Office of Academic Affairs
Promotion & Tenure Workshop

Small Group Tasks:

- Choose a spokesperson to report out to the larger group and a scribe to document the discussion.

- Identify **one** issue that the report might address and how they might be addressed. Should it be **evaluated** using departmental and/or DOF guidelines, **contextualized** using relevant concepts, ideas, and perspectives, or **interpreted**, to explain its deeper meaning(s) or a combination of all of three?

- If there are other issues that might be important to consider, list them, but you do not need to identify how you would address them.

Dossier Scenario #1: Dr. Michael Williams

Dr. Michael Williams is a tenure track assistant professor in MARB who had a successful midterm review and has submitted his dossier for tenure and promotion. His dossier includes ~$1M in research grants (>96% from NSF – 3 different programs – 50% success rate) and 4 invited lectures. He has published 12 peer-reviewed manuscripts in high impact journals (IF >3.5-4) and presently has 3 in review (minor revisions) in the discipline and has collaborated with a diverse group of leading researchers in his subfield. Nine specialists in the fields of marine chemistry and biogeochemistry evaluated the scholarship of Dr. Williams. All are very senior and accomplished scientists in their fields (two hold the recognition of distinguished professors at their respective institutions) and are at institutions that serve as either peers or aspirational peers for TAMUG. All, except one, recognize Dr. Williams' scholarship achievements overall and since joining the Galveston Campus faculty as outstanding, recommending him for promotion. One of the reviewers criticizes Dr. Williams' publication record as too weak, lacking autonomy, and suggesting that the publications "have been published in a variety of peer-reviewed journal, but not notable high ranking, journals".
Dr. Williams' teaching also demonstrates impact as he successfully advised several graduate students and is chairing dissertation committees. His student course evaluations are at the department mean and he has positive peer teaching evaluations. In his short career, he is already the recipient of one of the top teaching awards at the university. His service includes subcommittee membership in two professional organizations, contributions to grant reviews and NSF panels, and two departmental committees.
WHAT DO YOU DO NEXT?

Dossier Scenario #2: Dr. Lisa Martin

Dr. Lisa Martin is a tenure track assistant professor in LIST who had a favorable midterm review and has submitted her dossier for tenure and promotion. She published two articles in mid-tier journals in her discipline and has a monograph in press at a respected publisher in her subfield. Dr. Martin included the manuscript's external reviewer's evaluations that noted the book advances the discipline and makes an intervention in existing methods. Her dossier also includes $15,000 in research grant funding. Of the dossier's six external letters, four from peer institutions offer very strong, positive evaluations in support of her tenure bid. The remaining two are favorable evaluations from leading scholars in her subfield who are at liberal arts institutions.
Dr. Martin's teaching also demonstrates impact as she was recognized with a college-level teaching award and has course syllabi published on her professional organization's website. She also has strong student evaluations above the departmental average and positive peer teaching observations. Her service to the university includes four departmental committees and sponsoring a student organization related to the campus' inclusion, diversity and equity efforts.
WHAT DO YOU DO NEXT?

The Journal of Higher Education

ISSN: 0022-1546 (Print) 1538-4640 (Online) Journal homepage: http://www.tandfonline.com/loi/uhej20

Constrained Choices: A View of Campus Service Inequality From Annual Faculty Reports

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To cite this article: KerryAnn O'Meara, Alexandra Kuvaeva & Gudrun Nyunt (2017): Constrained Choices: A View of Campus Service Inequality From Annual Faculty Reports, The Journal of Higher Education

To link to this article: http://dx.doi.org/10.1080/00221546.2016.1257312

Published online: 27 Jan 2017.

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THE JOURNAL OF HIGHER EDUCATION
http://dx.doi.org/10.1080/00221546.2016.1257312

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Constrained Choices: A View of Campus Service Inequality From Annual Faculty Reports

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ABSTRACT

Time is a valuable resource in academic careers. Empirical evidence suggests women faculty spend more time in campus service than men. Yet some studies show no difference when relevant variables are included. The primary source of data for most workload studies is cross-sectional surveys that have several weaknesses. This study investigated campus service inequality and factors that predict it at 1 research university using a novel and more comprehensive source of data - annual faculty reports. The investigation was guided by Kanter's work on the role of power and representation and Lewis and Simpson's rereading of Kanter's work to focus on gender, power, and representation. The authors examined 1,146 records of faculty campus service during 2 years. In both years, women faculty reported more total campus service than men while controlling for race, rank, science, technology, engineering, and mathematics (STEM), and the critical mass of women in a department. When considering levels of service, women reported higher numbers of service activities at the department and university levels. Women in male-dominated fields tended to have service workloads more like their peers and less like women in non-STEM fields. The article concludes with considerations regarding implications for organizing practices that maintain inequity between men and women in campus service.

ARTICLE HISTORY
Received 22 October 2015
Accepted 31 October 2016

KEYWORDS
Annual faculty reports; faculty service; gender equity

As faculty progress in their careers, their work is most often assessed as a set of outcomes (e.g., research publications, grants awarded, teaching evaluations, numbers of students graduated, committees; Britton, 2000; O'Meara, 2011; Park, 1996; Tierney & Bensimon, 1996). When differences are observed in their records, the narrative most often focuses on personal choices made and capabilities (Lewis & Simpson, 2010, 2012; Gutiérrez y Muhs, Niemann, González, & Harris, 2012). The routine and everyday backdrop within which faculty experience their organizations and make choices is often obscured. This is particularly true for campus service, which is also the most understudied faculty role though it is consequential for shared governance and faculty professional growth and careers (Kezar & Lester, 2009; Neumann & Terosky, 2007; O'Meara, 2016).

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In this study, we brought contexts and backdrops such as gender, career stage, discipline, and critical mass into full view as we strove to gain a better understanding of academic labor, in particular campus service, and what shapes faculty choices regarding campus service. We examined whether there were differences between research university faculty in campus service workload by using a novel and comprehensive source of data—annual faculty reports. We used Kanter's (1977) theory of tokenism and the dynamics of numerical advantage and disadvantage and Lewis and Simpson's (2010, 2012) poststructural rereading of Kanter to understand how gender interacts with numerical advantage and disadvantage to shape women faculty visibility, invisibility, and power as they relate to campus service participation. Using a quantitative research design, we investigated the presence of campus service inequality and factors that predict campus service inequality at one research university. We examined whether a division of campus service labor could be predicted by the following factors: gender, rank, science, technology, engineering, and mathematics (STEM), and critical mass of women faculty. Though it is important to examine professional outreach and disciplinary service, the purpose of this study was to focus on institutional, on-campus service, while defining campus service broadly as "contributions that support a campus's mission, operations, and cultural life" (Neumann & Terosky, 2007, p. 283). We further categorized campus service as occurring for one's department, college, or university; another department/college; or as faculty mentoring.

This study makes two important contributions to the literature. First, this study examined the presence of gender inequality in campus service using a rarely used—and in many ways superior—data source. We outline strengths of our data source in the Methodology section. Second, our framing of the issue moves beyond characterization of the role of women in campus service as the inevitable product of systematic oppression and powerlessness. We took up Hart's (2016) recommendation to wrestle with the contradictions women faculty face with regard to campus service. We examined campus service participation as a series of constrained choices made by women faculty. Critical mass of women faculty in a field, discipline, rank, and social contexts embedded with gender stereotypes can constrain choices by normalizing the responses of some faculty as inevitable and exposing the responses of others as illegitimate (Britton, 2000; Lewis & Simpson, 2010, 2012). Understanding campus service workload inequity is critical because research has identified gendered divisions of labor as central to women faculty's lower retention rates, longer time to promotion to full professor, and greater career dissatisfaction (Acker & Armenti, 2004; Acker & Feuerverger, 1996; Clark & Corcoran, 1986; Misra, Lundquist, Holmes, & Agiomavritis, 2011; Park, 1996). However, campus service can also be a route to power, a site for strategic resistance, and a source of satisfaction for those not recognized in

other ways (Baez, 2000; Bird, Litt, & Wang, 2004; Griffin, 2013; Griffin, Bennett, & Harris, 2013; Kiyama, Lee, & Rhoades, 2012; O'Meara, 2015).

Literature review

Though service is still an understudied area of academic labor (Neumann & Terosky, 2007), research on faculty service responsibilities has grown in the past few decades with a significant portion of the literature addressing campus service workloads. Studies have shown that gender (Acker & Armenti, 2004; Misra et al., 2011; O'Meara, 2016), race/ethnicity (Baez, 2000; Griffin, Pifer, Humphrey, & Hazelwood, 2011), career stage (Misra et al., 2011; Neumann & Terosky, 2007), and institutional type (Porter, 2007; Tierney & Minor, 2003) influence campus service participation. In regards to gender, the vast majority of evidence, from both quantitative and qualitative studies, indicates that women faculty spend more work time on campus service than do men faculty (Acker & Armenti, 2004; Barrett & Barrett, 2011; Bird et al., 2004; Carrigan, Quinn, & Riskin, 2011; Clark & Corcoran, 1986; Hart & Cress, 2008; Link, Swann, & Bozeman, 2008; Misra et al., 2011). Research exploring reasons for this difference has shown that women faculty are asked to engage in campus service more often to add diversity to committees because they are more likely to say yes when asked, are perceived to be good at service work, and have orientations toward and commitments to the activities being pursued (O'Meara, 2016; Padilla, 1994; Tierney & Bensimon, 1996; Turner, 2002). Despite the pattern of women faculty reporting more campus service than men faculty, some studies have revealed few significant differences in the number of hours men and women faculty spend on campus service when controlling for variables such as rank, discipline, and institutional type (Bellas & Toutkoushian, 1999; Mitchell & Hesli, 2013; Porter, 2007; Singell & Lillydahl, 1996). Conflicting results are due to studies using different methods (e.g., interviews vs. cross-sectional surveys), some quantitative studies not controlling for relevant variables, and studies not accurately capturing different kinds of campus service.

Research has also shown that faculty rank plays a key role in campus service participation because expectations change from one faculty rank to another. Assistant professors in research universities are generally somewhat protected from campus service because they are trying to earn tenure and research counts most for tenure (Fairweather, 1996; Trower, 2012). Associate professors, on the other hand, tend to be overloaded (Misra et al., 2011; Neumann & Terosky, 2007; Trower, 2012; Ward, 2003). Rank may also play a role in saying yes or no to a service request. Some faculty may feel vulnerable in saying no because they are of a lesser rank than the colleague asking them (Acker & Armenti, 2004; Tierney & Bensimon, 1996). Rank is not neutral, however, because women faculty are less represented in higher ranks at

research universities and more women faculty than men faculty leave their academic positions before achieving higher rank (Perna, 2005). Moreover, women faculty are more likely to hold non-tenure-track positions where teaching and campus service are emphasized (Perna, 2005; Xu, 2012).

In addition to investigating differences in the number of hours faculty spend on campus service and factors that may influence these decisions, research has also explored the types of campus service in which faculty engage. These studies revealed that women faculty are more likely to engage in kinds of campus service that are less prestigious and more time-consuming (Misra et al., 2011; Mitchell & Hesli, 2013; Twale & Shannon, 1996). Rank can also become a factor in determining the committees on which a faculty member serves. For example, full professors may have access to high-profile and more valued service roles (Tierney & Bensimon, 1996; Ward, 2003).

Understanding whether or not gender differences in service workload exist and how they play out is important because inequalities in service workload can impact a faculty member's career. Studies have shown that time spent on service and teaching takes away from research and a faculty member's ability to publish and produce other research products (Fairweather, 1996; Fox, 1992; Jacobs & Winslow, 2004; Link et al., 2008). Because research is valued more in academic reward systems than is service, especially at research universities, spending more time on service can be problematic for women faculty members (Acker & Feuerverger, 1996; Fairweather, 1996; Park, 1996; Ward, 2003). This is particularly the case in STEM careers where publication productivity is crucial (Carrigan et al., 2011; Fox, 1992). Moreover, research has shown that heavy service loads for associate professors are linked to longer time to advancement to full professor (Misra et al., 2011; Stout, Staiger, & Jennings, 2007). In addition, perceptions of unfair campus service workloads have been linked to intentions to leave the institution, as well as to decreased satisfaction, productivity, organizational commitment, and professional growth (Daly & Dee, 2006; Neumann & Terosky, 2007; Rosser, 2004). Thus, those interested in increasing the retention and advancement of women faculty and faculty of color have called for studies to make any inequities in workload, such as differences in campus service, apparent and to consider potential remedies (Baez, 2000; Barrett & Barrett, 2011; Hart, 2016; Pyke, 2014; Winslow, 2010).

Conceptual framework

We were guided by Kanter's (1977) influential work *Men and Women of the Corporation* and Lewis and Simpson's (2010, 2012) poststructural rereading of Kanter to underscore how gender interacts with representation in organizations to foster experiences of visibility, invisibility, and power. Kanter's and Lewis and Simpson's (2010, 2012) work shaped our analysis of the existing

literature, helped us identify factors that are important to consider when investigating campus service workloads, and helped us to make meaning of the findings of our study. In this section, we briefly introduce Kanter's and Lewis and Simpson's (2010, 2012) work, explain how this theory is relevant to work on gender in organizations and faculty service, and how it can be used to understand women faculty's choices and experiences related to campus service. We conclude by highlighting the factors important to consider in research on campus service that are grounded in Kanter's and Lewis and Simpson's (2010, 2012) understanding of gendered organizations.

Kanter's (1977) pioneering text on the dynamics of organizational behavior presented a theory of tokenism and the dynamics of numerical advantage and disadvantage. Kanter found that when a group, such as men, is in the majority, they become the "dominants" and control how work processes, like division of labor, occur. In groups that are "skewed" (characterized by a predominance of one social type with a ratio of 85 to 15), the minority group occupies the position of "token." Dominant group priorities and beliefs set up a situation of "role entrapment" where the token—in this case, women faculty in tenure-track positions at research universities—are steered into work roles that support the dominant group but do not lead to their own advancement. In addition, tokens are often blocked from organizational recognition and thus find satisfaction through work activities such as service or institutional housekeeping that provide social recognition (Kanter, 1977).

Kanter's (1977) concept of "role entrapment" is consistent with subsequent feminist organizational analysis revealing how divisions of labor place men faculty in locations of greater organizational power and women faculty in more vulnerable, peripheral, or undervalued positions (Acker, 1990, 2012; Avent-Holt & Tomaskovic-Devey, 2012; Britton, 2000). For example, in many organizations, women managers engage in what is widely defined as organizational housekeeping and men managers engage in problem solving, visioning, and strategic planning (Ely & Meyerson, 2000). In a university setting, this dynamic is evident when institutional housekeeping and campus service activities are defined as "women's work" and are devalued in academic reward systems (Acker & Armenti, 2004; Bird et al., 2004; Clark & Corcoran, 1986; Park, 1996). Although work activities, such as campus service, could become a route to power if they are visible, considered relevant to pressing problems, require discretion, are not routine, and straddle the boundaries or occur outside the home unit (Kanter, 1977), research suggests much of the campus service in which women faculty are engaged does not meet these requirements (Misra et al., 2011; Mitchell & Hesli, 2013; Park, 1996).

Kanter's (1977) work has been criticized for not seeing gender itself as a framework of analysis (Alvesson & Billing, 1992; Lewis & Simpson, 2012; Yoder, 2002; Zimmer, 1988). While Kanter drew attention to the gender of

organizational members, her main point was that differences between organizational members were due to differences in representation and power (Savage & Witz, 1992). By this logic, when women employees are in the majority in occupations dominated by women, men should have the same work challenges of entrapment. However, subsequent research has shown that men librarians, nurses, and teachers experience enhanced career opportunities and "glass elevators" despite their token status (Simpson, 2004; Williams, 1993). Thus, Kanter's ability to help us understand faculty service participation is limited by a failure to draw on gender as an explicit framework of analysis (Lewis & Simpson, 2012).

Lewis and Simpson (2012) used a poststructural lens to reread Kanter's (1977) work and tease out gender as a construct itself within the analysis of power and representation. Poststructuralism conceives an organization, like a university, as "socially situated practice with individuals involved in socially situated activities" (Lewis & Simpson, 2012, p. 144). Significant in this view is the possibility of resistance. Lewis and Simpson (2012) highlighted how relationships between men and women in organizations involve strategies and counter strategies of power. This leads to a complex play of gendered processes of visibility and invisibility. Lewis and Simpson (2012) acknowledged that, as Kanter (1977) pointed out, heightened visibility and practices of surveillance can push women into gendered stereotypes defined by men. In addition, the invisibility of men's values, practices, and privileges, which are accepted as the norm, contribute to the maintenance of men's dominance. Minorities such as women are judged against these norms, which leads to their exclusion. Because the oppressed are not completely powerless though, acts of resistance challenge these norms and men's dominance. Dominant groups counter to preserve the norms and their privilege and power. Thus, Lewis and Simpson (2012) described norms as "sites of insecurity and struggle" (p. 148).

Dynamics of visibility and invisibility impact women's choices and behaviors as they strive to succeed in organizations dominated by men (Lewis & Simpson, 2012). Lewis and Simpson (2012) described three interrelated processes in which women and other minorities engage: revelation, exposure, and disappearance. Revelation refers to revealing and challenging normative practices and discourses. These actions can, however, attract retribution and expose women as outsiders. Thus, revelation is closely linked to exposure, a process where women are rendered visible and thus exposed. Negative aspects of heightened visibility have been well documented in the literature; however, some women have used visibility and exposure strategically to benefit individually or to challenge normative practices and to effect change. Because of the increased vulnerability of being exposed and visible, some women may opt for withdrawal, which refers to performing in a way that allows one to disappear and be invisible. Withdrawal can also be strategically

used to separate from damaging stereotypes of women and to find ways to assimilate to (men's) norms and thus succeed in the organization. In each of these processes, women can make choices—but their choices are shaped and constrained by the gendered social and organizational contexts of their organizations (Acker, 1990; Smith, 1990).

Kanter's (1977) work on tokenism and role entrapment and Lewis and Simpson's (2012) work on power, visibility, and invisibility are helpful in framing possible outcomes of a study on gender differences in campus service and understanding why women faculty may engage in more campus service. For example, Kanter's work and subsequent related work (Carrigan et al., 2011; Xu, 2008) hypothesized that work activities of women in research universities would be related to the critical mass of other women faculty in their department. Lewis and Simpson (2012) noted that being in a field with a low critical mass of women makes women highly visible and likely to try to assimilate into the norms of the dominant group. One way to do so would be to match one's work priorities and behavior as closely to those of men colleagues as possible (Lewis, 2006). In the case of tenure-track faculty in research universities, this means to prioritize research and engage in the same amount and no more campus service than men colleagues. In fact, Xu (2012) found women faculty in disciplines dominated by men spend more time on research and have lighter teaching loads than women faculty in fields where there is a greater percent of women faculty. Thus, campus service participation is likely to be similarly affected by the nature of expectations within specific disciplines and the presence of women faculty in that discipline; these two factors are connected (Carrigan et al., 2011; Xu, 2012).

However, even within fields dominated by men such as STEM, women faculty spend more time than men faculty on service, undergraduate teaching, and mentoring, while men faculty spend more time per week on research (Bird et al., 2004; Link et al., 2008; Misra et al., 2011; Winslow, 2010). This dynamic can be understood by considering the strong expectations for women faculty to act as "academic mothers" and to be helpful, agreeable, and service-oriented (Tierney & Bensimon, 1996). As noted earlier, women faculty are typecast as good at institutional housekeeping and are therefore asked more often to engage in campus service (Mitchell & Hesli, 2013; Park, 1996). Ridgeway (2013) found that women faculty experience backlash when they act in ways perceived to conflict with this gendered expectation. Just saying "no" is not simple (Pyke, 2014) as research has suggested that women faculty who say "no" to work requests can be perceived as cold, selfish, and not team players (Benard & Correll, 2010; Rudman & Phelan, 2008). Thus, self-preservation may lead women faculty to agree to more campus service than their peers who are men. Moreover, higher-status groups, such as men within research universities, may be considered by administrators to be more deserving of rewards such as protection from too much campus service

(Krefting, 2003). Ridgeway and Correll (2004) observed that in "less scripted social relational processes" (p. 525) like campus service participation, gendered cultural beliefs such as "women are good at service" become especially salient in shaping behavior.

Women faculty may also engage in more campus service out of resistance to the dominant group norms. Research has shown that women faculty engage in race- or gender-related campus service out of a desire to contribute to the common welfare of academic programs and to support constituencies that are important to them (Baez, 2000; Griffin et al., 2011; Hart, 2016). Through their participation in campus service, women faculty can expose and challenge the values of the power structure that assumes service is unimportant (Thomas & Davies, 2005).

Viewing these potential responses through the lens of Lewis and Simpson's (2007) framework, we see how they all fit within a gendered organization. Power is preserved and concealed by those in the dominant group. In the case of campus service, those in the dominant culture set the norms for campus service. From the margins, women faculty can resist those norms and reveal the privileges that men have in not being expected to serve as often or as well in this role—or just as importantly, they can prioritize service as an alternative to the norms of the dominant group. Inevitably though, such resistance will cause them to be exposed as different than the dominant group. This exposure as "other" can have negative career consequences with their department colleagues. Lewis and Simpson (2012) referred to such consequences as erasure and disappearance wherein faculty are posed as "other" and distanced from colleagues, encouraged to fade from view or leave.

In conclusion, Kanter's (1977) work helps us see that campus service participation is likely to be shaped by numbers—especially as it relates to the presence of women faculty in a discipline and disciplinary norms. However, Lewis and Simpson's (2012) work helps us see campus service participation as also related to efforts to assimilate and to advance and to resist and challenge dominant norms, as well as the consequences of doing so for faculty careers. This framing further allows us to see how women's intersectional identities as assistant professors, as STEM women faculty, and as women in disciplines with high percentages of women faculty shape choices and constraints that women faculty experience as they interact with dominant norms around campus service (Barrett & Barrett, 2011; Carrigan et al., 2011; Tierney & Bensimon, 1996).

To understand the role of gender representation and other related factors shaping campus service participation, we explored annual faculty reports, within a single research institution hereafter named Land Grant University (LGU). The research question guiding this study was: Are there differences by gender, rank, STEM versus non-STEM, or critical mass of women faculty

in the college in the total amount of campus service activities faculty performed or the level of campus service activity?

Research design

We conducted a quantitative study using Poisson log-linear regression analyses. Because service activities represent count, non-negative data, to perform the analyses, we used Poisson regression, also known as log-linear regression. Poisson regression is appropriate for analyses on data with count variables (Beaujean & Morgan, 2016; Coxe, West, & Aiken, 2009). Count variables are represented by non-negative, integer values and typically follow positively skewed distribution (Cameron & Trivedi, 1998).

Regression techniques help to find consistent patterns in large sets of data, make statistical inferences, test hypotheses, and extrapolate findings to greater populations (Cohen, Cohen, West, & Aiken, 2003; J. Fox, 2008). We conducted a regression analysis to model relationships between a continuous dependent variable (i.e., amount of campus service activities) and independent variables (i.e., gender, race, rank, field, and critical mass) and to determine effects of each predictor on the outcome.

This quantitative study is part of a larger study of faculty work environment and faculty experiences by gender, race, and career stage at LGU, a public research university. LGU received a National Science Foundation ADVANCE grant to support the retention and advancement of women and underrepresented minority faculty. The social science research team for the ADVANCE project used case-study methods (Yin, 2014) to collect an extensive amount of data, including qualitative interviews, work environment survey responses, and faculty retention and advancement data to understand equity issues in faculty work environment. The issue of campus service was one area of data collection, amid this larger study of factors shaping work environment.

LGU is in many respects a typical public research university. It is highly selective in terms of admissions, serves approximately 37,000 students (roughly 70% undergraduate), and engages in extensive research activity, with more than $500 million in research expenditures. Women faculty make up 32% of tenure-track/tenured faculty overall, roughly 46% of assistant professors, 35% of associate professors, and 23% of full professors. Of all women tenure-track faculty, 28% are women faculty of color. Institutional research conducted at LGU revealed that women faculty were significantly more likely to resign pretenure, but there were no significant differences in advancement rates for women and men faculty who applied for promotion. There was, however, a significant difference in average years to advancement among faculty who were promoted to full professor (9.2 years for women vs. 7.9 years for men). In terms of administrative leadership, 29% of department

chairs (n = 16) were women. In STEM areas, 19% (n = 6) of department chairs were women. A faculty work environment survey conducted in 2011, 2013, and 2015 showed women faculty were less satisfied than men faculty with time spent on campus service versus time spent on research. There were no universitywide reward system guidelines regarding the amount or kinds of campus service that faculty were expected to perform or uniform ways across departments of ensuring equitable campus workloads between faculty. These arrangements were made locally in departments (if at all) and between administrators and individual faculty for campuswide appointments.

Data and sample

Once a year, LGU faculty submit an annual accounting of their research, teaching/mentoring, and service activities through an online university report. These reports are required by state mandate, are used by departments to assign merit pay, and are considered in promotion and tenure and post-tenure review processes. Administrators use these data routinely to understand such outcomes as average number of advisees, participation in various service activities, and average number of faculty research publications. Faculty report data are public data that are submitted to the institution and are reported to the state each year. This research involved secondary data analysis with noninformed consent. Data were provided from university administrators with appropriate access after institutional review board (IRB) approval was granted. Data for this research project were unidentified. Rather than names, numerical indicators with gender,[1] race, rank, and college descriptors were used, which allowed for analysis of files in aggregate. The research design of this project was determined by the IRB to be of minimal risk based on an appropriate risk–benefit ratio and determination that risks were minimized.

Annual faculty report data are a valuable and unique data source for understanding faculty service commitments. They provide three advantages over commonly used sources for campus service data such as the National Study of Postsecondary Faculty (NSOPF) conducted by the National Center for Education Statistics (see studies drawing on the NSOPF Faculty Questionnaire survey data from 1993, 1999, and 2004 by Carrigan et al., 2011; Porter, 2007; Winslow, 2010; and Xu, 2008). First and foremost, LGU faculty activity reports are formal reports of faculty work. LGU faculty understand that reports are public data reported to the state and are not anonymous, and like a curriculum vitae, they are scrutinized by several levels of review, such as department chairs, personnel committee members, deans, and institutional research administrators. Those reviewing the reports can verify faculty members' reports, and submitting inaccurate information could be perceived as an ethical violation. Research from organizational management and psychology suggests this kind of accountability serves a normative

function (Curcio & Lynch, 2016; Dominick, Reilly, & Mcgourty, 1997; Erez, Lepine, & Elms, 2002). When taking national surveys where responses are anonymous, faculty may feel less normative pressure to report campus service accurately.

