

Creating Sanctuary in Academia: Tales from the Pandemic

Callie Miller (Visiting Assistant Professor)

Dr. Callie Miller is an Assistant Professor in the Department of Engineering at James Madison University. A self-described mathematically inclined bioengineer, her expertise ranges from computational biology, image analysis, mechanics, mathematical modeling, to project based learning pedagogies.

Daniel Ivan Castaneda (Assistant Professor)

Daniel I. Castaneda is an Assistant Professor in the Department of Engineering at James Madison University. Daniel earned his PhD in 2016 and his Master's in 2010, both in civil engineering from the University of Illinois at Urbana-Champaign. He previously earned his Bachelor's in 2008 from the University of California, Berkeley. His course development includes civil engineering materials, dynamics, engineering design, engineering economics, first-year engineering experience, matrix analysis, mechanics, probability and risk in engineering, statics, and structural analysis. His research aims to better society by exploring how infrastructure materials can be made to be more environmentally sustainable and resilient; and by exploring how engineering can be structured to be more welcoming of diverse perspectives, which can fuel solutions in challenging societal inequities.

Melissa Wood Aleman (Professor)

Dr. Melissa Aleman (Ph.D. University of Iowa) is Professor of Communication Studies at James Madison University and has published research using qualitative interviewing, ethnographic and rhetorical methods to examine communication in diverse cultural contexts ranging from multicultural families to engineering education and makerspaces. She has advised undergraduate and graduate students in autoethnographic, ethnographic, and qualitative interview projects on a wide-range of topics, has taught research methods at the introductory, advanced, and graduate levels, and has trained research assistants in diverse forms of data collection and analysis.

Creating Sanctuary in Academia: Tales from the Pandemic

1. Introduction and Impetus

The COVID-19 pandemic roared into our lives in Spring 2020 like a hurricane, unmooring the academic “ship.” The narratives examined in this paper tell of faculty survival: rebalancing duties in the context of rapidly shifting expectations at work and home, making sense of demanding and impersonal university messaging, and grappling with a historical moment when families experienced unprecedented strains in caregiving, mostly felt by working women. This survival required transformative, relationship-centered practices and pedagogies grounded in care and collaboration.

Two junior (tenure-track) faculty members, after experiencing nearly a year of uncertainty and angst based on changing university requirements for class modalities [Johnson et al., 2020], an impending student enrollment cliff [ACE, 2020], and the potential of serious illness or death to themselves or loved ones, came together in Spring 2021 to plan and deliver a highly synchronized and remote introductory engineering mechanics course. At the forefront of their planning was that their instructional approaches would be resilient against any number of uncertainties and unknowns, including institutional guidance that one would serve as a backup instructor should serious illness or death befall the other. What emerged from this collaborative teaching experience were practices that enhanced care for others (faculty and student) and challenged the masculine norms of academia. Their partnership grew to include others into a community of faculty that offered support, sanctuary, and balance – a trifecta that cultivated an “anchor” for the unmoored academic ship.

Using mediated collaborative autoethnography and interviewing methodologies, we recount the story of a faculty partnership, particularly noting gendered differences in their experiences. While the themes that emerged through the storytelling are contextualized by the pandemic, we believe that relationship-building prior to the pandemic set the groundwork for survival and sanctuary. This paper offers an analysis of these faculty narratives through a gendered lens that demonstrate how a supportive partnership led to the creation of a new faculty culture that could potentially be realized more broadly within academia and engineering education. The themes we explore under the broader umbrella of collaboration are survival, creating sanctuary, setting boundaries, and faculty empowerment. We hope our stories tell of the reward in demonstrating care for others as it relates to fostering meaningful, inclusive working relationships that enhance student and faculty retention and persistence in engineering education.

