

CUMMING SCHOOL OF MEDICINE

ACADEMIC ACTIVITY FRAMEWORKS 2022

(Approved by Faculty Council, 16 November 2022)

Background

The frameworks in this document have been developed to support processes within CSM related to academic productivity. Examples include award deliberations, performance review and career guidance. The frameworks were developed by the CSM Criteria Working Group (2020-2022) which was charged with developing *CSM Faculty Guidelines* to supplement the *General Faculties Council Academic Staff Criteria & Processes Handbook* (June 2021). These frameworks are not exclusive to the processes within the GFC Handbook.

Membership included people from all five of the equity-deserving communities recognized by the University of Calgary (Women, Indigenous, Black and other Racialized groups, Disabled, and 2SLGBTQQIA+). Members were from junior, middle and senior ranks. Over the course of the CWG's work, some members had been promoted to their next rank and/or new role. The roles and ranks shown below are the most current.

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EQUITY FRAMEWORK

CSM Equity Framework 2022

An abundance of research in academic health sciences has found implicit bias and systemic discrimination persistently negatively impact marginalized groups from the time they are students through to the time they might be considered for leadership opportunities (Capers et al., 2017; Fnais et al., 2014; Backhus et al., 2019; Beeler et al., 2019; Johnson et al., 2017; Fitzgerald & Hurst, 2017). This includes being invisible as a discussion item or in data collection, and active negative treatment (Statistics Canada, 2020). For members of the privileged group, their comparative benefits result in "cumulative advantage" where a relatively favourable position creates additional opportunities and gains over time (DiPrete, 2006). What follows are some specific areas where extenuating circumstances involving the potential for bias, discrimination, and absence of opportunity must be taken into consideration when assessing academic work.

The framework is based upon literature demonstrating specific impacts of structural discrimination on academic performance indicators. Any lack of commentary for specific indicators and contexts may reflect a paucity of research in the area. As an example, minimal research has been conducted on many of these issues with respect to faculty members with disabilities (Wolbring & Lillywhite, 2021) or those identifying as 2SLGBTQ+ (Ruzycki, Franceschet & Brown, 2021). CSM commits to updating this framework in light of emerging equity research no later than every two years; this will be a joint responsibility of the Office of Faculty Development and Performance and the Office of Professionalism, Equity and Diversity. Updates to this framework will be brought to Faculty Council at the same time as any other proposed updates.

1. Research and Scholarship

a. Chairing Sessions and Invited Talks

Researchers who are women and/or from racial and ethnic groups systemically excluded from their academic disciplines are less likely to receive invitations to speak at or chair conferences (Ford et al., 2019; Else, 2019). Invited speakers are more likely to be men, even after career stage and the population sex ratio of the discipline are taken into consideration. Male-only organized symposia are also disproportionately likely to invite men to speak (Isbell et al., 2012). Scientists from systemically excluded racial and ethnic minority groups had the smallest chances of being selected and invited to speak, with women in these groups receiving the fewest opportunities overall (ibid). Given that many disabled academics encounter travel barriers (De Picker, 2020; Soorenian, 2018) they also encounter barriers to invitations to speak at events which require travel.

b. Conference Travel

Conferences can be inhospitable spaces for racialized and Indigenous academics, even more so if they are women (Timperley et al., 2020). Even when included as speakers, audiences are more likely to be hostile towards these groups (King et al., 2018). As a result, systemically excluded groups are even less likely to choose to attend conferences, particularly internationally (Timperley et al., 2020). The expense of conference travel disproportionately limits attendance from early-career investigators and faculty members with precarious employment as they are likely to have limited funding for travel, more student debt, and lower salaries (Johnson & Chin, 2020). The expectation of academics to travel to conferences also disadvantages academics who are the primary caregivers for their children, a group

disproportionately likely to be comprised of women (Bos, Sweet-Cushman & Schneider, 2019; Timperley et al., 2020). Additionally, conferences may be held in countries that are unsafe for members of the 2SLGBTQ+ community (Tulloch, 2020). Faculty members with disabilities may face inaccessible travel and venues, a lack of conference accommodations, and stress or exhaustion (Sang, 2017; Inckle, 2018) among other barriers to travel (De Picker, 2020; Soorenian, 2018).

c. Grants

Research has found the probability of receiving a priority score on grant applications differed significantly by race and/or ethnicity (Ginther, 2018) and that racialized women are significantly less likely to be awarded grant funding than white women (Ginther, 2016). A study examining NIH grant success from 2008-2018 found researchers with disabilities were underrepresented among principal investigators, award applicants reporting disabilities had lower success rates (Swenor, Munoz & Meeks, 2020), and academics with disabilities are funded at lower rates compared to those without disabilities (Yerbury & Yerbury, 2021). Despite the quality of their work, women researchers are evaluated less favourably when applying for grants (Witteman et al., 2019), receiving markedly lower significance, approach, and priority scores unaccounted for by productivity differences (Magua et al., 2017). Additionally, early grant success results in both increased likelihood of later grant success as well as a tendency of grant winners to self-select into more grant competitions (Bol, de Vaan & van de Rijt, 2018; Tamblyn, 2018), which exacerbates inequities in grant awardees over time.

d. Publications (numbers, authorship, impact factors and citations)

Issues have been identified with using Journal Impact Factors (Reedijk & Moed, 2008; Azer et al., 2016) and g- or h-indices for the purpose of evaluating individual or team research for academic promotion (Azer et al., 2016). Additionally, research consistently finds systemic biases in the peer-review process for journal publications that disadvantage both women and/or racial or ethnic groups underrepresented in their fields (Budden et al., 2008; Helmer et al., 2017; Kuehn, 2017; Lerback, Hanson & Wooden, 2020; Silbiger & Stubler, 2019; Wenneras & Wold, 1997). Women experience other barriers to publishing, including significant differences in time-to-credit payoff for publication (Feldon et al., 2017) and longer time spent in peer review (Hengel, 2017). Studies have found lower acceptance rates for articles with racially/ethnically diverse author teams (Lerback, Hanson & Wooden, 2020), and disproportionately lower numbers of publications for Black academics in comparison to white academics (Ginther et al., 2018). Another study looked at racial and ethnic groups underrepresented in medicine and found that even after controlling for medical specialty and years in academic medicine, they had 36% fewer publications compared to white academics (Kaplan et al., 2018). Studies have also found that both women and/or academics who are racially or ethnically underrepresented in academia experience comparatively lower citation rates (Lerback, Hanson & Wooden, 2020; Chatterjee, 2021). Research also demonstrates disparity in authorship order with women having significantly lower numbers of firstauthorships compared with men (Filardo et al., 2016; Gonzalez-Alvarez, 2018; Larivière et al., 2013). When authors shared equal contributions, women were less likely to be listed first in authorship teams of mixed gender (Broderick & Casadevall, 2019); non-Hispanic white men have higher probability of being last author than any other group (Marschke et al., 2018); and racialized academics are underrepresented as first author (Chakravartty et al., 2018). Many studies highlight a lack of academic publications engagement with various topics relevant to the lives of disabled people (Berghs et al., 2016).

e. Research Networks

Women tend not to have the same levels of access to, or rates of participation in, key research networks (Rhoten & Pfirman, 2007) because these networks are often based on "informal relations" or male-dominated networks (Cacace, 2009) and/or because of family responsibilities. Other studies have found that men in academia had broader networks than women, and white people had broader networks than underrepresented races or ethnicities (Warner et al, 2016). Academics with disabilities have also reported that physical spaces where networking takes place often fail to take accessibility into consideration, thereby excluding them from opportunities to build their networks (Olson et al., 2020, Inckle, 2018).