Second, LGU faculty activity reports were collected to record and measure campus service activities more precisely. LGU faculty had access to the system 9 months of the year and could store and update information up until submission. For most national faculty surveys, faculty submit responses once a year during a 15- to 25-min period and do not have the opportunity to record and correct responses more than once before submission. Also, NSOPF questions used in most previous faculty workload studies ask for estimates of hours spent on different work activities with broad categories, sometimes lumping service with "other activities." For example, the NSOPF service data presented in Carrigan et al. (2011), Porter (2007), Winslow (2010), and Xu (2008) were based on questions asking faculty to estimate how many hours per week they spent on work in four broad categories: "instruction with undergraduates, instruction with graduate and first-professional students, research, and other activities like administration, professional growth, service, and other activities not related to teaching or research" (Cataldi, Bradburn, Fahimi, & Zimbler, 2005, p. 42). In this study, we were able to look at service committees separately from other nonteaching or nonresearch activities and differentiate the service activities by their type: university, college, department, for another university department, and faculty mentoring.

Third, LGU faculty activity report data provide for better gender comparisons at the institutional level because they were standardized within the same context to a greater extent than is possible with most national surveys. For example, when LGU faculty listed that they participated in the University Senate, it was the same University Senate for everyone. In addition, the LGU faculty report form asked faculty to assign an administrative unit from a dropdown menu to each service activity, which was further associated with a predetermined level for each service activity. Because the institutional context was held constant, faculty had similar contexts present in assigning a level and office to each activity. Such common contexts are less present in NSOPF and other national surveys wherein two faculty members noting they served on a curriculum committee in different universities could describe very different activities (e.g., one could be a learning outcomes assessment committee and the other a committee to approve new courses). Thus, there is an advantage to studying this issue locally where committees have widely recognized names and more similar time commitments and where appropriate levels and associated divisions are clearer.

For this study, we analyzed 2 consecutive years of faculty annual reports, 2012 and 2013 of LGU tenure-track faculty (assistants, associates, and full

professors), while specifically focusing on the question about campus service activities. We analyzed annual faculty report data from 98% of LGU tenure-track/tenured faculty (see Table 1 for respondent demographics). About 2% of LGU tenure-track/tenured faculty did not complete this document in each year because they were retiring or resigning. Deans and department chairs were excluded because the intent was to understand the average faculty member's campus service commitments, not those of individuals in leadership roles. For the purpose of verifying patterns of gender differences, we decided to use 2 years of data. We had to exclude the faculty activity reports of faculty from 2 of the 12 LGU academic colleges, the College of Social and Behavioral Sciences and the College of Architecture, because these colleges took part in an experimental trial of a new reporting system in 2013 and did not complete reports with the same kinds of data. To have consistent comparable data across time, we eliminated these two colleges from both years of the analysis. Thus, the respondents are the same group of faculty in both years. Note that we performed the same exact analysis on the two groups, 10 colleges and 12 colleges in 2012, and found the same pattern across these two groups, meaning that the two analyses revealed the same significant differences and the same level of significance. The exclusion of 2 colleges, thus, did not alter the demographics substantially. The numbers by rank varied some between the two groups; however, it did not affect the results: The analyses with the two groups yielded the same significant differences.

Department-level service included service that faculty completed within their home department, such as admissions committees and department promotion and tenure committees. College-level service included work for the Dean's Office or a center affiliated with the school or college. University-level service included work for the higher administration units, such as the Office of the Provost, the President's Office, the Graduate School, or the Office of Undergraduate Studies. The "other unit"-level service included service for a college or school other than the faculty member's primary tenure home. Mentoring-level service included individual faculty member

Table 1. Faculty activity report respondent demographics.

		Percent (n = 1,146)	
Respondents		Women	Men
By rank	Assistant professors	46.9% (n = 90)	53.1% (n = 102)
	Associate professors	36.7% (n = 153)	63.3% (n = 264)
	Full professors	21.2% (n = 114)	78.8% (n = 423)
By race	Faculty of color[a]	37.8% (n = 105)	62.2% (n = 173)
	White faculty	28.3% (n = 229)	71.7% (n = 580)
	Race not reported	39.7% (n = 23)	60.3% (n = 35)

Note. Demographic data are self-reported to human resources offices upon hire.
[a]Faculty of color refers to noninternational American Indian/Alaskan Native, Asian American, Black/African American, Hispanic, and Two or More Races.

Table 2. Types of service activities included in each level.

Department	College	University	Other unit	Mentoring
Home department	Dean's office or a center affiliated with the school or college	Higher administration units	College or school other than the faculty member's primary tenure home	Individual faculty member mentoring
Admissions committees, department promotion and tenure committees, salary committee, human relations and welfare committee, general academic affairs committee, faculty search committee, director of graduate/ undergraduate studies, scheduling officer, department council	Long-term service college awards, faculty service award committee, associate dean for faculty affairs and graduate programs, faculty director of the international programs, research center director, dean's advisory committee, strategic planning committee, college council	Provost search committee, University Senate, president's commission on ethnic minority issues, scholarship selection committee, associate deans' graduate programs committee, advisory committee, deans' review committee, university sustainability council, conflict of interest committee	University honor boards, joint research institute executive committee, national professional organization grant proposal review panel member, undergraduate honors thesis committee member, special facility search committee, diversity committee, admissions committee	Mentoring junior faculty members; mentoring faculty on portfolio development

mentoring. For a more detailed description of types of service activities included in each level, refer to Table 2.

Data analysis

To understand differences based on critical mass of women in the college, we used Xu's (2012) critical mass groupings for percentages of women faculty. Group 1 included colleges that had 1% to 24% women tenure-track/tenured faculty, Group 2 included colleges with 25% to 49%, and Group 3 included colleges with 50% to 74% (Table 3). There were no colleges with percentages of women faculty more than 75%. Log-linear Poisson regression analyses were conducted to estimate the effect of gender on the number of service activities reported by LGU faculty, while controlling for race, rank, STEM discipline, and critical mass of women. Gender was self-reported and treated as a binary variable, because the human resources system only provided two options. Interaction effects were entered into regression models one at a time to test for significant interactions with gender, while controlling for race, rank, STEM discipline, and critical mass. When significant interactions appeared, separate Poisson regression models were run by group.

Table 3. College groupings by critical mass of women.

College/school	Percent
Group 1	
Engineering	13.1
Computer, mathematics, and natural sciences	16.0
Public policy	16.7
Group 2	
Business and management	31.0
Agriculture and natural resources	37.0
Journalism	40.0
Public Health	41.2
Arts and humanities	45.8
Information studies	46.7
Group 3	
Education	61.0

Findings

Findings from log-linear Poisson regression analyses revealed significant gender differences in the number of reported campus service activities. In both years, gender was a significant predictor of the number of campus service activities at the department level, university level, and across all levels, while controlling for other variables in the models, with women faculty being more likely to report higher numbers of service activities (Tables 4 and 5).

Gender and STEM differences

Across both years, non-STEM women faculty consistently reported participating in more service activity than did non-STEM men faculty. In non-STEM departments, in both years, women faculty reported more service activities than men faculty at the department level: The odds of women faculty reporting service activities were 34.3% higher than the odds of men faculty in 2012, Exp(B) = 1.343, Wald = 15.527, $df = 1$, $p < .001$, and 32.4% higher in 2013, Exp(B) = 1.324, Wald = 22.390, $df = 1$, $p < .001$. Additionally, in 2012, non-STEM women faculty were more likely to report a higher number of service activities than were STEM women faculty across all levels, Exp(B) = 1.376, Wald = 54.098, $df = 1$, $p < .001$.

Across both years, STEM women faculty were less likely than non-STEM women faculty to report service activities at the department level: The odds of STEM women faculty reporting service activities were 30.1% lower than the odds of non-STEM women faculty reporting service activities in 2012, Exp(B) = 0.699, Wald = 6.423, $df = 1$, $p = .011$, and they were 26.6% lower in 2013, Exp(B) = 0.734, Wald = 4.994, $df = 1$, $p = .025$. Additionally, in 2013, the odds of STEM women faculty reporting service activities were 23.2% lower than the odds of non-STEM women faculty reporting service activities across all levels, Exp(B) = 0.768, Wald = 6.533, $df = 1$, $p = .010$.

Table 4. Summary of log-linear regression analyses by level of service activities, 2012.

	Department		College		University		Other unit		Mentoring		Across all levels	
	Odds ratio	*SE*	Odds ratio	*SE*	Odds ratio	*SE*	Odds ratio	*SE*	Odds ratio	*SE*	Odds ratio	*SE*
Women	1.226**	0.05	1.042	0.08	1.725***	0.08	1.298	0.22	1.370	0.21	1.266***	0.03
Faculty of color	0.976	0.05	1.103	0.08	0.775**	0.09	1.617*	0.21	0.952	0.23	0.962	0.04
Full professor	1.164*	0.07	1.265*	0.12	2.137***	0.15	1.847	0.32	4.277**	0.44	1.294***	0.05
Associate	1.200**	0.06	1.341*	0.11	2.064***	0.15	1.344	0.33	3.004*	0.44	1.330***	0.05
STEM	1.037	0.07	0.709**	0.12	1.021	0.13	2.167**	0.28	1.554	0.28	0.967	0.05
CMG 3	1.075	0.10	0.977	0.18	0.814	0.21	1.447	0.55	3.536**	0.46	1.019	0.08
CMG 2	1.064	0.07	0.973	0.13	0.986	0.13	2.084**	0.28	3.299***	0.31	1.096	0.05
Constant	1.773	0.10	0.701	0.18	0.294	0.21	0.023	0.48	0.010	0.57	2.813	0.08

Referent groups: assistant professors and critical mass group (CMG) 1.

*$p < .05$. **$p < .01$. ***$p < .001$.

Note. National Science Foundation ADVANCE criteria defined science, technology, engineering, and mathematics (STEM) as fields of study funded by NSF. This included three STEM colleges (the College of Computer, Mathematical, and Natural Sciences, the School of Engineering, and the College of Information Studies) and the additional departments: Agricultural & Resource Economics, Animal & Avian Sciences, Nutrition & Food Science, Environmental Science & Technology, Linguistics, Kinesiology, and Plant Science & Landscape Architecture.

Table 5. Summary of log-linear regression analyses, by level of service activities, 2013.

	Department		College		University		Other unit		Mentoring		Across all levels	
	Odds ratio	*SE*	Odds ratio	*SE*	Odds ratio	*SE*	Odds ratio	*SE*	Odds ratio	*SE*	Odds ratio	*SE*
Women	1.266***	0.05	1.126	0.17	1.401***	0.08	0.791	0.20	1.304	0.20	1.266***	0.03
Faculty of color	0.920	0.05	1.055	0.07	0.674***	0.09	1.605**	0.18	1.232	0.20	0.915*	0.04
Full professor	0.978	0.06	1.284*	0.08	1.901***	0.14	0.890	0.23	9.904***	0.59	1.134**	0.05
Associate	0.986	0.06	1.341**	0.11	1.651***	0.14	0.577*	0.25	7.930**	0.59	1.130*	0.05
STEM	1.058	0.07	0.813	0.11	1.218	0.12	1.083	0.27	1.387	0.27	1.001	0.05
CMG 3	1.315**	0.10	1.048	0.12	1.344	0.18	1.478	0.42	2.509*	0.42	1.225**	0.08
CMG 2	1.049	0.07	1.099	0.18	1.166	0.12	1.191	0.27	2.136**	0.28	1.135*	0.05
Constant	1.926	0.10	0.627	0.12	0.332	0.19	0.135	0.38	0.007	0.69	3.171	0.07

Referent groups: assistant professors and critical mass group (CMG) 1.

Note. STEM = science, technology, engineering, and mathematics.

* $p < .05$. ** $p < .01$. *** $p < .001$.

However, STEM men faculty service performance showed a reverse pattern. Across the 2 years, STEM men faculty were more likely than non-STEM men faculty to report service activities at the department level: The odds of STEM men faculty reporting a service activity were 23.4% higher than the odds of non-STEM men faculty reporting a service activity in 2012, Exp (B) = 1.234, Wald = 6.970, df = 1, p = .008, and they were 25.6% higher in 2013, Exp(B) = 1.256, Wald = 7.767, df = 1, p = .005.

STEM faculty overall reported less service activity than did non-STEM faculty at the college level and more at the other unit level in 2012. There were no differences revealed between STEM and non-STEM faculty in 2013. To ensure that department size was not shaping STEM versus non-STEM gender differences, we included department size into the log-linear regression analysis and compared STEM and non-STEM departments in three categories: low (< 10 faculty members), medium (10–30 faculty members), and high (> 30 faculty members) department sizes. STEM departments were found to be generally larger than non-STEM departments. However, the analysis of interaction between STEM affiliation and department size did not reveal substantial differences in service between STEM and non-STEM departments; in other words, STEM versus non-STEM was shaping faculty campus service independent of department size.

Gender and critical mass differences

Log-linear regression showed significant gender differences in critical mass groupings. We had three groups: Group 1 with 1% to 24% women, Group 2 with 25% to 49% women, and Group 3 with 50% to 74% women. In 2012, women faculty in Group 2 were more likely than men faculty to report a higher number of service activities at the department level, Exp (B) = 1.312, Wald = 5.107, df = 1, p < .001, and across all levels, Exp (B) = 1.360, Wald = 51.461, df = 1, p < .001. Additionally, in 2012 in Group 1, the odds of reporting a service activity at the university level for women faculty were 91.5% higher than the odds for men faculty reporting a service activity, Exp(B) = 1.915, Wald = 10.143, df = 1, p < .001. Interestingly, men faculty in the fields with greater representation of women faculty were more likely to engage in service activity than were men faculty in units with a smaller percentage of women faculty. In 2012, men faculty in Group 3 were more likely than men faculty in Group 1 to report a service activity at the department level, Exp(B) = 1.394, Wald = 5.107, df = 1, p < .024, and across all levels, Exp(B) = 1.301, Wald = 5.621, df = 1, p = .018. Yet the opposite was not true for women faculty. That is, women faculty in fields with greater representation of women faculty were not more likely to engage in service than women faculty in units with a small percentage of women faculty.

Gender and rank differences

Log-linear regression showed that in both years, rank was a significant predictor of the number of service activities at the college, university, and mentoring levels and across all levels, while controlling for other variables in the model (Tables 4 and 5). Both full and associate professors were more likely than assistant professors to report a higher number of service activities at these levels. Additionally, in 2012, full and associate professors were more likely than assistant professors to report a higher number of service activities at the department level. The analysis also revealed significant interactions between rank and gender. In both years, women full professors were more likely than women assistant professors to report service at the university and other unit levels and across all levels. The odds for women full professors to report service at the university level were 4.53 times higher than the odds for women assistant professors to report service at the university level in 2012, Exp(B) = 4.530, Wald = 41.501, $df = 1$, $p < .001$, and the odds were 2.83 times higher in 2013, Exp(B) = 2.835, Wald = 27.232, $df = 1$, $p < .001$. The odds for women full professors to report service at the other unit level were 4.25 times higher than the odds for women assistant professors in 2012, Exp(B) = 4.253, Wald = 4.870, $df = 1$, $p = .027$, and the odds were 3.01 times higher in 2013, Exp(B) = 3.013, Wald = 5.274, $df = 1$, $p = .022$. Women full professors were 52.1% more likely than women assistant professors to report service activities across all levels in 2012, Exp(B) = 1.521, Wald = 28.110, $df = 1$, $p < .001$, and they were 26.2% more likely in 2013, Exp(B) = 1.262, Wald = 10.115, $df = 1$, $p = .001$.

Additionally, in 2012, women associate professors were more likely than women assistant professors to report service at the university and other unit levels and across all levels. The odds of reporting service at the university level for women associate professors were 2.52 times higher than the odds for women assistant professors, Exp(B) = 2.522, Wald = 15.211, $df = 1$, $p < .001$; women associate professors were also 3.98 times more likely to report service at the other unit level, Exp(B) = 3.984, Wald = 4.718, $df = 1$, $p = .030$; and women associate professors were 38.2% more likely to report service across all levels, Exp(B) = 1.382, Wald = 18.233, $df = 1$, $p < .001$.

In both years, women full professors were more likely than men full professors to report service activities at the university level and across all levels. At the university level, the odds for women full professors to report service increased by a multiplicative factor of 2.95 compared with the odds of men full professors in 2012, Exp(B) = 2.953, Wald = 88.282, $df = 1$, $p < .001$, and the odds increased by a factor of 2.34 in 2013, Exp(B) = 2.339, Wald = 58.991, $df = 1$, $p < .001$. Across all levels, the odds for women full professors were 40.6% higher than the odds for men full professors in 2012, Exp(B) = 1.406, Wald = 41.395 $df = 1$, $p < .001$, and they were 47.2% higher

in 2013, Exp(B) = 1.472, Wald = 55.705, df = 1, p < .001. Women full professors were also more likely than men full professors to report service activities in 2013 at the mentoring level, Exp(B) = 1.694, Wald = 4.004, df = 1, p = .045.

Finally, in 2012, the odds for women associate professors to report service activities at the other unit level increased by a multiplicative factor of 2.73 compared with the odds for men associate professors, Exp(B) = 2.734, Wald = 8.016, df = 1, p = .005. However, in 2013, women assistant professors were less likely than men assistant professors to report service at the other unit level, Exp(B) = 0.248, Wald = 9.066, df = 1, p = .003.

Limitations

Despite the strengths of annual faculty reports as a data source, there were limitations to our study. First, we chose not to include an analysis of results by race in this article. We recognize that the intersectional nature of faculty identities (e.g., a woman who is an assistant professor of color in STEM) is critical to understanding campus service (Griffin et al., 2011; Stewart & McDermott, 2004; Turner, 2002). However, there was not sufficient space to carefully interpret race and gender intersections alongside our other foci. Although we reported demographics and controlled for race in our analysis, we decided to present our campus service findings by race and ethnicity in subsequent work where fuller discussion is possible. Second, our data source did not allow for us to go back to participants to understand their time commitment to various service activities or to find out the origins of each campus service activity (e.g., whether faculty were asked or volunteered). Third, our data source very likely missed much additional "hidden service" that faculty complete that they are not encouraged to report in annual faculty reports such as informal as opposed to formal mentoring or extra department "housework" not captured in annual reporting. Fourth, this data source does not capture the quality of faculty members' service work; some may have performed outstanding service while others did very little. Fifth, we categorized campus service into levels of service (e.g., department, college, university, other unit, mentoring) to understand the degree to which women faculty might be engaged in service that provided career benefits. However, we could have instead examined campus service by type of work (e.g., admissions, curriculum development, faculty evaluation). Subsequent work on our part will explore the gendered nature of campus service content. Despite these limitations, faculty activity reports are arguably the most comprehensive picture we can gain of faculty campus service activities short of time-diary studies and direct observations, which typically have smaller sample sizes.

Discussion and implications

In considering the contexts and backdrops against which faculty campus service might be examined, gender clearly shaped the experience of campus service at LGU. In both years, women faculty reported more total campus service than men faculty while controlling for race, rank, STEM, and critical mass of women in college. Women faculty also reported higher numbers of service activities at the department and university levels and across all levels. Women full professors were doing more than men full professors at the university and all levels; the findings were similar for associate professors. Thus, our findings with this data source are consistent with the general literature, which has shown women faculty spend more time on campus service in research and doctoral universities than do men faculty (Acker & Armenti, 2004; Acker & Feuerverger, 1996; Clark & Corcoran, 1986; Link et al., 2008; Misra et al., 2011; Park, 1996).

Gender representation and how it shapes work behavior complicate the issue. Our findings, in part, are consistent with previous studies of critical mass that have shown that women faculty in fields dominated by men tend to have workloads more like their male peers (Carrigan et al., 2011; Xu, 2012). For example, in both years, STEM women faculty reported fewer service activities than did non-STEM women faculty at the department level and across all levels in 2013. Yet, at the university level, women faculty from fields dominated by men were more likely to be engaged in service. The intersection of gender and critical mass thus shaped service involvement, but it shaped it differently at different levels of service.

Our findings related to rank were consistent with previous research and suggest protection of assistant professors but a heavy service workload for women associate professors (Misra et al., 2011; Modern Language Association, 2009; Neumann & Terosky, 2007). Women associate professors also had longer times to advancement than did men associate professors at LGU. Although a number of factors were likely to influence longer time to advancement, previous research suggests campus service is a contributing factor (Misra et al., 2011; Terosky, O'Meara, & Campbell, 2014).

One other finding is more difficult to interpret. We found few gender differences in college-level campus service. From the perspective of career advancement and women faculty being visible as the "other", this was good news. On the other hand, because many college service positions are elected, campus service could facilitate some degree of career advancement, making women faculty more visible as leaders. Further research is needed to understand the differences between college-level and department- and university-level service in how service is assigned, taken up by faculty who volunteer, and rewarded.

Returning to our theoretical framework, Kanter (1977) and Lewis and Simpson (2010, 2012) provided insight into the constrained choices women faculty face with regard to campus service. Women faculty's greater participation in campus service can be read as "role entrapment" (Kanter, 1977) as campus service is the least recognized faculty work in research universities (Bird et al., 2004; Britton, 2000; Fairweather, 1996), is widely considered unskilled (Hart, 2016), and is not prioritized by the ideal worker in a research university (Britton, 2000). Research has shown women faculty are expected to be engaged in campus service via gender stereotypes (Hart, 2016), are asked more often (Mitchell & Hesli, 2013), and may receive backlash if they do not conform to expectations (Rudman & Phelan, 2008), thereby creating a constrained choice. Lewis and Simpson (2012), however, reminded us that women faculty have choices, though constrained. For example, women faculty may engage in revelation and resistance, meaning they may choose to engage in campus service to challenge normative practices of work priorities in research universities in spite of possible negative career consequences and even retribution (Lewis & Simpson, 2012). Lewis and Simpson (2012) suggested that sometimes actors make choices to emphasize activities that go counter to dominant norms to challenge the status quo and reveal privileges of men. Some of the LGU women faculty members' campus service activities were likely related to commitments women faculty held to specific issues and groups (Antonio, 2002; Baez, 2000; Griffin et al., 2011; Neumann & Terosky, 2007; Park, 1996; Umbach, 2006). In some cases, the difference in campus service participation may thus represent conscious choices women faculty made to prioritize work activities they valued and wanted to see recognized within their institution. This finding is similar to findings that women faculty spend more time on teaching preparation and use high-impact practices at greater rates than do peer men faculty (Eagan & Garvey, 2015), despite research being valued more than teaching in reward systems (O'Meara, 2011).

Women faculty's choices related to campus service could also be influenced by a desire to be invisible, as typical in withdrawal (Lewis & Simpson, 2012). The fact that we found women faculty more engaged in campus service in departments with a critical mass of women and that STEM women faculty's campus service looked more like STEM men than non-STEM women is evidence of a tendency or desire on the part of women faculty to assimilate, blend in, and otherwise incorporate into local norms.

Finally, women faculty could also agree to engage in more campus service than colleagues to show leadership and advance in their career—in other words, to use the added exposure to their benefit (Lewis & Simpson, 2012). However, most campus service (see Table 2 for kinds of service activities) is not likely to meet the characteristics of a "route to power" (Kanter, 1977). Only a small percent of campus service activities would be considered work

that is extraordinary (as opposed to routine), allows for individual discretion, provides visibility outside of one's unit in roles widely considered to be important across constituencies, and offers the chance to demonstrate leadership (Clark & Corcoran, 1986; Glazer-Raymo, 2008; Hart, 2016).

Campus service participation can, nevertheless, support women faculty's career advancement when faculty use campus service to gain access to "system knowledge," which may otherwise be unavailable to them, such as enhanced access to budget information, names and faces of senior leaders, operating data, potential mentors and sponsors outside their unit, and peer allies and alliances (Bird et al., 2004; Kanter, 1977; O'Meara, 2016). Men faculty may feel less of a need to engage in campus service to access this type of social capital as they are receiving it from other sources (O'Meara, 2016). In such cases, women faculty's engagement in more campus service can be viewed as enactment of agency to challenge the status quo, actualize priorities, and access otherwise unavailable career information and resources.

Regardless of the responses women faculty take up, it is clear they have much less control over the backdrops that shape higher levels of women faculty service. For example, women faculty cannot alone change the norms in their fields around campus service, the number of women full professors, whether their department has a critical mass of women, the likelihood that they will be asked more often to serve on committees, or the perception that they will or should say yes. Women faculty may work to shape some of these things, but rarely can they prevent them from being a backdrop to their own organizational experiences (Bird et al., 2004; Pyke, 2014). Kanter's (1977) work on token women in organizations and Xu's (2008) work on STEM work environments with a low critical mass of women faculty underscore, as our findings did, that these backdrops are complex and vary based on intersections of contexts (e.g., engineering, woman, associate professor). In all cases, women faculty make choices, but they are constrained choices.

Our findings raise implications for amending organizing practices that maintain inequity between men and women faculty in the amount and kinds of faculty campus service. Longitudinal studies of occupational segregation have shown changes in the representation of women faculty in universities are moving at a glacial speed because of faculty age, attrition of women faculty, and the lack of availability of new positions (Marschke, Laursen, Nielsen, & Dunn-Rankin, 2007). Moreover, there are limitations to the thinking that gendered divisions of labor will change automatically once more women faculty assume full professor roles. We found evidence of gender differences in campus service contributions even within full professor ranks, with the differences actually increasing from associate to full professor rank. Consequently, we see gendered divisions of labor with regard to campus service as more than a problem of rank and representation and believe that policy solutions need to attack the organizing practices

reproducing these gender differences now, rather than waiting for women faculty to reach equal representation in research universities.

Four changes to organizing practices hold promise, each aimed at reshaping the kinds of constrained choices and opportunities women faculty face with regard to campus service. Lewis and Simpson (2010, 2012) observed that privilege is sustained by keeping differential contributions invisible, concealed, and unproblematized. To make inequities visible, departments, colleges, and universities might consider creating public "service dashboards" to track and assess gender differences in the amount of service, kinds of service, or related faculty activities for accountability and equity (Kwok, 2015; O'Meara, 2016). Faculty doing more than their fair share cannot be rewarded, recognized, or provided with additional support if campus service is not accurately recorded, benchmarked against others' performances, and agreed by consensus to be worthy of acknowledgement (O'Meara, 2016). Women faculty may still be asked more often and may choose to do more campus service than men faculty, but they would make that choice with more information and could use that information to ask for greater reward, credit, or recognition.

