. This aligns with literature [16]. Though a significant part of faculty time, literature indicates that junior faculty often struggle to fulfill and maximize the utility of service obligations. This dissatisfaction may be due to time constraints or role dissatisfaction, however all must complete service activities to fulfill their job obligations [8], [10], [15], [17]–[23]. Depending on the institution, faculty service may include service to all or some of the following groups: students, department, institution, profession, and community. These different categories can each yield improvements to the institution, through improved student performance or research output, while still advancing the faculty’s career aspirations [24]. Interdisciplinary models allow faculty to pursue service activities intersecting with research and/or teaching, thus allowing for greater faculty benefit [25]–[27]. Faculty service strengthens the tie between the faculty and the institution by increasing faculty commitment to institutional policies and actions [17], [28]–[34].

Given the relative importance of faculty service activities for student support, retention, and community identity, one might assume programs exist to prepare junior and future faculty members. However, that is not the case. Within the ASEE Peer Repository, publication searches relating to “faculty development”, “tenure”, and “service” yielded less than 40 publications between the years 2000 and 2020 with a repository relevance score greater than 6.00 (out of the maximum of 10.00). None were found offering concrete steps for future faculty development, instead focusing on junior faculty role development. The most concrete recommendations regarding service training were offered by Ocon [35] who promoted consulting activities as a tool for junior faculty development, but this presumes the faculty has sufficient skills to consult. The available research generally quantified positive affective measures of mentorship and/or coaching on pre-tenure faculty, comparisons of tenure requirements at different types of institutions, and various tools that can be used to help organize tenure packages. While important data, the lack of skills training for future faculty service is troubling. The dearth of studies targeting this topic was replicated in other available databases.

## Student Leadership as Job Preparation

It is important to identify practices that can successfully prepare future faculty for service. We postulate that student campus leadership, particularly during graduate school, is one practice worth highlighting. It has long been held that extracurricular activities at any age level can help broaden the participant's learning and development, in addition to deepening their satisfaction and involvement on the college campus [36], [37]. In the authors' experiences, adoption of leadership roles on campus during graduate school allowed not only the development of leadership, organization, and interpersonal skills, but also familiarity with the policies and practices of higher education institutions. This eased the transition into faculty roles, particularly for service activities. Author Laughton is in her first year at the Citadel, but is already the department's Chemical Hygiene Officer. Her role as Vice President of Campus Affairs in student government and her service on the EH&S Committee at a larger, research-focused institution enabled her department to entrust her with the students' laboratory safety. While she may still be learning the Citadel's policies, she has sufficient context from her previous leadership roles to adapt quickly and begin to streamline procedures. While not core to Laughton's career goals, her previous experiences allow her to complete her role's responsibilities with minimal time input.

The most important reasons that a student participates in a student government organization, and further in shared governance practices, are to (1) improve university governance, (2) gain experience, and (3) serve other students [38]. These have been shown to translate into former student leaders' careers in fields outside academia, however they can also have lasting effects for faculty via their service activities [39], [40]. Author Gingrich fully embodies this idea. After serving as Vice President of External Affairs and President of the Graduate Student Assembly, he found a consistent interest in serving his peers through diversity and inclusion efforts. He worked closely with other student leaders and university administrators (including Deans and the Provost) to create change in this area. As a junior faculty member at Ohio State, he received an exception to sit on the department's Inclusive Excellence Committee as a junior faculty. From his previous efforts, he now has a broad knowledge base as the committee identifies ways to integrate diversity and inclusion into the curriculum. Author Narra previously served as International Student Advocate for the graduate student government and in the leadership of the Mechanical Engineering department-level government. While her current institution, Rochester Polytechnic Institute, has fewer international students, she directly leveraged her leadership experiences to be selected for her department's Graduate Student Committee by more senior faculty. After aggregating graduate students' concerns from her peers during graduate school, she can, even now, clearly articulate them and create important change.