2. Background – Gendered Strains in STEM and Engineering Cultures

A significant amount of research has considered how student behaviors can lead to female faculty burnout or feelings of being overworked [El-Alayli *et al.*, 2018; Bronstein & Farnsworth, 1998], and to a certain extent the authors were already well aware of this dynamic in the academy prior to the COVID-19 pandemic disruption. Researchers have also focused on the leaky STEM pipeline [Lakoff & Johnson, 2003], and the observation that these “leaks” still exist

beyond the efforts of early education to normalize gender representation in STEM [Banerjee & Pawley, 2013]. It is not nearly enough to try to increase the numbers of underrepresented groups in STEM; instead, it is necessary to understand what is inherent in the cultures of STEM that contribute to smaller numbers of female academics in STEM than graduates [Baillie *et al.*, (2012)]. To answer some of these questions, many researchers have sought to understand the perceived barriers in the promotion and tenure process (female vs male faculty experiences with respect to the job) [Banerjee & Pawley, 2013; Bronstein & Farnsworth, 1998], and student relationships with their female faculty members (faculty-student experiences, again with respect to the job) [Leung *et al.*, 2020; El-Alayli *et al.*, 2018].

Prior to the COVID-19 pandemic, there was still some, albeit varied and inequitable, work-life integration and balance for faculty regardless of gender. Pandemic working conditions magnified and exacerbated this already fragile balance. Though other research has described the additional invisible labor female faculty were performing prior to the pandemic (unsolicited special requests from students or other faculty members, extra service loads as the “token representative” of an underrepresented group, emotional labor and management at home, etc.), these labors were amplified once the uncertainty of COVID-19 hit students, colleagues, and at home. True to our experiences, the pandemic exacerbated the already known gendered dynamics between students, and students and faculty; but our narratives seek to explore how these known student and colleague behaviors were experienced and understood by the researchers during the uncertain climate of the pandemic. We believe our storied experiences of the gendered and institutional stressors of the pandemic that unmoored us will resonate with academics at large, and with engineering faculty in particular. Our goal is to showcase possibility. *Through collaborative storytelling, our research goal sought to illuminate the contexts that compel us to rethink engineering culture and the hope that was generated in our experiences.*

3. Collaborative Autoethnography toward Critical Inquiry

Each of our own (accumulated) lived experiences can be recorded, reflected upon, made sense of through analysis, and found to speak toward truths that resonate across broader social and cultural phenomena. The analysis of these experiences is not readily quantifiable, yet they can be inspected for their implications toward shared realities via qualitative methodologies.

Autoethnography is a qualitative methodology that draws from a researcher’s everyday lived experiences to create knowledge about social and cultural phenomena, and it combines the personal narrative form that characterizes the memoir and autobiography with the research practices of ethnography (the study and writing of cultures and people) [Ellis *et al.*, 2011].

Collaborative autoethnography is a methodology in which multiple researchers, who shared a common experience or social location, work together as a collective to explore, interrogate, and ultimately lend understanding to that shared experience [Chang *et al.*, 2013]. Collaborative autoethnography offers an opportunity to understand an experience from multiple viewpoints and perspectives, thus demonstrating that there is not a “single story” to a given experience. This

opportunity to layer stories is particularly important in debunking essentialist assumptions about professional experiences that may render “academics” generally, or “engineering educators” more specifically (so to speak), as a homogeneous group that share the same set of characteristics, struggles, and paths for success. For example, the literature on gendered labor in STEM departments has demonstrated that women faculty take on larger percentages of time in advising and mentoring roles, as well as more invisible and unrewarded service activities [Carrigan *et al.*, 2011]. The weight of these unacknowledged, invisible stories is particularly important for understanding professional experiences during the COVID-19 pandemic in engineering education, as the social locations of educators greatly shapes their experiences and the disproportionate harms of the pandemic to women and people of color may likewise shape the pattern of faculty exit from the academy in the face of untenable work-life experiences [McClure & Fryar, 2022]. Collaborative autoethnography can play an important role in highlighting not only the multi-faceted and different gendered challenges that engineering educators faced during the pandemic, but also in demonstrating strategies faculty used to cultivate meaningful and inclusive relationships that served to create an ethic of care in the face of institutional chaos.