Second, campuses could reevaluate policies regarding requirements of committee membership. Both Kanter (1977) and Lewis and Simpson (2012) observed that power is preserved by dominant groups through taken-for-granted assumptions and practices that give the dominant group advantage. An example is requiring diversity on committees, which means women faculty and faculty of color will be asked more often to serve. Diversity requirements should be used rarely and strategically (e.g., for search committees where research has shown that the representation of women faculty or faculty of color matters to the outcome of who is hired; Zinovyeva & Bagues, 2010) and need to be combined with policies that offset the additional service request of women faculty and faculty of color by taking other responsibilities off of their plate. Another example is assuming only full professors should serve on influential, powerful campuswide committees when there are fewer women full professors. Rank restrictions for higher-level committees that provide visibility and power could be revised to only require full professor ranks when absolutely needed (e.g., campuswide promotion and tenure committees), while membership of most campuswide committees (e.g., research council, budget committee) could be offered to assistant and associate professors interested in such positions. This shift would, of course, only be advisable if women faculty traded lower-level service for higher-level service that can benefit their careers.

Third, adjustments should be made in local reward system practices to give more weight to campus service (Bird et al., 2004; Hart, 2016; O'Meara, 2016; Park, 1996; Pyke, 2014). Campus service addresses important needs of the institutions; thus, faculty should be recognized for their contributions.

While women faculty may choose to engage in some campus service because they see service as a "route to power" (Kanter, 1977), faculty who engage in more service may have less time to achieve the research productivity assumed to be critical for legitimacy and success in research universities. Reconsideration of the priorities of the tenure and promotion system overall is warranted (Britton, 2000; Fairweather, 1996), but academic departments could start supporting women faculty by reforming merit pay to reflect greater credit for campus service.

Fourth, because organizational change takes time, it is important to provide support to individuals navigating gendered divisions of labor. National Science Foundation (NSF)-funded ADVANCE programs found that workshops that raise awareness of bias in service requests (especially for deans and department chairs) and provide peer support for saying "yes" and "no" strategically are influential in women faculty's advancement (Bird, 2011). Absent changes in structural and cultural organizing practices and policies, such workshops can send the message that women faculty are to blame for their higher service workload (Pyke, 2014). However, when put in place alongside structural and cultural changes, such individual professional development can ready women faculty with strategies to use when gender stereotypes dictate a higher number of requests (O'Meara, 2016; Stepnick & De Welde, 2014).

In terms of areas for new research, our primary recommendations relate to adding new comprehensive and objective data sources to study the issue of gendered faculty workloads. We advocate that state public higher education systems that have state-mandated annual reporting mechanisms consider analyzing their faculty data for gender differences and making results public to create accountability for change. We also think historical content analysis of faculty curriculum vita for differences in key campus service roles (such as undergraduate program director and graduate program director, as was studied in Misra et al., 2011), would improve understanding of the cost and effects of gender differences in campus service on such outcomes as faculty retention and time to advancement. Finally, the presence of women and men faculty in routine campus service roles versus more visible or coveted positions could be assessed for gender differences. Using these new data sources could deepen our understanding of the constrained choices women faculty face as they are asked or volunteer to participate in campus service and consider the backdrops against which such decisions are made.

Note

1. To be consistent with our conceptual framework, which focuses on gender, we used the terms women and men when analyzing and discussing our data. The data, however, did not allow faculty to directly identify gender but asked only for biological sex: male or female.

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Author Manuscript
Sex Roles. Author manuscript; available in PMC 2008 October 23.

Published in final edited form as:
Sex Roles. 2007 ; 57(7-8): 509–514. doi:10.1007/s11199-007-9291-4.

A Linguistic Comparison of Letters of Recommendation for Male and Female Chemistry and Biochemistry Job Applicants

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Abstract

Letters of recommendation are central to the hiring process. However, gender stereotypes could bias how recommenders describe female compared to male applicants. In the current study, text analysis software was used to examine 886 letters of recommendation written on behalf of 235 male and 42 female applicants for either a chemistry or biochemistry faculty position at a large U.S. research university. Results revealed more similarities than differences in letters written for male and female candidates. However, recommenders used significantly more standout adjectives to describe male as compared to female candidates. Letters containing more standout words also included more ability words and fewer grindstone words. Research is needed to explore how differences in language use affect perceivers' evaluations of female candidates.

Keywords

Gender schemas; Sexism; Implicit biases; Hiring decisions; Chemistry

Introduction

Despite continuing efforts to increase the involvement of women in physical science, math, and engineering, men continue to make up an overwhelming majority of the faculty in these programs. For example, in chemistry departments across the U.S., women comprise only 12% of the faculty overall and only 7.6% of full professors are women (Nelson 2005). Although this discrepancy might partly reflect a gender imbalance in who applies for faculty positions, data suggest that there should be many qualified women who earn their Ph.D.s in these disciplines. For example, between the years of 1993 and 2002, women received 31% of the Ph.D.s awarded in chemistry (Nelson 2005). Although there are likely to be many factors that contribute to the under-representation of women in the natural sciences, there has been a growing interest in recent years in the role of unconscious processes that could bias perception against women trying to succeed in domains that have been traditionally dominated by men (Heilman 1995; Vallian 1998).

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The present research follows in this vein by investigating, in an actual job hiring context, whether there are differences in how recommenders describe male and female applicants for faculty positions in chemistry and biochemistry at a large research university in the United States. In the present study, job candidates' actual recommendation letters were transcribed and analyzed using text analysis software to compare language content such as usage of teaching and research related words, ability and grindstone adjectives, and standout adjectives. Understanding the blatant or subtle discrepancies in how recommenders describe male and female job candidates will allow search committees to conduct fairer and more successful searches for the most qualified candidate.

When search committees review job applications, recommendation letters are a critical part of the review process. Many applicants may look similar on objective criteria such as their number of publications, fellowships, and presentations. They are better distinguished in the review process by their statements of research interests and teaching philosophy. However, in addition to the information provided by the applicants, recommendation letters provide a unique way for search committee members to get a better sense of the candidate as a scholar and colleague. Such letters call for subjective judgments of a candidate by those who have had the best opportunity to evaluate that candidate's work, personality, and potential for career success. However, research from social psychology suggests that even well-intentioned individuals can employ unconscious biases when evaluating those who are members of negatively stereotyped groups. Numerous studies have revealed that even when individuals are motivated to behave in egalitarian ways, they may still show bias at an implicit or unconscious level (Greenwald and Banaji 1995). These implicit biases, which might reflect years of exposure to cultural messages and could have little relation to one's consciously held attitudes and beliefs, tend to be elicited automatically and can manifest themselves in nonverbal behaviors, social judgments, and behavioral choices (Poehlman et al. 2007).

Furthermore, past research has shown that such biases can influence how job applicants are perceived (Heilman et al. 1988). For example, Biernat and Eidelman (2007) recently demonstrated that when people evaluate letters that use equivalent language to describe male and female students in a masculine domain, they translate those letters into less favorable judgments of qualifications when the applicant was female compared to male. Other research has similarly shown that unconsciously held gender stereotypes can systematically bias the judgments of male and female managers as well as applicants (Heilman 2001; Rudman and Glick 1999, 2001). Taken together, this research suggests that implicit gender biases can affect how applications are evaluated. The question that concerns us is whether these biases can also be reflected in the wording used by recommenders when they describe male and female job candidates.

In addition, most of the prior social psychological research examining the role of implicit biases on applicant evaluation has adopted a laboratory methodology that allows for control over potentially confounding factors. Results from these studies tell us that such biases *can* exist and affect evaluations of job candidates, but they do not demonstrate the degree to which these biases *do* exist in real world hiring contexts. For example, although research summarized above suggests that implicit gender biases lead to differences in how letter writers describe unknown female job applicants as compared to male job applicants, other research suggests that such stereotypes are less likely to bias judgment once individuals begin interacting with one another (Kunda et al. 2002; Neuberg and Fiske 1987). Since those writing letters for job candidates have had greater opportunity to get to know the candidate as an individual, their summary evaluations might not contain strong evidence of gender bias. In any case, it becomes important to answer this question outside of a laboratory setting, where the letters being written have real world consequences. Thus, the present research focused on actual letters of recommendation written for male and female candidates applying for a faculty position.

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There has been at least one previous study of gender biases in actual letters of recommendation written for male and female job candidates for faculty positions. Trix and Psenka (2003) examined a naturalistic set of recommendation letters for 62 female and 222 male applicants who had been hired at an American medical school over a 3 year period. Their analysis revealed that a higher percentage of recommendation letters written for women tended to be very short (fewer than 10 lines), and a higher percentage of letters written for men tended to be very long (over 50 lines). Trix and Psenka also discovered that 15% of letters written for female applicants (as compared to 6% for male candidates) could be termed letters of minimal assurance, in which the letters lacked a stated commitment to the applicant, detailed comments, or any evaluation of the applicants' traits or accomplishments.

In addition, Trix and Psenka also included a qualitative comparison of the content of letters written for male and female candidates. They observed that more letters written for females as compared to males included language related to gender (10 vs 5%), doubt (24 vs 12%), and what the authors called "grindstone adjectives" (e.g., hardworking; 34 vs 23%). There was also some suggestion that letters for male applicants included more reference to "his research," "his ability", or "his career," whereas letters for female applicants included more reference to "her teaching," or "her training." The researchers concluded that recommenders seemed to emphasize women's strong work ethic and portray them in terms of their training and teaching, whereas the focus in men's recommendations included greater confidence in their research and ability.

Although the findings of Trix and Psenka (2003) are provocative, one limitation of this study is that most of their comparisons were not statistically analyzed to provide information on the reliability of these differences. In the present study, we used text analysis software to compare letters written for male and female applicants for tenure track faculty positions in chemistry and biochemistry at a large Research I University. From the standard software coding scheme, seven categories were identified as having potential for revealing evidence of gender bias and allowed us to test the following hypotheses:

> Hypothesis 1: Recommendation letters written for female as compared to male applicants would be shorter in length.
>
> Hypothesis 2: Recommendation letters written for female as compared to male applicants would contain more negative and less positive language.
>
> Hypothesis 3: Recommendation letters written for female as compared to male applicants would contain more tentative language and less certainty language.
>
> Hypothesis 4: Recommendation letters written for female as compared to male applicants would make fewer references to achievement and more references to communication skills.

In addition, we created five user-defined categories to test the following hypotheses suggested by Trix and Psenka's (2003) data:

> Hypothesis 5: Recommendation letters written for female as compared to male applicants would contain fewer standout adjectives.
>
> Hypothesis 6: Recommendation letters written for female as compared to male applicants would contain fewer research-related words and more teaching-related words.
>
> Hypothesis 7: Recommendation letters written for female as compared to male applicants would contain fewer ability-related words and more grindstone-related words.

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Method

We obtained access to the complete set of recommendation letters written on behalf of job applicants for a tenure track faculty position in either chemistry (164 males, 21 females) or biochemistry (71 males, 21 females) at a large research university. The letters were transcribed and then analyzed using Linguistic Inquiry Word Count (LIWC—Pennebaker et al. 2001). LIWC software has been widely used and extensively validated as a word-count based text analysis program (Mehl 2005). It operates by comparing all words of a given text to either an existing dictionary of word categories or to user-defined dictionary categories, counting the number of words from that dictionary that appear, and then dividing this number by the total number of words used in the letter. Of the 74 word categories in the LIWC2001 default dictionary, the following categories were of particular interest: achievement words (e.g., goal), communication words (e.g., talk), positive emotions (e.g., happy), negative emotions (e.g., worthless), tentative words (e.g., perhaps), and certainty words (e.g., always). In addition, based on research by Trix and Psenka (2003), we created five language categories including grindstone traits, ability traits, standout adjectives, research terms, and teaching terms. The complete list of words and word stems used is provided in the appendix. We also gathered information pertaining to the qualifications of the applicants including the number of publications, presentations, fellowships, and post-doctoral positions.

Results

Candidates had an average of 3.19 letters of recommendation (range=1 to 8). After conducting the word counts for each category on individual letters, we averaged these counts within language-use dimension and across letter writers to create aggregate variables for each candidate. We then conducted applicant sex × department ANOVA's on each of the language-use dimensions. There were too few letters written by female recommenders to allow for an analysis by recommender sex.

Candidate Qualification

Table 1 reports average level of qualifications by applicant sex and department. Importantly, analyses of qualification variables revealed that there were no significant differences between male and female candidates in number of publications, presentations, fellowships, years in Ph.D., or post-doctoral positions, all *p's*>.05. There were, however, departmental differences in these qualification variables. Candidates applying for a faculty position in chemistry had more publications (*M*=25.20) than those applying for a position in biochemistry (*M*=15.82), *p*<.05. Biochemistry applicants had a greater number of postdoctoral positions (*M*=1.42), longer postdoctoral positions (*M*=4.59), and had received a larger number of fellowships (*M*=1.30), as compared to the chemistry applicants, all *p*'s<.05. No interactions between applicant sex and department were observed, all *p*'s>.05.

LIWC Default Dimensions

We next analyzed the LIWC generated language-use dimensions using a series of applicant sex × department ANOVAs (See Table 2). Female candidates (*M*=3.38) tended to have somewhat more recommendation letters than male candidates *(M*=3.16), *F*(1, 273) = 2.93, *p*=.08. However, in contrast to Hypotheses 1, 2, 3, and part of 4, no significant gender differences emerged for any of the following LIWC generated language-use dimensions: length of letters, negative feeling words, positive feeling words, tentative words, certainty words, or achievement words, *p*'s>.05. Providing partial support for Hypothesis 4, letters for female candidates (*M*=1.13) included marginally more words related to communication than did letters for male candidates (*M*=.98), *F*(1, 273) = 3.06, *p*=.08. In addition, there were significant department differences for communication words, *F*(1, 273)=5.84, *p*=.02; negative feeling

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words, $F(1, 273)=5.07$, $p=.02$; and positive feeling words, $F(1, 273)=4.10$, $p=.04$. Letters for biochemistry candidates included more communication words ($M=1.12$), more negative feeling words ($M=.41$) and fewer positive feeling words ($M=.28$) as compared to letters for chemistry candidates ($M=.95$, $M=.31$, $M=.34$, respectively). No department effects emerged for length of letters, achievement words, tentative words, or certainty words and no interaction effects were significant, p's>.05.

We next conducted a series of sex × department ANOVAs to analyze the language-use dimensions that were created to address the specific goals of this research. In line with Hypothesis 5, results revealed a significant gender difference in how many standout adjectives (e.g. outstanding, unique, and exceptional) the recommender used to describe the candidate, $F(1, 278)=3.95$, $p=.05$. Consistent with the notion that implicit biases can influence how letter writers describe female candidates, recommenders described male candidates ($M=.70$) with significantly more standout adjectives compared to female candidates ($M=.60$). To address the possibility that this difference could be accounted for by differences in the qualifications of male and female candidates, we conducted an ANCOVA that included number of publications, presentations, fellowships, postdoctoral positions, and number letters of recommendation as covariates. Even after removing variance in standout language due to any and all of these variables, the gender difference remained significant, $p=.04$. There were no differences between departments in how many standout adjectives candidates' letters included.

Contrary to Hypotheses 6 and 7, there were no significant gender differences in the number of grindstone traits (e.g. hardworking, conscientious), ability traits (e.g. talented, smart), research terms (e.g. manuscript, theory), or teaching terms (e.g. adviser, colleague) used to describe candidates, p's>.05. There was however, a significant main effect of department on the number of teaching terms used to describe the candidates, $F(1, 278) = 4.38$, $p<.05$. Letters written to describe chemistry candidates ($M=1.31$) included more language about teaching as compared to letters written to describe biochemistry candidates ($M=1.00$). No other department effects or interactions emerged on the language-use dimensions described above.

Supplementary analyses were conducted to further understand the significance of the finding that male candidates were more likely to be described with standout adjectives. These analyses explored the possible covariation of using standout words to describe an applicant and focusing on ability and research skill when describing that candidate. They revealed both a significant positive correlation between using standout words and ability words, $r=.14$, $p<.05$, and a significant negative correlation between using standout words and grindstone words, $r=-.17$, $p<.01$ (regardless of the gender of the applicant). In other words, recommenders who use superlatives to describe candidates were also more likely to focus on a candidate as having intrinsic ability as opposed to being a conscientious and hard worker. Thus, even though men were not more likely to be described in terms of their inherent abilities in general, the covariation of this language with standout words might suggest that men were more likely to be described as having a superlative amount of natural ability.

Discussion

Overall, the results of the current study revealed more similarity in the letters written for male and female job candidates than differences. Male and female candidates had similar levels of qualifications and this was reflected in their letters of recommendation. Letters written for women included language that was just as positive and placed equivalent emphasis on ability, achievement, and research. Thus, in contrast to the findings of Trix and Psenka (2003), letters for female candidates to jobs in chemistry and biochemistry did not contain significantly more tentative language and did not overemphasize teaching and hard work over research and ability.

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However, it is notable that recommenders used significantly more standout adjectives to describe male candidates as compared to female candidates, even though objective criteria showed no gender differences in qualifications. It is likely that evaluators place higher weight on letters that describe a candidate as the *most* gifted, *best* qualified, or a rising *star*. This could mean that even a small difference in the proportion of standout adjectives used in describing female candidates could translate into much larger evaluative effects. Interestingly, the data also revealed that letters that contained more standout words also included more ability related terms and fewer grindstone words. Even though no sex differences were found in these latter categories, the use of standout adjectives in combination with ability language could also have the effect of amplifying the weight that search committees place on ability when evaluating a given application. More research is needed to understand how these seemingly small differences in language use affect the overall evaluations made by social perceivers.

Along those same lines, it is important to take into account research showing that applicants with similar objective skills and qualifications can still be perceived differently by those reviewing their applications (Biernat and Eidelman 2007). In other words, when judging equivalent letters for a male and female candidate, a perceiver who is making a judgment based on minimal information could still experience the influence of unconscious gender biases that could lead them to evaluate the male candidate more positively. This same bias might be somewhat less likely to reveal itself in letters of recommendation given that the effects of stereotypes on evaluations tend to be muted with further interpersonal contact (Kunda et al. 2002). In other words, just because there were relatively few gender differences in the letters of recommendations analyzed in this study, we cannot infer that gender stereotypes do not still play a role in how applicants are evaluated as part of the search process.

The present study reveals that even as individuals continue to work towards egalitarian treatment, gender biases may still reveal themselves in subtle forms. Future research must examine the specific processes that contribute to both gender discrepancies and inequalities in science-related disciplines. However, alerting recommenders and search committees to the role of implicit biases in evaluation can allow them to begin to police their own behavior and will help to ensure fair and successful searches for the most qualified male and female candidates. In addition, ensuring a fair hiring process may eventually encourage more women to enter into male-dominated fields, helping to eliminate the under-representation of women in science.

Acknowledgements

This research was supported by National Institute of Mental Health Grant #1R01MH071749 to the first author and a University of Arizona grant from the College of Science Millennium Report Oversight Committee awarded to the third author.

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Appendix

Study-Defined Dimension Dictionaries

Standout words: excellen*, superb, outstanding, unique, exceptional, unparalleled, *est, most, wonderful, terrific*, fabulous, magnificent, remarkable, estraordinar*, amazing, supreme*, unmatched

Ability words: talent*, intell*, smart*, skill*, ability, genius, brilliant*, bright*, brain*, aptitude, gift*, capacity, propensity, innate, flair, knack, clever*, expert*, proficient*, capable, adept*, able, competent, natural*, inherent*, instinct*, adroit*, creative*, insight*, analytical

Grindstone words: hardworking, conscientious, depend*, meticulous, thorough, diligen*, dedicate, careful, reliab*, effort*, assiduous, trust*, responsib*, methodical, industrious, busy, work*, persist*, organiz*, disciplined

Teaching words: teach, instruct, educat*, train*, mentor, supervis*, adviser, counselor, syllabus, syllabus, course*, class, service, colleague, citizen, communicate*, lectur*, student*, present*, rapport

Research words: research*, data, study, studies, experiment*, scholarship, test*, result*, finding*, publication*, publish*, vita*, method*, scien*, grant*, fund*, manuscript*, project*, journal*, theor*, discover*, contribution*

Note. * indicates that any word containing the letter string that precedes or follows the asterisk should be counted.

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Table 1

Average level of candidate qualifications by gender and academic department.

Parameters	Chemistry			Biochemistry			Total	
	Men *n*=164	Women *n*=21	Total *n*=186	Men *n*=71	Women *n*=21	Total *n*=92	Men *n*=235	Women *n*=42
Publications	25.84 (20.56)	20.88 (14.98)	25.20 (19.96)	15.97 (10.24)	15.29 (9.43)	15.82 (10.01)	22.83 (18.59)	18.27 (12.88)
Presentations	12.73 (17.34)	16.46 (19.24)	13.22 (17.59)	8.13 (11.22)	13.29 (13.34)	9.30 (11.86)	11.33 (15.85)	14.98 (16.64)
Fellowships	.31 (.64)	.38 (.77)	.32 (.66)	1.25 (1.13)	1.48 (1.08)	1.30 (1.12)	.60 (.93)	.89 (1.07)
Years in Ph.D.	4.81 (1.65)	4.25 (2.03)	4.74 (1.71)	5.37 (1.65)	5.38 (1.80)	5.37 (1.67)	4.98 (1.67)	4.78 (1.99)
Postdoctoral positions	.96 (.85)	.67 (.64)	.92 (.83)	1.38 (.72)	1.57 (.75)	1.42 (.73)	1.09 (.84)	1.09 (.82)
Years in postdoctoral	1.90 (1.77)	1.46 (1.69)	1.84 (1.76)	4.37 (2.32)	5.33 (2.31)	4.59 (2.34)	2.65 (2.26)	3.27 (2.78)

Numbers reflect the means for each specific qualification. SDs are represented in parentheses below the means.

Sex Roles. Author manuscript; available in PMC 2008 October 23.

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Table 2

Content of recommendation letter as a function of gender and academic department.

Parameters	Chemistry			Biochemistry			Total	
	Men n=164	Women n=21	Total n=185	Men n=71	Women n=21	Total n=92	Men n=235	Women n=42
Number of letters	3.29 (.10)	3.81 (1.33)	3.35 (1.05)	2.86 (1.05)	2.95 (1.16)	2.28 (1.07)	3.16 (1.03)	3.38 (1.31)
Length of letters (in words)	531 (194)	596 (136)	539 (190)	611 (213)	579 (178)	604 (205)	555 (203)	588 (157)
Achievement	2.12 (.57)	2.22 (.65)	2.13 (.58)	2.05 (.61)	2.14 (.52)	2.07 (.59)	2.10 (.58)	2.18 (.58)
Communication	.94 (.40)	1.04 (.39)	.95 (.40)	1.09 (.42)	1.23 (.46)	1.12 (.43)	.98 (.41)	1.13 (.44)
Positive feelings	.34 (.18)	.33 (.16)	.34 (.18)	.27 (.14)	.29 (.19)	.28 (.15)	.32 (.17)	.31 (.17)
Negative feelings	.31 (.21)	.33 (.15)	.31 (.20)	.41 (.31)	.41 (.25)	.41 (.29)	.34 (.24)	.37 (.21)
Tentative words	.72 (.29)	.78 (.38)	.73 (.30)	.76 (.35)	.68 (.27)	.74 (.33)	.73 (.31)	.73 (.33)
Certainty words	1.08 (.39)	1.06 (.33)	1.08 (.38)	1.11 (.48)	1.07 (.39)	1.10 (.46)	1.09 (.42)	1.06 (.35)
Standout words	.70 (.30)	.57 (.28)	.68 (.30)	.71 (.36)	.63 (.26)	.69 (.34)	.70 (.32)	.60 (.27)
Ability words	.76 (.35)	.73 (.31)	.76 (.34)	.78 (.36)	.84 (.29)	.79 (.34)	.76 (.35)	.78 (.30)
Grindstone words	.43 (.25)	.48 (.34)	.44 (.26)	.39 (.21)	.39 (.19)	.39 (.20)	.42 (.24)	.44 (.28)
Teaching words	1.31 (.93)	1.29 (.71)	1.31 (.90)	.97 (.53)	1.08 (.53)	1.00 (.53)	1.21 (.84)	1.20 (.64)
Research words	2.86 (.86)	2.76 (.74)	2.84 (.85)	2.85 (.75)	2.90 (.87)	2.86 (.78)	2.85 (.83)	2.82 (.80)

Numbers reflect the mean percentage of words from the recommendation letter that fall within a given category. SDs are represented in parentheses below the means.

The Diversity–Innovation Paradox in Science

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Edited by Peter S. Bearman, Columbia University, New York, NY, and approved March 16, 2020 (received for review September 5, 2019)

Prior work finds a diversity paradox: Diversity breeds innovation, yet underrepresented groups that diversify organizations have less successful careers within them. Does the diversity paradox hold for scientists as well? We study this by utilizing a near-complete population of ∼1.2 million US doctoral recipients from 1977 to 2015 and following their careers into publishing and faculty positions. We use text analysis and machine learning to answer a series of questions: How do we detect scientific innovations? Are underrepresented groups more likely to generate scientific innovations? And are the innovations of underrepresented groups adopted and rewarded? Our analyses show that underrepresented groups produce higher rates of scientific novelty. However, their novel contributions are devalued and discounted: For example, novel contributions by gender and racial minorities are taken up by other scholars at lower rates than novel contributions by gender and racial majorities, and equally impactful contributions of gender and racial minorities are less likely to result in successful scientific careers than for majority groups. These results suggest there may be unwarranted reproduction of stratification in academic careers that discounts diversity's role in innovation and partly explains the underrepresentation of some groups in academia.

diversity | innovation | science | inequality | sociology of science

Innovation drives scientific progress. Innovation propels science into uncharted territories and expands humanity's understanding of the natural and social world. Innovation is also believed to be predictive of successful scientific careers: Innovators are science's trailblazers and discoverers, so producing innovative science may lead to successful academic careers (1). At the same time, a common hypothesis is that demographic diversity brings such innovation (2–5). Scholars from underrepresented groups have origins, concerns, and experiences that differ from groups traditionally represented, and their inclusion in academe diversifies scholarly perspectives. In fact, historically underrepresented groups often draw relations between ideas and concepts that have been traditionally missed or ignored (4–7). Given this, if demographic groups are unequally represented in academia, then one would expect underrepresented groups to generate more scientific innovation than overrepresented groups and have more successful careers (*SI Appendix*). Unfortunately, the combination of these two relationships—diversity–innovation and innovation–careers—fails to result and poses a paradox. If gender and racially underrepresented scholars are likely to innovate and innovation supposedly leads to successful academic careers, then how do we explain persistent inequalities in scientific careers between minority and majority groups (8–13)? One explanation is that the scientific innovations produced by some groups are discounted, possibly leading to differences in scientific impact and successful careers.

In this paper, we set out to identify the diversity–innovation paradox in science and explain why it arises. We provide a system-level account of science using a near-complete population of US doctorate recipients (∼1.2 million) where we identify scientific innovations (14–19) and analyze the rates at which different demographic groups relate scientific concepts in novel ways, the extent to which those novel conceptual relations get taken up by other scholars, how "distal" those linkages are (14), and the subsequent returns they have to scientific careers. Our analyses use observations spanning three decades, all scientific disciplines, and all US doctorate-awarding institutions. Through them we are able 1) to compare minority scholars' rates of scientific novelty vis-à-vis majority scholars and then ascertain whether and why their novel conceptualizations 2) are taken up by others and, in turn, 3) facilitate a successful research career.

