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THE IVORY TOWER: AN INTERSECTIONAL VIEW ON GENDER  
AND ETHNICITY IN ACADEMIA BEFORE AND AFTER  
THE TRANSITION TO ONLINE WORK

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A Thesis  
Presented to  
the Graduate School of  
Clemson University

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Science  
Industrial–Organizational Psychology

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by  
Chelsea Robbins  
May 2022

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Accepted by:  
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## ABSTRACT

A substantial body of research shows that female academics have faced lower salaries, fewer promotions, and lower rates of tenure than male academics. Proposed mechanisms include higher demands for unrewarded service in the teaching-research-service ratio and significant obstacles in balancing work and family. This study proposed the ‘Academic Tetrad,’ which includes the additional facet of home life, as an alternative to the traditional ‘Academic Trinity’ perspective. The present study utilized an intersectional perspective to examine the academic tetrad, key workplace variables, and work-life balance across the COVID-19 transition to online work. The findings countered previous research by showing equality on research and service load but revealing trends of professors of color spending more time on teaching and less on home/family duties. White women reported more burnout than white men in organizations with toxic masculinity culture, but job satisfaction, embeddedness, and commitment were equal across gender and ethnicity - until the transition to online work. Professors of color experienced a stronger negative impact on job satisfaction while working online but increased organizational commitment. The COVID-19 online transition negatively impacted many aspects of professorship, but most impacts were universal rather than specific to racial or gender identities.

*Keywords:* Gender, Workplace, Academia, Women, Ethnicity, Coronavirus, COVID-19, Virtual Work, Online Work

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THE IVORY TOWER: AN INTERSECTIONAL VIEW ON GENDER  
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“I have been working at a Ph.D. granting institution for nearly 20 years. I have found that the outright sexist behavior of the past is now much less tangible, but just as vicious. I recently had a chair that did not “sexually” harass women, but [...] constantly created barriers to our success by adding additional service burdens, refusing to give adequate teaching assistance in large undergraduate classes, and doing many things to sabotage my (our) research productivity [...] in short, gender bullying is alive and well. Aggressors use less tangible, but just as effective means to control and harass women.” Statement by a female participant in a 2015 study (Bernat & Holschuh, p.25).

In recent years, organizations have become increasingly concerned with their handling of diversity in the workplace (Konrad et al., 2006). Current research shows that employing women and increasing a company’s gender diversity leads to positive outcomes for the organization and its employees. Hiring women is not just good ethics; it is good business. However, many organizations have yet to return this favor to their female employees, a trend that remains prevalent in academia today. In addition, the experience of women in the workplace is not universal; the idea of intersectionality reminds us that women of color are facing the ‘intersection’ of gender and race (Crenshaw, 1991). Thus,

this paper will not look at a blanket experience of women in academia but will tease apart the differences using this intersectional approach.

This paper begins by going over the background of women and women of color in the workplace, the wage gap, and intersectionality, before narrowing down to the more specific context of academia and the current COVID-19 crisis. This study applied that information to form testable hypotheses intended to assess the differential experiences of women and women of color in academia across the COVID-19 online transition without turning a blind eye to home life demands.

### **Diversity in the Workplace**

Recent years have witnessed diversity becoming an increasingly vital factor for organizations, and for good reason. A growing body of evidence referred to as the ‘business case for diversity’ shows that employing women and increasing a company’s gender diversity overall leads to beneficial outcomes for the company (Herring, 2009; Page, 2008). The demographic composition of the U.S. workforce is changing rapidly in terms of ethnicity and gender, and many researchers are now documenting the impact this has on organizations (Stevens et al., 2008). However, not every study has drawn such positive conclusions about the role of diversity in the workplace. Fitting to the theme, some researchers would summarize the impact of diversity as, well, diverse (Williams & O’Reilly, 1998).

### ***Diversity’s ‘Mixed’ Impact***

Several articles have categorized the effects of diversity in the workplace as ‘mixed,’ but Williams and O’Reilly (1998) point out the flaws of this assessment in a

comprehensive review. The evidence for diversity harming the functionality of workgroups primarily comes from relatively early studies that were heavily confounded by several variables. In these, the main problem undermining the results is that communication problems and social exclusion are confounded with employee diversity. For example, it is impossible to separate the impact of speaking with an accent from cultural diversity itself on a work team's functionality (Williams & O'Reilly, 1998). This means that a study may indicate that diversity negatively impacts organizations when, in reality, there were simple communication or socialization problems to address first. The timeline also matters; longitudinal studies of team performance reveal that, while diverse teams may lag in productivity at first, they later catch up and even surpass homogenous teams (Williams, 1998). It seems that they require some time to work out their differences before reaping the benefits of team diversity, so studies that did not allow for this time may not witness the advantages (Williams, 1998). Again, such studies may report diversity hindering the workgroup when the team just needed time to grow accustomed to working together.

The term 'diversity' alone also simply does not give enough context from which to draw conclusions. In terms of gender, it has been shown that the actual proportions of men to women within the group substantially alter the effects. If women make up less than 20% of a workgroup, they tend to receive harsher performance reviews than their male coworkers. However, when women comprise over 50% of the group, their performance ratings are higher than the men's. Thus, the ratio of demographic composition must be known for results to be interpretable – a factor that was missing from many of those early studies (Sackett, 1991). Workplace culture also matters; regardless of the individual views

of employees, the culture may determine what prejudices they feel comfortable expressing in the workplace. If the culture is averse to racism, people within it will actively try not to do or say anything prejudiced regardless of personal biases. On the other hand, work cultures or administrators who allow and even encourage such behavior may sabotage diverse employees' productivity (Buse et al., 2016). Research has shown that after being exposed to prejudice by a coworker, employees of color often experience a psychological 'freezing up' that inhibits their ability to work and think (Dickens & Chavez, 2018). Thus, it is not just diversity itself but the organization's approach to diversity that moderates its impact on organizational outcomes. In summary, the argument saying diversity brings adverse effects has weak support, as it is largely undermined by these confounds (Williams & O'Reilly, 1998).

### ***Benefits of Diversity in the Workplace***

While much of the research has focused on identifying and alleviating negative aspects of diversity in the workplace, a substantial body of data reveals its benefits. On the whole, diverse workgroups bring both social and economic benefits. Not only are they an indicator of equal employment opportunities, but these groups also provide their organization with creativity, innovation, and valuable ideas (Ellemers & Rink, 2016). While ethnically diverse groups do not necessarily come up with more ideas, they consider more perspectives and create more alternative plans, resulting in higher quality ideas (Williams & O'Reilly, 1998). Groups with higher gender or ethnic diversity solve problems more efficiently and make more accurate predictions (Page, 2008). Diverse groups also display increased identification with their job, which is associated with positive personal

and organizational outcomes (Hatak et al., 2015; Williams & O'Reilly, 1998). According to a 2009 review, Herring found that higher levels of racial diversity are related to increased sales revenue, more customers, greater market share, and larger relative profits. In turn, heightened gender diversity was related to increased sales revenue, more customers, and greater relative profits. As with much of the earlier research, these identities were treated as separate, and the intersection experienced by women of color was not addressed. The underlying reasons for this relationship between diversity and positive outcomes were further investigated by Page in a 2007 review. On top of affirming the benefits of diversity, cognitive diversity was identified as the most useful type of diversity in bringing these positive outcomes to the organization. Cognitive diversity refers to variety in thinking styles, knowledge, skills, values, and beliefs (Wang et al., 2016). In turn, cognitive diversity is enhanced by bringing in people from different genders and ethnicities (known as identity diversity). The benefits of gender diversity in particular have been documented thoroughly.

Due to pressure on organizations worldwide to employ more women, especially in senior positions, numerous studies have examined the effects of female presence across hierarchies in the workplace, with distinctly positive results. Greater gender diversity in a workgroup has been shown to result in higher performance and lower volatility in risk-taking due to the adoption of more long-term and stable policies (Bernile et al., 2018; Buse et al., 2016; Campbell & Mínguez-Vera, 2008; Chapple & Humphrey, 2014). That said, stability does not seem to inhibit innovation; gender-diverse boards consistently invest more in research and development and modernize more efficiently. It appears that having more varied backgrounds and experiences to draw from helps to counter groupthink,

reducing financial risks without impeding the risk crucial to progress and development (Bernile et al., 2018).