2. Teaching

- a. Student Evaluations
 - i. Identity of Instructor

Although commonly used in promotion and tenure processes (Hornstein, 2017), student evaluations are impacted by a variety of biases. Recent research has found that male students are biased in favour of male professors and that both male and female students rate male professors as more knowledgeable than their female colleagues (Boring, 2017; Graves, Hoshino-Brown & Lui, 2017; Kreitzer & Sweet-Cushman, 2021). This bias is present even when students are found to have learned equally well from female professors (Boring, 2017), when actors are hired to deliver identical lectures (Graves, Hoshino-Browne & Lui, 2017), or when gender is manipulated in an online environment (MacNell, Driscoll & Hunt, 2014). Teaching evaluations and student perceptions of instructors have been found to be biased against women at a statistically significant level (Mengel, Sauermann, Zolitz, 2019; Boring, Ottoboni, & Stark, 2016; Clayson, 2020), with the disadvantage being even worse for junior women in academia (Mengel, Sauermann, & Zolitz, 2019). Similar studies have found that student evaluations of teaching are also subject to racial bias, with instructors of colour receiving clearly lower scores than white instructors (Merritt, 2008; Reid, 2010; Chavez & Mitchell, 2020; Wang & Gonzalez, 2020). Negative bias also extends to professors with non-English speaking backgrounds (Fan et al., 2019; Subtirelu, 2015). In prospective evaluations by students of faculty members that might be hired, faculty members without disabilities were rated more highly than those with disabilities (Pfeiffer & Kassaye, 2001). Given that recent meta-studies have found that student evaluations of teaching have little to no correlation with learning (Uttl, White & Gonzalez, 2017; Kreitzer & Sweet-Cushman, 2021) and instead evaluate student perceptions of learning (Hornstein, 2017), student evaluations of teaching should be approached very carefully if being used for performance evaluation of faculty members, particularly for faculty who identify as members of equity-deserving groups.

ii. Topic of Course

It is now generally acknowledged that different aspects of courses will influence course evaluations, with higher-level courses receiving significantly higher evaluations than introductory and general courses (Zabaleta, 2007), and the subject of courses having a significant impact on evaluations (Basow & Montgomery, 2005; Uttl & Smibert, 2017;

Kreitzer & Sweet-Cushman, 2021)). If equity-deserving and early-career faculty are assigned to teach less popular, mandatory, and/or introductory courses, this may have significant impact on their teaching evaluations. Student comments in teaching evaluations reveal significant discomfort with race-based and gender-based topics (Wallace, Lewis & Allen, 2019), which is particularly problematic for faculty who identify as members of equity-deserving groups, as they are more likely to teach "social justice content" (Acosta et al., 2005).

b. Disproportionate Mentoring Responsibilities

Concordance of race, ethnicity, gender, ability or sexual orientation is cited as a desirable characteristic of faculty-student mentoring relationships (Puritty et al., 2017; Yehia et al., 2014; Beanlands, Robinson & Venance, 2020; Sanchez et al., 2018; Mahoney et al., 2008). Because learner populations are more diverse than the faculty available to teach them (Heggeness et al., 2017), faculty members who identify as members of equity-deserving groups often feel compelled or expected to act as mentors (Rodriguez, Campbell & Pololi, 2015; Joseph & Hirshfield, 2011; Mahoney et al., 2008). Due to underrepresentation of diverse faculty, this results in a disproportionate amount of their time being taken to mentor diverse students (Zambrana et al., 2015; Woods, 2001). Faculty members in more than one equity-seeking group are in danger of burnout due to feeling overburdened with mentoring and service contributions (Parasnis & Foster, 2005). Faculty from equity-deserving groups may not have received mentorship at the same level as those from dominant groups (Davis et al., 2021).

c. Guest Lectures

Members of equity-deserving groups may be asked or feel obligated to provide teaching regarding equity, diversity and inclusion issues which can result in large burdens on their time and effort and interfere with their other scholarly work.

3. Service

a. Roles on Editorial Boards

Research suggests that groups underrepresented in academia are also underrepresented on the editorial boards of academic journals. This includes underrepresentation of women on editorial boards of medical and health science journals (Amrein et al., 2011; Silver et al., 2018; Bhaumik & Jagnoor, 2019), and members of underrepresented races/ethnicities (Shim et al., 2021; Salazar et al., 2021). Although there is a shortage of research on editorial board service for members of other equity-deserving groups, reviewers should consider that they may face similar underrepresentation.

b. Leadership Roles

Who is and isn't selected for leadership roles in academic health sciences institutions may be the most visible representation of the structural discrimination and bias that exists throughout academic institutions. Although numbers of women and men in academic health sciences institutions are roughly equal, men remain overrepresented in academic leadership roles in medicine and health sciences (Girod et al., 2016; Ovseiko et al., 2020; Ruzycki, Franceschet & Brown, 2021). Racialized faculty are similarly underrepresented in leadership in medical schools (Hoque, Baker & Milner, 2021; Odei, 2021) and although data is relatively scarce, faculty members with disabilities do appear to be severely underrepresented in academic leadership roles (Martin, 2020). The requirements for promotion to leadership roles tend to be based on years of experience which privileges senior faculty members who are less likely to be women or racialized professors (Ruzycki, Franceschet & Brown, 2021). Given that people who identify as having disabilities, or as members of underrepresented ethnic groups, or as 2SLGBTQ+ remain underrepresented or undocumented in medicine (Ruzycki, Franceschet & Brown, 2021) and higher education (Statistics Canada, 2020; Zambrana et al., 2015), their opportunities to occupy leadership roles are likely to remain low without intervention at a systems level.