Innovation as Novelty and Impactful Novelty in Text

Our dataset stems from ProQuest dissertations (20), which includes records of nearly all US PhD theses and their metadata from 1977 to 2015: student names, advisors, institutions, thesis titles, abstracts, disciplines, etc. These structural and semantic footprints enable us to consider students' rates of innovation at the very onset of their scholarly careers and their academic trajectory afterward, i.e., their earliest conceptual innovations and how they correspond to successful academic careers (21). We link these data with several data sources to arrive at a near-complete ecology of US PhD students and their career trajectories. Specifically, we link ProQuest dissertations to the US Census data (2000 and 2010) and Social Security Administration data (1900 to 2016) to infer demographic information on students' gender and race (i.e., name signals for white, Asian, or underrepresented minority [Hispanic, African American, or Native American]; see *Materials and Methods* and *SI Appendix*); we link ProQuest dissertations to Web of Science, a large-scale publication database with ∼38 million academic publications (1900 to 2017), to find out which students have continued research careers, and we weigh our inferential analyses by population records of the number of PhD recipients for each distinct university–year combination to render results generalizable to the population (*SI Appendix*).

Significance

By analyzing data from nearly all US PhD recipients and their dissertations across three decades, this paper finds demographically underrepresented students innovate at higher rates than majority students, but their novel contributions are discounted and less likely to earn them academic positions. The discounting of minorities' innovations may partly explain their underrepresentation in influential positions of academia.

Author contributions: B. Hofstra, V.V.K., and D.A.M. designed research; B. Hofstra, V.V.K., S.M.-N.G., B. He, D.J., and D.A.M. performed research; B. Hofstra, V.V.K., S.M.-N.G., B. He, D.J., and D.A.M. contributed new reagents/analytic tools; B. Hofstra, V.V.K., S.M.-N.G., B. He, D.J., and D.A.M. analyzed data; and B. Hofstra and D.A.M. wrote the paper.

The authors declare no competing interest.

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This article contains supporting information online at https://www.pnas.org/lookup/suppl/doi:10.1073/pnas.1915378117/-/DCSupplemental.

First published April 14, 2020.

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To measure scientific innovation, we first identify the set of scientific concepts being employed in theses. For this, we use natural language processing techniques of phrase extraction and structural topic modeling (22, 23) to identify terms representing substantive concepts in millions of documents (# concepts, mean = 56.500; median = 57; SD = 19.440; see *Materials and Methods* and *SI Appendix*, Table S1) (24). Next, we filter and identify when pairs of meaningful concepts are first related to one another in a thesis. By summing the number of novel conceptual co-occurrences within each thesis, we develop a measure of how conceptually novel a thesis and author are (# new links)—their novelty. However, not all novel conceptual linkages are taken up in ensuing works and have the same impact on scholarship. To capture impactful novelty, we measure how often a thesis's new conceptual linkages are adopted in ensuing documents of each year (uptake per new link) (Fig. 1).

Our broad perspective on innovation mirrors key theoretical perspectives on scientific innovation, where "science is the constellation of facts, theories, and methods collected in current texts" (28). Scientific development is then the process where concepts are added to the ever-growing "constellation"—i.e., our accumulating corpus of texts—in new combinations: The introduction of new links between scientific concepts (14, 15, 28–30). As such, our conception of novelty as the number of unique recombinations of scientific concepts (# new links, mean = 9.026; median = 4; SD = 13.744; 20.9% of students do not introduce links) and impactful novelty as the average future adoption of these unique recombinations (uptake per new link, mean = 0.790; median = 0.333; SD = 3.079) reflects different notions of scientific innovation. Novelty in itself does not automatically imply innovation, nor is the future adoption of novelty a prerequisite to innovation—for example, which novelty gets adopted may be in itself a function of structural processes. The advantage of our focus on conceptual recombination compared to citation metrics for innovation is that it is insensitive to 1) prioritizing some academic disciplines over others with regard to journal indexing and 2) the plethora of reasons as to why scholars cite other work (31, 32).

Results

Who introduces novelty and whose novelty is impactful? We first model individual rates of novelty (# new links) and impactful

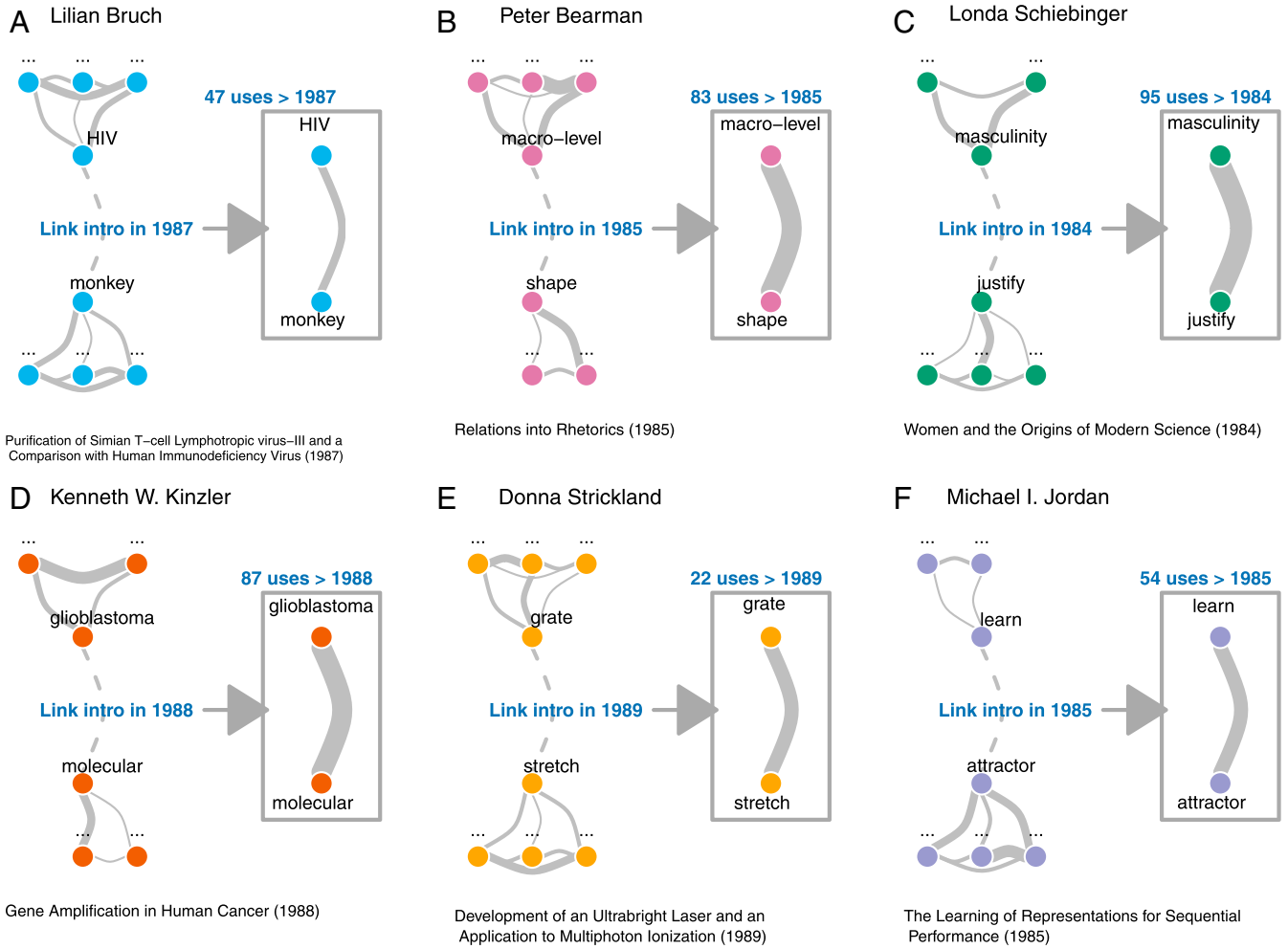

Fig. 1. The introduction of innovations and their subsequent uptake. (*A–F*) Examples drawn from the data illustrate our measures of novelty and impactful novelty. Nodes represent concepts, and link thickness indicates the frequency of their co-usage. Students can introduce new links (dotted lines) as their work enters the corpus. These examples concern novel links taken up at significantly higher rates than usual (e.g., 95 uses of Schiebinger's link after 1984). The mean (median) uptake of new links is 0.790 (0.333), and ∼50% of new links never gets taken up. (*A*) Lilian Bruch was among the pioneering HIV researchers (25), and her thesis introduced the link between "HIV" and "monkeys," indicating innovation in scientific writing as HIV's origins are often attributed to nonhuman primates. (*C*) Londa Schiebinger was the first to link "masculinity" with "justify," reflecting her pioneering work on gender bias in academia (26). (*E*) Donna Strickland won the 2018 Nobel Prize in Physics for her PhD work on chirped pulse amplification, utilizing grating-based stretchers and compressors (27).

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novelty (uptake per new link) by several notions of demographic diversity, the gender and racial representation in a student's discipline, and by gender/race indicators reflecting historically underrepresented groups (Fig. 2). We keep institution, academic discipline, and graduation year constant (33, 34) (see *Materials and Methods* and *SI Appendix*, Figs. S1 and S4 and Table S2). We find that the more students are underrepresented genders ($P < 0.001$) or races ($P < 0.05$) in their discipline, the more they are likely to introduce novel conceptual linkages (# new links). Yet the more students are surrounded by peers of a similar gender in their discipline, the more their novel conceptual linkages are taken up by others ($P < 0.01$): That is, the less a student's gender is represented, the less their novel contributions are adopted by others (uptake per new link). Findings for binary gender and race indicators follow similar patterns. Women and nonwhite scholars introduce more novelty (both $P < 0.001$) but have less impactful novelty (both $P < 0.05$) when compared to men and white students. Additionally, intersectional analyses of gender–race combinations suggest that nonwhite women, white women, and nonwhite men all have higher rates of novelty compared to white men (all $P < 0.001$) but that white men have higher levels of impactful novelty compared to the other groups (all $P < 0.01$). Combined, these findings suggest that demographic diversity breeds novelty and, especially, historically underrepresented groups in science introduce novel recombinations, but their rate of adoption by others is lower, suggesting their novel contributions are discounted.

So why is the novelty introduced by (historically) underrepresented groups less impactful? We test the common hypothesis that innovations that draw together concepts from very different fields or using distal metaphorical links receive less reward. If (historically) underrepresented groups combine distal concepts, this may partly explain their less impactful novelty. We first identify how semantically distal or proximal newly linked concepts are from one another in the space of accumulated concepts using word embedding techniques (35) (see Fig. 3, detailed in *Materials and Methods*). Word embedding techniques enable us to estimate the semantic location of concepts in a vast network of interrelated concepts and compare how distally (or proximally) positioned newly linked concepts are to one another in that space using cosine distance. For the set of newly linked concepts in each thesis, we average their semantic distance and model whether some groups introduce more distal forms of novelty in their theses than other groups. We find that students whose gender is underrepresented in a discipline introduce slightly more concept linkages that are semantically distant (see Fig. 3*C*; $P < 0.001$) and women introduce more distal novelty in comparison to men ($P < 0.001$). In turn, distal novelty relates inversely to impactful novelty; more distal new links between concepts receive far less uptake (see Fig. 3*D*; $P < 0.001$). Hence, underrepresented groups introduce novelty, and the discounting

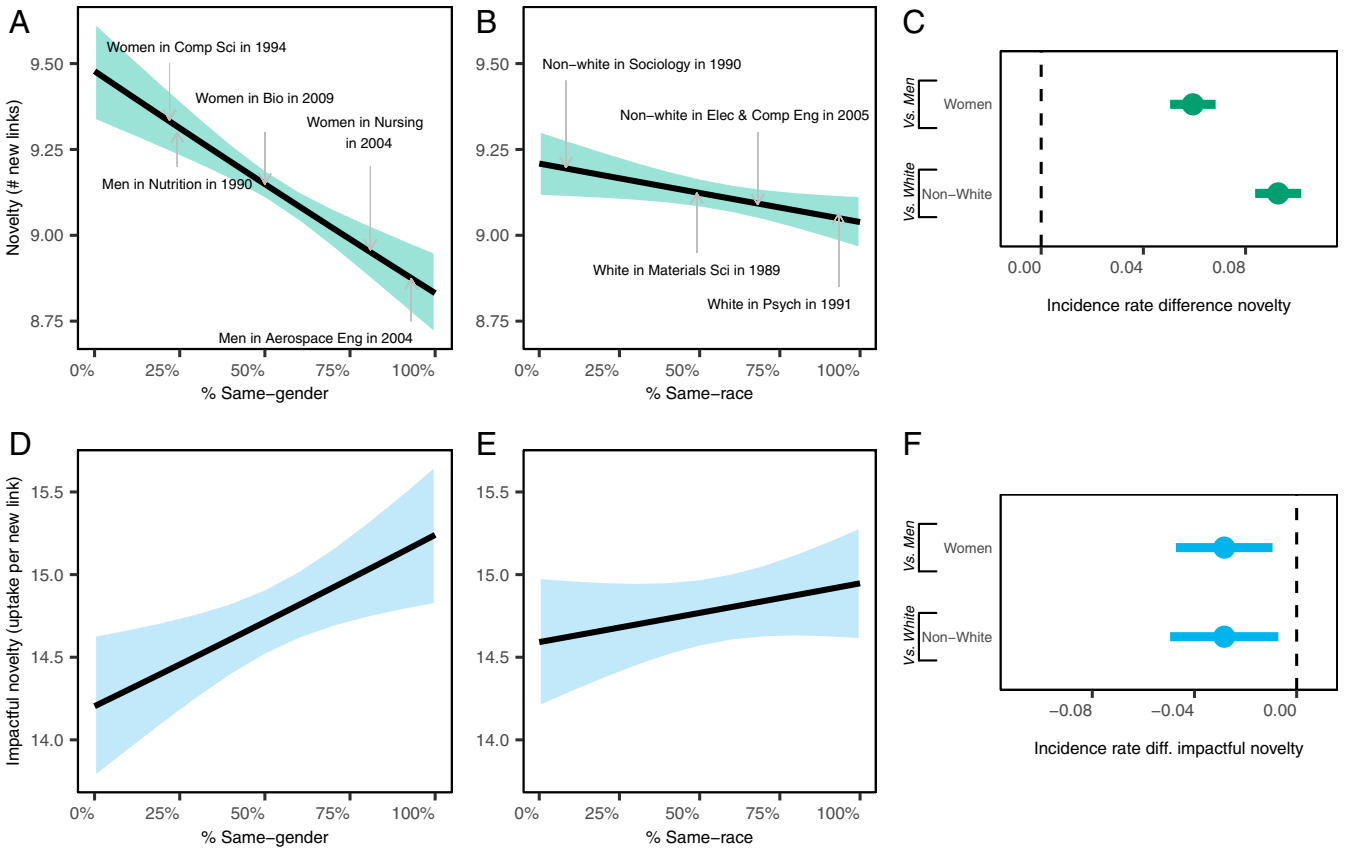

Fig. 2. Gender and race representation relate to novelty and impactful novelty. (*A*) Introduction of novelty (# new links) by the percentage of peers with a similar gender in a discipline ($n = 808{,}375$). Specifically, the results suggest that the more students' own gender is underrepresented, the more novelty they introduce. (*B*) Similarly, the more students' own race is underrepresented, the more novelty they introduce. (*C*) Binary gender and race indicators suggest that historically underrepresented groups in science (women, nonwhite scholars) introduce more novelty (i.e., their incidence rate is higher). (*D*) In contrast, impactful novelty decreases as students have fewer peers of a similar gender and suggests underrepresented genders have their novel contributions discounted ($n = 345{,}257$). (*E*) There is no clear relation between racial representation in a discipline and impactful novelty. (*F*) Yet the novel contributions of women and nonwhite scholars are taken up less by others than those of men and white students (their incidence rate is lower).

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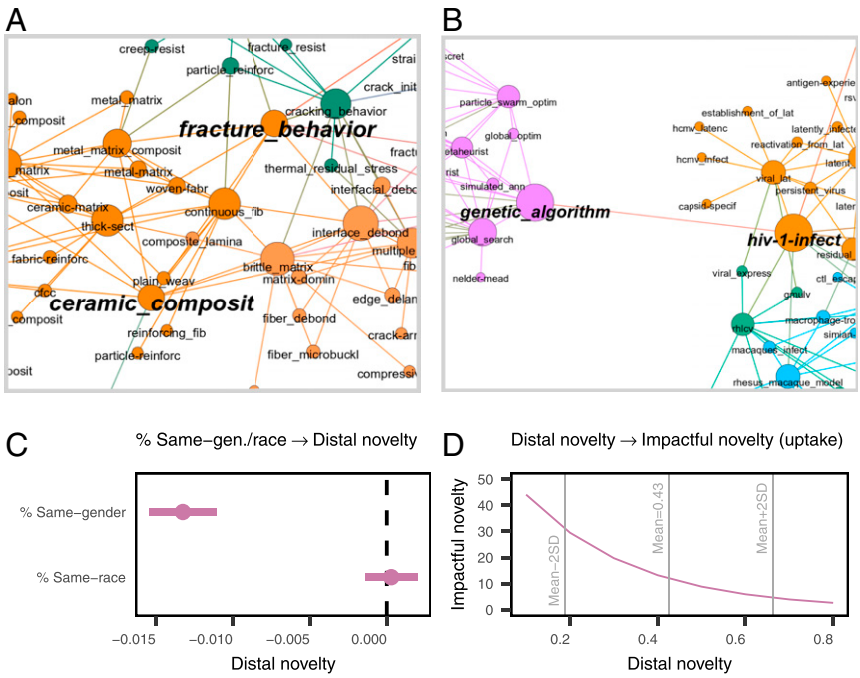

Fig. 3. Underrepresented genders introduce distal novelty, and distal novelty has less impact. (*A* and *B*) Apparent network communities (colors) of concepts and their linkages. (*A*) The link between "fracture_behavior" and "ceramic_composition" arises within a semantic cluster. Both concepts are proximal in the embedding space of scientific concepts, and as such, their distal novelty score is low. (*B*) In contrast, the conceptual link between "genetic_algorithm" and "hiv-1" spans distinct clusters in the semantic network. As such, the concepts are distal in the embedding space of scientific concepts, and their distal novelty score is high. (*C*) Students of an overrepresented gender introduce more proximal novelty, and students from an underrepresented gender introduce more distal novelty in their theses. (*D*) In turn, the average distance of new links introduced in a thesis is negatively related to their future uptake.

of their novel contributions may be partly explained by how distal the conceptual linkages are that they introduce.

Finally, we examine how levels of novelty and impactful novelty relate to extended faculty and research careers. We model careers as (a) obtaining a research faculty position and (b) as continuing research endeavors (Fig. 4 and *SI Appendix*, Table S2). The former reflects PhDs who go on to become primary faculty advisors of PhDs at US research universities, while the latter reflects the broader pool of PhDs who continue to conduct research even if they do not have research advisor roles (e.g., in industry, nontenure line role, etc.). For the latter, we identify which students become publishing authors in the Web of Science (36) 5 y after obtaining their PhD. The conceptual novelty and impactful novelty of a student's thesis is positively related to their likelihood of becoming both a research faculty member or continued researcher (all $P < 0.001$). This suggests that students are more likely to become professors and researchers if they introduce novelty or have impactful novelty.

However, consistent with prior work (8–13), we find that gender and racial inequality in scientific careers persists even if we keep novelty and impactful novelty constant (as well as year, institution, and discipline). Numerically underrepresented genders in a discipline have lower odds of becoming research faculty (~5% lower odds) and sustaining research careers (6% lower odds) compared to gender majorities (all $P < 0.001$). Similarly, numerically underrepresented races in a discipline have lower odds of becoming research faculty (25% lower odds) and continuing research endeavors (10% lower odds) compared to majorities (all $P < 0.001$). Most surprisingly, the positive correlation of novelty and impactful novelty on career recognition varies by gender and racial groups and suggests underrepresented groups' innovations are discounted. The long-term career returns for novelty and impactful novelty are often lower for underrepresented rather than overrepresented groups. At a low level of (impactful) novelty gender minorities and majorities have approximately similar probabilities of faculty careers. But with increasing (impactful) novelty the probabilities diverge at the expense of gender minorities' chances (both slope differences $P < 0.01$). For instance, a 2SD increase from the median of (impactful) novelty increases the relative difference in probability of becoming a faculty researcher for gender minorities and majorities from about 3.5% (4.3%) to 9.5% (15%). These results hold over and above of the distance between newly linked concepts. This innovation discount also holds for traditionally underrepresented groups (i.e., women versus men, nonwhite versus white scholars).

Discussion

In this paper, we identified the diversity–innovation paradox in science. Consistent with intuitions that diversity breeds innovation, we find higher rates of novelty across several notions of demographic diversity (2–7). However, novel conceptual linkages are not uniformly adopted by others. Their adoption depends on which group introduces the novelty. For example, underrepresented genders have their novel conceptual linkages discounted and receive less uptake than the novel linkages presented by the dominant gender. Traditionally underrepresented groups in particular—women and nonwhite scholars—find their novel contributions receive less uptake. For gender minorities, this is partly explained by how "distal" the novel conceptual linkages are that they introduce. Entering science from a new vantage may generate distal novel connections that are difficult to integrate into localized conversations within prevailing fields. Moreover, this discounting extends to minority scientific careers. While novelty and impactful novelty both correspond with successful scientific careers, they offer lesser returns to the careers of gender and racial minorities than their majority counterparts (8–13). Specifically, at

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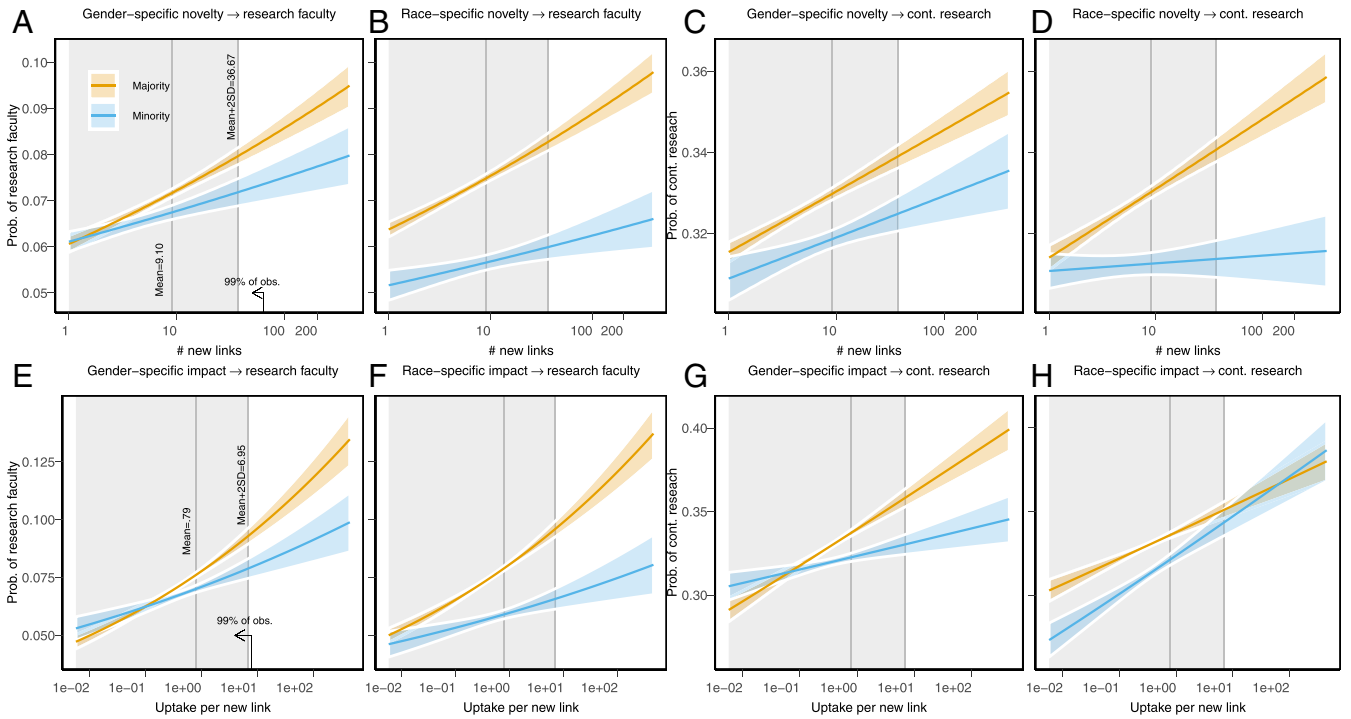

Fig. 4. The novelty and impactful novelty minorities introduce have discounted returns for their careers. (*A–H*) Each of the observed patterns holds with and without controlling for distal novelty. (*A–D*) Correlation of gender- and race-specific novelty with becoming research faculty or continued researcher (n = 805,236). As novelty increases, the probabilities of becoming faculty (for gender and race) and continuing research (for race) have diminished returns for minorities. For instance, a 2SD increase from the median level of novelty (# new links) increases the relative difference in probability to become research faculty between gender minorities and majorities from 3.5 to 9.5%. (*E–H*) Correlation of gender- and race-specific impactful novelty with becoming research faculty and a continued researcher (when novelty is nonzero, n = 628,738). With increasing impactful novelty, the probabilities of becoming faculty (for gender and race) and continuing research (for gender) start to diverge at the expense of the career chances of minorities. For instance, a 2SD increase from the median of impactful novelty (uptake per new link) increases the relative difference in probability of becoming research faculty between gender minorities and majorities from 4.3 to 15%.

low impactful novelty we find that minorities and majorities are often rewarded similarly, but even highly impactful novelty is increasingly discounted in careers for minorities compared to majorities. And this discounting holds over and above how distal minorities' novel contributions are.

In sum, this article provides a system-level account of innovation and how it differentially affects the scientific careers of demographic groups. This account is given for all academic fields from 1982 to 2010 by following over a million US students' careers and their earliest intellectual footprints. We reveal a stratified system where underrepresented groups have to innovate at higher levels to have similar levels of career likelihoods. These results suggest that the scientific careers of underrepresented groups end prematurely despite their crucial role in generating novel conceptual discoveries and innovation. Which trailblazers has science missed out on as a consequence? This question stresses the continued importance of critically evaluating and addressing biases in faculty hiring, research evaluation, and publication practices.