Although research has examined the impact of many types of diversity, gender diversity in particular was positively related to not only internal and external governance, but also diversity-related policies and practices. Thus, having women in groups with power will then lead to more diversity-related policies, attracting a more diverse workforce for the organization. While some may say that a flipped causality should be considered (that successful organizations attract more women, rather than the presence of women making the firm more successful), a recent study offers evidence to dispute that. While gender diversity increased firm value, there was no effect of firm value on the presence of women or gender diversity (Campbell & Mínguez-Vera, 2008). The costs to gender diversity in the groups are slower decisions, potentially hindering jobs in settings that require fast decisions, but, in most professions, this cost is outweighed by the gains provided (Bernile et al., 2018).

### **Benefits of Diversity in Academia**

Even in previously male-dominated fields, more women are entering academia – as both students and professors – than ever before (Bernat & Holschuh, 2015). Academia in particular stands to benefit from employee diversity. Since diverse workgroups are known for their creativity and innovation (Ellemers & Rink, 2016), a markedly cerebral field such as academia can be expected to profit from this increased diversity. The research does indeed seem to support this assumption.

First and foremost, as educational institutions, the impact of diversity on teaching must be considered. Having diverse staff allows for more nuanced teaching of diverse subjects. As academia explores a broad range of issues, it requires diverse faculty to adequately teach them. The field of criminology, for example, has been highly involved in researching the relative scarcity of women in academia for this very reason. The growing field began offering new classes involved with female-specific crime and victimization. Female professors were sought after for their ability to teach these classes with their insight and experience, and thus, the gender discrepancy in faculty was recognized (Bernat & Holschuh, 2015). Similar benefits exist for academic research. A 2016 study found that more ethnically diverse research teams were cited more often and published in higher-impact journals (Ellemers & Rink). Thus, drawing the participation of a diverse selection of professionals is an asset for academic organizations.

### **Inequalities in the Workforce**

As much as diversity inclusion in the workplace benefits organizations, factors remain that make this participation less favorable for the workers involved. A foundational piece of evidence for gender inequality in the workplace is the gender wage gap, a much-studied phenomenon revealed in Becker's 1957 book, *The Economics of Discrimination* (Murphy, 2015; Weichselbaumer & Winter-Ebmer, 2005). Many factors contribute to the existence of this gap. The problem lies partly in human capital investments – knowing that their careers will likely involve more breaks for raising children and family responsibilities, it makes sense that many women choose to invest less in their careers than their male counterparts (Bergmann, 1989). However, Becker (1971) argues that there is a less

innocent exchange occurring beneath the surface. He proposes that when an employer faces the emotional cost of hiring someone they are prejudiced against, they seek compensation by offering a lower wage. There is also the widely discussed occupational segregation – some careers are deemed more suited for women while others are seen as more masculine. When women face opposition while trying to join ‘masculine’ fields, they often opt instead for more feminine jobs, creating a push away from typically higher-paying jobs. There is also a pull into the feminine jobs – they tend to offer better work-life balance, a necessity for women who are also expected to take care of the family (Bergmann, 1989; Plasman & Sissoko, 2004).

Across the world, the gender wage gap has fallen from 65% to a 30% difference between the 1960s and the 1990s. This would give the impression that now, in 2022, we have all but eliminated gender-based pay discrimination. However, the reality is not quite so simple. The decline of the wage gap more closely reflects the trajectory of weight loss after a new diet; the first part comes off fast, but after that it gets stubborn. Although over half of that initial difference was eliminated in 30 years, most of that shrinkage came from women in the labor market accessing better training and education, equalizing the difference in productive characteristics between themselves and their male counterparts (Bergmann, 1989; Weichselbaumer & Winter-Ebmer, 2005). The remaining difference, not solved by equalizing work quality, is harder to get rid of. Some researchers found that this ‘discrimination estimate,’ as it was unexplained by any relevant worker characteristics, has not shrunk at all. A careful international meta-analysis by Weichselbaumer and Winter-Ebmer proposes that it is simply shrinking more slowly, at a rate of 0.17% per year. This

shows that we are making some progress on eliminating gender discrimination from pay, but there remains much progress to be made (Weichselbaumer & Winter-Ebmer, 2005). Evidenced by the source dates in this paper alone, there seemed to be a surge in academic literature regarding workplace gender inequality roughly occurring between 1996 and 2006. It seems to be followed by a lull more or less from 2006 to 2018 (and perhaps a 2020 spike from women's experiences during COVID-19 is on the horizon). In an article fittingly dubbed "The Gender Revolution: Uneven and Stalled," this rocky path is described in more detail. Groups of people and areas of work are all affected differently, and not necessarily linearly, by general progress. In sum, the push for gender equality in the workplace has been rather stalled (England, 2018). Thus, although women have joined the workforce and built up the skills necessary to equal their male counterparts, further integration in the workplace is necessary to address the discrimination still affecting the salaries of women around the world. If organizations want to gain the benefits of gender diversity by getting female employees invested in their company, they must make it worthwhile for the women involved and overcome the obstacles blocking fair compensation.

However, workplace inequality for women extends beyond pay and directly factors into their treatment in the workplace. It is tempting to say that this is just the impact of being a minority group in the workplace, and the same would be true if men were the minority, but this problem appears to go deeper. A 2012 study showed that, when a small group of men is in a predominantly female workgroup, they receive no hostility from their female coworkers, who even make an effort to socially integrate them into the group. Also, gender stereotypes are less prevalent in female-dominated groups. On the other hand,

women in predominantly male work groups experience hostility, exclusion, and harmful gender stereotypes from their male coworkers (Haile, 2012). This indicates that there is an underlying cultural element beyond the simple numerical ratio of a group. This effect becomes even stronger when the psychological impacts on the minority group are taken into account. Men in the minority, although they receive objectively better treatment, experience worse psychological outcomes than women in the minority (Williams & O'Reilly, 1998). Perhaps the answer to this lies in the traditional gender hierarchy placing men above women (Rudman et al., 2012). For perspective, consider societal reactions to a woman dressing in a masculine way versus a man dressing in a feminine way. Women in masculine attire may look stylish or more professional – while a man in a dress and heels may be ridiculed. Following the idea of a gender hierarchy, being masculine is a step up, while being feminine is a step-down. Interpreted in this light, the workgroup findings may make sense. Perhaps it is embarrassing for a man to feel equal to female coworkers, but flattering for a woman to compete with male coworkers. Regardless, there are more factors at work here than mere ratios of male to female.

### **Gender Inequality Within Academia**

In academia specifically, gender inequality can easily be observed. While this topic is sometimes treated as a relatively new finding or a problem that has only recently surfaced in the literature, there are accounts of qualified women professors seeking equal treatment in the workplace from the late 1800s. A call to action issued in 1904 by one of the famous early female psychologists, Christine Ladd Franklin, states that, while more women are getting degrees than ever before, they are having a difficult time getting hired in academia

afterward (Ladd Franklin, 1904). Research from 2007 reported that, of the 1.3 million college undergrads in the country, 58% are women, and, in 2002, more women earned doctorate degrees than men (Flaherty, 2017). More than a century has passed, and, while improvements have undoubtedly been made, the overall trend persists. Looking back on the obstacles aspiring women professors faced in the past, such as being ignored for positions due to marital status, only being allowed to teach one class at a time, and being denied both title and salary, one might assume that women professors in modern times have it easy (Ladd Franklin, 1904). One would think that the issues women called for action on in 1904 would be solved by now. However, a growing body of evidence shows that today's women professors still face obstacles due to their gender, although they may be more subtle. While the discrimination may not be as overt as it was in the 1800s, it persists through more subtle forms that nonetheless can have a major impact on women's careers.

Women who feel they are outsiders or different from their coworkers tend to have shorter terms in academia, often leaving the field early due to increased experiences of burnout, discrimination, and silencing (Bernat & Holschuh, 2015). Following this theoretical framework, these effects may be particularly strong for women of color, due to an increased feeling of being an outsider in the predominantly white world of academia. Administrators are often found to be a central obstacle for women in academia, either creating a hostile work environment by perpetrating bullying behavior themselves or allowing it from others in the department (Bernat & Holschuh, 2015).