c. Burden of Service

It is well documented that the lack of diversity in a variety of academic disciplines and medical specialties has resulted in increased service workloads for faculty members who are members of underrepresented populations (Quiroga et al., 2021; Rodriguez, Campbell & Pololi, 2015; Pololi, Cooper & Carr, 2010; Rockquemore & Laszloffy, 2008; Parasnis & Foster, 2005). This phenomenon, sometimes referred to as "cultural taxation," (Padilla, 1994), means that faculty members already disadvantaged by systemic discrimination are also put in positions of responsibility to fix the problem with additional service on committees or working groups, as mentors to junior faculty, and in community engagement. In some cases, members of equity-deserving groups may feel a duty to make such contributions, as otherwise these responsibilities might not be fulfilled. This time may be unpaid or, if paid, it takes away from research time and other work that is more likely to be rewarded or recognized in academic institutions and creates an additional burden not shared by nonminoritized colleagues (Joseph & Hirshfield, 2011). An analysis of time-use journals in faculty members of a large research university found that "faculty of color, queer faculty, and faculty from working class backgrounds together spent a disproportionate amount of their time on the 'invisible' work of academia," including service, advising, extra student support and other things unlikely to be valued in promotion and tenure applications (Social Sciences Feminist Network Research Interest Group, 2017). The CSM Academic Staff Criteria Guidelines 2022 require that these kinds of activities be valued at least equal to other academic activities.

4. Letters of Recommendation

Although the majority of research on letters of recommendation have analyzed gender bias, it would be important to consider that other equity-deserving groups may be similarly disadvantaged by bias in letters of recommendation. Studies have found significant gender bias in letters of recommendation. Studies have found significant gender bias in letters of recommendation including that women are "significantly less likely to receive excellent recommendation letters" (Dutt et al., 2016), and receive fewer "standout adjectives" (Schmader, Whitehead & Wysocki, 2007) than their male colleagues. Additionally, men are described in ways that focus on their work: asserting, influencing, and launching, while women are described in ways that centre on their kindness, helpfulness, and relationship building (Madera, Hebl & Martin, 2009) and more "doubt raiser" phrases or statements (Madera et al., 2019), both of which negatively impact hiring decisions. Longer letters of recommendation are also generally perceived as better recommendations, but letters written outside the Americas have been found to be significantly shorter (Dutt et al., 2016) which may disadvantage academics with referees outside the Americas. Research on letters of reference for learners in medicine has found low interobserver reliability (Dirschl, 2000) and bias in language used for

members of groups underrepresented in medicine (Zhang et al., 2021). Academic letters should be reviewed and considered in the context of potential inherent biases and weighed accordingly.

References

Acosta KM, Moore HA, Perry GK, & Edwards C. (2005). Dialogue on diversity in teaching: Reflections on research, pedagogy, and passion for social justice. In N. Peters–Davis, & J. Shultz (Eds.), *Challenges of multicultural education: Teaching and taking courses* (pp. 20–37). Boulder: Paradigm Publishers.

Amrein, Karin, MD, Langmann, Andrea, MD, Fahrleitner-Pammer, Astrid, MD, Pieber, Thomas R., MD, & Zollner-Schwetz, Ines, MD. (2011). Women underrepresented on editorial boards of 60 major medical journals. *Gender Medicine*, *8*(6), 378–387. https://doi.org/10.1016/j.genm.2011.10.007

Azer S, Holen A, Wilson I, & Skokauskas N. (2016). Impact factor of medical education journals and recently developed indices: Can any of them support academic promotion criteria? *Journal of Postgraduate Medicine (Bombay)*, *62*(1), 32–39. https://doi.org/10.4103/0022-3859.173202

Backhus LM, Lui NS, Cooke DT, et al. (2019). Unconscious bias: addressing the hidden impact on surgical education. *Thoracic Surgery Clinics*, *29*(3), 259–267.

Basow SA, & Montgomery S. (2005). Student ratings and professor self-ratings of college teaching: Effects of gender and divisional affiliation. *Journal of Personnel Evaluation in Education*, 18(2), 91–106.

Beanlands RA, Robinson, LJ, & Venance, SL. (2020). An LGBTQ+ mentorship program enriched the experience of medical students and physician mentors." *Canadian Medical Education Journal*, *11*(6), e159–e162. https://doi.org/10.36834/cmej.69936

Beeler WH, Griffith KA, Jones RD, et al. (2019). Gender, professional experiences, and personal characteristics of academic radiation oncology chairs: Data to inform the pipeline for the 21st century. *International Journal of Radiation Oncology, Biology, Physics, 104*(5), 979–986. https://doi.org/10.10106/j.ijrobp.2019.01.074

Berghs M, Atkin K, Graham H, Hatton C & Thomas C. (2016). Implications for public health research of models and theories of disability: a scoping study and evidence synthesis. *Public Health Research*, *4*(8). https://doi.org/10.3310/phr04080

Bhaumik S & Jagnoor J. (2019). Diversity in the editorial boards of global health journals. *BMJ Global Health*. 4(5), e001909. https://doi.org/10.1136/bmjgh-2019-001909

Bol T, de Vaan M, & van de Rijt A. (2018). The Matthew effect in science funding. Proceedings of the National Academy of Sciences. *PNAS-Proceedings of the National Academy of Sciences of the United States of America*, *115*(19), 4887–4890. https://doi.org/10.1073/pnas.1719557115

Boring A. (2017). Gender biases in student evaluations of teaching. *Journal of Public Economics*, 145, 27–41. https://doi.org/10.1016/j.jpubeco.2016.11.006

Boring A, Ottoboni K, & Stark PB. (2016). Student evaluations of teaching (mostly) do not measure teaching effectiveness. *ScienceOpen Research*, 1-11. https://doi.org/10.14293/S2199-1006.1.SOR-EDU.AETBZC.v1

Bos AL, Sweet-Cushman J & Schneider MC. (2019). Family-friendly academic conferences: A missing link to fix the "leaky pipeline"? *Politics Groups and Identities*, 7, 748–758.

Braisher TL, Symonds MRE & Gemmell NJ (2005). Publication success in Nature and Science is not gender dependent. *BioEssays*, 27(8), 858–859. https://doi.org/10.1002/bies.20272

Broderick NA, & Casadevall A. (2019). Gender inequalities among authors who contributed equally. *Elife*, *8*, e36399. https://doi.org/10.7554/eLife.36399

Budden AE, Tregenza T, Aarssen LW, et al. (2008). Double-blind review favours increased representation of female authors. *Trends in Ecology & Evolution*, 23(1),4–6. https://doi.org/10.1016/j.tree.2007.07.008

Cacace M. (2009). Guidelines for gender equality programmes in science. Rome, Italy: European Union (PRAGES: Practising Gender Equality in Science).