Materials and Methods

Data. This study focuses on a dataset of ProQuest dissertations filed by US doctorate-awarding universities from 1977 to 2015 (20). The dataset contains 1,208,246 dissertations and accompanying dissertation metadata such as the name of the doctoral candidate, year awarded, university, thesis abstract, primary advisor (37.6% of distinct advisors mentor one student), etc. These data cover ∼86% of all awarded doctorates in the US over three decades across all disciplines. We describe below how we follow PhD recipients going on into subsequent academic and research careers.

Concept Extraction from Scientific Text. How do we extract concepts from text? Not all terms are scientifically meaningful; combining function words like "thus," "therefore," and "then" is substantively different from combining terms from the vocabulary of a specific research topic, like "HIV" and "monkey." We argue that innovation entails combining relevant terms from topical lexicons. Hence, we set out to define the latent themes in our corpus of dissertations and the most meaningful concepts in every theme. We employ structural topic models (STMs) (22), commonly used to detect latent thematic dimensions in large corpora of texts (*SI Appendix*).

We fit topic models at K = [50–1000] (K is commonly used to specify the number of topics). Fit metrics (*SI Appendix*, Fig. S1) plateau at K = 400, 500, and 600, and we use those three in this paper. To extract concepts, we identify the terms of relative importance to each latent theme in the dissertation corpus. Using the STM output, we obtain terms that are most frequent and most exclusive within a topic. This helps identify concepts that are both common and distinctive to balance generality and exclusivity. To get at this, we extract the top terms based on their FRequency-EXclusivity (FREX) score (24). FREX scores compound the weighted frequency and exclusivity of a term in a topic. Here we explore three weighing schemes: equally balancing frequency and exclusivity (50/50), attaching more weight to frequency and less to exclusivity (75/25), and attaching more weight to exclusivity and less to frequency (25/75). As such, we analyze nine hyperparameter scenarios (three K and three FREX scenarios) for which sensitivity analyses provide robust results (*SI Appendix*, Table S2). For the results depicted in the main text, we report the scenario where frequency and exclusivity are equally balanced at K = 500.

We use all doctoral abstracts (1977 to 2015) as input documents for a semantic signal for the students' scholarship at the onset of their careers. However, in our inferential analyses, we utilize theses from 1982 to 2010 1) to allow for the scientific concept space to accumulate 5 y before we measure which students start to introduce links and 2) to allow for the most recently graduated students (up until 2010) to have opportunities (5 y) for

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their novelty to be taken up. Additionally, *SI Appendix*, Fig. S2 suggests that the "stable" years for link introductions and uptake per new link start at ∼1982. The year fixed effects in our inferential analyses (detailed below) further account for left and right censoring: That is, year fixed effects enable comparisons of students within rather than across years. *SI Appendix*, Fig. S3 depicts four exemplary topics and their concepts resulting from the structural topic models.

Outcome Variable: Novelty and Impactful Novelty. Using the extracted scientific concepts, we aggregate co-occurring concepts in abstracts for each year, identifying which students first introduce each novel link. We remove spurious links (due to chance, combinations of extremely rare terms, etc.) by computing a significance score for each link: the log-odds ratio of the probability of link occurrence (computed over all extracted concepts and all documents in the corpus) to the probability of each component concept term occurring independently over the corpus (37, detailed in the *SI Appendix*). In sum, we identify "meaningful" links by filtering the documents for the top FREX terms via structural topic models and then filtering for spurious links through a link significance score. If a link is introduced by two students in the same year, they both get counted. (The percentage of links concurrently introduced is only 1.6%, and the majority of concurrent link introductions arise from students getting their doctorate in the same year [99.7%].) This metric—the number of new link introductions—we call the novelty of a student's thesis (# new links, mean = 9.026; median = 4; SD = 13.744; 20.9% of students do not introduce new links).

Second, we measure impactful novelty, the uptake of a thesis's new links in ensuing theses. We count the total number of times theses in following years use the links first introduced by a prior thesis, normalized by the number of new links. We use the resulting metric, uptake per new link (mean = 0.790; median = 0.333; SD = 3.079), to quantify the average scientific impact of an individual student's thesis. See *SI Appendix*, Fig. S2 for the distributions and correlations of these outcome variables across the different K and FREX scenarios. Both metrics positively correlate with publication productivity and citation among those students that publish (*SI Appendix*, Table S3).

Outcome Variable: Distal Novelty. Some links are "distal" in that they link concepts that are located in distinct clusters of co-occurring concepts. Other links are "proximal" because they link concepts in the same semantic cluster or proximate location. For instance, genetic_algorithm–hiv-1 is distal because it links concepts from distinct research areas: "genetic algorithms" (evolutionary computing) with "hiv-1" (medicine). In contrast, fracture_behavior–ceramic_composition is proximal because the concepts are from the same field.

To operationalize this notion of semantic distance, we embed each concept in a semantic network of cumulated co-occurring concepts and then estimate its location in a vector space, representing each concept c by a fixed dimension vector (or "embedding") $v(c)$. We use the skip-gram model (35), a standard approach that models co-occurrences between concepts by their usage in text (window size is five) and learns a vector for each concept such that concepts with similar co-occurrence patterns have similar embeddings. The result is a space in which concepts with similar embeddings have similar meaning and concepts with dissimilar embeddings have different meanings.

We learn embeddings (of the FREX concepts in the dissertation abstracts) of 100 dimensions, but the metric is robust to 100, 200, or 300 dimensions as well as to stochasticity. We capture the dominant meaning of a concept globally over time. (Although concepts may evolve over time, we use the globally dominant meaning of the concept because we also model uptakes of links globally, and modeling concept embeddings over time is computationally intensive and suffers from data sparsity. Sensitivity analyses for one year [2000] provided very high correlations [$r = 0.931$] between global and time-dependent distal novelty scores.)

Having learned concept embeddings, we calculate how distant newly linked FREX concepts' embeddings are to one another using cosine distance (35) (*SI Appendix*, Table S4). We then average those scores for all novel links introduced in each thesis (distal novelty, mean = 0.426; median = 0.419; SD = 0.118). We validate these automatic measures of concept distance with expert human coders, finding moderate intercoder agreement between distal/proximal assignments to a random set of 100 links and three coders (average Cohen's kappa = 0.46), and together, coder assignments predict ∼95% of the true distal links (i.e., distance score > 0.8). This validation further suggests that distal links are often between concepts from different fields or creative metaphors, and only a fraction of links between distal concepts are hard to interpret substantively (15 to 20%).

Outcome Variable: Careers. To measure innovation reception, we study how innovations relate to two science career outcomes. The first is a conservative proxy of whether graduate students become research faculty after their graduation (research faculty, mean = 0.066). This outcome is measured as graduating PhDs who go on to become a primary advisor of other PhD students in the dissertation corpus. Ultimately, this captures who transitions from student to mentor at a PhD-granting US university and who was able to secure a faculty job with a lineage of students. For those that graduated up until 2010 (i.e., the last graduating cohort we follow), we do consider whether they transitioned to faculty between 2010 and 2015. The second outcome is a more liberal proxy of career success that reflects whether graduating PhDs continue their career in research or not. To capture this, we match students to article authors in the Web of Science (WoS) (*SI Appendix*). The WoS database consists of ∼38 million publication records and their associated metainformation from 1900 to 2017 (disambiguated authors, title, abstracts, etc.). The linkage across datasets allows us to follow students' ensuing careers and research output. Using the ProQuest–WoS link, we measure whether students publish academically at least once in the 5-year period after obtaining their PhD or if they become research faculty, which we interpret as scholars who continue research endeavors (continued research: mean = 0.319). This metric captures a broader range of those who continue to pursue research: scholars who continue to pursue science at institutions that might not grant PhDs (e.g., liberal arts colleges, think-tanks, industry jobs, etc.) or move internationally. Individuals from underrepresented groups might disproportionally move toward such institutions rather than US PhD-granting universities. Hence, examining both metrics indicates whether our results are robust to different academic strata.

Main Covariates. The ProQuest dissertation data do not contain direct reports of student gender and race characteristics, but we identify the degree to which their name corresponds to the race or gender reported by persons with particular first (gender) and last (race) names. We compiled datasets from the US censuses (38) to predict race and from the US Social Security Administration (39) to predict gender. We matched these to data on $n = 20{,}264$ private university scholars between 1993 and 2015. The private university data contain race and gender information alongside scholar names, which allows us to train a threshold algorithm to estimate race and gender based on names. Using these thresholds, we classify advisees in the ProQuest dissertation data into one of three race categories and to assign a gender (40). The race categories are white, Asian, and underrepresented minorities. Underrepresented minorities combines Hispanics, African Americans, Native Americans, and any racial categories not captured by the first three (*SI Appendix*). To further improve recall on genders and races, we focus on uncategorized genders and races and label them based on additional methods for gender (see refs. 41–43) and race (with full names, refs. 44, 45), thus combining the strength of several methods to help increase coverage and precision for gender and race labels.

We then measure the fraction of students in a discipline-year carrying the same gender or race, e.g., the percentage of women in education in 1987 when a student is a woman, the percentage of underrepresented minority scholars when a student is an underrepresented minority, and so forth (% Same-gender, mean = 0.576; SD = 0.180; % Same-race, mean = 0.625; SD = 0.258). We also measure whether a student is part of an underrepresented gender or race in an academic discipline, i.e., whether a student is member of a group smaller than the largest group in a discipline-year (Gender minority mean = 0.336; Racial minority mean = 0.246, see *SI Appendix*, Fig. S4).

To model novelty, impactful novelty, and distal novelty, we use the percentage of same gender or race and whether scholars are white or nonwhite to find to what extent innovation relates to different notions of group representation in science. We then model careers through minority status in disciplines (results are similar for binary gender and race indicators).

Note that the results here do not take into account cases of gender and race that were not classified according to these methods, although the gender and race distinctions such as those shown in Fig. 2 *C* and *F* do not qualitatively change if we do include "unknown" genders and races in the analyses. Our main substantive conclusions and inferences are robust if we only consider those students whose names overwhelmingly occur within one rather than multiple races. Additionally, finer-grained notions of race or even degrees of identity association with gender or race may be desirable as an indicator. However, underrepresented races appear often in small proportions, which provide little statistical power despite likely sharing a common pattern of associations. As such, we render them into coarser indicators of "underrepresented racial minority." We recognize that in reality, individuals and names have varying degrees of gender and racial associations; as such our named-based metric is a simplified signal of gender and racial

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identity that may better capture how an individual is perceived by others and can be only a coarse proxy for authors' self-identification with certain genders or races.

Confounding Factors. When dissertation metadata did not include a department, we identified academic discipline for theses filed with ProQuest through a random forest classifier (RFC) based on a list of features from the dissertation with 96% precision ($N_{DISCIPLINE} = 84$; see *SI Appendix*). Dissertations that are filed to ProQuest contain metainformation about the institution where the doctorate was awarded. We classify the student into the first institution that students filed to ProQuest ($N_{UNIVERSITY} = 215$). We infer the graduation year in which students obtain their doctorate as the year in which the dissertation was filed to ProQuest (range = 1977 to 2015).

Analytical Strategy. We model each of our dependent variables tailored to their statistical distributions. Scientific novelty (# new links) and impactful novelty (uptake per link), are right-skewed counts of events or rates. For these outcomes, we employ negative binomial regression analyses, where the overdispersion in the outcomes is modeled as a linear combination of the covariates (46). Distal novelty is relatively normally distributed, and we model it through linear regression. Academic careers such as becoming research faculty (yes/no) and sustaining a research career (yes/no) are both binary outcomes, so we use logistic regression analyses for these (*SI Appendix*). The whiskers and shaded lines in Figs. 2–4 represent upper and lower bounds of 95% CIs, and the *P* values we report here are two-sided tests. Figs. 2 *A*, *B*, *D*, and *E*, 3*D*, and 4 all represent average marginal effects considering all other values of the other independent variables. Fig. 2 *C* and *F* reports the incidence rate differences between groups from the negative binomial regressions.

Apart from the main covariates, we include three sets of fixed effects in our models to better isolate our main predictors from confounding factors. We keep institution, academic discipline, and graduation year constant throughout. These fixed effects account for university differences in prestige and the resources they make available to students (33), for the differences across academic fields and disciplinary cultures (34), and for "older" scholars who have had more time to make career transitions or to get recognized.

We weigh the data by the total number of doctorates awarded by an institution in a given year (*SI Appendix*) to account for possible selectivity between universities in years when filing their doctorates' theses in the ProQuest database and to render our results generalizable to the US scholarly population. These survey weights are based on the relative number of PhD recipients in the ProQuest data vis-à-vis the US PhD population per year for each university.

Finally, novelty (# new links) is modeled for students with nonmissing values on all features ($n = 808{,}375$), impactful novelty (uptake per new link) is modeled for those with nonzero novelty and nonzero uptake given its best fit with the negative binomial model ($n = 345{,}257$), and distal novelty is modeled for the students with nonzero novelty ($n = 630{,}971$). Careers are modeled for those for whom there are no constant successes or failures within the fixed effects and for those who introduce at least one link ($n = 805{,}236$) or whose novelty is nonzero for impactful novelty ($n = 628{,}738$).

Data and Materials Availability. The data used in this study were obtained according to protocol 12996, approved by Stanford University. We acquired written permission from ProQuest to scrape and analyze their US dissertation data for scientific purposes. The full dissertation corpus can be requested via ProQuest (20), and the Web of Science can be requested via Clarivate Analytics (36). Code to replicate our key metrics is found on GitHub (https://github.com/bhofstra/diversity_innovation_paradox). Top terms from the K = 500 structural topic model that equally balances frequency and exclusivity are also found there.

ACKNOWLEDGMENTS. We acknowledge Stanford University and the Stanford Research Computing Center for providing computational resources and support that contributed to these research results. This paper benefited from discussions with Lanu Kim, Raphael Heiberger, Kyle Mahowald, Mathias W. Nielsen, Anthony Lising Antonio, James Zou, and Londa Schiebinger. This paper was supported by three NSF grants [NSF Grant 1633036, NSF Grant 1827477, and NSF Grant 1829240] and by a grant from the Dutch Organization for Scientific Research [NWO Grant 019.181SG.005].

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Faculty Evaluation Guidelines

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Revised: July-August 2019
Reviewed by Department Heads & Faculty: August 2019
Approved: August 16, 2019
Next Scheduled Review: March 31, 2024

Table of Contents

Faculty Evaluation Guidelines

Preamble: These guidelines were reviewed and approved, prior to Department Head vote, by a Faculty Taskforce. The taskforce had representatives from each academic department as follows:

Foundational Sciences	Dr. Philip Brown
Liberal Studies	Dr. Fred Pearl
Marine Biology	Dr. Anna Armitage
Marine Engineering Technology	Dr. Matt Kane
Marine Sciences	Dr. Tim Dellapenna
Maritime Business Administration	Dr. Ping Wang
Maritime Transportation	Mr. Ryan Vechan

I. INTRODUCTION

These guidelines are based on requirements and guidelines found in the following:

(1) System Policy 12.01: Academic Freedom, Responsibility and Tenure (http://www.tamus.edu/legal/policy/policy-and-regulation-library/);
(2) University Rule 12.01.99.M2: Statement on Academic Freedom, Responsibility, Tenure and Promotion (http://rules-saps.tamu.edu/PDFs/12.01.99.M2.pdf); and
(3) Office of the Dean of Faculties and Associate Provost's *University Promotion & Tenure Guidelines* (http://dof.tamu.edu/Faculty-Resources/CURRENT-FACULTY/Promotion-and-Tenure).

For the purposes of this document, Texas A&M University at Galveston is considered a "College" of Texas A&M University. All System and University documents referring to faculty evaluation, promotion, tenure, and review apply to the Galveston Campus.

II. EXPECTATIONS AND RESPONSIBILITIES

The expectations of the Galveston Campus for its faculty are that they continually strive for impactful contributions in teaching, in service to the department, University and to their profession, and for tenured and tenure track Faculty to establish and maintain an independent and sustainable scholarship productivity that leads at minimum to a national reputation in their area. What sustainability means for different fields will be different in terms of absolute resources required to allow the Faculty to maintain an active output in her/his discipline. The criteria for tenure and promotion to Associate Professor and promotion to Full Professor differ in degree and emphasis as described in Appendix I of University Rule 12.01.99.M2, *"University Statement on Academic Freedom, Responsibility, Tenure, and Promotion"*.

The mandatory mid-term reviews and the annual evaluations are expected to evaluate the contributions to our undergraduate and graduate teaching programs, research, scholarly or creative activities, and engagement. Specifically, the impact of faculty members' activities on academic endeavors needs to be demonstrated. Faculty are also expected to engage in civil discourse with their colleagues, staff and students, contribute to the common goals of their department or division and respect the decision-making processes of the University.

Department Heads are primarily responsible for ensuring that the University and Galveston Campus guidelines are followed so that each faculty member receives a fair and timely assessment of her/his accomplishments and

performance. The overall purpose of these guidelines is to ensure the integrity of the annual evaluations, mid-term review, promotion and tenure process, and post-tenure review to retain and promote the best faculty possible. Within these overall guidelines, it is specifically noted that departmental practices may differ because of variations in department size, the nature of departmental faculty, the degree of inter/multidisciplinary activity, and academic mission. Departmental guidelines should be reviewed regularly to ensure compliance with System Policy, University Rules, and College Guidelines while achieving departmental objectives.

The guiding principles in setting review guidelines are presented below:

Every Department should have review guidelines to clarify how annual evaluations, promotion and tenure (P&T), and post tenure reviews (PTR) are performed. Departments will clarify in their bylaws and evaluation guidelines what criteria will be used for each dimension evaluated, the context needed for each criteria (e.g. how student evaluations are averaged and compared, and how they are used in addition to other measures of teaching effectiveness).

- In the case of P&T and PTR reviews, only Faculty of higher rank can review the dossier (e.g. Tenured Associate and Full Professors for Assistant Professors going up to Associate with Tenure; Full Professors for promotion of Associate to Full; Tenured Faculty and Associate and Full Instructional Professors for Assistant Instructional Professors going up to Associate, etc.).

- The Department Promotion and Tenure Review Committee (Department Review Committee) should be the same for any particular rank reviewed during a cycle. If 2 or more candidates in a Department are going through the same rank review (e.g. Assistant to Associate with tenure) then the P&T committee for these should be the same).

- In the event that any (or all) of these reviews require a committee, the guidelines should specify how members are appointed (how is the committee composed, who is responsible for the decision to appoint committee members, what is the selection process and/or eligibility criteria?).

- The guidelines should identify what the process is for writing the report of any review.

- For reviews that require external reviewers' comments, identify in the guidelines who is in charge of identifying names from external reviewers and who is in charge of soliciting letters.

- If an external member is needed on the Department Review Committee from another Department, the guidelines should describe the process for selecting such a member, what the eligibility criteria are, and who makes the decision to include the external member.

- Reclassification of faculty from one track (e.g. tenure/tenure track) to another (e.g. academic professional track, or vice versa) requires a formal review that follows the departmental review process. The dossier needs to include:
    - a full review report with majority support from the Department Review Committee,
    - a supporting and justification memo from the Department Head,
    - a supporting and justification memo from the CAO, and
    - The dossier must then be submitted to the Dean of Faculties for evaluation and potential approval.

- Each Department will publish its evaluation guidelines on its departmental website and will distribute a reminder of where to find them to all faculty by the start of each academic year.

III. Evaluation Criteria in Consideration Of Annual Evaluations, Promotion and Tenure, and Post-Tenure Review

Examples of criteria that may be employed in evaluation of Faculty for Teaching, Scholarship, and Service are found below.

A. Teaching

A commitment to excellence in teaching is an expectation of all faculty, no matter the track. This category includes, among other things, classroom and laboratory instruction, courses that provide experiential learning, development of new courses and teaching methods, including the development or expansion of electronic delivery of course content, academic advising (may also be included as a service activity where appropriate), supervision of undergraduate and graduate research, clinical supervision, and mentoring. Additional criteria and rubrics of assessment are found in Appendix III Evidence Supporting Performance in Teaching. Each Department will need to identify the criteria used in its evaluation guidelines and disseminate this information clearly (e.g., departmental website) and repeatedly (e.g., beginning of each academic year to all faculty in the department).

The Teaching section will document the faculty member's teaching accomplishments for the period of review. Publication of instructional material and development of methods that improve the curriculum are both desired and meritorious. Faculty members shall be permitted to respond to or qualify written comments provided by students in course evaluation forms. The Faculty will thus be provided with these comments prior to the deadline for which the review report is due (annual evaluation, P&T review, PTR).

1. "Courses Taught" covers all courses with classroom contact hours taught at Texas A&M University. The TAMU instrument used to assess student perceptions will be used by all faculty members in all courses, each semester. The Department Head will compare assessments by students in comparable courses and subject matters as one aspect of the evaluation. For example, graduate and undergraduate, required and elective, laboratory and didactic or seminar settings should all be factored into the assessment process and may provide important contextual information. Additional contextual information can include the number of courses taught, the size of the class(es), the access or not to grading teaching assistants in large classes, and overall comparison to core curriculum if the course taught is itself in the core.

2. Tools of instruction such as syllabi, assignments, examinations, grading methods, should also be assessed and may be included in the evaluation. Departments should specify in departmental evaluation guidelines, how many of these artifacts are to be gathered for each level of the review.

3. Peer evaluations of teaching effectiveness may be considered in the period of review. In such a case, each department needs to define (in its bylaws and evaluation guidelines) the process for using peer evaluations in the review. Bylaws should be specific in identifying criteria (e.g., rubrics) and goals if the course observations were based on specific standards (e.g. Classroom Observation Feedback Form), what should the frequency of the observations be, and who the appropriate "peer evaluators" are. Examples of rubrics for teaching evaluations can be found in Appendix III.

4. Awards from organizations from within and outside the department, TAMUG, and TAMU might be used to substantiate excellence in teaching.

5. Other evidence of excellence could include teaching portfolios, student success in achieving learning outcomes, experimentation with and use of pedagogical approaches to improve student learning and success, responsiveness to student and peer evaluations, publication of instructional materials, evidence of both professional development in teaching and associated improvements, evidence generated by standardized peer evaluation, and involvement with continuing education.

6. Undergraduate and/or graduate students supervised: documents undergraduate or graduate student committee assignments. Indicate whether responsibility is a chair (C) or member of (M) the student's committee, and whether the committee is part of the A&M system or another institution of higher learning. Excellence in student mentoring (as a chair or member of a student committee) can be documented by the successes of the student mentees, which includes quality and quantity of trainee-authored publications, job placement, and time to degree.

7. Other courses taught: recognizes the development of, or participation in, recognized programs for continuing education, short courses, or special workshops. Written assessments by participants are required. Funding support agency (if any) should be identified. Documented national /international recognition or adoption of program by professional society, state agency is also desirable.

8. Teaching innovations such as the development of innovative teaching methods and materials (textbooks, software, new curricula, etc.) should be documented. Any of the following would indicate a contribution: creation and teaching of a new course, adoption by other professors of methods/materials developed during the prior year, contributions to campus-wide programs, such as the Student Success Initiative, that improve connections across the curriculum and supports student success (e.g. decreased DFQ, increased success of underrepresented minority students, contribution to cohort mentoring, increased retention), the introduction or further development of courses or course materials which explicitly incorporate international, interdisciplinary, or multicultural perspectives, high-impact teaching practices, and/or positive review of these methods/materials appearing in respected publications.

9. Invited Lectures: include invitations to teach at outside academic institutions. Normally an invitation from a distinguished institution would constitute a contribution. Combinations of numerous invitations are valued.

B. Research and/or Other Scholarly and Creative Activities

For most disciplines, this category consists of research and publication. For some disciplines, however, it may include other forms of creative or professional activity. Engineering technology, fiction, poetry, and dance are examples. Faculty members must document scholarly activities, including works in progress, and clearly identify the impact this scholarship has on their respective field. Refer to Appendix IV for further details regarding the Evidence Supporting Performance in Research, Scholarship or Creative Activities.

Experts in the same or related disciplines must make decisions about the quality or merit of scholarly and creative work. Peer review is essential. A book or article written but unpublished, an artwork completed but not juried, or the rendering of professional collaboration and consultation not subject to peer recognition is less significant in this category. Examples of the creation, influence, and dissemination of the ideas/work must be documented.

1. Publications include: publications in refereed journals, conferences, and/or leading professional journals; the publication of scholarly books, conference proceedings, and/or chapters in scholarly books; monographs, publication of professional projects; technical reports, including those to a granting agency; patents; publications of open-source material will bear more weight if peer-reviewed and from leading open-source publishers; acknowledgment of creative work through selection as a subject for a published

article, inclusion in an exhibition catalogue, or descriptions in a curator's statement; and creative work included in a public or private collection, invited exhibition, traveling exhibition, screening, or broadcast. The essence of this section is that intellectual work and its by-products are subject to external peer review. The intent of this dimension is that the dissemination of intellectual work products leads to impact on the field, which itself is evaluated through citation and reference from members of the intellectual community and others. The candidate must thus explain the quality, productivity over time, and impact of their research, scholarly or creative work. She/he must also present how the different elements of productivity create a cohesive body of work that influences the field of scholarship. In the case of multiple authorships and/or multidisciplinary work (publications, research grants, creative work, etc) , the candidate should clearly identify the level of their own contributions to the overall project (e.g. percent of total work performed/led by candidate).

2. Showings of creative work in design development or visual and performing arts includes such things as: engineering design development; presentation of artistic work in juried or judged venues; inclusion of works in refereed or juried catalogs or collections, or in other invited exhibitions; public forums, screenings, or broadcasts; and acknowledgement of creative work through selection as a subject for a published article, exhibit catalog, or curator's statement; show awards, or other forms of external recognition.

3. Funded research includes recognition of the receipt of external resources for scholarly and creative activities and/or evidence of completed, peer reviewed research activities. External resources might include, but would not be limited to, fellowships, contracts, or research grants. The status of any research work in progress should be stated. Identification of funding sources (particularly from Federal granting agencies) must be included.

4. Affiliations include potential activities of a research center/laboratory at TAMUG/TAMU or a similar research entity not affiliated with TAMUG/TAMU.

5. Other recognition, may include but is not limited to, juried peer awards by professional societies or national/international groups, refereed non-published presentations, editorship of a refereed journal, member of an editorial board, editorship of a professional journal, lead organizer of special symposium/session at national/international conferences, invited keynote address at conference or organizational meeting, technology transfer/patent, membership as judge/critic for national/international organization, or reviewer for competitions, grants, publications, expert witness, invited exhibition curator, and external peer reviewer for a funding agency or tenure/promotion review for another university. These activities can demonstrate the faculty member's standing within the discipline but may be appropriately designated as service activities in some disciplines.