This behavior from administrators may be indicative of an underlying system; participants in a 2015 study reported that the 'Good Ol' Boy' network was still going strong

in academia; it just operates in more subtle forms. While the exclusionary tactics are just as effective, this subtlety means that reports of such behavior are often ignored as ‘minor things.’ Examples of these include department meetings consistently being scheduled at the time when female faculty need to pick up kids from school, plagiarizing a female researcher’s work and escaping consequences by claiming she was just the typist (she was the first author), and utilizing their network of male peers to request poor performance reviews for female colleagues (Bernat & Holschuh, 2015). Female academics in mostly male environments are excluded from areas of study male students can pursue, taken less seriously, and have their commitment questioned (Williams & O’Reilly, 1998). Academic gender inequality has even been documented within the field of psychology. A 1992 study showed that, as the rank of a job increases, the proportion of women in it decreases (Wyche & Graves). As that information is dated, this study investigated whether that pattern holds today.

### **Ethnic Inequality Within Academia**

The representation for women of color in academia, however, is lacking at all levels. In STEM fields, this effect is especially pronounced. Women of color make up 15% of the population in America, but only 5.7% of STEM faculty. Women from underrepresented minorities (Black, Latina, and Native American) make up only 2.1% of STEM faculty, while they represent 13% of America’s population. This underrepresentation becomes more skewed at higher levels of the profession, especially in academia (Kachchaf et al., 2015).

Higher education is undergoing a significant shift in both what it is and who it serves (Dedoussis, 2006; Judkins & Lahurd, 1999). A more culturally diverse population graduating high school and entering college has challenged many institutions' traditional viewpoints of a 'melting pot' and encouraged approaches that value diversity rather than feigning color blindness (Judkins & Lahurd, 1999). To better relate to this new student body, it makes sense for staff to diversify as well. While many universities have announced their focus on diversifying their faculty, PEW data show that they have yet to catch up with the diversification of their students. As of 2017, 76% of U.S. faculty members were white, compared to only 55% of college students - and this gap remains present across all disciplines. The match (or lack thereof) between faculty and student demographics has important outcomes for the student and organization. While performance gaps have been observed between white and non-white students, this gap shrinks significantly (20-50%) when there are minority faculty members to look up to as role models. Of the remaining 24% of non-white faculty, 11% were Asian, with only 5% and 6% being Hispanic or Black, respectively (Davis & Fry, 2020). So clearly, faculty diversity is important for academic success. However, underlying biases must be dismantled before that diversity can be successfully cultivated. A 2015 study highlighted several crucial barriers for women, and especially women of color, in academia: 1) Expectations that academics will prioritize work over all other aspects of life, 2) a lack of culturally competent mentors and advisors, 3) social exclusion by peers, causing a lack of social and professional network support, 4) assuming that their family's financial status will not interfere with their career, 5) discouragement from utilizing family leave policies, questioning competence and

dedication to science due to their ethnicity, gender, or parental status (Kachchaf et al., 2015). Until these obstacles are addressed, it will be difficult to effectively improve this underrepresentation in the field.

### ***#Black in the Ivory***

In the midst of the #Black Lives Matter movement's highest mobilization to date, during the summer of 2020, the tag #Black in the Ivory started trending on Twitter. Founded by two Black female academics (Dr. Shardé Davis and Ph.D. student Joy Melody Woods), this tag was used by people of color to describe their own experiences in academia, and quickly took off both on social media and through publications in academic journals (Freund, 2020; Subbaraman, 2020). An editorial piece by an accomplished cell biologist explained the connection between these events; the indisputable (to many people, at least) reveal of this systemic racial injustice brought previously dormant racial injustices to mind again, and now does not let them rest. It also offers a potential explanation for the lack of effective action on diversity in academics; we assume that racism is a problem for the ignorant. However, the forms of racism discussed in this paper are not byproducts of ignorance (and how could they be, in a field devoted to knowledge) but a result of structural injustice (Andrianantoandro, 2020). Another reason that the rampant racism in academia has gone unmentioned for so long is a fear of retaliation, now voiced by many. Dr. Shardé Davis mentioned that speaking out about such experiences could be brought up during tenure decisions, a promotion that is already difficult enough to attain for those not experiencing gender or racial backlash (Freund, 2020; Subbaraman, 2020). Now that they are finally being released, however, their stories show an ugly truth. Common themes

among the tweets were (white) faculty discouraging Black students from pursuing fields they were interested in, faculty not believing that Black academics were who they claimed to be, and, adding insult to injury, displaying Black academics across brochures and other advertisements while giving them no other recognition. And these are just the stories people felt comfortable publicly sharing, from people who pushed through enough obstacles to reach the ivory tower to begin with (Freund, 2020). While the sharing of personal and anecdotal stories such as those marked with this hashtag may be frowned upon as unscientific, critical race theory suggests otherwise. According to this theory, it is critical for these narrative stories to be shared, as they challenge the stereotypical stories that the dominant group already holds against minority members (Aguirre, 2010). While those who shared their stories may face powerful personal and career-oriented backlash, many still hold firm to the idea that it was time for their stories to be heard. Many of their white coworkers expressed complete shock that these acts happened in their workplaces, and hopefully bringing such ugly truths to light will lead to further solutions (Subbaraman, 2020).

### **Intersectionality**

The idea that women of color face barriers due to both their gender and ethnicity is often referred to as intersectionality, cumulative disadvantage, or multiple marginalities. First coined by Kimberlé Crenshaw in the late 1980s, intersectionality refers to the overlap of marginalized identities such as race, gender, class, and sexuality. One of the most important findings in feminist research, it states that identities (and the oppression that comes with them) are multidimensional (Nash, 2020). When used in reference to gender

and race, it draws attention to the fact that women of color may have different experiences than men of color or white women due to their combination of marginalized identities. For this reason, it is crucial to take an intersectional perspective to accurately measure the experiences of marginalized employees; simply measuring the experience of women and the experience of people of color separately does not capture the experience of workers experiencing the cumulative effects of these disadvantages (Kachchaf et al., 2015; Wyche & Graves, 1992).

Women of color face additional burdens due to their layered identities. Many minority women have learned to use ‘identity shifting’ to better blend across various settings. This is a little like having to perform as a high-stakes social chameleon; to avoid exclusion, a person may downplay or exaggerate aspects of their identity to fit into different environments. In the workplace, this often entails having to ‘act white’ to be seen as professional. However, having to hide or suppress one’s own identity results in negative emotions and lower work productivity. An additionally insidious aspect of having to suppress an identity in the workplace involves remaining silent about discrimination and prejudiced comments (Dickens & Chavez, 2018), which may explain why so many people who do not directly experience this discrimination believe it no longer exists.

In general, there is a plethora of research on race relations in the U.S., but relatively little on race in the workplace. What does exist focuses on the ‘business case for diversity,’ relating it to financial organizational outcomes such as customer number and sales revenue, which are not directly relevant to academia (Herring, 2009; Page, 2008). Perhaps because,

until recently, there has been so little diversity in academia to look at (Williams & O'Reilly, 1998).

### **The Job of an Academic**

Perhaps one reason inequality still exists in a field that may otherwise be expected to be educated and progressive is the fact that a lot of the work done in academia is difficult to quantifiably measure. It is easy to put a number on the work productivity of certain jobs; for example, how many products are manufactured by a factory team, or a dollar amount that a salesperson sold. But, in the realm of education that can be more difficult. How do you measure an education, especially when teaching evaluations are shown to be unreliable? For many years, teaching has been quantified by student evaluations, but a mass of research shows, while these are measures of many things (gender, race, appearance, the students' grades), they do not accurately measure teaching (Boring, 2014; Laube et al., 2015).

### **Job Level and Tenure**

However, there are some hard and fast variables within academia, perhaps the most obvious of which is tenure. While the specific job levels and titles may vary between universities and countries, the idea of tenure remains nearly universal. This makes it useful for comparisons between the groups of people in question. As previously stated, women are entering academia at unprecedented rates. However, this has not translated into women receiving an equal rate of tenured university positions (Laube et al., 2007). This may be due, in part, to a difference in publication rates; studies have found that women are systematically under-published compared to men, which can negatively impact tenure

(Bernat & Holschuh, 2015). It has also been documented that women have to work harder and longer for promotions (Kachchaf et al., 2015).