Traditional student- or institution-supporting service roles are not the only types benefitting from previous student government experience. Austin [41] discusses how an ideal graduate school experience prepares students who wish to pursue academic careers by socializing students into the role of faculty. She highlights how research and teaching assistantships, coupled with adequate reflection opportunities, can help students become aware of the skills they are developing which will be valuable as a faculty member. Unlike the other authors, Canfield did not serve in the large campus-wide student government, instead working with a number of interest focused clubs. Even as a graduate student, she saw student organizations as a way of pursuing more diverse science and policy ideas than those just included in her thesis. Her work with these organizations focused largely on networking events and arranging speakers. While her

faculty service activities at Missouri Science & Technology may be less student-focused than the other authors, she found a service niche in public policy outreach utilizing her skills while advancing her research goals. This speaks to the importance of reflection on newly acquired skills as well as interdisciplinary service opportunities. Canfield efficiently performs her service duties, while advancing her career goals.

Even beyond the selected author examples, student leadership experiences correlate well with of faculty service roles. Student government organizations discuss topics such as allocation of funds, campus policies, and academic procedures [42]. They often build proposals for the institution's administration regarding these topics and may host campus services within their framework (e.g. grant programs, food pantries, peer mentorship programs). Funding management knowledge directly translates to management of research funds or faculty advisor oversight of student organization budgets. Proposal or report writing experience can aid research efforts, but more directly provides insight for faculty members when attempting to direct institutional change via a curricular committee or other. Student leadership experience also provides knowledge to build broad-based teams that can translate to fruitful interdisciplinary research and service collaborations. Student governments with an external relations branch may produce leaders with experience in drafting public statements to the media or working with government officials which can help related outreach activities as faculty. Quality academic advising is tied to better student retention and performance; however, faculty are often not trained to handle student concerns and are disconnected from institutional student support services. Experience navigating institutional policies as a student leader could improve junior faculty's advising abilities and enhance their ability to maximize the utility of existing campus offices. All of the authors have experienced each of these benefits to a certain extent in the first few years of their faculty roles. Systematic research is needed to determine the generalizability of these outcomes.

### **Maximizing Student Leadership Utility as Faculty Preparation**

Graduate students are subject to a great number of time constraints from taking (or teaching) classes and conducting research. Therefore, students and their advisors alike may eschew the addition of a required student organizational leadership position. We do not suggest a requirement for all students. However, for those aspiring to faculty positions, leadership roles should be encouraged and recognized as a job preparation activity. Such leaders have demonstrated ability to balance the time and effort required to meet scholarship, service, and teaching requirements simultaneously as junior faculty after doing so as graduate students. Students should be made aware of the opportunities and potential challenges. Anecdotally, many of our fellow graduate students were explicitly told not to engage in activities outside of research, such as student government or clubs. In our opinion, these advisors fail to provide adequate holistic career preparation opportunities to their advisees, possibly rooted in a misunderstanding of the time commitments involved. Instead, graduate advisors should do their research before taking a stance. This may involve talking to the organization's advisor to identify the role's duties and time requirements. Also, discuss with the student to ensure that they are taking on the role for the right (i.e., career preparation based) reasons and stand to benefit from the experience. If the student steps into a role, routinely check in with the student to ensure that the time expectations are not being exceeded. Finally, if a student expresses desire to engage in student leadership but the advisor finds some issue with their proposed organization, the advisor

should suggest other organizations that may be a better compromise. The advisee could even lend a student perspective or organize other students for one of their advisor's current service obligations. This could be mutually beneficial to both the student's and the advisor's careers.

We encourage fellow former student leaders to reflect upon prior leadership activities in light of their current position. Even if the leadership role was not directly connected to career goals, transferable skills can be identified. If desiring advancement in higher education administration, skills such as creating agendas and running efficient meetings are useful. Prior experience networking and managing outside speakers on campus can be useful in building a research agenda and cultivating relationships in the research community. Prior experiences as a student advocate for campus practices may help color an individual's own teaching philosophy. Do not consider a former role as preparation only for on-campus service but off-campus as well.

Mentors and supervisors must consider the unique challenges of junior faculty with former student leadership. Collins *et al.* [43] highlight the difficulties of tenured faculty mentoring junior faculty members. They discuss how differences in generation, gender, and race may influence the advice that should be given in a mentorship scenario and specifically discuss how this relates to service obligations. Mentors are told to instruct their mentees in how to say "no" to additional obligations, how to identify activities that best complement the junior faculty's interests and career trajectory, and how to identify activities with the greatest return for time invested. We strongly support these suggestions, but do add a note of caution regarding junior faculty with student leadership experience. Such faculty may need to be cautioned by their faculty mentor or supervisor to not be overwhelmed by the scope of possible service opportunities and lose sight of time-management and career advancement [44]. Just because a role can be filled does not mean that this faculty must be the one to fill it. Supervisors and department heads should consider consulting their junior faculty and presenting them with the variety of service options currently in need of faculty before assigning them to a certain committee just to satisfy requirements. A successful match is one that benefits the institution as well as utilizes the passions and skills of the faculty. In this manner, mentors and supervisors can help prevent junior faculty burnout or challenges in meeting tenure and promotion requirements due to over-engaging in service [45]–[47].