Collaborative autoethnography not only has the potential to shed light on the multi-faceted character of an experience, but it also has the potential to enhance empathy of its researchers, in this case: the coauthors. As a collective research method, we simultaneously serve as *coauthors* writing the narratives, *researchers* asking questions and interviewing one another, and *participants* offering insights and answers to others’ line of questioning. Chang (2013) reflects, “in the struggle of balancing diverse perspectives, author-researcher-participants are encouraged to listen to each other’s voices, examine their own assumptions, and challenge other perspectives” (p. 111-112).

4. Method and Methodology

We utilized collaborative autoethnographic methods to explore the gendered experiences of coordinated engineering instruction during the height of the COVID-19 pandemic.

“Collaborative autoethnography focuses on self-interrogation, but does so collectively and cooperatively within a team of researchers” [Chang *et al.*, 2013, p. 21]. Collaborative autoethnography, then, is both critically *reflexive* and *analytic*. As co-authors we turned a magnifying glass on our own experiences, creating varied texts such as journals and transcribed interviews, that allowed us to step back and critically analyze our own experiences. Specifically, we utilized mediated co-constructed narratives and interactive interviewing [Ellis, 2003] as a process to develop a multi-voiced gendered story of teaching an engineering course at a large public university. Mediated co-constructive narratives are developed through a process in which an external researcher works collaboratively with the persons who have a common experience, in this case teaching a common engineering course, to facilitate a storytelling process.

Over an eight-month period, two junior (tenure-track) engineering faculty planned in Fall 2020 and delivered in Spring 2021 a remote offering of an introductory engineering mechanics class for sophomore students at a primarily undergraduate institution (PUI) and predominantly White institution (PWI) located in the Mid-Atlantic region of the United States. Each engineering instructor brought with them their unique life experiences. The lead author, an interdisciplinarily trained bioengineer in her fifth year of teaching this engineering course, a cisgender mother in a heterosexual marriage, and a White woman. The first co-author, a construction materials-focused civil engineer in his third year of teaching this engineering course, a cisgender husband in a same-sex marriage, and a Hispanic man. Together, they collaborated with the second co-author, a qualitative researcher familiar with the department and engineering education, a senior tenured professor of communication studies and qualitative methodologist, cisgender mother in a heterosexual multicultural marriage, and a White woman.

Narratives were generated over multiple phases. First, the engineering faculty each wrote reflective first-person accounts of their experiences teaching the engineering course at the conclusion of the Spring 2021 semester. Second, drawing from those accounts, the qualitative researcher scaffolded a series of generative interview questions designed to build upon the written narratives to develop robust, nuanced, and affective accounts of the engineering faculty's experiences. Rather than interview the engineering faculty separately, we drew upon the premises of interactive interviewing to enable both faculty to ask questions of one another in addition to reflecting upon the generative questions asked by the qualitative researcher. The three authors met bi-weekly over a period of multiple months over Zoom and recorded conversations that focused on the engineering faculty experiences. All three authors then read the recorded interview transcripts and noted recurring themes, poignant passages, and moments of similarity and differences in their teaching experiences. Over the course of the multiple meetings that followed, the authors used iterative processes of analysis and further questioning and storytelling to discuss the themes they had independently identified, built out understandings of those themes and clarified points of difference, and created opportunities for additional storytelling that added complex layers to our understanding of "what happened." This process resulted in a set of themes that characterize the faculty experiences and narratives that help to illuminate those themes.

5. Narrative Themes of Collaboration

The following section describes the themes that emerged in the co-constructed narratives. These themes both highlight the gendered dynamics of navigating work-life issues during the pandemic more broadly and in a male-dominated engineering program more specifically. The narratives showcased in broad ways the importance of cultivating a collaborative community among not just engineering faculty coordinating their instruction, but as a junior engineering faculty community holding identities typically marginalized and minoritized in the engineering

discipline. As an overarching narrative theme, there were two broad attributes regarding how collaboration was storied through our narratives.