If the job level itself is investigated, a clear trend is present. A 2015 study found that, while 52% of assistant professors were female, 41% of associate professors were female, and only 25% of full professors were female (Bernat & Holschuh, 2015). As the rank gets higher, the number of women present declines. Job level is interestingly tied to the idea of service load. One study reported that associate professors felt they carried too large of a service load, which interfered with their scholarship, while full professors did not experience this (Bernat & Holschuh, 2015). Because junior faculty are trying to get tenured and need to focus on career trajectories, already tenured faculty usually perform more service and allow the junior faculty to focus on research (Guarino & Borden, 2017). The expectations for women to take on service roles without benefit, combined with systematically lower evaluation ratings from students, are negatively influencing hiring and salary for female professors. These elements combine to create a cycle of women professors being underpaid and undervalued in the workforce, despite being equally qualified for professorships.

For women of color, these differences are even more profound. Despite the growing number of women working as scholars and administrators, data from 2016 report that women in general only make up 37.5% of all tenured faculty in American colleges, and women of color specifically only make up 8% (Bernat & Holschuh, 2015; Lillianfeld). This raises several questions that necessitate further research: Are women of color just going into non-tenure-track positions, or are they on the tenure track but less often tenured? Does

the gender discrepancy at higher job levels impact women of color more strongly than white women? Studies have shown that Black faculty feel pressure to work harder than their white colleagues for the same promotion (Wheeler & Freeman, 2018), and women of color have stereotypes of both race and gender to oppose. This would increase pressure and demotivation to anyone seeking tenure, and may well contribute to the marked deficit of women of color in tenured positions.

### **The Academic Trinity**

Faculty workload can be broken up into three main categories, sometimes referred to as the ‘holy trinity’ of academic life (Meyers, 2018). These categories are research, teaching, and service. The actual ratio of time spent on each of these differs between every individual, as well as by department and institution. The type of institution largely influences whether priority status is placed on teaching or research; Research universities generally value research above all else, so professors at these institutions often dedicate more time to research than either of the other two blocks. Liberal arts colleges, on the other hand, tend to prioritize teaching (Guarino & Borden, 2017; Harris, 2015). However, academic service is hardly ever prioritized – it is consistently undervalued compared to either of its counterparts and may not be seen as “real work,” despite being integral to an institution’s functioning (Neumann & Terosky, 2007).

### **Rewarded Activities**

#### ***Teaching***

In the ratio of the academic trinity, women tend to have a greater proportion of teaching to research, which may indicate a stereotyped teacher/mother role (Guarino &

Borden, 2017; Winslow, 2010). However, this does not mean women are viewed as more competent teachers; just the opposite. Women receive systematically lower teaching evaluations, an effect that is confirmed to be solely due to gender rather than any differences in teaching style. One study using online classes displayed a male name to one-half of the students, and a female name to the other – but it was the same teacher for all. The female name received lower evaluations across the board (Boring, 2014). The effect appears to disproportionately impact women of color. This may cause women of color to spend more time trying to boost their student evaluations of teaching (SETs) rather than dedicating that time to research and likely adds to the fatigue they experience (Boring, 2014), as will be discussed later in this paper.

### ***Research***

Despite women now making up a significant percentage of academia, they are being published at rates far lower than their male colleagues. Only 38% of all peer-reviewed journal publications are authored by women, a number which is already inflated because it includes journals specifically focused on women's issues. How much smaller would this number be for women of color? This may be because women are more likely hired for community colleges or non-tenure-track positions. Many big journals are against publishing scholarship on gender, something women often focus on (Bernat & Holschuh, 2015). Men are allowed to guard their research time more, by declining activities such as service which would detract from that time, while if women do the same, they're seen as 'not being a team player,' (Guarino & Borden, 2017).

## **Unrewarded Activities**

### *Academic Service*

But the bulk of inequality seems to be in academic service load. It appears that men and women are expected to play different roles in the university setting. Women are expected to take part in more service load activities such as mentoring students and participating in university committees, whereas men are allowed to focus more on publishing research and writing grants, activities which result in more promotions and higher pay. When men do participate in academic service, it is typically at an administrative level and thus financially rewarded (Guarino & Borden, 2017). A quote from a female academic in a 2015 qualitative study lends credence to this idea, “The biggest issue that I have seen in our department is that women tend to be overburdened with service roles compared to men” (Bernat & Holschuh). However, if women turn down service roles to make more time for their research, they may be seen as not supporting their workgroup and face backlash for this in the workplace (Flaherty, 2017). Some administrators may be worsening the problem; female academics reported administrators setting up barriers of additional service load which prevented them from having time for research productivity. This forced them into the role of an undergraduate teacher instead of a researcher. Because the harassment was not sexual, reports filed against this administrator were ignored for years (Bernat & Holschuh, 2015).

This idea seems to reflect the expectation that women should take care of the home, simply transferred to the academic setting where they are expected to do the service work for the ‘academic family’ (Guarino & Borden, 2017). While these services are just as vital

to the university as the research and grant writing more often done by male faculty, they are not rewarded with higher pay or promotion opportunities (Grove, 2016). By rewarding typically male work with higher salaries and promotions, but ignoring the equally vital work often done by women, universities are unintentionally contributing to the wage gap between genders and creating another obstacle for women professors (Guarino & Borden, 2017; Lee, 2012).

However, academic service is hardly ever prioritized – it is consistently undervalued compared to either of its counterparts and may not be seen as “real work,” despite being integral to an institution’s functioning (Neumann & Terosky, 2007). The devaluing of an entire third of faculty work is alarming in and of itself, but it also means that such work is not rewarded in the same way the other two sections are. While research and teaching factors strongly into salary and performance appraisal, service work tends to go largely unrecognized. Service is a very time-consuming part of the job, but is not directly rewarded, and, while it factors into performance reviews, it does not carry as much weight as research or teaching (Ward, 2002).

#### *Measuring and Defining Service*

This may be due in part to the fact that service is somewhat harder to define and quantitatively measure. With research, productivity is relatively easy to measure; there may be set standards for the number of publications in respected journals, dollar value of grants procured, or the number of books authored. Teaching may have less formal quantitative measures, but class load and teaching evaluations – while also fraught with gender discrepancies – offer fairly concrete methods to assess teaching (Laube et al., 2007; Ward,

2002). Operational definitions of service, on the other hand, tend to be much more nebulous (Neumann & Terosky, 2007). Faculty not only receive less instruction on service load, but the results of their service work tend to be less immediate and measurable. Thus, despite the large amounts of time taken up by service load, it is harder to evaluate and is not considered with the same formal weight in performance reviews (Ward, 2002). Therefore, when female professionals are systematically pushed towards dedicating their time to work that is not rewarded with an increased salary, promotion, or tenure, this becomes a contributing factor toward pay disparities between genders and would result in seeing fewer women at higher levels of academia (Bernat & Holschuh, 2015; Guarino & Borden, 2017; Lee, 2012).

Academic service can be generally defined as activities such as advising, sitting on committees, service to the profession and community, and other important activities to support the work of the institution (Harris, 2015; Ward, 2002). A more thorough look into what service load entails has resulted in several subdivisions and different perspectives through which it can be categorized. First, overall service work can be divided into internal and external service. Internal service describes what faculty do to meet the needs of the institution, such as participating in committee meetings, writing reports, and helping to make decisions, while external service refers to work that extends beyond the campus, such as professional conferences and other forms of professional development for the faculty member's career and the field as a whole (Ward, 2002). Internal service can be considered similar to organizational citizenship behaviors (OCBs), although service is expected rather than volitional. The extent to which each faculty member is expected to perform these

behaviors varies by gender and race (Guarino & Borden, 2017). The impact of this service expectation was mirrored by #BlackInTheIvory founder Joy Melody Woods, and in keeping with the application of critical race theory, this quote is well worth sharing, “Black scholars as a whole, but really Black women, are always caught doing other mothering, other labouring. Other, other, other, other — doing all these things that are not in the job description but are expected. And they’re not paid for it, especially when it comes to work for diversity (Subbaraman, 2020). Her statement captures not only the idea that women are often expected to perform ‘mothering’ caretaker roles within their role as an academic without compensation, but also that academics of color (according to Shardé Davis on their Twitter page, ‘Blackademics’) are expected to step in for free on any diversity-related initiative.