## Conclusions

In the authors' experience, as supported by available literature, student leadership during graduate school is complementary to the faculty development process and can aid in a junior faculty member's ability to more smoothly transition into the significant service roles expected of tenure track faculty, regardless of the type of service activities engaged in. Former graduate student leaders who are now faculty should think critically regarding their skills and interests to maximize their output but ensure it is targeted to benefit their career aspirations. Supervisors of former student leaders should take care to not let the junior faculty over-reach while also matching their skills and interests with the institution's needs. Graduate student advisors should consider recommending a significant campus leadership experience to your graduate students aiming for a faculty position. If a graduate student's thesis work prepares for faculty research obligations and teaching assistantships prepare for faculty teaching obligations, student leadership during graduate school can help prepare them for the challenges of efficient, synchronous accomplishment of service requirements.

## References

- [1] A. DeNeef, "The Preparing Future Faculty Program: What Difference Does It Make? PFF Occasional Paper Series.," 2002. [Online]. Available: <http://eric.ed.gov/?id=ED471501>.
- [2] Y. Steinert *et al.*, "A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME Guide No. 8," *Med. Teach.*, vol. 28, no. 6, pp. 497–526, 2006, doi: 10.1080/01421590600902976.
- [3] M. Clavert, T. Björklund, and A. Nevgi, "Developing as a teacher in the fields of science and technology," *Teach. High. Educ.*, vol. 19, no. 6, pp. 685–696, 2014, doi: 10.1080/13562517.2014.901957.
- [4] M. A. Bond and S. J. Blevins, "Using Faculty Professional Development to Foster Organizational Change: a Social Learning Framework.," *TechTrends Link. Res. Pract. to Improv. Learn.*, vol. 64, no. 2, pp. 229–237, Mar. 2020, [Online]. Available: <http://10.0.3.239/s11528-019-00459-2>.
- [5] T. Huston and C. L. Weaver, "Peer Coaching: Professional Development for Experienced Faculty.," *Innov. High. Educ.*, vol. 33, no. 1, pp. 5–20, Jun. 2008, [Online]. Available: <http://10.0.3.239/s10755-007-9061-9>.
- [6] K. E. Foote, "Creating a community of support for graduate students and early career academics.," *J. Geogr. High. Educ.*, vol. 34, no. 1, pp. 7–19, Feb. 2010, [Online]. Available: <http://10.0.4.56/03098260902954087>.
- [7] A. Opre, M. Zaharie, and D. Opre, "FACULTY DEVELOPMENT: TEACHING STAFF NEEDS, KNOWLEDGE AND PRIORITIES.," *Cogn. Creier, Comport. Brain, Behav.*, vol. 12, no. 1, pp. 29–43, Mar. 2008, [Online]. Available: <https://login.citadel.idm.oclc.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=31545502&site=ehost-live>.
- [8] D. A. Harley, "Maids of Academe: African American Women Faculty at Predominately White Institutions," *J. African Am. Stud.*, vol. 12, no. 1, pp. 19–36, 2008, doi: 10.1007/s12111-007-9030-5.