First, we understood that “collaboration enabled work to happen.” Drawing upon the live metaphor¹ of a “storm in the sea” that was threaded throughout our narratives, collaboration became a “life raft” in a constantly changing and chaotic environment where we felt as if we were unable to stay afloat by “treading water.” We needed one another to be able to do the basic work of teaching our students. Collaboration, then, embodied a feminist ethic of care: care for one another, care for the students, and care for community. Both engineering faculty found value in communicating not only the “work that needed to happen” but openly communicating the emotional (and physical) burdens each faced on any given day in order to equitably manage the workload expectations. To set the scene: following the sudden, emergency pivots to online and remote teaching in Spring 2020, the engineering faculty faced ambiguous pressures to offer course modalities in Fall 2020 that supported in-person learning for matriculating engineering students and lab-based courses, while other courses could be offered exclusively online. We “treaded water” while trying to make sense of these ambiguous “seas of expectations.”

Fall 2020 proved to be emotionally draining, as we found ourselves not only as hybrid and remote instructors to our students, but unexpectedly were “anchor points” for many of the students’ own survival. Our students were also “adrift” in their own tumultuous at-home “seas,” making sense of each “storm” brought on by each of their many instructors across the myriad forms of online, remote, and hybrid teaching that arose in Fall 2020; brought on by their distracting at-home learning environments; their sudden economic and food insecurity; and by any combination of unease felt nationwide by the persisting pandemic, by the highly divisive presidential campaign of 2020, by the unjust killing of George Floyd and subsequent summer of anti-racist demonstrations, and by the lost sense of kinship and camaraderie found in the halls of university buildings. When the engineering faculty authors learned that they would be scheduled to teach a course jointly in Spring 2021, under the administrative auspice of serving as each other’s’ backup should the other meet with serious illness or death, they knew immediately: this “treading of water” could not continue. The author, in continually striving to meet the masculine expectations of the academy, assured her co-author that her duties as a mother to multiple children in virtualized K-12 would not get in the way of course planning and delivery. The co-author, in having virtually witnessed an abundance of his female colleagues “drowning” in their dual roles as mothers and faculty at any number of Zoom meetings, assured the author that we would do no such thing; that we would let the lessons of Fall 2020 inform our efforts in Spring 2021 – that we would plan and deliver this engineering course not necessarily meeting the students’ learning needs but to meet our own mental and physical needs; to allow ourselves respite. At last, we both agreed and sighed, we had given ourselves of our own “life raft.”

¹ A live metaphor is a metaphor identified in qualitative analysis that is present in the actual words of the interviewees, rather than an interpretive device described by an external researcher.

Collaboration also meant that our voices as faculty had more power; we were a collective community working together in support of one another. Thus, working together on coordinated instruction was experienced as empowering in a context in which faculty working conditions were otherwise largely out of our control and in constant flux. Further, collaboration went beyond just the two of us who were coordinating co-instruction but also centered the whole group of junior faculty who came to see one another as a community of practice, working together to support our mutual professional development. This community of junior faculty was both working collaboratively to support the group's collective advancement, and also working to develop a voice that could play a role in shaping the future of the department. This sense of community was central to more nuanced themes of (1) survival, (2) sanctuary, (3) boundary setting, and (4) faculty empowerment.

Survival – “*The only people who would be able to watch out for us, would be us ourselves.*”

Survival had many meanings in the narratives, from working together to navigate mixed messages from the university, to recognizing and supporting one another when one of us was depleted and feeling like a failure, to providing affirmation and acknowledgement when it seemed like no one else saw our pain. We were certainly not thriving, but in working together in coordinating our instruction and in creating mutual support among the junior faculty, we served as each other's “life raft.”