Capers Q, Clinchot D, McDougle L, et al. (2017). Implicit racial bias in medical school admissions. *Academic Medicine*, *92*(3), 365–369. https://doi.org/10.1097/ACM00000000001388

Chakravartty P, Kuo R., Grubbs, V., & McIlwain, C. (2018). #CommunicationSoWhite. *Journal of Communications*, 68(2), 254–266. https://doi.org/10.1093/joc/jqy003

Chatterjee P, Werner RM. (2021). Gender disparity in citations in high-impact journal articles. *JAMA Network Open*, *4*(7), e2114509. https://doi.org/10.1001/jamanetworkopen.2021.14509

Chávez K, & Mitchell KM. (2020). Exploring bias in student evaluations: gender, race, and ethnicity. *PS, Political Science & Politics*, *53*(2), 270–274. https://doi.org/10.1017/S1049096519001744

Clayson D. (2020). Student perception of instructors: The effect of age, gender and political leaning. *Assessment & Evaluation in Higher Education*, *45*(4), 607–616. https://doi.org/10.1080/02602938.2019.1679715

Davis TM, Jones MK, Settles IH, & Russell PG. (2021). Barriers to the Successful Mentoring of Faculty of Color. *Journal of Career Development*. https://doi.org/10.1177/08948453211013375

De Picker M. (2020). Rethinking inclusion and disability activism at academic conferences: Strategies proposed by a PhD student with a physical disability. *Disability & Society, 35*(1), 153-167. https://doi.org/10.1080/09687599.2019.1619234

DiPrete TA, Eirich GM. (2006). Cumulative advantage as a mechanism for inequality: A review of theoretical and empirical developments. *Annual Review of Sociology*, *32*,271–297. https://doi.org/10.1146/annurev.sec.32.061604.123127

Dirschl DR, Adams GL. (2000). Reliability in evaluating letters of recommendation. *Academic Medicine*, 75(10),1029. https://doi.org/10.1097/00001888-200010000-00022

Dutt K, Pfaff D, Bernstein A et al. (2016). Gender differences in recommendation letters for postdoctoral fellowships in geoscience. *Nature Geoscience*, *9*, 805–808. https://doi.org/10.1038/ngeo2819

Else H. (2016). How to banish manels and manferences from scientific meetings. Nature, 573,184–186.

Fan Y, Shepherd LJ, Slavich E, Waters D, Stone M, Abel R & Johnston EL. (2019). Gender and cultural bias in student evaluations: Why representation matters. *PloS One*, *14*(2), e0209749–e0209749. https://doi.org/10.1371/journal.pone.0209749

Feldon DF, Peugh J, Maher MA, Roksa J, & Tofel-Grehl C. (2017). Time-to-credit gender inequities of first-year PhD students in the biological sciences. *CBE Life Sciences Education*, *16*(1), ar4. https://doi.org/10.1187/cbe.16-08-0237

Filardo G, da Graca B, Sass DM, Pollock BD, Smith EB, & Martinez MA-M. (2016). Trends and comparison of female first authorship in high impact medical journals: Observational study (1994-2014). *BMJ*, *352*, i847. https://doi.org/10.1136/bmj.i847

Fitzgerald C, Hurst S. (2017). Implicit bias in healthcare professionals: A systematic review. *BMC Medical Ethics*, *18*, 19. https://doi.org/10.1186/s12910-017-0179-8

Ford H, Brick C, Azmitia M, Blaufuss K, & Dekens P. (2019). Women from some under-represented minorities are given too few talks at world's largest Earth-science conference. *Nature*, *576*(7785), 32–35. https://doi.org/10.1038.d41586-019-03688-w

Ginther DK, Basner J, Jensen U, Schnell J, Kington R, & Schaffer WT. (2018). Publications as predictors of racial and ethnic differences in NIH research awards. *PloS One*, *13*(11), e0205929–e0205929.

Ginther DK, Haak LL, Schaffer WT, & Kington R. (2012). Are race, ethnicity, and medical school affiliation associated with NIH R01 type 1 award probability for physician investigators? *Academic Medicine*, 87(11), 1516–

1524. https://doi.org/10.1097/ACM.0b013e31826d726b

Girod S, Fassiotto M, Grewal D, Ku MC, Sriram N, Nosek BA, & Valantine H. (2016). Reducing implicit gender leadership bias in academic medicine with an educational intervention. *Academic Medicine*, *91*(8), 1143–1150. https://doi.org/10.1097/ACM.00000000001099

González-Alvarez J. (2018). Author gender in The Lancet journals. *The Lancet*, *391*(10140), 2601. https://doi.org/10.1016/S0140-6736(18)31139-5

Graves A, Hoshino-Browne E, & Lui KPH. (2017). Swimming against the tide: Gender bias in the physics classroom. *Journal of Women and Minorities in Science and Engineering*, *23*(1), 15–36. https://doi.org/10.1615/JWomenMinorScienEng.2017013584

Heggeness ML, Gunsalus KT, Pacas J, McDowell G. (2017). The new face of US science. *Nature*, *541*, 21–23. https://doi.org/10.1038/541021a

Helmer M, Schottdorf M, Neef A et al. (2017). Gender bias in scholarly peer review. e*Life*, *6*, e21718. https://doi.org/10.7554/eLife.21718

Hengel, E. (2017). Publishing while Female. Are women held to higher standards? Evidence from peer review. *Cambridge Working Papers in Economics* 1753, Faculty of Economics, University of Cambridge.

Hornstein HA. (2017). Student evaluations of teaching are an inadequate assessment tool for evaluating faculty performance. *Cogent Education*, *4*, 1304016. https://doi.org/10.1080/2331186X.2017.1304016

Hoque S, Baker EH, & Milne, A. (2021). A quantitative study of race and gender representation within London medical school leadership. *International Journal of Medical Education*, *12*, 94–100. https://doi.org/10.5116/ijme.609d.4db0

Inckle K. (2018). Unreasonable adjustments: The additional unpaid labour of academics with disabilities. *Disability & Society*, *33*(8), 1372–1376. https://doi.org/10.1080/09687599.2018.1480263

Isbell L, Young PT & Harcourt AH. (2012). Stag parties linger: Continued gender bias in a female-rich scientific discipline. *PLoS ONE*, *7*(11), e49682. https://doi.org/10.1371/journal.pone.0049682

Johnson CY, & Chin HB. (2020). Improving diversity and promoting inclusion in the Society for Epidemiologic Research through choice of conference location. *American Journal of Epidemiology*, *189*(10), 1030–1032. https://doi.org/10.1093/aje/kwaa107

Johnson TJ, Ellison AM, Dalembert G et al. (2017). Implicit bias in pediatric academic medicine. *Journal of the National Medical Association*, 109(3) 156–163. https://doi.org/10.1016/j.jnma.2017.03.003