- [9] J. J. Good, J. W. Keeley, S. Leder, S. E. Afful, and J. J. Stiegler-Balfour, "Supporting Our Junior Faculty: Assessing the Concerns and Needs of Early Career Psychologists," *Teach. Psychol.*, vol. 40, no. 4, pp. 340–345, 2013, doi: 10.1177/0098628313501048.
- [10] S. Tunguz, "In the eye of the beholder: emotional labor in academia varies with tenure and gender," *Stud. High. Educ.*, vol. 41, no. 1, pp. 3–20, 2016, doi: 10.1080/03075079.2014.914919.
- [11] J. S. Filetti, "Assessing service in faculty reviews: Mentoring faculty and developing transparency," *Mentor. Tutoring Partnersh. Learn.*, vol. 17, no. 4, pp. 343–352, 2009, doi: 10.1080/13611260903284416.
- [12] R. G. Green, "Tenure and promotion decisions: The relative importance of teaching, scholarship, and service," *J. Soc. Work Educ.*, vol. 44, no. 2, pp. 117–128, 2008, doi: 10.5175/JSWE.2008.200700003.
- [13] T. Finkle, P. Stetz, and M. Mallin, "Perceptions of Tenure Requirements and Research Records of Entrepreneurship Faculty Earning Tenure: 1964–2002," *J. Entrep. Educ.*, vol. 10, p. 101, 2007.
- [14] J. P. Alperin, C. M. Nieves, L. A. Schimanski, G. E. Fischman, M. T. Niles, and E. C. McKiernan, "How significant are the public dimensions of faculty work in review, promotion and tenure documents?," *Elife*, vol. 8, pp. 1–23, 2019, doi: 10.7554/eLife.42254.
- [15] C. M. Guarino and V. M. H. Borden, "Faculty Service Loads and Gender: Are Women Taking Care of the Academic Family?," *Res. High. Educ.*, vol. 58, no. 6, pp. 672–694, 2017, doi: 10.1007/s11162-017-9454-2.
- [16] P. J. Bentley and S. Kyvik, "Academic work from a comparative perspective: A survey of faculty working time across 13 countries," *High. Educ.*, vol. 63, no. 4, pp. 529–547, 2012, doi: 10.1007/s10734-011-9457-4.
- [17] J. P. Murray, "New faculty members' perceptions of the academic work life," *J. Hum. Behav. Soc. Environ.*, vol. 17, no. 1–2, pp. 107–128, 2008, doi: 10.1080/10911350802168886.
- [18] K. O'Meara, "Whose problem is it? Gender differences in faculty thinking about campus service," *Teach. Coll. Rec.*, vol. 118, no. 8, pp. 1–38, 2016.
- [19] S. M. Park, "Research, Teaching, and Service: Why Shouldn't Women's Work Count?," *J. Higher Educ.*, vol. 67, no. 1, pp. 46–84, Jan. 1996, doi: 10.1080/00221546.1996.11780249.
- [20] J. A. Winkler, "Faculty Reappointment, Tenure, and Promotion: Barriers for Women," *Prof. Geogr.*, vol. 52, no. 4, pp. 737–750, Nov. 2000, doi: <https://doi.org/10.1111/0033-0124.00262>.
- [21] L. K. Hanasono, E. M. Broido, M. M. Yacobucci, K. V Root, S. Peña, and D. A. O'Neil, "Secret service: Revealing gender biases in the visibility and value of faculty service.," *J. Divers. High. Educ.*, vol. 12, no. 1, pp. 85–98, 2019, doi: 10.1037/dhe0000081.
- [22] K. A. O'Meara, A. Kuvaeva, and G. Nyunt, "Constrained Choices: A View of Campus Service Inequality From Annual Faculty Reports," *J. Higher Educ.*, vol. 88, no. 5, pp. 672–700, 2017, doi: 10.1080/00221546.2016.1257312.
- [23] L. Zhang, "Do academics' emotions in teaching affect their organizational commitment?," *J. Educ. Psychol.*,