Importantly, the narration of survival and what was at stake was highly gendered in the narratives. It became increasingly evident over the course of the interviews that there were many more ways to be an “acceptable” academic father, but few models and stories for academic mothers, particularly in engineering. Women were bearing the more visible weight of parenting in the community when our work shifted from the university campus to the virtual classrooms and meetings. For example, mothering young children while working at home during the pandemic, and simultaneously navigating parents experiencing health crises set the contexts for the author's narrative. She expressed feeling unheard, invisible, and alone – particularly after reaching out for support. What is important here is that the co-author responded, acknowledged the burden and communicated “I see you.” Some of the relational features of the narrative of survival were acknowledging the burnout.

Creating Sanctuary – “*That was possibly the only safe space I had in the professional setting.*”

We bury ourselves in our work, particularly as academics, where work-life balances are unique to each of us. The sudden onset of the pandemic took that away from all of us, where very few of us had actually worked from home; instead, many of us found ourselves “living at work.” It took months to truly process what we had each lost, and could not readily recover in the midst of the pandemic. For the author pre-pandemic, the workplace was a sanctuary from home. A place to

find quiet and time to prepare for her classes or advance her scholarly projects. The pandemic exposed the professor as also a mother, with young children screaming in the background of her virtual class times, or set up and hidden away to engage in virtualized K-12 learning at multiple stations. Several weeks' worth of video lectures have forever captured the mother and professor, with her young daughter sitting and fidgeting in her lap, fielding students' questions over a Zoom call. Although the students were empathetic and she did not face any retaliation from colleagues or negative student evaluations from the obvious intrusion of home at work, the blurred boundaries of professor-and-mother took its toll on her perceptions of being able to do her job and perform the duties to the level of self-expectations set in pre-pandemic environments.

On his end, the co-author found himself locked behind closed doors all day: sitting in front of laptop screens in Zoom meetings or video editing his latest lecture, unmoving in his chair for hours on end; or locked behind his basement door where he had constructed an at-home lightboard studio, teaching to a recording smartphone mounted on a tripod. The joy he had found in the classroom, interacting with students, fielding questions, being a first-hand observer in the learning, was gone into an internet abyss. In his strive to maintain his pre-pandemic productivity as a tenure-track faculty member, he created a new-normal for himself: one of isolation, loneliness, and unending work.

We found these new realities to be mentally wrenching and physically debilitating. It was when we opened up to each other in Fall 2020 that these models were exposed for their untenability. A new form of sanctuary was finally created through shared vulnerability. When we were vulnerable, that's when we found community in each other. Mutual vulnerability created a sense of psychological safety between the two of us while coordinating our teaching. In sharing our experiences, we began to support each other by offering validation: that what we were doing to ourselves was unnecessary. We shared our insecurities to other junior faculty and soon found ourselves communicating far more openly than we ever did before the pandemic, on topics centered not only on work (teaching, scholarship, and service), but in being mindful of one another's wellness and suffering, each other's mental states, each other's moments of joy, and each other's moments of frustration. Our community of two grew into a larger community among junior faculty.

Setting Boundaries - *"I was done with that message... I'm not playing this game anymore."*

Opportunities abound for faculty, and our university has a limerick-style expression that ends with "...we will never ask less of you!" poking fun at the many service opportunities that faculty can join or be asked to join with varying degrees of autonomy and suggestibility in the decision. Attributable to the fears many held in higher education of a cataclysmic drop in student enrollment, faculty were asked to volunteer their time in virtual outreach efforts in order to protect against a dreaded drop in matriculating students. We found ourselves engaging in these opportunities, nearly too much, which further chained us to our laptop screens and commitments