Joseph TD & Hirshfield LE. (2011). 'Why don't you get somebody new to do it?' Race and cultural taxation in the academy. *Ethnic and Racial Studies*, *34*(1), 121–141. https://doi.org/10.1080/01419870.2010.496489

Kaplan SE, Raj A, Carr PL, Terrin N, Breeze JL, & Freund KM. (2018). Race/ethnicity and success in academic medicine: Findings from a longitudinal multi-Institutional study. *Academic Medicine*, *93*(4), 616–622. https://doi.org/10.1097/ACM.00000000001968

King L, MacKenzie L, Tadaki M, Cannon S, McFarlane K, Reid D, & Koppes M. (2018). Diversity in geoscience: Participation, behaviour, and the division of scientific labour at a Canadian geoscience conference. *Facets*, *3*(1), 415–440. https://doi.org/10.1139/facets-2017-0111

Kreitzer RJ, & Sweet-Cushman J. (2021). Evaluating student evaluations of teaching: a review of measurement and equity bias in SETs and recommendations for ethical reform. *Journal of Academic Ethics*. https://doi.org/10.1007/s10805-021-09400-w

Kuehn BM. (2017). Rooting out bias. eLife, 6, e32014. https://doi.org/10.7554/eLife.32014

Larivière V, Ni C, Gingras Y, Cronin B, & Sugimoto CR. (2013). Bibliometrics: Global gender disparities in science. *Nature*, *504*, 211–213. https://doi.org/10.1038/504211a

Lerback J, Hanson B & Wooden P. (2020). Association between author diversity and acceptance rates and

citations in peer-reviewed earth science manuscripts. *Earth and Space Science*, 7(5), e2019EA000946. https://doi.org/10.1029/2019EA000946

MacNell L, Driscoll A & Hunt AN. (2015). What's in a name: Exposing gender bias in student ratings of teaching. *Innovative Higher Education*, 40, 291–303. https://doi.org/10.1007/s10755-014-9313-4

Madera J, Hebl M & Martin R. (2009). Gender and letters of recommendation for academics: Agentic and communal differences. *Journal of Applied Psychology*, *94*(6), 1591–1599 (2009). https://doi.org/10.1037/a0016539

Madera J, Hebl MR, Dial H, Martin R & Valian V. (2019). Raising doubt in letters of recommendation for academia: Gender differences and their impact. *Journal of Business & Psychology*, *34*(3), 287–303. https://doi.org/10.1007/s10869-018-9541-1

Magua W, Zhu X, Bhattacharya A, Filut A, Potvien A, Leatherberry R, Lee YG, Jens M, Malikireddy D, Carnes M, Kaatz A. (2017). Are female applicants disadvantaged in National Institutes of Health peer review? Combining algorithmic text mining and qualitative methods to detect evaluative differences in R01 reviewers' critiques. *Journal of Womens Health (Larchmt), 26*(5), 560–570. https://doi.org/10.1089/jwh.2016.6021

Mahoney MR, Wilson E, Odom KL, Flowers L, Adler SR. (2008). Minority faculty voices on diversity in academic medicine: Perspectives from one school. *Academic Medicine*, *83*(8),781–786. https://doi.org/0.1097/ACM.0b013e31817ec002

Marschke G, Nunez A, Weinberg BA & Yu H. (2018). Last place? The intersection of ethnicity, gender, and race in biomedical. *AEA Papers and Proceedings*, *108*(5), 222–227. https://doi.org/10.1257/pandp.20181111

Martin N. (2020). A practical response to ableism in leadership in UK higher education. In N. Brown & J. Leigh (Eds.), *Ableism in academia: Theorising experiences of disabilities and chronic illnesses in higher education* (pp. 76–102). UCL Press. https://doi.org/10.2307/j.ctv13xprjr.11

Mengel F, Sauermann J & Zölitz U. (2019). Gender bias in teaching evaluations. *Journal of the European Economic Association*, *17*(2), 535–566. https://doi.org/10.1093/jeea/jvx057

Merritt DJ. (2008). Bias, the brain, and student evaluations of teaching. St. John's Law Review, 82(1), 235-87.

Odei BC, Jagsi R, Diaz DA, Addison D, Arnett A, Odei J & Mitchell. (2021). Evaluation of equitable racial and ethnic representation among departmental chairs in academic medicine, 1980–2019. *JAMA Network Open*, *4*(5), e2110726. https://doi.org/10.1001/jamanetworkopen.2021.10726

Olsen J, Griffiths M, Soorenian A & Porter R. (2020). Reporting from the margins: Disabled academics reflections on higher education. *Scandinavian Journal of Disability Research*, *22*(1), 265–274. https://doi.org/10.16993/sjdr.670

Ovseiko P, Taylor M, Gilligan RE, Birks J, Elhussein L, Rogers M, Tesanovic S, Hernandez J, Wells G, Greenhalgh T & Buchan AM. (2020). Effect of Athena SWAN funding incentives on women's research leadership. *BMJ*, *371*, m3975. https://doi.org/10.1136/bmj.m3975

Padilla A. (1994). Ethnic minority scholars, research, and mentoring: current and future issues. *Educational Researcher*, 23(4), 24–27. https://doi.org/10.2307/1176259

Parasnis I & Foster SD. (2005). Perceptions of diverse educators regarding ethnic-minority deaf college students, role models and diversity. *American Annals of the Deaf, 150*(4), 343-349. https://doi.org/10.1353/aad.2005.0045

Pfeiffer D & Kassaye W. (2001). Other research -- A pessimistic finding regarding faculty affirmative action in higher education. *Disability Studies Quarterly*, *21*(3), 189–195. http://dx.doi.org/10.18061/dsq.v21i3.305

Pololi L, Cooper LA & Carr P. (2010). Race, disadvantage and faculty experiences in academic medicine. *Journal of General Internal Medicine*, 25(12), 1363–1369. https://doi.org/10.1007/s11606-010-1478-7

Puritty C, Strickland LR, Alia E, Blonder B, Klein E, Kohl MT, McGee E, Quintana M, Ridley RE, Tellman B & Gerber LR. (2017). Without inclusion, diversity initiatives may not be enough. *Science*, *357*(6356), 1101–1102. https://doi.org/10.1126/science.aai9054 Quiroga E, Gonzalez A, Newhall K & Shalhub S. (2021). Understanding and finding opportunities for inclusive mentorship and sponsorships in vascular surgery. *Journal of Vascular Surgery*, *74*(2), 56S–63S. https://doi.org/10.1016/j.jvs.2021.03.048

Reedijk J & Moed HF. (2008). Is the impact of journal impact factors decreasing? *Journal of Documentation*, 64(2), 183–192. https://doi.org/10.1108/00220410810858001

Reid LD. (2010). The role of perceived race and gender in the evaluation of college teaching on RateMyProfessors.com. *Journal of Diversity in Higher Education*, *3*(3), 137–152. https://doi.org/10.1037/a0019865

Rhoten D & Pfirman S. (2007). Women in interdisciplinary science: exploring preferences and consequences. *Research Policy*, *36*(1), 56–75. https://doi.org/10.1016/j.respol.2006.08.001

Rockquemore KA & Laszloffy T. (2008). *The Black academic's guide to winning tenure—Without losing your soul*. Lynne Rienner Publishers.