- vol. 111, no. 7, pp. 1317–1330, 2019, doi: 10.1037/edu0000344.
- [24] B. H. McNulty, C. A. O'Connor, and L. Sklare, "Analysis of Student and Faculty Opinion of Academic Advising Services," *NACADA J.*, vol. 7, no. 1, pp. 49–61, 1987, doi: 10.12930/0271-9517-7.1.49.
- [25] A. W. Al-Khafaji and F. E. Rebholz, "The Quest for Excellence and Faculty Assessment," *J. Constr. Educ.*, vol. 5, no. 1, pp. 43–56, 2000.
- [26] D. S. Cottrell, "Outreach scholarship: A valuable key to promotion and tenure," *ASEE Annu. Conf. Proc.*, pp. 12707–12725, 2003.
- [27] K. A. O'Meara, *Encouraging multiple forms of scholarship in faculty reward systems: Does it make a difference?*, vol. 46, no. 5. 2005.
- [28] A. H. Afif, "The relationship between perceived organizational supports with job satisfaction and organizational commitment at faculty members of universities," *Sleep Hypn.*, vol. 20, no. 4, pp. 290–293, 2018, doi: 10.5350/Sleep.Hypn.2018.20.0164.
- [29] Y. M. N. Almutairi, "Leadership Self-Efficacy and Organizational Commitment of Faculty Members: Higher Education," *Adm. Sci.*, vol. 10, no. 3, p. 66, 2020, doi: 10.3390/admsci10030066.
- [30] L. Jing and D. Zhang, "Does Organizational Commitment Help to Promote University Faculty's Performance and Effectiveness?," *Asia-Pacific Educ. Res.*, vol. 23, no. 2, pp. 201–212, 2014, doi: 10.1007/s40299-013-0097-6.
- [31] R. C. Tolentino, "Organizational Commitment and Job Performance of the Academic and Administrative Personnel," *Int. J. Inf. Technol. Bus. Manag.*, vol. 15, no. 1, pp. 51–59, 2013.
- [32] R. Schroder, "Predictors of organizational commitment for faculty and administrators of a private christian university," *J. Res. Christ. Educ.*, vol. 17, no. 1, pp. 81–97, 2008, doi: 10.1080/10656210801968299.
- [33] D. K. Gormley and S. Kennerly, "Influence of Work Role and Perceptions of Climate on Faculty Organizational Commitment," *J. Prof. Nurs.*, vol. 26, no. 2, pp. 108–115, 2010, doi: 10.1016/j.profnurs.2009.11.001.
- [34] N. Fjortoft, "Factors Predicting Faculty Commitment to the University," in *Annual Forum of the Association for Institutional Research*, 1993, pp. 1–26.
- [35] R. Ocon, "Promoting faculty development using industry consulting activities," *ASEE Annu. Conf. Expo. Conf. Proc.*, 2009, doi: 10.18260/1-2--4991.
- [36] Ricardo Montelongo, "Student Participation in College Student Organizations: A Review of Literature," *Journal of the Indiana University Student Personnel Association*. 2002.
- [37] M. C. Veronesi and R. B. Gunderman, "Perspective: The potential of student organizations for developing leadership: One school's experience," *Acad. Med.*, vol. 87, no. 2, pp. 226–229, 2012, doi: 10.1097/ACM.0b013e31823fa47c.
- [38] B. Zuo and E. W. Ratsoy, "Student Participation in University Governance," *Can. J. High. Educ.*, vol. XXIX, no. 1, pp. 1–46, 1999.
- [39] M. H. Dias, "The Leadership Perspectives of Former Student Government Presidents and the Post-College Impact of the Presidency," George Washington University, 2009.
- [40] J. M. Miles, "Reflections of Student Government Association Leaders: Implications for Advisors," *Coll. Stud. J.*, vol. 45, no. 2, pp. 324–332, 2011.
- [41] A. E. Austin, "Preparing the next generation of faculty: Graduate school as socialization to the academic career," *J. Higher Educ.*, vol. 73, no. 1, pp. 94–122, 2002, doi: 10.1080/00221546.2002.11777132.
- [42] E. A. Smith, M. T. Miller, and D. P. Nadler, "Does it Matter? What College Student Governments Talk About," vol. 16, no. 2, pp. 46–54, 2016.
- [43] T. Collins, S. Slough, and H. Waxman, "Lessons learned about mentoring junior faculty in higher education," *Acad. Leadersh.*, vol. 7, no. 2, 2008.
- [44] A. Mohamed and J. Pumwa, "Reflections on teaching, research, and service of a faculty member for those transitioning into a university tenure track faculty position," *Proc. Int. Conf. Ind. Eng. Oper. Manag.*, vol. 2019, no. MAR, pp. 946–952, 2019.
- [45] M. A. Padilla and J. N. Thompson, "Burning Out Faculty at Doctoral Research Universities," *Stress Heal.*, vol. 32, no. 5, pp. 551–558, 2016, doi: 10.1002/smi.2661.
- [46] J. R. Lackritz, "Exploring burnout among university faculty: Incidence, performance, and demographic issues," *Teach. Teach. Educ.*, vol. 20, no. 7, pp. 713–729, 2004, doi: 10.1016/j.tate.2004.07.002.
- [47] R. Gentry and D. Stokes, "Strategies for professors who service the university to earn tenure and promotion," *Res. High. Educ. J.*, vol. 29, pp. 1–13, 2015, [Online]. Available: <http://www.aabri.com/copyright.html>.



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