Service load can also be examined from content and context perspectives. The content perspective looks at the type of activity faculty members perform in their service roles. For example, a professor may act as a journal editor, advisor to students, or faculty representative on a committee. This perspective focuses on clarifying who the faculty member is serving through these acts, be it professional communities, the students involved, or their institutional colleagues. However, it does not take into consideration the faculty member’s internal experience of the task. Context perspective, then, looks at it from this internal perspective: what they think and feel as they carry out service-related work, and what they personally gain from the act (Neumann & Terosky, 2007). Much of the earlier literature on women professors’ experience of service highlighted the benefits of it; feeling a closer membership with the academic community and the personal responsibility

felt by faculty members as they performed more service work (Twale & Shannon, 1996). However, this viewpoint ignores the less visible, yet critically important consequences of allocating time toward service, which detracts from time that could be spent on research or other activities that are rewarded with higher pay and promotions. Thus, even if women were shown to generally enjoy service work more than men, a discrepancy in service load is still costly to women – in a very literal sense.

It is so far unclear exactly why women face a higher service load than men do. Researchers have posed the question of whether women volunteer for service-related activities more, or just have a harder time saying no to them. The research appears to support both sides of this claim, showing that women tend to respond to pleas to participate in service activities more frequently than men and also have a harder time saying no when asked. A study investigating email responses to requests showed that women volunteer for committee participation at higher rates. Although this only represents one aspect of academic service, sitting on committees can be a very time-consuming part of the job (Vesterlund et al., 2014). A quote from a female participant further lends evidence to this trend, “Even though I do so much administrative work, they still ask me to do more. It is often difficult to decline, so I suck it up and do it,” (Bernat & Holschuch, 2016). Women are also viewed more negatively when they try to negotiate and, therefore, they tend to do it less, especially when the person evaluating them is male (Guarino & Borden, 2017). Thus, it is possible that women face more negative social consequences when negotiating for lower service loads, or are viewed more negatively when turning such roles down. Because this negative backlash appears to be worse when the administrator in charge is

male, this problem may become more pronounced in the higher (and more male-dominated) ranks of academia (Guarino & Borden, 2017). This offers a potential explanation of why there are fewer women at higher ranks; the task of balancing service work with other work may grow more difficult at higher levels of the job.

Whatever the cause, recent research reveals a clear effect of gender on service load. Analyzing a large amount of data from across the nation, researchers Guarino and Borden (2017) found strong support for the idea that not only do women consistently spend more time on service-related tasks; they also take part in a greater number of tasks. The researchers found that women tend to participate more in internal service work, which is more interpersonal and less rewarded than external service work, the form that is more likely to lead to other job options and promotions. Despite the high variability found across disciplines and institutions, this trend remained even when factors such as race, rank, field, and department were controlled for (Guarino & Borden, 2017; Ward, 2002). Part of this effect may be the result of external service work being less accessible to women. For example, a recent study found that even at professional psychology conferences - many of which had a focus on diversity initiatives - most did not even offer nursing mother's rooms, guest passes for children, or information on local childcare (Mishra et al., 2021)

Despite the clear effects presented by what research has been done on the topic, and how prevalent this issue is in the lives of many women, little psychological research has been done on the subject. While gender discrepancies in the workplace and factors contributing to the wage gap have gained significant attention over the years, the role of service load in gender inequality has been largely overlooked (Guarino & Borden, 2017).

This is particularly true about intersectionality; the already barren literature on gender and service load does not offer much insight into the experiences of women of color. However, gender discrepancy in service load appears to be a very real contributing factor to the overall issue of women, and particularly women of color, who are facing lower salaries, tenure rates, and promotions in the workplace.

### *Intersectionality*

As distinct as these effects are for women in general, gender discrepancies in the workplace tend to be significantly worse for women of color. Despite an increasing number of women and specifically women of color earning doctorate degrees, these groups are still underrepresented in academia (Lee, 2012; Wheeler & Freeman, 2018). Of the 1.5 million faculty teaching at institutions of higher learning in America, only 4% are Black women (U.S. Department of Education, 2016), and a large portion of this number teach at historically Black colleges and universities. Although Black faculty are more likely to be on tenure track, their White colleagues still actually achieve tenure more (Wheeler & Freeman, 2018). Racial and gender discrepancies are particularly salient in disciplines typically dominated by white males, such as the so-called ‘hard’ sciences.

While research is beginning to look at the experience of professorship for women, and the experience of professorship for people of color, very little has been done to find out about the experiences of women of color. Women on tenure track already reportedly face ridicule, lack of information, and alienation. Women of color in particular also face ‘race fatigue’ as a byproduct of being simultaneously overworked and undervalued. A contributing factor to this is the expectation of taking on a higher service load, especially

service related to campus diversity (Wheeler & Freeman, 2018). They also may be overextended by trying to spend more time improving their teaching unnecessarily; as noted earlier, research shows that student evaluations of teaching (SETs) are skewed against women, and are particularly skewed against minority women. This may cause women of color to spend more time trying to boost their SETs rather than dedicating that time to research, a fact that likely adds to the fatigue they experience (Boring, 2014). Further investigation into SETs also revealed that women of color face difficulties from all directions; not only did white students tend to feel entitled to ‘putting them in their place’ by not respecting their authority in the classroom, students of the same ethnicity as the professor expected extra personal support and more lenient treatment. If this was not provided, they too would rate the professor more harshly, as they did not show the expected solidarity (Laube et al., 2007). Thus, different standards for both asserting authority in the classroom and giving students more personal attention is being set for women of color. These systematically lowered SETs and additional expectations of the professor to give more personal attention to students may further detract from time that could be devoted to performing research and working toward tenure. Qualitative research has revealed yet another insidious factor compiling this racial fatigue; Black faculty are aware that their White colleagues are awarded tenure more frequently, and thus feel pressure to exceed all expectations, over-extending themselves when tenure requirements are ambiguous as opposed to directly measurable accomplishments, such as the number of publications or years spent teaching (Wheeler & Freeman, 2018). Overall, people of color working as faculty feel the weight of all the stereotypes they must combat, and women of color have

stereotypes of both race and gender to oppose. This would increase pressure and demotivation to anyone seeking tenure, and it is no surprise that women of color are facing fatigue.

Although these problems are under-researched, there is little dispute that they are both significant and real. Despite more women getting doctorates than men, there are disproportionately few women receiving tenure. Additionally, female assistant professors are 23% less likely to obtain full professor status. Even when female and male professors start out making comparable salaries, the wage gap still appears over time, as women face a slower climb up the academic hierarchy, receive fewer awards, and see less representation at more prestigious institutions (Laube et al., 2007). There is strong documentation of the underrepresentation of women among full-time faculty in science, technology, engineering, and mathematics (STEM) fields, as well as administrative positions in the university setting (Bird, 2011). Research on gender discrepancies in academia has found consistent differences between genders in terms of salary, promotional opportunities, and workload distributions despite the growing number of women working as scholars and administrators (Bernat & Holschuh, 2015). Taking into consideration the fact that women of color fill only 8% of tenure positions in American universities while white women hold nearly 30% of these positions (Lillianfeld, 2016), the relevance of intersectionality to this issue is beyond debate.

### **Academic Tetrad**

However, the Academic Trinity perspective leaves out a critical aspect of an academic's life, especially for women with families. Academics are well known to have

little to no separation between work and life; leaving the office rarely indicates that an academic is done with work for the day. Thus, a breakdown of an academic's day is incomplete without consideration of time spent on home and family responsibilities, especially when investigating gender differences. In a 2015 study on gender in academia, one participant summarized this sentiment with the statement, "Much of my work life is also impacted by my home life. I attribute the delays in my career more to the demands of my home life than to any explicit or implicit discrimination in the workplace. I am a wife and mother and do not get a lot of support from my spouse; I do a lot of "heavy lifting" both at work and at home" (Bernat & Holschuh, 2015, p.28). Much of what we consider to be markers of 'gender equality,' such as women taking more responsibilities in the workforce, are just women taking on work in addition to the family and home responsibilities. A 2007 study conducted in Sweden (which scores much higher on cultural dimensions of gender egalitarianism than the U.S.) displayed some widespread negative effects of this false equality. The study examined the correlation between gender equality and health outcomes for men and women across several Swedish municipalities. However, the results were surprising - greater gender equality related to poorer health outcomes. The researchers concluded that what is often being called gender equality is just a one-sided expansion of women adding men's work to their already long list of responsibilities. This overload may be leading to poorer health outcomes for the whole family, as the usual caretaker is being overburdened (Backhans et al., 2007). For real gender equality, men need to be as involved in the home as women are in the workplace. Until then, female workers and their families will continue to be disadvantaged. However, the direct incentives for this

change are lacking. While there is a significant financial incentive for women to take on male roles and join the workplace, what motivation is there for men to take on unrewarded feminine roles? On top of moving a step down in the gender hierarchy, the hard work involved in being the primary caretaker of home and family is not rewarded with a salary (England, 2018).