Rodríguez JE, Campbell KM & Pololi LH. (2015). Addressing disparities in academic medicine: What of the minority tax? *BMC Medical Education*, *15*(1), 6. https://doi.org/10.1186/s12909-015-0290-9

Salazar JW, Claytor JD, Habib AR, Guduguntla V & Redberg RF. (2021). Gender, race, ethnicity, and sexual orientation of editors at leading medical and scientific journals: a cross-sectional survey. *JAMA Internal Medicine*, *181*(9), 1248–1251. https://doi.org/10.1001/jamainternmed.2021.2363

Sánchez NF, Callahan E, Brewster C, Poll-Hunter N & Sánchez JP. (2018). The future LGBT health professional: Perspectives on career and personal mentorship. *LGBT Health*, *5*(3), 212–220. https://doi.org/10.1089/lgbt.2017.0134

Sang K. (2017). Disability and Academic Careers. Accessed Aug. 26, 2021. https://migrantacademics.files.wordpress.com/2017/05/disability-sang-may-2017.pdf

Schmader T, Whitehead J & Wysocki VH. (2007). A linguistic comparison of letters of recommendation for male and female chemistry and biochemistry job applicants. *Sex Roles*, *57*(7-8), 509–514. https://doi.org/10.1007/s11199-007-9291-4

Shim RS, Tully LM, Yu G, Monterozza EC & Blendermann M. (2021). Race and ethnicity of editorial board members and editors as an indicator of structural racism in psychiatry and neuroscience journals. *JAMA Psychiatry*, 78(10), 1161–1163. https://doi.org/10.1001/jamapsychiatry.2021.1983

Silbiger NJ & Stubler AD. (2019). Unprofessional peer reviews disproportionately harm underrepresented groups in STEM. *PeerJ*, 7, e8247. https://doi.org/10.7717/peerj.8247

Silver JK, Poorman JA, Reilly JM, Spector ND, Goldstein R & Zafonte RD. (2018). Assessment of women physicians among authors of perspective-type articles published in high-impact pediatric journals. *JAMA Network Open*. *1*(3), e180802. https://doi.org/10.1001/jamanetworkopen.2018.0802

Social Sciences Feminist Network Research Interest Group, University of Oregon. (2017). The burden of invisible work in academia. *Humboldt Journal of Social Relations*, *39*, 228–245.

Soorenian A. (2018). Disabled people's inclusion in education: A global perspective. *Disability & Society, 33*(5), 810-814. https://doi.org/10.1080/09687599.1453578

Statistics Canada. (2020a). Table 37-10-0165-01 Selected population characteristics of postsecondary faculty and researchers by region, role, and employment status. https://doi.org/10.25318/3710016501-eng

Statistics Canada. (2020). Table 37-10-0169-01 Unfair treatment, discrimination or harassment among postsecondary faculty and researchers. https://doi.org/10.25318/3710016901-eng

Subtirelu NC. (2015). "She does have an accent but...": Race and language ideology in students' evaluations of mathematics instructors on RateMyProfessors.com. *Language in Society*, *44*(1), 35–62. https://doi.org/10.1017/S0047404514000736

Swenor BK, Munoz B & Meeks LM. (2020). A decade of decline: Grant funding for researchers with disabilities

2008 to 2018. PloS One, 15(3), e0228686. https://doi.org/10.1371/journal.pone.0228686

Tamblyn R, Girard N, Qian C & Hanley J. (2018). Assessment of potential bias in research grant peer review in Canada." *CMAJ-Canadian Medical Association Journal*, *190*(16), E489–E499. <u>https://doi.org/10.1503/cmaj.170901</u>

Timperley C, Sutherland KA, Wilson M, & Hall M. (2020). He moana pukepuke: Navigating gender and ethnic inequality in early career academics' conference attendance. *Gender and Education*, *32*(1), 11–26. https://doi.org/10.1080/09540253.2019.1633464

Tulloch AIT. (2020). Improving sex and gender identity equity and inclusion at conservation and ecology conferences. *Nature Ecology & Evolution*, 4(10), 1311–1320. https://doi.org/10.1038/s41559-020-1255-x

Uttl B, White CA, & Gonzalez DW. (2017). Meta-analysis of faculty's teaching effectiveness: Student evaluation of teaching ratings and student learning are not related. *Studies in Educational Evaluation*, *54*, 22–42. https://doi.org/10.1016/j.stueduc.2016.08.007

Wallace SL, Lewis AK & Allen MD. (2019). The state of the literature on student evaluations of teaching and an exploratory analysis of written comments: Who Benefits Most? *College Teaching*, *67*(1), 1–14. https://doi.org/10.1080/87567555.2018.1483317

Wang L & Gonzalez JA. (2020). Racial/ethnic and national origin bias in SET. *International Journal of Organizational Analysis*, 28(4), 843–855. https://doi.org/10.1108/IJOA-06-2019-1793

Warner ET, Carapinha R, Weber GM, Hill EV, Reede JY. (2016). Faculty promotion and attrition: The importance of coauthor network reach at an academic medical center. *Journal of General Internal Medicine*, *31*(1),60–67. https://doi.org/10.1007/s11606-015-3463-7

Wennerås C & Wold A. (1997). Nepotism and sexism in peer review. *Nature, 387,* 341–343. https://doi.org/10.1038/387341a0

Witteman HO, Hendricks M, Straus S & Tannenbaum C. (2019). Are gender gaps due to evaluations of the applicant or the science? A natural experiment at a national funding agency. *The Lancet, 393*(10171), P531–540. https://doi.org/10.1016/S0140-6736(18)32611-4

Woods RL. (2001). Invisible women: The experiences of Black female doctoral students at the University of Michigan. In Mabokela RO & Green AL (Eds.), *Sisters of the academy: emergent Black women scholars in higher education* (pp. 105-115). Stylus Publishing.