to work rather than renewing our wellness and love of life with our respective families and loved ones. Soon after finding sanctuary and community in Spring 2021, we began to feel emboldened to resist such university messaging and opportunities. The fate of the university would not rest on our small group, we told ourselves, perhaps unconvincingly; we would suffer the same fate as everyone else, but at least we'd go down on our own terms. Opportunities and deadlines lost much meaning to us. Strictness to grading and timeliness of grading were relaxed. Ridding ourselves of guilt by foregoing a video lecture here and there became a new normal. Among ourselves, we shared the ways in which we tested the boundaries of what work needed to be done and what work could be “cast away” for another day (or month or year). We offered each other support and validation: that the individual decisions we each labored over, expending our time and energies, were often inconsequential and easily castable by rapid group consensus. *We had crowdsourced our individual strife, and found ourselves strengthening our growing sanctuary.* Our little “life raft” had started to become its own little “rescue ship,” steadfast in its capability to weather the remainder of the COVID storm.

Faculty Empowerment – “*I’m constantly asked to make decisions in the wake of so much uncertainty, I don’t know what to choose or decide, and it’s exhausting.*”

In the throes of what felt like whiplash decision making by the institution, the “rescue ship” created by the junior faculty allowed for individual empowerment in decision making through a supportive group. For example, the authors made decisions about the Spring 2021 course design that anticipated administrative decisions to “switch” from in-person to remote learning at a short moment’s notice. To buttress against this impending whiplash, the authors designed a hybrid course that would persist, without interruption, by any mandated change in course modalities. Because of the choice to offer the class this way, when the university indeed decided to go to a virtual option for the first few weeks of the semester, nothing had to change with the deployment of the class. Our decisions also seemed to help the students by designing and delivering a consistent, unchanging format and set of expectations for the class.

Additional decisions that the junior faculty faced regarded the option to extend the tenure clock. Through their collective networking within the department among other (senior) faculty, opinions were shared and it was agreed by junior faculty that extending the clock did not make sense. We had found empowerment in taking the onus of making “the best” career decision for ourselves by being vulnerable with each other in our decision making. For the author in Spring 2021, particularly at the height of the pandemic, she was making decisions on an hourly basis regarding management of a babysitter, caring for parents going through medical treatments made more complex by lack of medical personnel and hospital resources, attending as technical support for virtual K-12 education experiences, planning meals, picking up groceries, ordering PPE for the family, and maintaining constant housework. Self-care was nonexistent for her, and decision fatigue was rampant. Her collaboration with the co-author allowed her to default to his thoughts, experiences, and opinions on decisions regarding the class (e.g., late assignment

penalties or extensions, proof reading lab protocols and troubleshooting with the at-home lab equipment kits mailed to students on the first day, organizing weekly meetings with the TAs to express expectations in homework and lab grading, etc.). This shifted the gendered labor that often is created in collaborations between men and women, in which women often (or are expected to) take on these forms of invisible labor that keep the project/class/activity moving forward. This shared labor thus created space for the author to maintain her scholarly collaborations, have the mental space to respond when COVID exposures disrupted the planned care of children, and to set a boundary in the quiet of the evening to reclaim some time for her self-care. To this day, in a state where an (exhausted) new normal is the standard operating procedure, the collaboration that started with two has grown to multi-person, empowered community, whose members willingly engage as sounding boards for the workplace (i.e., service, scholarship, or teaching asks) and the seas of life beyond.

6. Concluding Thoughts

The themes of survival, sanctuary, boundary setting, and empowerment through collaboration reveal the material, psychological, and physiological consequences that the COVID-19 pandemic had on engineering faculty and the manners in which those consequences were highly gendered. While we present the narratives of only two faculty in this paper, we believe that it serves to reveal broader gendered challenges that faculty face in their institutions and the manner in which faculty can creatively work toward culture change. Indeed, engineering remains a male-dominated field with masculine norms present through the belief that “proving belonging” comes from overworking, overachieving, and outlasting peers. This overarching disciplinary expectation added another layer toward understanding the experiences of women in STEM who, as Joan Williams [2015] has argued, have to “prove it again,” and again. How do faculty challenge that masculine expectation and the implicit biases that are levied in evaluations of women faculty? Our stories only begin to scratch at the social and cultural phenomena that the pandemic spotlighted.