### ***Home & Family***

Given the relevance of female academics' home life to their ability to work productively, it makes sense to examine the ratio of time spent on home and family as well as teaching, research, and service. The salience of this variable for academic life, in particular, was succinctly stated by participants in a 2015 study; "I juggle my marriage, kids, and all this administrative work which slows down my publication record" (Bernat & Holschuh, 2015, p. 27). Balancing work and family is a challenge for many women pursuing a career in academia. The National Science Foundation has found that this is especially impactful for women of color but also notes that there is very little research on the subject. Women who have children soon after getting their doctorate are less likely to gain tenure - even compared to male counterparts who have children at the same age. A majority of female scientists reported feeling overwhelmed by academia after the birth of a child and cited this as a major barrier to their academic career.

The ideal worker norm is when workers compare themselves to an idealized image of the perfect worker, usually imagined as male. This norm represents the idea that scientists are expected to work long days and nights, with no breaks in their career trajectory. But this ideal is not attainable without the underlying gendered expectations -

that there is a wife taking care of everything at home while that ideal male scientist can focus solely on his career. Thus, this ideal is not only harmful to women, for whom this model is often unattainable due to caregiver responsibilities, but also sets an unrealistic standard for men with similar family responsibilities (Kachchaf et al., 2015). To add to this already unrealistic ideal, studies have found that women have to work even harder to get recognition. To add insult to injury, while women face staunch barriers for working while having a family, men with families receive a career boost because others will see them as more responsible (Kim et al., 2019). So not only are women having to work disproportionately harder at work, but they are also still largely responsible for the home.

#### *Impact of COVID-19*

It probably does not need to be said that the COVID-19 pandemic has impacted almost everyone's life. However, it has not impacted everyone *equally*. While many academics have been lucky in that we can switch to working from home with relative ease (as compared to, say, a dentist), this new setting carries different connotations for women and men. Due to traditional gender roles that feature prominently across many cultures, women everywhere are facing an increase in responsibility in the home. For many, this comes on top of a sudden and unexpected shift to working virtually from home (which in itself can be a significant obstacle). Specific causes for this appear to include childcare, blurring of work/life boundaries, and the distribution of gender-based responsibilities within the home (Yildirim et al., 2020). Of course, trying to continue with life in the midst of a pandemic brings its own stressors. With an unemployment rate the highest it has been since the Great Depression and the economy in the dumps, those of us who are lucky

enough to remain employed are experiencing financial pressure compounding the rest (Collins et al., 2020). This places emphasis on the need for job security and tenure - ironically achieved by research productivity for academics (Oleschuk, 2020). Naturally, with this onslaught of concerns for female academics, begins an onslaught of papers from across the world addressing them (Burzynska & Contreras, 2020; Collins et al., 2020; Cui et al., 2020; Malisch et al., 2020; Oleschuk, 2020; Staniscuaski et al., 2020; Yildirim et al., 2020).

For female academics (especially mothers), this combination increase in obligations has created a noticeable decrease in their research productivity. As of July 2020 (still early on in the pandemic, as we know now), women academics produced 14-18% fewer publications than men (Ciu et al., 2020). It is possible that this number has dropped further with the school year forcing many parents to homeschool their children. A Norwegian study showed that the relationship between gender and academic productivity during COVID-19 was weak until the presence of children was accounted for (Yildirim et al., 2020), while a study conducted in Brazil found that Black women academics were hit especially hard by the pandemic in terms of research output - regardless of motherhood status (Staniscuaski et al., 2020). So, the impact of COVID on the productivity of female academics does appear to be impacted by race.

Around the globe, the closure of schools and daycares left many children unexpectedly stuck at home. Data from UNESCO show that roughly 90% of students were sent home worldwide, leaving many mothers - including those who work - with a greatly increased responsibility for childcare and schooling (Burzynska & Contreras, 2020).

Unsurprisingly, the age of the children also impacts the mother's productivity. Young children require more care, which equals less time left over for work (Staniscuaski et al., 2020). While some may initially dismiss the impact of childcare on women specifically, believing such work to be more equal between male and female partners in the modern world, such optimists may be disappointed. Some researchers hypothesized that having men quarantine at home would actually erase the gender gap in childcare; if they're not leaving for work, why wouldn't they help take care of the kids? However, a study in Norway (the location is important here, as Scandinavian countries are famous for their relative gender inequality) showed that having children does not reduce the academic productivity of men (Yildirim et al., 2020). These findings were mirrored exactly in the U.S.; even when both parents were working from home virtually, the mother's work hours were reduced significantly while the father's were not (Collins et al., 2020). So far, studies have not been able to explicitly determine causality in these relationships. While traditional gender roles are widely assumed to play a large role, the specific paths are unclear; perhaps workplaces simply take up more time from fathers than mothers, or maybe families tend to revert to traditional norms during times of crisis (Collins et al., 2020). Unsurprisingly, there is as yet no research to be found on how LGBTQ+ couples not in traditional heterosexual relationships are balancing these duties.

Yes, this burden of 'women's work' around the home was already impacting female academics well before the pandemic came about. The disparity between men and women in academia has been around for a long time (Yildirim et al., 2020), just like the decrease in work productivity women experience after childbirth. Even before the pandemic, it was

documented that, in academia, women with children spend an average of 8.5 more hours on home and family work than academic fathers do, while getting to devote less time to research (Staniscuaski et al., 2020). However, some researchers are thinking that the blurred lines between home and work during this pandemic are worsening this effect, even for dual-income families (Collins et al., 2020; Yildirim et al., 2020). Women reported coping with the combined responsibility of work and childcare by prioritizing their children during the day and working long hours into the night, once the children are asleep (Yildirim et al., 2020). While not a direct part of the job, this is another example of women being pressured to devote a disproportionate amount of their time toward work that goes uncompensated.

On top of just struggling to get work done now, fears about how this will impact promotions and tenure in the future are building. Given that women are producing less research than male counterparts - often a crucial factor in employment decisions like termination, promotion, and tenure, women may be significantly disadvantaged in their future careers. Researchers suggest that universities take this into consideration or implement different policies to avoid discrimination based on these biased productivity rates (Ciu et al., 2020).

On the whole, the COVID-19 pandemic has shown significant effects that differentially impact female academics, especially mothers and women of color (even when male partners are quarantined in the same house as them). The long-term effects of this could further impair their careers as academics, as many employment decisions are largely based on publication numbers. Even if the COVID-19 related changes to the

workplace are temporary, the impacts on working women could be long lasting and severely detrimental.

#### COVID-19 Related Suicide Rates for Women

The most recent updates on the pandemic's impact are revealing the fatal effects of this overburdening on women. Breaking news headlines from Japan show that more people died from suicide last month than from Covid in all of 2020; and the victims are disproportionately women. In October, the monthly suicide rate rose to 2,153, while the total COVID-19 death rate sat at 2,087; a shock after the suicide rate had been on a decrease for the past decade. And this trend shows significant gender bias; the suicide rate for women increased by a staggering 83% - compared to a 22% increase for men (Wang et al., 2020). While the reports of increased suicide have been primarily coming from Japan and Korea, we should not assume that a similar effect is not present in the rest of the world; these countries are simply two of the few nations that keep updated suicide statistics (Denyer & Kashiwagi, 2020; Wang et al., 2020). For the U.S., our most recent national report comes from 2018 (Wang et al., 2018). Furthermore, the presumed cause for this increased death toll on women stems from causes that have been documented worldwide.