Yehia BR, Cronholm PF, Wilson N, Palmer SC, Sisson SD, Guilliames CE, Poll-Hunter NI & Sánchez JP. (2014). Mentorship and pursuit of academic medicine careers: A mixed methods study of residents from diverse backgrounds. *BMC Medical Educucation*, *14*, 26. https://doi.org/10.1186/1472-6920-14-26

Yerbury JJ & Yerbury RM. (2021). Disabled in academic: To be or not to be, that is the questions. *Trends in Neurosciences*, 44(7), 507-509. https://doi.org/10.1016/j.tins.2021.04.004

Zambrana RE, Ray R, Espino MM, Castro C, Cohen BD & Eliason J. (2015). "Don't leave us behind": The importance of mentoring for underrepresented minority faculty. *American Educucational Research Journal*, *52*(1), 40–72. https://doi.org/10.3102/0002831214563063

Zhang N, Blissett S, Anderson D, O'Sullivan P, Qasim A. (2021) Race and Gender Bias in Internal Medicine Program Director Letters of Recommendation. *Journal of Graduate Medical Education*, *3*, 335-344. https://doi.org/10.4300/JGME-D-20-00929.1

RESEARCH AND SCHOLARSHIP ACTIVITIES FRAMEWORK

CSM Research and Scholarship Activities Framework 2022

Academic staff members are expected to make contributions to Research and Scholarship in proportion to their allocated time for Research and Scholarship. Expectations for Research and Scholarship contributions increase with rank.

Research and Scholarship Categories

1. Relational Engagement with Communities and Patients

- a. Community Building, Developing Research Capacity
- b. Partnerships with Communities
- c. Social Equity and Community Engaged Research
- d. Research Impact on Policy, Practice and Structural Change
- e. Indigenous Scholarship Knowledge creation, research, and scholarship grounded in or engaged with Indigenous nations, communities, societies or individuals that embraces the intellectual, physical, emotional and/or spiritual dimensions of knowledge and interconnected relationships with people, places and the natural environment, including knowledge exchange and Ceremony, all grounded within an Ethical Space of Engagement approach.*
 - * Emine W. (2003). The ethical space of engagement. *Indigenous Law Journal, 6*(1), 193-203.

2. Professional Innovation and Entrepreneurship

- a. Patents /Licenses
- b. Commercialization of Technology
- c. Social Entrepreneurship
- d. Social Innovation (e.g. Innovate Calgary)
- e. Software Creation
- f. Development of Methods and Techniques
- g. Partnerships with Industry
- h. Development of Academic/Educational Resources (e.g. open educational resources, handbooks, guides, manuals, etc.)

Note: At times, it may be more appropriate for an academic staff member to report such resource contributions under Teaching. It is important for academic staff to report any one product in a single location.

3. Funding and Resources

- a. Successful Acquisition of Grant Funding (note: sources and amounts of funding are discipline-specific)
 - i. Competitive
 - 1. Tri-council
 - 2. Non-Tri-council
 - ii. Non-competitive
- b. Research Contracts
- c. Clinical Trials
- d. Multi-Authored Grant
- e. Industry Sponsored Research
- f. Philanthropy

4. Knowledge Exchange and Dissemination

(note: quantity and quality measures are discipline-specific)

- a. Peer-Reviewed Publications
 - i. Articles
 - ii. Abstracts
 - iii. Case reports
 - iv. Other
- b. Non-Peer-Reviewed Publications
- c. Presentations
 - i. Invited / Keynote presentations
 - ii. Peer-reviewed presentations
 - iii. Non-peer-reviewed presentations
- d. Additional Publications
 - i. Books, chapters (author, editor)
 - ii. Educational development (evaluation studies, policy briefs and reports, position papers on teaching and learning)
- e. Creation of Data Sets
- f. Results from Clinical Trials
- g. Research outputs that inform clinical practice, health guidelines or health system changes

5. Leadership in Research and Scholarship

- a. Leadership Role in Fostering Research and Scholarship Formal (e.g. Institute Directors, Research Group Leads (departmental, institute)
- b. Informal Research and Scholarship Leadership Positions
- c. Research and Scholarship Leadership in the Discipline
- d. Positive Contributions to Research and Scholarship Team Environment

6. Creative Professional Activity

(including knowledge translation and exchange outside the academy; activities must have a basis in the academic staff member's research and scholarship area)

- a. Scholarly Products to Share Knowledge (i.e. documents, briefs, summary reviews, etc., created to support analysis and policy development)
- b. Contributions to the Development of Professional Practices Leadership in Professional Organizations, Government or Regulatory Agencies Note: At times, these activities might better be described under Service (external to the University). It is important for academic staff to report any one activity in a single location.
- c. Media Engagement (social media engagement, expert advice, media interviews)
- d. Creation of Media (blogs, websites, videos, etc.)
- e. Engagement/Outreach (e.g. speaking at community events)
- f. Community Reports

Levels of Contribution to Research and Scholarship by Allocated Time

These are general expected levels of contribution by allocated time. The quality and impact of an academic staff member's Research and Scholarship contributions are expected to increase as they progress through their respective ranks.

≤ 15% Participant	Collaborator or team member. May be included as collaborator or co- investigator. Expectations: contributions in one of the above categories.
20-40% Contributor	Depending on the discipline, may have an independent research program or may be involved in a collaboration as a team member.
	Expectations: contributions in two of the above categories, usually including Category 4.
45-60% Major Contributor	Have developed their own independent research program or play a critical role in a team.
	Expectations: peer-reviewed outputs in Category 4 and contributions in two other categories.
>60% Leader in Research and Scholarship	 Have their own independent Research Program as well as promote teamwork and collaboration, given the importance of team science. Regular and sustained Knowledge Exchange and Dissemination AND communication/outreach to the academic, healthcare, professional or stakeholder community depending on the nature of the research - can include "traditional" and "non-traditional" communication methods. Expectations: peer-reviewed outputs in Category 4 and substantial contributions in at least two other categories.

TEACHING ACTIVITIES FRAMEWORK

Introduction to CSM Teaching Activities Framework 2022

CSM has adapted the *Teaching Expertise Framework* of the Taylor Institute to the academic health sciences context. This *CSM Teaching Activities Framework 2022* (found immediately below) provides clarity on organizing descriptions of contributions to Teaching.

Academic staff members are expected to make contributions to Teaching in proportion to their allocated time for Teaching. When considering the contributions of an academic staff member to Teaching, it is generally recommended to subtract the FTE for any defined Educational Leadership position they hold (and for which its corresponding FTE has been allocated within Teaching) from the total Teaching FTE. The remaining Teaching FTE can be met by a variety of contributions to Teaching as described in the *CSM Teaching Activities Framework 2022*.

In determining appropriate contributions to Teaching, it is important to consider the activities before and after formal instruction events as appropriate uses of an academic staff member's Teaching time. Examples include preparation, revision of learning sessions to align with evolving research, office hours availability, and grading of papers and test instruments.

Course-Teaching and Other Formal Instructional Events

The numbers of students, type and quantity of assessments, context of academic field, student level, session preparation and many other factors will impact the time required to lead courses, sometimes in significant ways.