C. Service

This includes service to the institution—to students, colleagues, department, TAMUG, TAMU, and TAMUS—as well as service to the profession/field beyond the campus. Examples of the latter include service to professional societies, research organizations, governmental agencies, the local community, and the public at large. Refer to Appendix V for further details regarding Evidence Supporting Performance in Service.

A variety of service roles can contribute to attainment of our goals of pre-eminence through service to the institution, students, colleagues, professional societies, governmental agencies, and to the public at large. In each case an important consideration is service that results in the creation of ideas, the influence of ideas, and the dissemination of ideas. Quality and impact of service is expected from each member of the faculty. Service is typically the active participation in professional or community organizations or other bodies that utilize a faculty

member's professional expertise in their field, as an educator and scholar. The University values both internal and external service, which may include:

1. Advising students at the undergraduate level at or beyond the expectations of regular academic advising of faculty to students is noteworthy.
2. Demonstrated supervisory responsibilities in official departmental or university leadership position.
3. Faculty membership and service on System, University, TAMUG, or departmental committees, or the Faculty Senate. Part of impactful service is a commitment to the responsibilities of being a productive member of the university/department and acting with civility and collegiality towards other members of the university community (e.g., stepping up when needed, following through and meeting expectations on assigned tasks).
4. Administrative performance as evaluated over time and including written assessments concerning vision, new initiative, and programmatic development. Includes demonstrated accomplishments at the departmental, TAMUG, or TAMU level. Higher ranks are expected to demonstrate significant professional service such as leadership in their professional organization, editorial board memberships, grant review panels, national taskforce or review panels (e.g., NRC reports), international organizations, etc.
5. Demonstrated leadership service on a governmental commission task force, standing committee, council, or board. Holding an office in or serving as a member of a regional, national, or international society, professional organization, or accreditation board. Being the primary organizer of a program for regional, national, or international meetings is considered to have value.
6. External development activity that contributes to TAMUG or Departmental goals such as fundraising, endowments, scholarships, Professorships, service to the larger professional community, etc.
7. Participation in the following activities would be considered a contribution: (1) serving on discipline appropriate editorial boards, (2) judge or critic for national/international competitions, and/or (3) ad hoc reviewer for competitions, grants, journals, or contract funding agencies.

IV. ANNUAL EVALUATION

A. Annual Evaluation by Department Head

The annual evaluation is performed by the Department Head and the process must be completed to support her/his recommendations of merit pay increases for faculty. Merit raises will only be considered for faculty who received meets expectations or higher rating in at least one area of performance and who will have completed all their System mandated training (System Regulation 33.05.02). In addition, faculty who supervise employees must have completed the annual evaluation of their direct reports by May 31st each year to be eligible for merit.

Annual evaluations of performance are to be conducted in accordance with University Rule 12.01.99.M2, "*University Statement on Academic Freedom, Responsibility, Tenure, and Promotion"*.

1. Each department may customize their annual evaluation forms (ie: G1/G2) to address discipline-appropriate criteria, provided the general categories of teaching; research, scholarship, or creative work; service; and other assigned responsibilities are included on the form.
2. In each department, stated criteria for rating faculty performance in an annual evaluation will be established by departmental faculty and approved by the Department Head, the Chief Academic Officer

("CAO") of Texas A&M University at Galveston, and the Dean of Faculties. These criteria will be published and disseminated in advance of the academic year in which they are to be used. These criteria should define discipline-appropriate expectations for impact and provide a rubric for impact and productivity scores of "Significantly Exceeds Expectations", "Exceeds Expectations", "Meets Expectations," "Partially Meets Expectations," and "Unsatisfactory." Departmental criteria should also define expected levels of post-tenure productivity at each rank.

3. If the department uses peer evaluations of performance, the departmental process will clearly state who performs the evaluations, how and when the evaluations are performed, and how these evaluations are incorporated in the annual evaluation. For example, departments may have peer committees to advise the Department Head in the annual evaluation process. Departments may also use in class peer-review of teaching effectiveness. How these processes are applied and the rubrics of evaluation need to be defined at the departmental level. An overall "Unsatisfactory" rating is defined as being "Unsatisfactory" in any single category: teaching; research, scholarship, or creative work; service; and other assigned responsibilities (e.g., administration), or a rating of "Partially meets expectations" in any two categories. An annual evaluation resulting in an overall "Unsatisfactory" performance shall state the basis for the rating in accordance with the criteria. Each unsatisfactory review shall be reported to the CAO. The report to the CAO of each "Unsatisfactory" performance evaluation should be accompanied by a written plan, developed by the faculty member and Department Head, for near-term improvement. If deemed necessary, due to an unsatisfactory annual evaluation, the Department Head may request a "Periodic Peer Review" of the faculty member.

4. If a faculty member receives a "Partially meets expectations" rating in any single category, he or she must work with his or her Department Head immediately to develop a plan for near term improvement. The rating of "Partially meets expectations" can stay as such as long as predetermined milestones in the improvement plan are being met, otherwise the rating will be changed to "Unsatisfactory".

5. Although each plan for near term improvement is tailored to individual circumstances, the plan will include the following:

    a. specific deficiencies to be addressed;

    b. specific goals or outcomes necessary to remedy the deficiencies with an identified and clear timeline to achieve these outcomes (one year for teaching, no more than 2 years for service, up to 3 years for research, scholarly or creative activities to complete successfully);

    c. meets expectations outcomes for the following annual evaluation cycle.

6. When the objectives of the plan have been met or the following annual evaluation cycle has ended, the Department Head shall make a final report to the faculty member and the CAO. The successful completion of the development plan is the positive outcome to which all faculty and administrators involved in the process must be committed.

7. For tenured faculty with budgeted joint appointments, Department Heads of the appropriate units will collaborate to develop accurate annual evaluation reports (12.01.99.M2).

B. Annual Evaluation Process

Each faculty member must submit an annual evaluation report to the Department Head each year. The report will normally be due by January 31 for the preceding calendar year. The Department Head will notify faculty members each year of the due date. Faculty members are to be evaluated on the quality and scope of their work in

fulfillment of the multiple missions of Texas A&M University, in the context of the particular roles and responsibilities of the individual faculty member. Typically, the report will address the following activities:

Section A. Teaching
Section B. Research, Scholarly or Creative Activities
Section C. Service
Section D. Department Specific Activities
Section E. Prospectus
Section F. Evaluation

The Department Head will invite each faculty member to schedule an in-person conference to review the materials submitted, discuss performance, and agree on goals for the next year. The full review (including, if necessary, needs for improvements and mitigation plan) will be completed by May 31st of the academic year. Evaluation of the faculty member in each category will provide an assessment in each category using one of the following assessments: "significantly exceeds expectations", "exceeds expectations", "meets expectations", "partially meets expectations", and "unsatisfactory". Each department will provide specific criteria for each assessment.

Additionally, and consistent with Rule 12.01.99.M2, the annual evaluation process for all non-tenured faculty (tenure-track or non-tenure track), must also include a faculty member's progress toward tenure or promotion (see sections 2.4.2 and 4.3.5). For tenured associate professors, the process should be used to identify the faculty member's progress toward promotion to professor. For professors and tenured associate professors the annual evaluation should also be part of the ongoing process of communication between the faculty member and the institution in which both institutional and individual goals as well as programmatic directions are clarified, the contributions of the faculty member toward meeting those goals are evaluated and the development of the faculty member and the University is enhanced. In all cases, the annual evaluation shall serve as the primary documentation for evaluation of job performance in the areas of assigned responsibility and for merit salary increases.

Annual evaluations should include an informed judgment by the Department Head of the extent to which the faculty member complies with applicable rules, policies, and guidelines. No faculty member may receive an overall meets expectation rating and merit raises, if she or he is out of compliance with System Regulation 33.05.02, which addresses required training. Furthermore, faculty who supervise employees must have completed the annual evaluations of their direct reports by May 31st each year to be eligible for merit.

C. Department Specific Activities

For details of this section, see your respective departmental annual evaluation guidelines.

D. Prospectus

The Prospectus section provides the opportunity for each faculty member to reflect on her/his accomplishments over the preceding year; present a candid self-assessment of their performance in each of the areas of teaching; research, scholarly or creative activity; and service; and discuss goals for the coming year and beyond. Goals in each of the areas of teaching; research, scholarly or creative activity; and service are required. Faculty members should be able to explain the quality, productivity over time, and impact of their teaching; research, scholarly or creative work; and service accomplishments and provide evidence to substantiate progress on their stated goals, so that performance against these goals can be assessed. At the annual evaluation session with the Department Head, these goals may be amended, deleted, or new goals added.

E. Evaluation

Signatures by the faculty member and the Department Head at the end of the Annual Evaluation Form (e.g. G2) signify that the annual evaluation process took place. The faculty member's signature does not necessarily indicate agreement with the evaluation. The Department Head will complete a written evaluation in each area as well as an overall evaluation and return a copy to the faculty member on or before May 31st of that academic year.

V. ACADEMIC PROFESSIONAL TRACK (APT) FACULTY APPOINTMENTS

The adjective modifier of Academic Professional Track Faculty includes the words Executive, Instructional, Of the Practice, Research, and Senior. Faculty in these non tenure-track appointments will be expected to make significant contributions in the area of teaching and are required only to make significant contributions to either the area of service or the area of scholarly research or creative work.

- Faculty with "Instructional" will primarily be expected to make significant contributions to teaching and must contribute to service as well.
- Faculty with "Executive" in the title have had an executive position in industry or the public sector and will primarily be expected to make significant contributions to teaching and must contribute to service as well.
- Faculty with "of the Practice" in the title have had or maintain a primary employment in a profession outside of academia.
- Faculty with "Research" in the title will primarily be expected to make significant contributions to scholarly research or creative work and must contribute to teaching as well.

A. APT Faculty Appointments

In accordance with *Texas A&M University's Guidelines to Faculty Titles* (found as Appendix C in the Dean of Faculties Faculty Hiring Guidelines):

1. Newly hired faculty members appointed to Executive Professor, Professor of the Practice, Instructional Professor, Associate Professor of the Practice, Instructional Associate Professor, and Senior Lecturer (exclusive of the adjectives research, visiting, or adjunct) will have annual appointments for at least the first three years, but will always receive 12-months' notice if they are not to be reappointed. These appointments do not need to be full-time appointments, but intent to change the percent effort of the appointment should either be by mutual agreement of the faculty member and the Department, or after 12 months' notice to the faculty member. (Section 3.4 of *Texas A&M University's Guidelines to Faculty Titles*)
2. Newly hired faculty members appointed to Assistant Professor of the Practice, Instructional Assistant Professor, and Lecturer (excluding the adjectives research, visiting, and adjunct) will normally have annual appointments for their first five years of service. Notification of non-reappointment should be made as soon as possible, but in all cases they should be notified no later than one month after Board of Regents has approved the next fiscal year TAMU budget. Faculty members who have continuously been in one of these ranks for five full-time-equivalent years during a continuous seven-year period are entitled to 12-months' notice if they will not be reappointed. (Section 3.5 of *Texas A&M University's Guidelines to Faculty Titles*)
3. Faculty with the word "Visiting" or "Adjunct" in their faculty title are always given annual or semester appointments. Notification of non-reappointment should be made as soon as possible, but in all cases

they should be notified no later than one month after Board of Regents has approved the next fiscal year TAMU budget.

B. Promotion and Multi-Year Fixed Term Appointments for APT Faculty at the Associate and Full Professor Ranks

1. APT faculty members will normally be considered for promotion for these ranks after five years of service. However, unless 'time in rank' is one of the criteria for promotion, nothing shall prevent a faculty member from seeking promotion at an earlier time. All requests for promotion from eligible candidates must be considered. Each annual evaluation must address the extent to which their performance is in line with the level of expectation for their current rank, and, if it applies, the extent to which they are making progress towards their next promotion. (Section 3.4 & 3.5 of *Texas A&M University's Guidelines to Faculty Titles*). Lecturers and Senior Lecturers can be laterally reclassified to an Academic Professional Track professorial title if their appointment responsibilities are expanded beyond solely teaching. Failure to receive promotion does not affect reappointment consideration at the current rank.

2. Upon hiring, APT Faculty will be offered a 3 years probationary period, with a possibility of multi-year fixed contract for senior faculty ranks (Associate and above).

3. Granting multi-year fixed term appointments will be made upon a peer review of the faculty member's qualifications, as per the criteria stated in V.C.5, and an **affirmative decision** by the Department Head and the CAO.

4. Extension/renewal of multi-year fixed term appointments will be decided, in the penultimate year of a multi-year term appointment, upon a peer review of the faculty member's qualifications, as per the criteria stated in V.C.5., and an **affirmative decision** by the Department Head and the CAO.

5. Criteria for granting and renewing multi-year fixed term appointment may include but are not limited to:
   a) annual evaluations of performance
   b) professional growth
   c) extent of professional qualifications (including licenses and/or certifications required for the position)
   d) excellence in assigned responsibilities
   e) professionalism
   f) contribution to the mission of the department or program
   g) staffing needs
   h) funding source alternatives, and
   i) continuing program considerations

6. Faculty members will undergo a peer evaluation, which will coincide with the decision of whether or not to grant or renew a multi-year fixed-term appointment. A report of the peer evaluation will be provided to the Department Head and the CAO, who will consider the evaluation in making the decision whether to grant or renew. Such evaluation shall be conducted pursuant to written procedures established in the department's evaluation guidelines.

7. Notice of non-reappointment, or of intention not to renew a multi-year fixed term appointment, will be given in writing in accordance with the standards listed in section 2.2.2 of University Rule 12.01.99.M2 *"University Statement on Academic Freedom, Responsibility, Tenure and Promotion"*.

8. The multi-year fixed term appointment and/or renewal is not guaranteed but is awarded and renewed based upon excellence in assigned responsibilities and in alignment with programmatic needs of the department and college. Non-renewal of a multi-year fixed term appointment cannot be appealed.

9. Faculty members cannot be terminated during the multi-year fixed term appointment period except for good cause or financial exigency.

10. **Guideline for multi-year term appointments for Academic Professional Track (APT) Faculty**
    a) Faculty members appointed at Lecturer or [Adjective] Assistant Professor will have annual appointments and are not eligible for multi-year fixed term appointments.
    b) Faculty members appointed to Senior Lecturer and [Adjective] Associate Professor may be eligible for a three-year fixed term appointment. [Adjective] Professors may be eligible for a five-year fixed term appointment.
    c) Upon promotion to Senior Lecturer and [Adjective] Associate Professor, faculty may be eligible for a three-year fixed term appointment. Similarly, upon promotion to [Adjective] Professor, a faculty member may be eligible for a five-year fixed term appointment.

In the event of a bona fide financial exigency or the reduction or discontinuance of institutional programs at TAMUG, faculty multi-year appointment terminations will be carried out in accordance with TAMU rule 12.01.99.M2, Section 7 *"Reduction or Discontinuance of Institutional Programs"*.

C. Non-Reappointment of APT Faculty

1. **Lecturers and Assistant APT Faculty:** An unsatisfactory annual evaluation in any one year may lead to a non-reappointment for the following academic year or a 12-months' notice of non-reappointment for faculty members who have continuously been in one of these ranks for five full-time-equivalent years during a continuous seven-year period. If a Lecturer and Assistant APT faculty with an unsatisfactory annual evaluation is reappointed, a report of unsatisfactory performance will be submitted to the Dean of Faculties and accompanied by a written plan for near term improvement established by the faculty and the Department Head (see following sections).

   Associate and Full APT Faculty: An unsatisfactory annual evaluation in any one year will lead to a report of unsatisfactory performance to be submitted to the Dean of Faculties and accompanied by a written plan for near term improvement established by the faculty member and the Department Head.

2. If within a five-year period, a faculty member receives two annual evaluations with an overall unsatisfactory rating (does not meet expectations) after being placed on a near term improvement plan, the faculty member will be notified that her/his appointment will not be renewed and will be given a notice of non-reappointment, following TAMU's established guidelines which state:

   A decision not to renew the appointment of a non tenure-track faculty member shall be based upon adequate consideration (see Rule 12.01.99.M2 section 4.5.2) of the individual's professional performance and shall not be made in violation of academic freedom or as a form of illegal discrimination.

   The appeal procedures to be followed are outlined in Section 8 of Rule 12.01.99.M2.

VI. PROMOTION AND TENURE: PROCESS AND PROCEDURES

Both the TAMU System and University guidelines concerning tenure and promotion are available on the web for review, and can be found at these links (at time of posting):

(1) System Policy 12.01: Academic Freedom, Responsibility and Tenure (http://policies.tamus.edu/12-01.pdf);
(2) University Rule 12.01.99.M2: Statement on Academic Freedom, Responsibility, Tenure and Promotion (http://rules-saps.tamu.edu/PDFs/12.01.99.M2.pdf); and
(3) Office of the Dean of Faculties and Associate Provost's University Tenure and Promotion Guidelines and Guidelines for Annual & Midterm Review (http://dof.tamu.edu/Faculty-Resources/Annual,-Midterm-and-Post-tenure-Review-guideli-(1)).

(4) TAMUG's Office of Academic Affairs for all local college level guidelines and support material: http://www.tamug.edu/AcademicAffairs/FacultyEvaluation.html

All faculty members are expected to regularly review these websites, or their successor sites, to remain current with University policies and procedures. If there are any difficulties finding them, contact your Department Head. Each new faculty member and candidate for promotion will be provided with the most current version of this document for reference.

Members of the TAMUG faculty under consideration for tenure and/or promotion undergo four steps in the TAMUG review process: 1) Evaluation by Department Promotion and Tenure Committee (Department Review Committee), 2) Evaluation by Department Head, 3) Evaluation by TAMUG Promotion and Tenure Committee (College Review Committee), and 4) Evaluation by the CAO. The tenure and promotion dossier is forwarded to TAMU's Dean of Faculties Office for routing to and consideration by the Provost and Executive Vice President, and the President. Only tenure cases are forwarded to the Chancellor and the Board of Regents for evaluation and approval.

The faculty member will be notified of the results of consideration at each level in the process. In the event of a negative tenure and/or promotion decision, the faculty member is entitled upon request to a written statement of the reasons that contributed to the decision. This statement is normally provided through the Department Head.

A. Tenured-Track (TT) and Tenured (T) Faculty

Guidance to Tenure-Track Faculty Candidates and Evaluators for Tenure and Promotion Expectations on the Galveston Campus.

1. Expectations for Tenure and Promotion

Tenure is granted to recognize demonstrated leadership and impact in a research field nationally and a demonstrated commitment to teaching excellence and outreach/service. Promotion to Professor is granted for national/international leadership and impact in a research field and demonstrated commitment to teaching excellence and service. In exceptional and rare cases, national/international leadership and impact to teaching and service can be a basis for promotion from associate to full professor (see University Rule 12.01.99.M2).

Most faculty members should be evaluated for tenure and/or promotion on accomplishments in each of the three dimensions of performance, but with primary emphasis on the quality and impact of their research, scholarship or creative activities, as well as teaching activities. Each Department should clearly indicate in their bylaws and/or evaluation guidelines what are the standards of expectation of impact in each dimension. It is the candidate's responsibility to make a statement of impact, and the Department

Review Committee's responsibility to evaluate the candidate's impact statement and discuss it in the context of external reviewer letters, the department's stated expectations, and standards of impact.

TAMUG subscribes to the position that although quantitative measures of evaluation may be employed, excellence in performance is of primary importance; that is, quality, significance, and impact of accomplishments are of much greater importance than numbers. For tenure and/or promotion, in addition to meritorious accomplishments, a high potential for continued excellence is expected. Documentation of excellence is best provided by peer review. The promotional criteria for the Galveston Campus are as articulated below.

a) **Associate Professor:** Promotion to Associate Professor and the awarding of tenure occur concurrently. Granting of promotion and tenure will be based on an assessment of all three performance dimensions. At the conclusion of their mandatory review period, Assistant Professors are expected, at a minimum, to be effective in instruction/teaching and to establish a productive pattern of scholarly and creative activities and publication. Further, it is expected that Assistant Professors will display evidence of progress toward meeting the established criteria for promotion to Associate Professor with tenure. The following questions should guide the review.

   (1) Has the candidate contributed successfully to the research, teaching, and service missions of the Department and the University?

   (2) Has the candidate achieved substantial national and/or international recognition in research or another form of research or creative activity in his/her chosen field(s), or has shown significant evidence to do so in the near future?, and

   (3) If applicable, has the candidate developed, in the probationary period, a research program that is sustainable in terms of extramural funding and support for graduate students?

b) **Professor:** The requirements for promotion to Professor at TAMUG recognize the University's minimum requirements of completion of all requirements expected of an Associate Professor and superior accomplishment in at least one of three dimensions - teaching, research/creative activities or service - and a high level of ability in the other two. Professors are also expected to demonstrate outstanding merit in the pursuit of excellence and national/international prominence. By itself, administrative experience is insufficient as a justification for promotion to the rank of Professor. The following questions should guide the review.

   (1) Has the candidate successfully developed a leadership role in the research, teaching, and service missions of the Department and the University, recognized at national to international levels?

   (2) Is the candidate recognized, by their peers, as leading scholar in her chosen field(s), or has shown significant evidence to do so in the near future?, and

   (3) If applicable, has the candidate developed, since their last promotion, a research program that is sustainable in terms of extramural funding and shown evidence of successful graduate student supervision?

B. Academic Professional Track (APT) Faculty

1. Evaluation Criteria for Academic Professional Track Faculty (See also APPENDIX I of University Rule 12.01.99.M2)

Most faculty members should be evaluated for promotion on accomplishments in two of the three dimensions of performance, with a primary emphasis on the quality and impact of their teaching activities. Each Department should clearly indicate in their bylaws and/or evaluation guidelines what are the standards of expectation of impact in each dimension. It is the candidate's responsibility to make a statement of impact, and the Department Review Committee's responsibility to evaluate the candidate's impact statement and discuss it in the context of the department's stated expectations and standards of impact.

TAMUG subscribes to the position that although quantitative measures of evaluation may be employed, excellence in performance is of primary importance; that is, quality, significance, and impact of accomplishments are of much greater importance than numbers. For promotion, in addition to meritorious accomplishments, a high potential for continued excellence is expected. The criteria for the Galveston Campus are as articulated below.

a) **Senior Lecturer:** The quality and impact of teaching activities will be given primary emphasis for the granting of promotion from Lecturer to Senior Lecturer. Lecturers are expected, at a minimum, to maintain effectiveness in instruction/teaching at TAMUG and/or TAMU. The granting of promotion to Senior Lecturer will demonstrate, over time, excellence and effectiveness in instruction/teaching.

b) **[Adjective] Assistant Professors:** [Adjective] Assistant Professors are expected, at a minimum, to be effective in instruction/teaching and to establish a productive pattern of service contributions to the department and/or TAMUG and TAMU. The granting of promotion to [Adjective] Assistant Professor (from a Lecturer/Senior Lecturer position) will be based on an assessment of the quality and impact of prior teaching activities and contributions to service (or research in some cases when the faculty's second responsibility is in this dimension). This would include a pattern over time of excellence and effectiveness in instruction/teaching as well as a pattern over time of effectiveness in service (or research in some cases when the faculty's second responsibility is in this dimension). The schedule of promotion activities should parallel that of tenure-track faculty, as nearly as possible.

c) **[Adjective] Associate Professors:** The granting of promotion to [Adjective] Associate Professor will be based on an assessment of two of the three dimensions of performance, with a primary emphasis on the quality and impact of their teaching activities. This would include a pattern over time of excellence and impact in instruction/teaching as well as a pattern over time of effectiveness in service (or research in some cases when the faculty's second responsibility is in this dimension). [Adjective] Associate Professors are expected to be highly effective in instruction/teaching and to establish a significant pattern of service contributions to the University and/or national professional organizations. The schedule of promotion activities should parallel that of tenure-track faculty, as nearly as possible.

d) **[Adjective] Professor:** The granting of promotion to [Adjective] Professor will be based on an assessment of two of the three major categories of performance, with a primary emphasis on the high quality and impact of their teaching activities. This would include a pattern over time of excellence and impact in instruction/teaching as well as a pattern over time of significant service (or research in some cases when the faculty's second responsibility is in this dimension). The schedule of promotion activities should parallel that of tenure-track faculty, as nearly as possible.

C. Review

1. Scheduling

Time lines and schedules of activities are determined by guidelines issued by the Office of the Dean of Faculties. For details, consult the Dean of Faculties website, through the TAMU website. Also, refer to Appendix I and Appendix II in this document for an overview of the P&T process.

A faculty member is entitled to early consideration for promotion and/or tenure at her/his own request. Any faculty member who wishes to initiate early consideration for tenure shall so notify the Department Head in writing no later than April 15 of the year in which the faculty member wishes to be considered.

Faculty members undergoing early promotion and/or tenure consideration shall be considered together with the tenure cohort of the year of tenure consideration commencing in May following the request.

A faculty member whose application for early promotion and/or tenure has been unsuccessful shall be considered again in their mandatory year of tenure consideration.

2. Department Review Committee

a) Tenure Track and Tenured Faculty

(1) In each department, stated criteria for rating faculty performance in promotion and/or tenure review may be established by departmental faculty, with approval by the Department Head, the CAO, and Dean of Faculties. These criteria should define discipline-appropriate expectations for impact and productivity in categories of teaching; research, scholarship or creative work; service; and other assigned responsibilities.

(2) In the absence of departmental guidelines, the following guidelines for P&T review will apply. Each Department will use a Committee of the Whole to perform mid-term and promotional reviews of tenured and tenure-track faculty, and to perform promotional reviews of academic professional track faculty on Galveston Campus. The Committee of the Whole consists of all tenured faculty at or above the rank sought by the individual seeking promotion and is referred to as the "Department Review Committee" in these evaluation guidelines. In the event that a Department Review Committee cannot be formed at the department level, a committee can consist of tenured faculty from the Galveston Campus and potentially a tenured faculty member from College Station representing the field of study of the faculty member being evaluated.

(3) Faculty on a Professional Development Plan are not eligible to serve on the Committee of the Whole or any other Committees related to Tenure & Promotion or Post-Tenure Review. If rank holders are not available in the department, then the Department Head will choose faculty member(s) beyond the department or campus as necessary to include at least 5 members in the committee; these appointments are subject to approval by the CAO. If 2 or more candidates in a Department, going through the same rank review, require a similar external committee member(s), then the external reviewer(s) will need to agree to review all dossiers under consideration. Exclusions of eligible faculty members from the Committee of the Whole are not permitted except when the faculty has a conflict of interest with the candidate (e.g. spouse).