First, many of the layoffs have occurred in female-dominated professions, resulting in economic stress for many women (CARE International, 2020; Denyer & Kashiwagi, 2020; Wang et al., 2020). Second, these financial concerns have been compounded with what one article referred to as, "skyrocketing unpaid care burdens (Wang et al., 2020)." A new CARE International report examined the experience of about 10,000 people from nearly 40 countries and identified three COVID-19 related challenges that

disproportionately affect women; jobs, lack of food, and mental health. In terms of jobs, 55% of women faced COVID-19 related job or income loss, while only 34% of men reported the same. Additionally, many of these women worked in the harder-hit informal sector, making it even harder to get unemployment benefits. For food, 41% of women reported a lack of food (compared to 30% of men). While women were often expected to buy and prepare food for the family, they usually eat the least to make sure the rest of the family gets enough. And finally, mental health. Almost 30% of women cited an increase in mental health challenges, while only 10% of men reported the same. The reasons given are especially poignant; a huge increase in unpaid care on top of concerns about livelihood, food, and health care (CARE International, 2020).

While this doesn't specifically relate to women in academia, it doesn't exempt them, either. Women worldwide are facing fatal mental health outcomes from the exponential increase in unpaid care, granting grave necessity to creating work-life balance for female employees in particular. If female academics are indeed being overwhelmed by the disproportionate responsibility for unrewarded service both at work and at home, this virtual transition could be the breaking point that places lives at stake. For the good of the workers and the organization, it is vital to examine the full implications of work-life-family balance for female academics.

### **Workplace Variables**

The field of I-O has identified many work-related variables important for both worker and workplace outcomes. These are often used to provide support and relevance for topics covered within the field of I-O, fitting them into the theoretical frameworks we

use to analyze the workplace. So far, however, little research has been dedicated to comprehensively examining the relationships ethnicity and gender have with these factors, particularly through an intersectional lens. This shortcoming is addressed by a 2013 article called *Gone Fishing: I-O Psychologists' Missed Opportunities to Understand Marginalized Employees' Experiences With Discrimination*. As the title suggests, this paper notes that the field of I-O psychology has neglected important aspects of diversity in the literature. Racial and gender diversity, in particular, has largely been looked at in terms of trying to avoid discrimination lawsuits, but it is time to take the next step towards integration; not simply researching how to handle bias, but examining white employees and employees of color on the same dimensions. Additionally, this research points out that much of the existing literature either lump all non-white ethnicities together or focuses solely on Black employees while ignoring other minority ethnicities. (Ruggs et al., 2013). The field must begin giving each ethnicity attention in the literature, and on relevant dimensions to the workplace beyond avoiding lawsuits.

Such relevant workplace variables include job satisfaction, job embeddedness, organizational commitment, work culture, workplace bullying, and burnout. Each of these factors has been empirically shown to have important outcomes at the individual and organizational levels. However, it would be beneficial to know if there are interactions with gender and ethnicity, and if so, whether controlling for relevant factors can explain that gap. By identifying those relevant factors, it may be possible to minimize any gaps that present themselves; ideally maximizing those important benefits to the employee and organization.

### **Job Satisfaction**

Job satisfaction plays a vital role in the organization; satisfaction affects motivation, which in turn impacts worker and eventually organizational productivity (Aziri, 2011). For university faculty in particular, while often overlooked by the public, job satisfaction has even been said to influence the well-being of the nation due to the impact across students and other faculty. However, perceived injustice can create gendered gaps in job satisfaction when women become aware of male faculty being paid more (Hagedon, 2000). Following the theoretical model, this results in lower motivation and productivity. Thus, boosting gender equality and women's job satisfaction should increase an organization's productivity.

### **Job Embeddedness**

Job embeddedness refers to how rooted and immersed a person feels in the job and community. It has been shown to be a strong predictor of voluntary turnover, volitional absences, organizational citizenship, and overall job performance, each of which is vital to the organization's functioning. High turnover rates are expensive due to the resources needed to fill the position, and can lower motivation in other employees; even causing more people to leave the organization. Absences and lower organizational citizenship behavior can undermine productivity, and combined with poor job performance, can impair organizational functioning (Lee et al., 2004). In the education setting, embeddedness influenced female (but not male) teachers' participation in organizational citizenship behaviors (Lev & Koslowski, 2012). Thus, it may be especially important for women in

academia to feel embedded - and when they do, they go the extra mile to benefit their organization.

### **Organizational Commitment**

Organizational commitment is just what it sounds like; how committed an employee feels to their organization, based on affective/emotional, normative, and continuance commitment. Feeling supported by the organization is an especially important predictor of commitment (Aube et al., 2007), and a study in education found that teacher empowerment impacted their organizational commitment, which in turn influenced their citizenship behaviors. So again, universities may see significant benefits from supporting their professors.

### **Work Culture**

One work culture seems to hold particular relevance to the topics addressed in this study: masculinity contest cultures. This toxic work culture is based on traditionally male traits such as aggression, dominance, and victory no matter the cost. Workplaces that pursue these goals are particularly harmful for any employees who do not fit the hegemonic masculine ideal (Alonso, 2018; Matos et al., 2018); in western cultures, this means being a straight white male who is confident, rich, successful at work, athletic, tall, and stoic (Berdahl et al., 2018). Naturally, this description fits very few people and categorically excludes women and people of color. In workplaces that subscribe to this culture, people belonging to these groups may receive unfair treatment, experiencing workplace bullying and higher turnover rates (Alonso, 2018; Matos et al., 2018). If academic settings have such cultures, this is an additional barrier for women and especially women of color.

## **Burnout**

Burnout is characterized by exhaustion, cynicism, and inefficiency in response to chronic emotional and interpersonal job stressors. It is often considered to be the opposite of engagement on the job (Maslach et al., 2001). Numerous studies have documented the widespread relevance of burnout in academia (Fowler, 2015; Lackritz, 2004; Watts & Robertson, 2011). In academics, burnout can get in the way of interpersonal and professional competence, which is highly important for the job and can compromise productivity (Watts & Robertson, 2011). Women in academia are more at risk of emotional exhaustion, consistent with stereotyped gender roles (Lackritz, 2004). Feeling appreciated is also a key factor for warding off burnout in academia; if women and people of color are not being rewarded for their work, this may lead them to feel unappreciated, contributing to the heightened experience of burnout (Fowler, 2015).

## **Summary**

The central idea being tested by the current study is that female academics devote a disproportionate amount of time to work that is not formally rewarded with additional pay or tenure, channeling their efforts into academic service and home/family duties rather than teaching and research. Especially given that blurred lines between work and home seem to intensify the barriers that home duties cause for women's work productivity (an effect observed both in terms of academia's lack of clear work/life boundaries and COVID-19's impact), it seems that the job of academics cannot accurately be assessed without accounting for home and family activities. So, this paper adopts an 'Academic Tetrad' perspective for a more holistic view, in place of the traditional 'Academic Trinity'

approach. However, all women may not face these obstacles equally; women of color may be even harder hit than white women in terms of both academic and COVID-19 related negative impacts. Thus, the hypotheses can be broken down into three general statements:

1. There will be significant differences based on gender and ethnicity in the number of hours spent on teaching, research, service, and home, such that women and non-white professors will spend a higher proportion of their time on the ‘unrewarded’ facets of the academic tetrad (academic service and home) than men and white professors.
  - a. This effect will more strongly impact non-white than white women
  - b. This effect will shrink when relevant factors (job level, presence of children at home, presence of spouse at home, and degree of masculinity contest work culture) are controlled for
  - c. Women and non-white professors will report a greater discrepancy (larger difference scores) in the hours spent on teaching, research, service, and home before and during the COVID-19 online transition
2. Women will have a more negative experience in terms of the identified workplace variables (job satisfaction, job embeddedness, organizational commitment, and burnout) than men.
  - a. This effect will more strongly impact non-white women than white women

- b. This effect will shrink when relevant factors (job level, presence of children at home, presence of spouse at home, degree of masculinity contest work culture) are controlled for
    - c. Women and non-white professors will report a greater discrepancy (larger difference scores) in scores on job satisfaction, job embeddedness, and organizational commitment before and during the COVID-19 online transition
  - 3. Women will report a greater decrease in work-life balance during the COVID-19 online transition than men
    - a. This effect will more strongly impact non-white women than white women
    - b. This effect will shrink when relevant factors (job level, presence of children at home, presence of spouse at home, and degree of masculinity contest work culture) are controlled for
    - c. Women and non-white professors will report a greater discrepancy in work-life balance

## **METHOD**

### **Participants**

This study consisted of 111 participants, all of whom were professors that had taught online during the COVID-19 transition, though they were recruited from multiple sources. About half (60 participants, or 54.1%) of these participants were invited to participate via a digital link to an online survey, which was distributed both through a

faculty listserv at a southeastern research university in the U.S., as well as snowball sampling on social media platforms in academic groups. The link was sent with a brief message describing the study and asking current professors for their cooperation. The remaining 45.9% (51 participants) were recruited through a popular survey platform, which was able to target specific populations with a variety of incentives, handled internally.