Research Supervision

The time required to supervise research students varies by context, stage of training, mix of research learners, and other factors. As the number of research learners increase in a research environment, supervision among the students develops, usually leading to a non-linear increase in total FTE required by the academic staff member to supervise their research student cohort.

Clinical Workplace-Based Education

Time spent supervising clinical learners within the clinical environment (i.e. "in the moment" activities) is allocated within an academic staff member's Clinical FTE allocation. Despite this, these "in the moment" contributions to Clinical Workplace-Based Education are important to report, such as numbers of half-days spent with clinical learners. Competency-based medical education requires additional Teaching contributions outside Clinical time, such as learner coaching, review and consolidation of feedback and assessments conducted by other clinical preceptors, development of individualized learning plans, and scheduled time specifically focused on direct observation of clinical learners (with a different clinician serving as the patients' most responsible physician). These "activities over time" require dedicated Teaching time allocation. Supervision of remedial or probationary learners is recognized to require substantial additional effort and time.

CSM Teaching Activities Framework 2022

based upon:

Chick N, Kenny N, Berenson C, Johnson C, Keegan D, Read E, Reid K. The development of teaching expertise. Taylor Institute for Teaching and Learning, University of Calgary, 2017. Accessible at <u>http://connections.ucalgaryblogs.ca/2017/11/04/developing-a-learning-culture-a-framework-for-the-growth-of-teaching-expertise/</u>

Kenny N, Berenson C, Radford S, Nikolaou N, Benoit W, Mueller R, Paul R, and Perrault E. Guide for Providing Evidence of Teaching, Taylor Institute for Teaching and Learning, University of Calgary, 2018. Accessible at https://taylorinstitute.ucalgary.ca/sites/default/files/Content/Resources/Teaching-Dossiers/Guide-for-Providing-Evidence-of-Teaching.pdf

Benoit W, Berenson C, Johnston D, Kenny N, Mikita K, Nowell L, and Reid L. A Continuum of Teaching Expertise. Taylor Institute for Teaching and Learning, University of Calgary, 2019. Accessible at: <u>https://taylorinstitute.ucalgary.ca/sites/default/files/Content/Resources/SoTL/Teaching-Expertise-Continuum.pdf</u>

Teaching Categories

1. Instruction and Assessment

- a. Instruction (direct teaching, scheduled teaching, etc.)
- b. Learner Assessment and Review
 - i. Examinations, grading and other assessments of students/learners
 - ii. File review and interviewing

2. Supervision, Mentorship and Student Engagement

- a. Research Supervision
- b. Clinical Workplace-Based Education
 - i. Activities in the moment
 - ii. Activities over time
- c. Mentorship and Advising Activities
 - i. students / learners
 - ii. peers
- d. Student/Learner Engagement (e.g. student-driven group activities, developing student engagement programs which are oriented to the needs of students)

3. Teaching Development

- a. Personal Teaching Improvement
- b. Peer Teaching Improvement

Note: activities in helping peers develop their teaching skills which are beyond the norm might better be reported under 4. Educational Leadership below.

4. Educational Leadership

- a. Defined Leadership Roles
- b. Curriculum Consultation, Development and Implementation
- c. Program Evaluation and Accreditation
- d. Contributions to Policy and Governance of Education

Levels of Contribution to Teaching by Allocated Time

Teaching contributions by academic staff are to be reviewed relative to their allocated time. Increasing time allocation for Teaching results in increased expectations for Teaching contributions. All academic staff are expected to make contributions in either Category 1 or 2. Academic staff are expected to provide learner-centred instruction and supervision within these activities.

In general, academic staff with >10% of time allocated to Teaching *beyond their assigned activities in Categories 1, 2a and 2b* are expected to make contributions in Categories 3 and 4.

SERVICE ACTIVITIES FRAMEWORK

Introduction to CSM Service Activities Framework 2022

CSM has developed the *CSM Service Activities Framework 2022* (found immediately below) which provides clarity on organizing descriptions of contributions to Service.

Academic staff members are expected to make contributions to Service in proportion to their allocated time for Service.

Academic staff members with larger allocations will generally be serving in a major administrative, clinical or other leadership role, or will have been assigned such a large allocation due to a unique combination of CSM's needs and their talents, skill and expertise. Leadership roles will generally be described in a document which details the expectations and time allocation.

In determining appropriate contributions to Service, it is important to consider the full scope of service activities, and that some contributions require significant background time.

Academic staff should report administrative and/or leadership work in the pillar from which time for such roles has been allocated.

CSM Service Activities Framework 2022

1. Internal to the University of Calgary

a. Service of Citizenship

All academic staff are required to contribute to an inclusive, collegial and safe climate in which diversities of opinion and views are valued.

- b. Administrative Leadership Roles
 - i. Department
 - ii. Institute
 - iii. CSM-wide (program, core facility, office, etc.)
 - iv. University of Calgary-wide roles (e.g. roles in the VPR or Provost's Offices)
 - v. AHS Calgary Zone roles (including Section leadership)
- c. Committees, Task Forces, etc.
 - i. Service as Chair/Co-Chair
 - ii. Service as Member

d. Multi-Institutional and Collaborative Projects (note: when participation is primarily as a representative of the University of Calgary, it is

appropriate to identify it here. When one's role is leading or co-leading such projects, it would generally be identified as an External Service activity.)

e. Policy and Process Development (note: policies, processes and other tools which have been disseminated and are used at other institutions should be reported under Research and Scholarship)

f. Additional Internal Service Contributions

2. External to the University of Calgary

Service external to the University may be local, regional, provincial, national, and/or international.

- a. Grant Reviews, Panels, etc.
- b. Journals and Publication Platforms
 - i. Editorial roles
 - ii. Review roles
- c. Work with Organizations
 - i. Type of activity (e.g. Board or Committee membership)
 - ii. Impact of activity
 - iii. Scope of organization
- d. Service to Government
- e. Community Service

(i.e. arising from or connected to the academic staff member's academic appointment)

3. Clinical Service (when relevant)

- a. Clinical practice
- b. Active participation in continuing medical education, professional development, and personal quality improvement
- c. Development of local innovations to improve clinical care (Innovations which are disseminated and have impact beyond an academic staff member's own patient cohort should be reported in Research and Scholarship.)
- d. Contributions to institutional/clinic patient safety and quality management programs

4. Volunteer Activities and Elective Community Engagement

While not generally relied upon to account for time allocated to Service, except as agreed to by their respective department heads, CSM encourages volunteer and community engagement by academic staff members as such activities can be meaningful for members and strengthen our communities.

Community engagement which has been deemed part of their allocated time should be reported in the relevant categories within Research and Scholarship.