(4) In cases where the Committee of the Whole is larger than 5 faculty, the Department Head will appoint a sub-committee to form the Department Review Committee, and its Chair (5 total Faculty). The sub-committee and the sub-committee Chair will be appointed for one year, and the Department Head will review sub-committee appointments every year in the spring. The responsibility of the sub-committee is to prepare and review the dossiers for the individual(s)

seeking tenure and/or promotion. The sub-committee Chair or the Department Head will solicit letters from outside reviewers. Members of the sub-committee will collect the relevant materials from the department and from the candidate(s), will prepare the reports on teaching; research, scholarly or creative activities; and service, and will make sure the dossier is properly assembled. The sub-committee Chair will lead the writing of the report and will forward the report to the Committee of the Whole for review. The sub-committee Chair will revise the report based on Committee of the Whole comments to reflect the views and opinions of all voting members. The revised report will be open to a vote by the Committee of the Whole. The Chair of the sub-committee will then revise the report to incorporate the Committee of the Whole vote. The sub-committee Chair will then forward the revised report to the Department Head for review. The Department Head will then write her/his own assessment of the performance.

When only 5 or fewer faculty are eligible to be on the Committee of the Whole, then that group of faculty constitutes the Department Review Committee with the same roles and responsibilities of the sub-committee described above. See section VI.C.2.a)(2) also for adding external faculty to the Department Review Committee.

(5) No committee member shall serve at more than one level of the promotion consideration process (e.g. Department and College Review Committees) in the same year of tenure consideration.

(6) Selection of external reviewers' letters should be performed according to the University guidelines as outlined in Section IV of the University Promotion and Tenure Guidelines (available on the Dean of Faculties website). Briefly, the department should aim to include 5 to 7 letters from external reviewers. The minimum number of letters required is 5. External reviewers should be from peer institutions or better, but letters from other clear academic leaders in the field are also acceptable with appropriate justification. Where the stature of an institution, program, or individual is not obvious, include an explanation of why the program and/or reviewer is appropriate. For example, an institution of lower reputation than Texas A&M may have one of the strongest programs in the candidate's field. Although letters may be requested from outstanding individuals outside of academia, the file should still include at least three letters from individuals in peer programs/universities. External reviewers should come from different institutions, with a predominance from U.S. institutions. IMPORTANT: Include a list of the department's peer and aspiring institutions if other than AAU-level institutions, and the basis for the selection. It is recommended that an equal number of letters be solicited for all candidates. The candidate provides a list of names of possible reviewers.

(7) The candidate may also provide a list of those who should not be consulted by completing the External Reviewer Candidate Checklist. The Department Head or Department Review Committee also provides a list of possible reviewers using the External Reviewer Department Checklist. The Department Review Committee will select a group of at least seven external reviewers from the two lists. The Department Review Committee Chair or the Department Head will then contact the external reviewers (after CAO approval under item (8) below). The committee should ensure that a mix of letters are solicited - some suggested by the candidate and some by the Department. Clearly indicate on the External Reviewer Chart who suggested which reviewers, which requested letters were and were not received. All requested letters that are received must be included in the dossier.

(8) Prior to moving forward contacting the external reviewers, the Department Head will seek approval for the selected list from the CAO in late spring (at the latest in early Summer) using the

External Reviewers Request Excel spreadsheet. The CAO will review the list and may include external reviewers that better match the Tier I peer institutions of Texas A&M University. After approval of the final list of reviewers, the department review committee Chair or the Department Head will contact them to request their service with the P&T review process. The External Reviewer Solicitation Letter template must be used. Any changes to the letter template to better represent a particular discipline must be reviewed and approved by the CAO and Dean of Faculties and Associate Provost.

b) Academic Professional Track Faculty

Similarly to the TT/T Faculty P&T Review process, each Department will use a Committee of the Whole to perform promotional reviews of academic professional track faculty on Galveston Campus. The Committee of the Whole consists of all tenured and APT faculty at or above the rank sought by the individual seeking promotion and is known as the "Department Review Committee" in these evaluation guidelines. In the event that a Department Review Committee cannot be formed at the department level, a committee can consist of Senior APT faculty from the Galveston Campus and potentially a senior APT faculty member from College Station representing the field of study of the faculty member being evaluated. All guidelines cited in Section VI.C.2.a) above apply, with the exception of requiring evaluation letters from external reviewers.

3. Dossier Preparation

All Faculty candidates are required to submit a dossier for promotion according to the provisions and schedule determined by University Promotion and Tenure Guidelines issued by the Office of the Dean of Faculties. With the exception of the tenure and promotion review for TT Assistant Professors, which has a set mandatory review timeline, the decision to submit one's dossier for consideration for promotion from tenured Associate Professor to Professor and for all APT Faculty should be made by an individual in consultation with their Department Head. The Department Head establishes a Department Review Committee for the individual in accordance to the established departmental evaluation guidelines. The Department Review Committee should meet with the candidates for promotion during the Spring semester of the year in which they wish to be considered, or as soon as possible after the announcement of the schedule for the promotion process for that cycle is announced by the Dean of Faculties, to assist them in developing the supporting documentation for their dossier, their vitae, and their statements concerning teaching; research, scholarly or creative activity; and service.

4. Review

Tenure-track faculty will undergo a comprehensive mid-term review in the fall of their 4th academic year (after completion of 3 full academic years of service). The departmental mid-term review needs to be submitted to the CAO office at the same time as P&T dossiers. The mid-term review is completed during the spring of that academic year, through a meeting with the CAO who submits a report (to the faculty member and the Department Head) on the review prior to May 31st. This review should mimic the tenure review process as closely as possible, with the exception of requesting evaluation letters from external reviewers. Candidates should anticipate the activities and approximate dates noted in the annual Dean of Faculties announcement outlining the dossier process (refer to the Dean of Faculties website or access through the Office of Academic Affairs website for more complete information).

In the year that any faculty member is reviewed for actual promotion, the formal tenure and/or promotion Department Review Committee will be established according to Departmental guidelines. Mandatory reviews for tenure and promotion will occur in the sixth academic year since start of service (see Dean of Faculties Tenure-Track Agreement for each tenure-track faculty member).

Each faculty member reviewed for mid-term, tenure, and/or promotion will be provided with a current description of the materials needed for the review and a time line for the preparation of those materials, normally during the spring of the preceding academic year in which they will be considered. Materials will be prepared in a manner consistent with the University Promotion and Tenure Guidelines issued by the Dean of Faculties Office of Texas A&M University which can also be accessed through the Office of Academic Affairs website).

5. **Dossier Evaluation**
   It is a shared responsibility of the Department Review Committee, in consultation with the Department Head, to solicit statements and data from the candidate, external reviewers, former students, TAMUG peers, etc., as appropriate, as explained above. It is then the Department Review Committee's responsibility to review these statements concerning the quality of the candidate's teaching, research, scholarly and creative activities, service, and other activities, based on the dossier that the candidate presents, that will be forwarded through subsequent levels of the review process. The type of information contained in the tenure and/or promotion dossier is mandated in University Promotion and Tenure Guidelines and the Dean of Faculties website. The responsibility for the objective analysis of the individual candidate is first that of the Department Review Committee. The Department Review Committee must provide specific, concrete statements based upon documented evidence and peer review to substantiate their recommendations. These recommendations must be consistent with the evidence of performance and impact of all levels of activities as documented in the dossier.

6. **Role and Responsibility of the Individual Faculty Member in the Review Process**
   The ultimate responsibility for assuring that all pertinent materials are supplied to the Department Review Committee lies with the faculty member being considered for tenure and/or promotion (herein, "the candidate"). The candidate must explain to the Department Review Committee, and provide evidence of, the significance and impact of their teaching; research, scholarly or creative activity; and service contributions. Candidates should consult with their Department Head and review the University Promotion and Tenure Guidelines and the Dean of Faculties website for the materials they should collect. Candidates should also be considering potential external reviewers, persons who are familiar with the field in which she/he is working and whose credentials qualify them to evaluate the candidate's work (please consult the statement on selection of external reviewers in section VI.C.2.a)(6) above and the University Promotion and Tenure Guidelines (Section IV).

   Documents important to the candidate for review, promotion, and tenure are the statements on teaching; research, scholarly or creative activities; and service, and the curriculum vitae. It is the candidate's responsibility to keep their vitae current and organized in a manner appropriate to their discipline and include all professional activities that would be appropriate to be consider for tenure and/or promotion, including, but not limited to, the types of activities mentioned in University Rules and Guidelines, and the Dean of Faculties website.

7. **The Dossier**
   The dossier of review materials is prepared according to the content and format requirements set in the University Promotion and Tenure Guidelines.

   The candidate's support dossier to the Department Review Committee may have significant appendix materials, full copies of articles, texts, photographs of creative work, etc.; however, these supporting documents will not be included in the final dossier submitted to the Dean of Faculties. The Department Review Committee reviews the curriculum vitae, the candidate's statement concerning teaching; research, scholarly or creative activity; and service, course listings, etc., and makes suggestions and

corrections to improve the dossier. Appropriate materials, as defined in the Department's evaluation guidelines, may be included along with the request letter mailed to the candidate's external reviewers.

The dossier is then assembled by the Department Review Committee, including a report that addresses the candidate's teaching; research, scholarly or creative activities; and service, drawing from materials provided by the candidate and information extracted from external reviewer's letters. The report from the Department Review Committee will be reviewed and revised as described in section VI.C.2.a)(4) to ensure that the report reflects the views and opinions of all voting members of the Committee of the Whole.

After the Department Review Committee has made its recommendations, they are forwarded to the Department Head to continue with the next stage of review.

8. Department Head's Review

In conducting the formal tenure and/or promotion reviews, Department Heads shall draw upon the advice and counsel of the Department Review Committee as well as other appropriate sources. Negative comments contained in external letters are to be addressed by the Department Head as well as by the Department Review Committee. When the review has been completed, the Department Head will transmit the tenure and/or promotion recommendations of both the Head and the Department Review Committee to the TAMUG College Review Committee for review. It is the responsibility of the Department Head to advise the faculty member of the recommendation for or against tenure and/or promotion at each level of the review. The faculty member may request a written explanation in the event of a negative tenure and/or promotion recommendation at the end of the entire review process.

9. TAMUG Review

a) College Review Committee

In conducting tenure and/or promotion reviews, the CAO shall draw upon the advice and counsel of a TAMUG-wide tenure and/or promotion Review Committee (College Review Committee). Faculty eligible to serve on the College Review Committee include full professors on the tenured and professional tracks in TAMUG departments along with Engineering faculty on the Galveston Campus who hold a courtesy/joint appointment in a TAMUG Department. Membership to the College Review Committee is appointed by the CAO for a period of 2 years and should include, as much as possible, a representative of each TAMUG Department. The composition of this committee will be communicated clearly every year on the Academic Affairs website. If any faculty member under consideration has a concern with the composition of the College Review Committee, they should voice such concerns to the CAO as soon as the committee composition is announced. Finally, the College Review Committee has a responsibility to serve the entire campus with a spirit of inclusion and equity, and thus affirm their commitment to offer a fair and extensive review reducing the impact of implicit bias and other un-useful schemas in the evaluation process.

The College Review Committee submits a complete written report with their recommendation to the CAO. A written report from the College Review Committee is required as a part of each dossier leaving TAMUG. The College Review Committee's recommendations should be consistent with the evidence of performance as documented in the dossier but should not be merely reiterations of earlier statements.

b) Chief Academic Officer

The CAO's evaluations of candidates should be independent and not merely restatements of comments made by the Department Head or a Committee. The CAO will submit recommendations to

the Office of the Provost and Executive Vice President by sending complete dossier files to the Dean of Faculties and Associate Provost. The CAO will notify the Department Head of recommendation for or against tenure and/or promotion at levels beyond TAMUG.

10. **Promotion and Tenure Process beyond TAMUG**
    After the College Review Committee has made its recommendations, forwarded them to the CAO and the CAO has made their recommendation, the dossier will be transferred electronically to the Office of the Dean of Faculties for TAMU review. For the policies and procedures used at TAMU, consult University Rule 12.01.99.M2 and the Dean of Faculties website.

11. **Appeal**
    Faculty members whose appointment is not renewed due to a decision not to grant tenure may appeal the decision to the Committee on Academic Freedom, Responsibility, and Tenure (CAFRT) under the Texas A&M University Rule 12.01.99.M2, *"University Statement on Academic Freedom, Responsibility, Tenure, and Promotion"*.

VII. POST-TENURE REVIEW (PTR)

Modified March 2020 to clarify this process runs simultaneously with the P&T cycle as opposed to the annual evaluation process.

Subsequent to the award of tenure, the performance review of a faculty member provides a mechanism to gauge the productivity of the individual and should be designed to encourage a high level of sustained performance. Post-tenure review is comprised of a periodic review by a committee of peers that occurs not less frequently than once every six years. Refer to Appendix VI at the end of this document for a timeline and overview of the PTR process.

This guideline does not supersede *"University Statement on Academic Freedom, Responsibility, Tenure, and Promotion"* (12.01.99.M2) that defines tenure policies and the process under which dismissal for cause proceedings may be initiated.

A. University Expectations

1. Tenured faculty are expected to perform satisfactorily at teaching; research, scholarship, or creative work; service; and other assigned responsibilities (e.g., administration) throughout their career.

2. Modifications to these assignments may be expected as a career changes but should not go to zero in any category. A decrease in expectation in one category should be matched by a concomitant increase in load expectations in another category. However, volume of work does not equate to quality.

3. Alternate work assignments (such as administration) may replace one or more categories in certain situations but only with the written approval of Department Head and CAO. Faculty are to be reviewed based upon the assigned duties (this would include administrative assignments) of their position.

B. Periodic Peer Review

Texas Education Code section 51.942 requires that tenured faculty at State of Texas institutions of higher education be subject to a comprehensive performance evaluation process conducted no more often than once every year, but no less often than once every six years, after the date the faculty member was granted tenure or received an academic promotion at the institution.

The evaluation should be based on the professional responsibilities of the faculty member in teaching; research, scholarship, or creative work; service; and other assigned responsibilities and must include peer review of the faculty member. Departments should define discipline-appropriate expectations for impact and productivity at

each rank. The criteria for rating faculty performance in Periodic Peer Reviews will be established by departmental faculty and approved by the Department Head, CAO, and the Dean of Faculties. The criteria will be published and disseminated in advance of the academic year in which they are to be used. The evaluation will be completed at the latest on May 31st of the sixth year since the last PTR review or the last promotion.

1. The purpose of the Periodic Peer Review is to:
    a) Assess whether the individual is contributing consistently with the expectations of a tenured faculty member;
    b) Provide guidance for continuing and meaningful faculty development;
    c) Assist faculty to enhance professional skills and goals; and
    d) When appropriate, refocus academic and professional efforts.
2. Departments must have post-tenure review guidelines which will clearly state:
    a) How peer evaluation of performance is incorporated in the Post Tenure Review process. The process should mimic the P&T process (without external letter of evaluations) and as such should include a review by the promotion and tenure committees, a Department Head evaluation, and a review by the College P&T committee prior to a final review by the CAO;
    b) Criteria for rating of faculty performance, which must agree with those established for annual evaluation and clearly describe performance expectations for tenured faculty;
    c) Review guidelines and timelines;
    d) The materials to be reviewed. This should include materials beyond those submitted for the annual evaluations (e.g. statements of research, teaching, service). Faculty are to be reviewed based upon their assigned duties;
    e) The process by which peer-review committees are selected.
3. A finding of "Unsatisfactory" performance in any particular category shall state the basis for that finding in accordance with the criteria described in the department evaluation guidelines. An unsatisfactory Periodic Peer Review will trigger the initiation of a Professional Development Review (section VII.C).
4. A finding of "partially meets expectations" in any two categories shall state the basis for that finding in accordance with the criteria described in the department evaluation guidelines. Such an outcome will also trigger the initiation of a Professional Development Review (section VII.C.).
5. A rating of "partially meets expectations" in a single category must specifically elaborate the deficiencies, in writing, to better inform the immediate development of a near term improvement plan developed in collaboration between the Department Head and the faculty member.
6. For tenured faculty with budgeted joint appointments, Periodic Peer Review will be conducted as per the post-tenure review guidelines of the department or program where the faculty holds the majority of the appointment (ad loc) unless the faculty member requests to be reviewed by both units. If reviewed only

by the primary department the Department Head will share the report with the Department Head of the secondary department.

7. By no later than May 31st, each department will need to have completed the full review (including the College P&T review) of faculty that require such a PTR, provide a list to the CAO of those faculty who underwent Periodic Peer Review, the outcome of the review, and the year when each tenured faculty last underwent a review.

8. The CAO will report all Periodic Peer Reviews conducted in the annual cycle to the Dean of Faculties on the Annual Evaluation Report for TAMUG.

C. Professional Development Review

1. A professional development review will be initiated when a tenured faculty member receives three consecutive overall "Unsatisfactory" annual evaluations (section IV.A.), or one "Unsatisfactory" Periodic Peer Review (section VII.B.), or upon request of the faculty member (section VII.F.). The Department Head will inform the faculty member that he or she is subject to a Professional Development Review, and of the nature and guidelines of the review. A faculty member can be exempted from review upon recommendation of the Department Head and approval of the CAO when substantive mitigating, circumstances (e.g. serious illness) exist. The faculty member may be aided by private legal counsel or another representative at any stage during the Professional Development Review process.

   a) The purposes of Professional Development Review are to: identify and officially acknowledge substantial or chronic deficits in performance; develop a specific professional development plan by which to remedy deficiencies; and monitor progress toward achievement of the professional development plan.

   b) The Professional Development Review will be conducted by an ad hoc review committee (hereafter referred to as the "review committee"), unless the faculty member requests that it be conducted by the Department Head. The three member ad hoc faculty review committee will be appointed by the CAO, in consultation with the Department Head and faculty member to be reviewed. When appropriate, the committee membership may include faculty from other departments, colleges, or universities.

   c) The faculty member to be reviewed will prepare a review dossier by providing all documents, materials, and statements he or she deems relevant and necessary for the review within one month of notification of Professional Review. All materials submitted by the faculty member are to be included in the dossier. Although review dossiers will differ, the dossier will include at minimum a current curriculum vitae, a teaching portfolio, and a statement on current research, scholarship, or creative work.

   d) The Department Head will add to the dossier any further materials he or she deems necessary or relevant to the review of the faculty member's academic performance. The faculty member has the right to review and respond in writing to any materials added by the Department Head with the written response included in the dossier. In addition, the faculty member has the right to add any materials at any time during the review process.

   e) The Professional Development Review will be made in a timely fashion (normally within three months after submission of the dossier). The Professional Development Review will result in one of three possible outcomes:

(1) No deficiencies are identified. The faculty member, Department Head, and CAO are so informed in writing, and the outcome of the prior annual evaluation is superseded by the ad hoc review committee report.

(2) Some deficiencies are identified but are determined not to be substantial or chronic. The review committee specifically elaborates the deficiencies in writing and a copy is provided to the faculty member, the Department Head, and the CAO to better inform the near term improvement plan of Section VII.B.5.

(3) Substantial or chronic deficiencies are identified. The review committee specifically elaborates the deficiencies in writing and a copy is provided to the faculty member, Department Head, and CAO. The faculty member, review committee, and Department Head shall then work together to draw up a "Professional Development Plan" (see section VII. D) acceptable to the CAO.

D. The Professional Development Plan

1. The Professional Development Plan shall indicate how specific deficiencies in a faculty member's performance (as measured against stated departmental criteria developed under the provision of this guideline) will be remedied. The plan will grow out of collaboration between the faculty member, the review committee, the Department Head and the CAO, and should reflect the mutual aspirations of the faculty member, the department, and the college. The plan will be formulated with the assistance of and in consultation with the faculty member. It is the faculty member's obligation to assist in the development of a meaningful and effective plan and to make a good faith effort to implement the plan adopted.

   Although each professional development plan is tailored to individual circumstances, the plan will:

   a) Identify specific deficiencies to be addressed;
   b) Define specific goals or outcomes necessary to remedy the deficiencies;
   c) Outline the activities to be undertaken to achieve the necessary outcomes;
   d) Set time lines for accomplishing the activities and achieving intermediate and ultimate outcomes;
   e) Indicate the criteria for assessment in annual evaluations of progress in the plan;
   f) Identify institutional resources to be committed in support of the plan.

2. Assessment

   The faculty member and Department Head will meet regularly to review the faculty member's progress toward remedying deficiencies. A progress report will be forwarded to the review committee and to the CAO. Further evaluation of the faculty member's performance within the regular faculty performance evaluation process (e.g. annual evaluations) may draw upon the faculty member's progress in achieving the goals set out in the Professional Development Plan.

3. Completion of the Plan

   a) When the objectives of the plan have been met or the agreed timeline exceeded, or in any case, no later than three years after the start of the Professional Development Plan, the Department Head shall make a final report to the faculty member and CAO. The successful completion of the Professional Development Plan is the positive outcome to which all faculty and administrators involved in the process must be committed. The re-engagement of faculty talents and energies reflects a success for the entire University community.

b) If, after consulting with the review committee, the Department Head and CAO agree that the faculty member has failed to meet the goals of the Professional Development Plan and that the deficiencies in the completion of the plan separately constitute good cause for dismissal under applicable tenure policies, dismissal proceedings may be initiated under applicable policies governing tenure, academic freedom, and academic responsibility.

E. Appeal

If at any point during the process the faculty member believes the provisions of this process are being unfairly applied, a grievance can be filed under the provisions of University Rule 12.01.99.M4, *"Faculty Grievance Procedures Not Concerning Questions of Tenure, Dismissal, or Constitutional Rights"*.

If the faculty member wishes to contest the composition of the Professional Development Review committee due to specific conflict of interest with one or more of the proposed committee members, an appeal may be made to the Dean of Faculties and Associate Provost. After consultation with the faculty member, Department Head, and the CAO, the decision of the Dean of Faculties and Associate Provost on the committee composition is final.

If the faculty member wishes to contest the Professional Development Review committee's finding of substantial or chronic deficiencies, the faculty member may appeal the finding to the CAO, whose decision on such an appeal is final.

If the faculty member, Department Head, and review committee fail to agree on a Professional Development Plan acceptable to the CAO, the plan will be determined through mediation directed by the Dean of Faculties and Associate Provost.

F. Voluntary Post-Tenure Review

A tenured faculty member desirous of a voluntary Post-Tenure Review may seek the counsel of peers, through a Periodic Peer Review (section VII.B.) or a Professional Development Review (section VII.C.), by making a request to the Department Head.

Related Statutes, Policies, or Requirements

Supplements System Policy 12.06

APPENDIX I: TAMUG TT/T FACULTY PROMOTION AND TENURE PROCESS

This timeline outlines the documents and actions required. Always refer to the following for complete information and details.
(1) Home department's by-laws and/or tenure and promotion procedures (if applicable)
(2) TAMUG Faculty Evaluation Guidelines https://www.tamug.edu/AcademicAffairs/FacultyEvaluation.html
(3) Dean of Faculties Promotion and Tenure Submission Guidelines http://dof.tamu.edu/Faculty-Resources/CURRENT-FACULTY/Promotion-and-Tenure

Action / Documentation	**Calendar** (Approximate timeline)
Departments: ● Form the **Department Review Committee**	**March 2020**
Department Heads: ● Meet individually with department faculty who seek tenure and/or promotion ● Inform the CAO of the dossiers being prepared **College:** ● CAO to form College Review Committee (bi-annually) **Department Administrative Review:** ● Create cases in Interfolio using the Candidate's TAMU email address ● Create the dossier coversheet (fillable form in Interfolio) and update as case proceeds ● Upload the External Reviewers Chart in Excel; for promotion with tenure cases only, also upload the Faculty Tenure Table in Word	**April 2020**
Promotion and Tenure / Tenured Promotion / Mid Term Review Candidates: ● **Impact Statement** ○ 3 typed pages maximum; single-spaced; 10pt font minimum; 1 inch margins ○ Explains the quality, productivity overtime and impact within each area of responsibility (ie: teaching, research/scholarly or creative work, and service accomplishments) ● **Curriculum Vitae** ○ Concise overview of academic accomplishments; reflecting experiences and development in career as a teacher and scholar ○ Include signed/ dated statement: *"This CV submitted is most current and correct as of the date of this signature."*; may be appended onto the end of the CV ● **Grants Summary Chart** ○ Upload Grants Summary Chart as an Excel file* ○ Accurately list grant information; may include career long awards ○ Be sure grants chart and associated details listed in CV are congruent ● **Verification of Contents Statement** ○ Fillable form within Interfolio ○ Statement that accurately describes a list of all materials the candidate is submitting to the department review committee ● **Faculty Data Table** ○ Fillable form within Interfolio; include career totals ○ Leave table cells blank if they do not apply ● **External Reviewer's Checklist** ○ Upload Candidate External Reviewer Checklist ○ Arm's length full professors from peer or aspiring institutions who do not have a vested interest in the outcome and therefore can provide an objective and unbiased review ● **Other Documents** ○ May include supporting documentation demonstrating/evidencing impact in teaching, research and service ○ Departmental by-laws or evaluation guidelines may require specific documentation to be provided in this section (ie: annual evaluations, student evaluations, teaching portfolio, etc.)	**Mid-Late May 2020** Actual Due Date set by Department Head

Action / Documentation	**Calendar** (Approximate timeline)
Department Review Committee: ● **Department External Checklist** ○ Complete the Department External Reviewer Checklist for tenure track and tenured cases ○ Arm's length full professors from peer or aspiring institutions who do not have a vested interest in the outcome and therefore can provide an objective and unbiased review	**Early June 2020**
Department Head: ● **External Reviewers Request Excel spreadsheet** (outside of Interfolio) ○ Complete the with the names provided by the candidate and the department review committee ○ Provide to CAO to approve peer or aspiring institutions before sending the external review solicitation requests	**Mid June 2020**
Department Review Committee or Department Head: ● **External Reviewer Solicitation Letter Request** ○ From the two lists, a group of at least 7 are to be selected and contacted by the Department Head or Dept Review Committee Chair per departmental by-laws or evaluation procedures ○ Must use the **University Standard External Review Template** (refer to Appendix I in DoF Guidelines) sent via email and in subject line state *"Candidate Name Tenure and Promotion External Review Official Request"* ○ Alternatively, letters from external reviewers can be submitted via Interfolio	**Late June 2020**
Department Review Committee: Unless the departmental artifact requirements were preloaded into the Interfolio case template for the Candidate to provide under Other Documents, the committee will need to: ● Collect and review materials related to evaluation of teaching effectiveness ● Collect and review materials related to evaluation of research, scholarly or creative activities ● Collect and review materials related to evaluation of service	**August - Early September 2020**
Department Review Committee or Department Head: ● **External Evaluations** ○ Compile as received for placement in the dossier ○ Must include a minimum of 5 arm's length letters, although 7 is preferred with at least 4 letters from individuals in peer or aspiring programs/universities ○ A minimum of 3 letters from the department's suggested list must be included ● **External Reviewers Biographies / Justifications** ○ Provide a separate document listing the name, title, affiliation, contact information and a half a page (maximum) biography highlighting specific qualifications and credentials for each of the reviewers listed on the External Reviewers Chart. ○ Information to be provided by the department head or department review committee chair; support staff may compile the information for submission ● **External Reviewers Chart** ○ Complete the External Reviewers Chart*, listed alphabetically by last name ○ Indicate which reviewers were suggested by the candidate versus the department ○ Include all external reviewers contacted; specify which letters were received	**Early September 2020**

Action / Documentation	Calendar (Approximate timeline)
Department Review Committee: Writes well-substantiated analyses of the scope (quality, productivity overtime) and IMPACT of candidate's performance in each of the three areas of responsibility. ● **Teaching Report** ○ To include evaluation of course materials; Synthetic analysis of student evaluations of teaching; Evaluation of other valuable teaching contributions ● **Research and/or Other Scholarly or Creative Activities Report** ○ Place the candidate's impact of research or other scholarship contributions in the context of the specific departmental mission, goals, expectations and criteria ● **Service Report** ○ Explain the candidate involvement, contributions, quality and impact of their service activities ● **Department Review Committee Discussion Report & Recommendation** ○ Convey the essence of the department review committee's discussion and vote regarding the candidate's performance and impact of their work as it relates to their suitability for eventual promotion and/or tenure ○ Address any negative comments made by external reviewers ○ Include voting table; a mixed vote requires further explanation of both the candidate's demonstrated abilities and the committee's concerns	**September 2020** Actual Due Date set by Department Head
Department Head: ● Recommendation from Department Head added to Interfolio Dossier ● Dossier forwarded to College Administrative Review, who in turn forwards the dossier to the College Review Committee	**October 16, 2020**
College Review Committee: ● College Review Committee recommendation added to dossier ● Dossier forwarded to "Dean" (CAO) for review	**November 6, 2020**
TAMUG CAO: ● Recommendations added to the dossiers ● Mid Term Reviews stop here and a meeting with the Candidate, Dept Head and CAO will be scheduled during the spring semester	**November 30, 2020**
TAMUG CAO: ● Forwards all dossiers to "DoF Staff Review"	**December 3, 2020**
Dean of Faculties: ● Meets with the CAO to discuss TAMUG recommendations	**January 2021**
Provost: ● Forwards recommendations to the University President	**January/February 2021**
University President: ● Forwards recommendations for promotion and tenure cases to the Board of Regents	**January/February 2021**
Board of Regents ● BOR reviews recommendations and makes final decisions on tenure cases.	**April/May 2021**
Promotions and Tenure Effective	**September 1, 2021**

APPENDIX II: TAMUG APT FACULTY PROMOTION PROCESS

Specific dates beyond the college level are published each year by the Dean of Faculties Office, at http://dof.tamu.edu.