Our stories also offer up an alternative possibility. Through our work, we hope to demonstrate that the practices of care we used to survive during an unprecedented time, can and should persist to fundamentally change the culture of engineering. We believe that creating sanctuary, setting boundaries, and cultivating empowerment among faculty can allow us to make visible the routine gendered lived experiences, intentionally disrupt gendered inequities (such as invisible feminized labor) in our own everyday practices, and seek out new organizational practices that challenge masculinized engineering culture that has the potential to produce burn-out particularly for women. Further, creating gender diverse collaborations like ours has the potential to create allies within organizations that can work collectively toward cultural changes from within.

In particular, we feel strongly that these discussions need to happen now, instead of waiting for the receding waters to give rise to a “new normal,” particularly because of the immense strain the pandemic has placed on women and people of color. While students reside on our campuses for an average of four years, the faculty are the long-term organizational members; they serve as the lifeblood of the university, providing a specific student experience and supporting the foundations of the university. Investment in the faculty relationships with the engineering profession, academic culture, and each other can completely redefine what faculty retention looks like once we are finally on the other side of the storm.

7. Works Cited

- American Council on Education (ACE), “June Pulse Point Survey: Fall Planning, Financial Viability Top List of Concerns,” 2020 (Last Accessed June 26, 2020). [Online].
- Baillie, C., Pawley, A., & Riley, D. (2012). *Engineering and social justice: In the university and beyond*. West Lafayette, Ind: Purdue University Press.
- Banerjee, D. & Pawley, A.L. (2013). “Gender and Promotion: How do science, technology, engineering, and mathematics (STEM) faculty members survive a foggy climate?” *Journal of Women and Minorities in Science and Engineering*, 19(4), 329-347.
- Bronstein, P. & Farnsworth, L. (1998). “Gender differences in faculty experiences of interpersonal climate and processes for advancement.” *Research in Higher Education*, 39(5), 557-585.
- Carrigan, C., Quinn, K., & Riskin, E.A. (2011). “The gendered division of labor among STEM faculty and the effects of critical mass.” *Journal of diversity in higher education*, 4(3), 131-146.
- Chang, H., Nugunjiri, F.W., & Hernandez, K-A, C., (2016). *Collaborative Autoethnography*. London: Routledge.
- El-Alayli, A., Hansen-Brown, A.A. & Ceynar, M. (2018). “Dancing backwards in high heels: Female professors experience more work demands and special favor requests, particularly from academically entitled students.” *Sex Roles*, 79:136-150.
- Ellis, C. (2003). *The ethnographic I: A methodological novel about autoethnography*. Walnut Creek, CA: Alta Mira Press.
- Ellis, C., Adams, A., & Bocher, A. (2011). Autoethnography – An overview. *Historical Social Research*, 36(4), 273-290.
- Johnson, N., Veletsianos, G., & Seaman, J. (2020) “US faculty and administrators’ experiences and approaches in the early weeks of the covid-19 pandemic.” *Online Learning* 24 (2): 6 – 21.
- Lakoff, G. and Johnson, M., *Metaphors We Live By*, University of Chicago Press, Chicago, IL, 2003.
- Leung, E., Ruzybayev, I., & Maki, B. (2020) “The gender bias dynamic between students and female faculty in the engineering classroom through autoethnography.” *American Society for Engineering Education. ASEE annual conference proceedings*. Paper ID #29643.
- McClure, K. R. & Fryar, A. H. (2022). “The great faculty disengagement.” *The Chronicle of Higher Education*. (Last accessed February 4, 2022). [Online].

Williams, J. C. (2015). The five biases pushing women out of STEM. *Harvard Business Review*.
(Last accessed May 2, 2022). [Online].