Departments: ● Form the **Department Review Committee**	**March 2020**
Department Heads: ● Meet individually with department faculty who seek promotion ● Inform the CAO of the dossiers being prepared **College:** ● CAO to form College Review Committee (bi-annually) **Department Administrative Review:** ● Create cases in Interfolio using the Candidate's TAMU email address ● Create the dossier coversheet (fillable form in Interfolio) and update as case proceeds	**Spring 2020** **Spring-Summer 2020**
Academic Professional Track Promotion Candidates: ● **Impact Statements** ○ 3 typed pages maximum; single-spaced; 10pt font minimum; 1 inch margins ○ Explains the quality, productivity overtime and impact within each of the two areas of responsibility (ie: teaching and service accomplishments or teaching and research/scholarly or creative work accomplishments) ● **Curriculum Vitae** ○ Concise overview of academic accomplishments; reflecting experiences and development in career as a teacher and scholar ○ Include signed/ dated statement: *"This CV submitted is most current and correct as of the date of this signature."*; may be appended onto the end of the CV ● **Grants Summary Chart** ○ Upload Grants Summary Chart as an Excel file*; if not applicable, upload chart with N/A ○ Accurately list grant information; may include career long awards ○ Be sure grants chart and associated details listed in CV are congruent ● **Verification of Contents Statement** ○ Fillable form within Interfolio ○ Statement that accurately describes a list of all materials the candidate is submitting to the department review committee ● **Faculty Data Table** ○ Fillable form within Interfolio; include career totals ○ Leave table cells blank if they do not apply ● **Other Documents** ○ May include supporting documentation demonstrating/evidencing impact in teaching, research and service ○ Departmental by-laws or evaluation guidelines may require specific documentation to be provided in this section (ie: annual evaluations, student evaluations, teaching portfolio, etc.)	**August 2020** Actual Due Date set by Department Head

Action	**Calendar** (Approximate
Department Review Committee: Unless the departmental artifact requirements were preloaded into the Interfolio case template for the Candidate to provide under Other Documents, the committee will need to: ● Collect and review materials related to evaluation of teaching effectiveness and ● Collect and review materials related to evaluation of service or ● Collect and review materials related to evaluation of research, scholarly or creative activities	**August - Early September 2020**
Department Review Committee: Writes well-substantiated analyses of the scope (quality, productivity overtime) and IMPACT of candidate's performance in each of the two areas of responsibility. Upload blank document if area does not apply. ● **Teaching Report** ○ To include evaluation of course materials; Synthetic analysis of student evaluations of teaching; Evaluation of other valuable teaching contributions ● **Research and/or Other Scholarly or Creative Activities Report** ○ Place the candidate's impact of research or other scholarship contributions in the context of the specific departmental mission, goals, expectations and criteria ● **Service Report** ○ Explain the candidate involvement, contributions, quality and impact of their service activities ● **Department Review Committee Discussion Report & Recommendation** ○ Convey the essence of the department review committee's discussion and vote regarding the candidate's performance and impact of their work as it relates to their suitability for eventual promotion and/or tenure ○ Address any negative comments made by external reviewers ○ Include voting table; a mixed vote requires further explanation of both the candidate's	**September 2020** Actual Due Date set by Department Head
Department Head: ● Recommendation from Department Head added to dossier ● Dossier forwarded to College Administrative Review, who in turn forwards the dossier to the College Review Committee	**October 16, 2020**
College Review Committee: ● College Review Committee recommendation added to dossier ● Dossier forwarded to "Dean" (CAO) for review	**November 6, 2020**
TAMUG CAO: ● Recommendations added to the dossiers	**November 30, 2020**
TAMUG CAO: ● Forwards all dossiers to "DoF Staff Review"	**December 3, 2020**
Provost: ● Meets with the CAO to discuss TAMUG recommendations	**January**
Provost: ● Forwards recommendations to the University President	**January/February**
University President: ● Makes a final decision on recommendations	**January/February**
Promotions Effective	**September 1st**

APPENDIX III: EVIDENCE SUPPORTING PERFORMANCE IN TEACHING

Purpose: This guidance suggests a variety of elements appropriate for consideration for evaluation of faculty teaching performance at Texas A&M University. These example questions, as applicable to the faculty member's department, college and or discipline, are appropriate for use in annual evaluations and in the teaching report for mid-term review, promotion and tenure and post-tenure reviews. This resource is meant to prompt evidence-based analysis during the evaluation of dossiers rather than require a specific prescription for those reports.
Use only those bullets that apply, or develop your own lists of evidence and questions to prompt relevant evaluation within your discipline.

Evidence Related to Course Teaching	Questions for Consideration
Record of all courses taught	• How many courses? • Taught how often? • To how many students? • How does the average course load for this candidate over the period under consideration correspond to unit expectations?

Course syllabi
Sample syllabi required
(link - assessment instrument)
	• What is the quality of the syllabus?
	  ○ Is it clear?
	  ○ Does the syllabus represent the course as well organized and well designed?
	  ○ Does the information, readings, materials described in the syllabus demonstrate the current state of the discipline?
	  ○ Are the assignments and assessments well-paced for that stage of the curriculum?
	  ○ Does the course fulfill expectations of the academic unit for content and process skills needed for subsequent courses?
	  ○ Is there evidence of best practices in inclusive teaching?
	• More syllabus assessment questions
	• Does student feedback indicate anything about the syllabus?

Assignments *Sample assignments required*	• Do you view assignments as effective pedagogical methods and materials? • What does student performance on the assignment indicate about its effectiveness, their satisfaction with the learning environment, and/or student success? • Is how the assignment will be assessed clear within the assignment description (e.g. rubric provided)?
Examinations	• What is your assessment of the exams?

Sample examinations required	○ How do exams compare with best practices in the discipline? ○ How innovative are they? ○ Do the exams represent rigor appropriate for this level course? • How well do you expect the exams capture student performance?
Grading methods *Sample of student work with instructorfeedback required*	• What is your assessment of the grading methods? • Do the methods reflect best practice? • Do the grading methods facilitate student learning?
Structured classroom observation (optional)	• Were course observations done? • Were course observations based on specific standards? (e.g. link – Classroom Observation Feedback Form) • What was the frequency of the observations? • How has the teaching quality changed across observations of the candidate?
Continuous course and teaching improvement	• How have courses and teaching evolved? • How has the instructor engaged in reflection and continuous improvement of teaching to enhance teaching effectiveness? • What, if any evidence, is there that the candidate pursued professional development to identify and implement appropriate and innovative pedagogy?
Evidence Related to Other Teaching Contributions	Questions for Consideration
Direction of graduate students	• Are the graduate students supervised by the candidate progressing in a timely manner? • Are there productivity measures for the graduate students (e.g. publications, awards, postdoctoral or professional placement) that relate directly to the mentoring effectiveness of the facultymember?
Direction of undergraduate researchers	• Are undergraduate projects and experiences with this candidate consistent with expectations in the department? • Are there productivity measures for the undergraduate student (e.g. publications, awards, graduate school or professional placement) that relate directly to the mentoring effectiveness of the faculty member?
Direction of Postdoctoral Scholars	• Are the post docs supervised by the candidate progressing in a timely manner? Are there productivity measures for the post docs (e.g. publications, awards, professional placement) that relate directly to the mentoring effectiveness of the faculty member?

Other mentoring activities	• What sorts of advising or mentoring activities outside of research and scholarship does the candidate do with students, postdocs, staff, colleagues?
Curriculum & course development	• To which extent has this faculty member contributed to the unit by creating new courses, revising existing courses, coordinating multi-section courses, and/or contributing to program review/redesign? • Has the faculty member participated in design and/or implementation of the curriculum assessment? • Has the faculty member improved the curriculum by adopting or improving implementation of high-impact practices?
Substantial revision of existing courses	• How is the faculty member assuring courses are current and employ best practices?
Textbooks, & other instructional materials	• How is faculty member contributing to educational materials in the unit? • How is faculty member contributing to educational materials in the field? • Are the materials state-of-the-art? • Are the approaches described innovative?
Participation in student professional development programs	• How is the faculty member contributing to the professional development of students? • What are the ways that student performance in interviews or other interactions with the profession have been impacted?
Participation honors programs	• What distinguishes the instruction the faculty member designed for honors students?
Awards of recognition for distinguished teaching	• How has the faculty member been recognized with awards for the commitment to and achievement in teaching? • How exclusive are the awards, how are the winners selected?
Continuous improvement of other contributions	• How has the faculty member engaged in professional development, reflection and/or continuous improvement of mentoring effectiveness? • How has the faculty member engaged in professional development, reflection and/or continuous improvement of curriculum design or assessment associated effectiveness? • Has the faculty member received competitive internal grants or fellowships related to these activities?
Scholarly approaches to teaching	• Has the faculty member presented his/her teaching approaches in: ○ the department/college?

	○ at a campus workshop? ○ at a campus teaching conference? ○ at a state, national, or international teaching conference? ○ in the teaching sessions of a discipline specific conference? • Has the teaching expertise of the faculty member served to improve the quality of the teaching of others in the unit (e.g. bringing innovative approaches or technologies to the program such that colleagues adopt them as well, or in a collaborative way dependent on participation of the faculty member)?
Evidence Specific to Student Ratings	Questions for Consideration
Standardized chronological table/Peer review of student evaluation data	Note: The candidate dossier should include all the student evaluation data appropriate for the period of time under evaluation. The department should provide the table as well as the appropriate data for comparison (e.g. average of other sections of that course; average of other courses at that level in the curriculum). The student evaluation questions used for this purpose is a department-level determination, which should be standardly applied across all candidates. (Departments not utilizing numerical ratings should provide a careful summary and analysis of the verbal responses over a multi-year period). The candidate may choose to address other questions as well in their statement, CV, and other materials provided and of course their perspective should be taken into account in the report. • How does the data align with student success in the course? • Does the data align with successful student performance in the next course in sequence? • Does the data align with things like increase in student minoring or majoring in the discipline? • What additional data is included for context (e.g. Mid-Semester Feedback, Multiple Sets of Feedback from Individual Class Meetings)? • What conclusions about teaching performance do you draw from the data? • What do you learn from the data?
Continuous improvement of factors identified in student evaluations	• How has the faculty member engaged in reflection and continuous improvement of the student experience as indicated by changes in responses and comments over time for a given course or across courses? • What, if any, evidence is there that the faculty member sought professional development to address issues associated with data from the course evaluations or their reflection about the course evaluation?

References:

- Promotion and Tenure Packages – Submission Guidelines 2019-2020, TAMU Dean of Faculties.
- University Rule 12.01.99.M2 Statement on Academic Freedom, Responsibility, Tenure and Promotion AppendixI.
- Framework of Faculty Teaching Performance Evaluation – Annotated to include teaching statement reflection questions and sources of evidence options, 11/2018, TAMU Center for Teaching Excellence.

APPENDIX IV: EVIDENCE SUPPORTING PERFORMANCE IN RESEARCH, SCHOLARSHIP OR CREATIVE ACTIVITIES

Purpose: This guidance suggests a variety of elements appropriate for consideration for faculty performance evaluations in research, scholarship or creative activities at Texas A&M University. These example questions, as applicable to the faculty member's department, college and or discipline, are appropriate for use in annual evaluations and in the research, scholarship or other creative activities report for mid-term review, promotion and tenure, and post-tenure review. This resource is meant to prompt evidence-based analysis during the evaluation of dossiers rather than require a specific prescription for those reports.
Use only those bullets that apply, or develop your own lists of evidence and questions to prompt relevant evaluation within your discipline.

Evidence Related to Publications/Creative work	Questions for Consideration
Quality and quantity of publications or creative works Review of selected publications/work expected Scholarship of teaching and learning	• In what way do the publications/creative work represent a cohesive body of work building toward a unique expertise or perspective contributing to the discipline? • Describe the authorship protocols within the discipline, especially relating to ordering of authors and how team members must contribute in order to be listed as a coauthor. In that context, describe whether the candidate publication record is congruent with a productive and independent research program for that career stage. (This analysis should take into account, not only the numbers of publications, the quality of the journals, and the citation indexes for each, but also, the contribution by the candidate, and the degree of difficulty, or complexity of the work). • What is the quality of the journals, publishers (for books), other venues (for art)? • What evidence is there that the research/scholarship is published completely and transparently regardless of results? • How would you describe the quality and impact of the research? • Does the research seem congruent with the quality and impact of journal? E.g. some types of work are more impactful if published in a subdiscipline journal with lower impact factor than in a broader audience journal with higher impact factor because it reaches the proper audience. • In cases where the candidate publishes scholarship of teaching and learning (SoTL), does the work advance understanding in a primary discipline? • In what ways does the SoTL act to translate the specifics of a discipline to a broader audience?
Evidence Related to Funding (as appropriate to the discipline)	Questions for Consideration

Consistency and Trajectory	• Does the candidate have a funding record consistent with the capacity necessary to support students and personnel for a productive research program in this discipline? • How has the grantsmanship of the candidate aligned with departmental expectations?

	• Have there been extenuating circumstances outside the candidate's control associated with the period under consideration? • Has funding improved with recognition of the candidate in the field? • Has the candidate been successful garnering grant renewals?
Granting agencies	• Has the candidate secured funds from the premier funding sources in that discipline? • Describe the quality of funding sources, and address whether or not the sources are congruent with department and disciplinary expectations.
Variety of funding sources	• In what ways has the candidate secured funding from a variety of sources (if appropriate to the discipline)?
Evidence of Overall Impact	Questions for Consideration
Contribution to societal need	• On the whole, in which ways does the scholarship/creative work benefit society? • What is the evidence for broader significance of the work, either now or in the near future wherein the candidate pursues plans described within their statement? • How well does the scholarship contribute to the vision, mission, and strategic initiatives for the unit, college, and university?

Appropriate dissemination of results	• What is the evidence that the candidate shares the research/scholarship results and expertise appropriately, e.g.
	  ○ datasets
	  ○ software
	  ○ research tools and approaches developed
	  ○ indicators of openness and transparency conducive to advancing the field and cultivating an excellent reputation within the scholarship community

Collaboration	• If the bulk of the candidate's research/scholarship is done jointly (especially if it is done with senior and more established scholars), does the record provide evidence of the candidate's important original contributions to the work? • Explain whether authorship consistent is with the contribution? • In what ways do others value the quality of the candidate's expertise as indicated by a clear record of collaboration? • What impact has involvement in collaborations had on the productivity of the candidate? • Do you expect collaborations will improve the productivity of candidate in the long run?
Degree of risk/reward	• What evidence is there that the candidate is a creative scholar and/or an intellectual risk-taker? • In which ways might this approach be beneficial within their field?

	• How might this strength, nonetheless, be responsible for the rate or stage of advancement of the research, scholarship or creative activities relative to adopting a purely "safe" approach? • Are there aspects of the research, scholarship or creative activities portfolio that demonstrate originality?
Upward trajectory for research progress	• Does the research quality improve over time? • In what way is the scholarly or artistic work perceived as outstanding? • Does the candidate have a strong reputation in his or her field?
Invitations, Honors, Awards	• What noteworthy aspects of the candidate's service record indicate they are recognized in their field of scholarship? • Do invitations (e.g. speaking, consulting, appearances, or participation in committees, taskforces, or advisory bodies) indicate the candidate is recognized in their field of scholarship? • Has the candidate received honors or awards for their scholarship? • How exclusive are the awards? • How are the winners selected?
Overall research, scholarship or creative activities	• Based on their overall research, scholarship or creative activities, has the candidate distinguished themselves as a leader or influencer within the discipline, unit, college, university? • Based on management of their research program and collaborations, has the candidate distinguished themselves as a leader or influencer within the discipline, unit, college, university?

References:

- Promotion and Tenure Packages – Submission Guidelines 2018-2019, TAMU Dean of Faculties.
- University Rule 12.01.99.M2 Statement on Academic Freedom, Responsibility, Tenure and Promotion Appendix I.
- Moher D, Naudet F, Cristea IA, Miedema F, Ioannidis JPA, Goodman SN (2018) Assessing scientists for hiring, promotion, and tenure.

APPENDIX V: EVIDENCE SUPPORTING PERFORMANCE IN SERVICE

Purpose: This guidance suggests a variety of elements appropriate for consideration for evaluation of faculty performance in service at Texas A&M University. These example questions, as applicable to the faculty member's department, college and or discipline, are appropriate for use in annual evaluations and in the service report for mid-term review, promotion and tenure, and post-tenure reviews. This resource is meant to prompt evidence-based analysis during the evaluation of dossiers rather than require a specific prescription for those reports.
Pick only those bullets that apply, or develop your own lists of evidence and questions to prompt relevant evaluation within your discipline.

Evidence Related to Departmental Service	Questions for Consideration

Formal Service Roles:
• Membership in standing committees
• Leadership of standing committees
• Participation in or leadership of a temporary subcommittee or task force
• Liaison activities with donors or industry partners
 	
Informal Service Roles:
• Mentoring or peer-review of colleagues
• Providing expertise for a department need
	• What service has the candidate done for the department?
	  ○ Taking into account their research and teaching activities, is the service contribution by the candidate in alignment with departmental expectations?
	• For committee membership by the candidate:
	  Can you describe the ways the candidate engages and adds value as a member?
	  ○ How has the reliability of the candidate as member allowed for an important accomplishment of the committee/taskforce or substantial progress for the committee/taskforce?
	  ○ Can you elaborate on instances where the candidate contributed high quality work products necessary to accomplish committee/taskforce goals?
	• In instances where the candidate leads service efforts:
	  ○ Which of their strengths align well with project success?
	  ○ How well does the candidate handle the necessary communications and/or meetings with colleagues associated with leading a service effort?
	• For candidates who perform formal donor or industry partner engagement:
	  ○ How do those stakeholders regard the candidate and the communications, interactions, responsibilities the candidate executes?
	• Does the candidate assist colleagues by providing feedback on ideas, manuscripts, creative works, and grants? Are there particular ways the candidate markedly improved the department climate or culture via a concerted effort to establish a needed element?
	• In cases where the candidate provides a particular expertise to the department (e.g. running a piece of equipment; managing a process, actively curating a collection, etc):
	  ○ Describe the value added by their service
	  ○ As possible, include evidence that the service contributes to the goals of the department.

Evidence Related to College and University Service	Questions for Consideration

College	• What service has the candidate done for the college?
	  ○ Is this level of college service by the candidate in alignment with departmental expectations?
	  ○ Was there leadership or innovation involved?
	• Does the service they are providing coincide with a particular expertise?
	• What specific contributions did the candidate make during this service?
	• Did the service help advance any college level initiative(s)?

University	• What service has the candidate done for the university?
	  ○ Is this level of university service by the candidate in alignment with departmental expectations?
	  ○ Was there leadership or innovation involved?
	• Does the service they are providing coincide with a particular expertise?
	• What specific contributions did the candidate make during this service?
	• Did the service by the candidate serve to represent the department or college well?
	• Did the service help advance any university level initiative(s)?

Evidence Related to: service to the discipline	Questions for Consideration

Professional Organization	• What service has the candidate done for the professional organization(s)?
	  ○ Is this level of professional organization service by the candidate in alignment with departmental expectations?
	  ○ Was there leadership or innovation involved?
	• Is there evidence the candidate served with excellence?
	• Elaborate on the extent to which the service to professional organizations by this candidate has or will contribute to the reputation of the candidate, the department, the college, or the university.

Editor, reviewer, or judge	• What service has the candidate done for journals, publishers, grant review panels, or other entities that judge?
	  ○ Is this level of this type of service by the candidate in alignment with departmental expectations?
	  ○ Was there leadership or innovation involved?
	• Elaborate on the extent to which this service by the candidate has or will contribute to the reputation of the candidate, the department, the college, or the university.

Evidence Related to: service to society	Questions for Consideration

Community, state, nation, international	• What service has the candidate done for the community, state, nation, or internationally?
	  ○ Is this level of this type of service by the candidate in alignment with departmental expectations?
	  ○ Was there leadership or innovation involved?
	• Elaborate on the extent to which this service by the candidate has or will contribute to the reputation of the candidate, the department, the college, or the university.

References:

- Promotion and Tenure Packages – Submission Guidelines 2019-2020, TAMU Dean of Faculties.
- University Rule 12.01.99.M2 Statement on Academic Freedom, Responsibility, Tenure and Promotion Appendix I.

APPENDIX VI: TAMUG POST TENURE REVIEW PROCESS

This timeline outlines the documents and actions required. Always refer to the following for complete information and details.
(1) Home department's by-laws and/or tenure and promotion procedures (if applicable)
(2) TAMUG Faculty Evaluation Guidelines https://www.tamug.edu/AcademicAffairs/FacultyEvaluation.html
(3) Dean of Faculties Promotion and Tenure Submission Guidelines http://dof.tamu.edu/Faculty-Resources/CURRENT-FACULTY/Promotion-and-Tenure - may help with writing impact statements

Action / Documentation	Calendar (Approximate timeline)
Departments: ● Form the **Department Review Committee**	**March 2020**
Department Heads: ● Meet individually with department faculty who will undergo post tenure review ● Inform the CAO of the dossiers being prepared **TAMUG CAO:** ● Forms College Review Committee (bi-annually) **Department Administrative Review:** ● Create cases in Interfolio using the Candidate's TAMU email address ● Create the dossier coversheet (fillable form in Interfolio) and update as case proceeds	**Spring 2020** **Spring-Summer 2020**
Post Tenure Review Candidates: ● **Impact Statement** ○ 3 typed pages maximum; single-spaced; 10pt font minimum; 1 inch margins ○ Explains the quality, productivity overtime and impact within each area of responsibility (ie: teaching, research/scholarly or creative work, and service accomplishments) ● **Curriculum Vitae** ○ Concise overview of academic accomplishments; reflecting experiences and development in career as a teacher and scholar ○ Include signed/ dated statement: *"This CV submitted is most current and correct as of the date of this signature."*; may be appended onto the end of the CV ● **Grants Summary Chart** ○ Upload Grants Summary Chart as an Excel file* ○ Accurately list grant information; may include career long awards ○ Be sure grants chart and associated details listed in CV are congruent ● **Verification of Contents Statement** ○ Fillable form within Interfolio ○ Statement that accurately describes a list of all materials the candidate is submitting to the department review committee ● **Other Documents** ○ May include supporting documentation demonstrating/evidencing impact in teaching, research and/or service ○ Departmental by-laws or evaluation guidelines may require specific documentation to be provided in this section (ie: annual evaluations, student evaluations, teaching portfolio, etc.)	**August 2020** Actual Due Date set by Department Head

Action / Documentation	Calendar (Approximate timeline)
Department Review Committee: Unless the departmental artifact requirements were preloaded into the Interfolio case template for the Candidate to provide under Other Documents, the committee will need to: ● Collect and review materials related to evaluation of teaching effectiveness ● Collect and review materials related to evaluation of research, scholarly or creative activities, if applicable ● Collect and review materials related to evaluation of service, if applicable	**August - Early September 2020**
Department Review Committee: Writes well-substantiated analyses of the scope (quality, productivity overtime) and IMPACT of candidate's performance in each of the three areas of responsibility. ● **Teaching Report** ○ To include evaluation of course materials; Synthetic analysis of student evaluations of teaching; Evaluation of other valuable teaching contributions ● **Research and/or Other Scholarly or Creative Activities Report** ○ Place the candidate's impact of research or other scholarship contributions in the context of the specific departmental mission, goals, expectations and criteria ● **Service Report** ○ Explain the candidate involvement, contributions, quality and impact of their service activities ● **Department Review Committee Discussion Report & Recommendation** ○ Convey the essence of the department review committee's discussion and vote regarding the candidate's performance and impact of their work as it relates to their post tenure productivity ○ Include voting table; a mixed vote requires further explanation of both the candidate's demonstrated abilities and the committee's concerns	**September 2020** Actual Due Date set by Department Head
Department Head: ● Recommendation from Department Head added to Interfolio Dossier ● Dossier forwarded to College Administrative Review, who in turn forwards the dossier to the College Review Committee	**October 16, 2020**
College Review Committee: ● College Review Committee recommendation added to dossier ● Dossier forwarded to CAO for review	**November 6, 2020**
TAMUG CAO: ● Recommendations added to the dossiers	**December/January**