Of the 111 participants, 65 were female (58.6%), 46 were male (41.4%). In terms of ethnicity, the vast majority (78 participants, or 70.3%) identified themselves as Caucasian, 22 (19.8%) identified as Black/African, 4 (3.6%) as Hispanic/Latinx, 3 (2.7%) as Asian, and 4 (3.6%) selected 'Other.' The ages of this sample ranged from 24 to 73 years of age ( $M = 44.32$ ,  $SD = 11.38$ ).

The majority of our participants (47 people, or 42.3%) reported living with a spouse and having kids at home most of the time, followed by 19 (17.1%) that lived with a spouse but had no kids, and 19 (17.1%) that lived with neither a spouse nor kids, 14 (12.6%) that had a spouse and kids that did not live at home, 7 (6.3%) that did not live with a spouse but did have kids that live at home, and finally 5 (4.5%) that did not have a spouse but did have children not living at home. Of the 73 participants (65.77%) with kids, over half (50 participants, or 68.49%) reported that COVID-19 resulted in them having children at home that otherwise would have been in school or away.

Among the participants with children present at home during the COVID-19 transition to online work, 16 (25.81%) reported that the children slightly impeded performance of work duties, 13 (20.97%) reported that the children moderately impeded performance of work duties, 13 (20.97%) reported that the children very much impeded

the performance of work duties, and 12 (19.35%) reported that the children extremely impeded the performance of work duties. Only 8 participants (12.90%) 13 (20.97%) reported that their children did not impede the performance of work duties at all.

Nearly half of our participants (50 participants, or 45.0%) reported being tenured, closely followed by 40 (36.0%) who were untenured in a non-tenure track position, and 21 (18.9%) who were untenured in a tenure-track position. On average, our participants had worked for 13.21 years ( $SD = 10.01$ ) in their current position, with the newest professors having worked less than a year in their current role and the most experienced having spent 46 years in their position.

## **Materials**

The online survey was created and administered using Qualtrics survey software. Materials used in it include an informed consent form that listed any possible costs and benefits of the study, as well as a description of the study itself. Using Qualtrics programming, participants must actively consent before continuing to the survey. The body of the survey was composed of original items and several pre-existing surveys. Reverse-scoring was used where appropriate, and items specific to a given scale averaged such that higher scores indicated more of the construct of interest.

## **Design & Procedures**

### **Demographics & Job Specifics**

This study consisted of an online survey designed to be accessed by a computer or mobile phone. Participants were initially presented with a brief description of the study and had to consent to participate before being exposed to any of the questions. The first page

of questions included general demographics as well as baseline questions regarding their work and family structure before and during the COVID-19 crisis. The latter involved items such as “During COVID-19, did you have children at home who would otherwise have been in school or away?” while the traditional demographics items were updated to include transgender and nonbinary options, as well as allowing participants to select multiple ethnicities to better represent people of mixed heritage. Participants then reported their job specifics, identifying their job level and whether they were tenure track or not.

### **Academic Tetrad**

The next block of questions investigated the components of the academic tetrad, with participants indicating the ratio of time spent on each of the activities as well as their perceived importance to themselves and their institution. Some have made the case that perhaps women simply enjoy service activities more than men, so the enjoyment of each activity was reported before and during COVID-19. Research has also indicated that academic service is more frequently unrewarded or indirectly rewarded as compared to other activities, so participants reported the compensation they receive for each activity, ranging from ‘Additional financial compensation (above & beyond your usual salary),’ ‘Course release,’ and ‘Contributes significantly to performance appraisal,’ to ‘Contributes minorly to performance appraisal,’ and ‘No additional compensation.’ Because some results have even shown gender differences within academic service, with men being more likely to participate in external or funded opportunities while women were often found performing internal service (Guarino & Borden, 2017), participants also reported the percentage of time spent on a variety of internal and external service activities.

## **Workplace Variables**

Next followed a set of preexisting measures regarding several variables relating to participants' experiences in the workplace.

***Job Satisfaction Scale.*** This 6-item scale utilizes a 5-point response format ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Example items include, "I like my job better than the average person does" and "Most days I am enthusiastic about my job." Previous research found solid internal reliability for this short scale, with an alpha coefficient of .85 (Iverson et. al., 1998). This study found similar support for internal reliability, with an alpha coefficient of .83.

***Job Embeddedness.*** A 6-item scale to assess job embeddedness displays well-tested reliability and validity. Previous research indicated strong internal reliability, supported by a confirmatory factor analysis showing a significant good fit to the data and an alpha internal consistency of .89. This study found similar support for internal reliability, with an alpha coefficient of .86. The positive relationships between individual levels of embeddedness with a composite embeddedness score provide evidence of convergent ability. Example items include "I feel attached to this organization" and "I'm too caught up in this organization to leave." One item is reverse-scored, and participants responded to each item on a 7-point Likert-type scale, from strongly disagree (1) to strongly agree (7) (Crossley et al., 2007).

***Organizational Commitment.*** This 7-item Likert-type scale is a shortened version consisting of the seven items with the highest loading from a longer original scale. Previous research has shown that this shortened version retains its internal reliability with a

Cronbach's alpha of 0.88, and the items load significantly onto their corresponding factors. That was replicated by this study, which found an alpha coefficient of .85 for the shortened version. Example items include "I feel a strong sense of belonging to my organization" and "It would be very hard for me to leave my organization right now, even if I wanted to," with participants responding on a 7-point scale from strongly disagree (1) to strongly agree (7) (Cheng, 2014).

***Work-Life Balance.*** This concise scale uses 4 items to assess participants' perception of their work-life balance, reporting their agreement with statements such as "I have difficulty balancing my work and non-work activities" and "I currently have a good balance between work and non-work activities" on a 5-point Likert scale from strongly disagree (1) to strongly agree (5). One item was reverse scored (Brough et al., 2014). This study found support for the scale's internal reliability, with an alpha coefficient of .82.

***Masculinity Contest Culture.*** A previously shortened version of the original MCC scale containing two items from each of the original four subscales (*show no weakness* factor, *strength and stamina* factor, *put work first* factor, and the *dog eat dog* factor) for a total of 8 items. Example items include "Admitting you don't know the answer looks weak" and "To succeed you can't let family interfere with work," which participants responded to on a scale from 1 (*Not at all true of my work environment*) to 5 (*Entirely true of my work environment*). Previous research found each of these original subscales showed a Cronbach's alpha between .84 and .87 (Glick et al., 2018). This study found similar support for internal reliability, with an alpha coefficient of .90.

**Burnout.** A short 16-item measure rated on a 4-point Likert-type scale (*1 = strongly disagree to 4 = strongly agree*), the Oldenburg Burnout Inventory (English Version) was used to measure this construct. Measuring participants on the dimensions of disengagement and exhaustion, this scale utilizes items such as “I always find new and interesting aspects in my work” and “During my work, I often feel emotionally drained” (Demerouti et al., 2010). Factorial validity from previous research supported the use of the two dimensions (disengagement and exhaustion) and was replicated across samples. Previous tests of construct validity found that while there was some convergence, the scales are divergent enough to warrant independent contributions to the measure of burnout (Halbesleben & Demerouti, 2005). Previous research displayed acceptable internal consistency, with scores ranging from .74 to .97 (Demerouti et al., 2010). This study found similar support for internal reliability, with an alpha coefficient of .82.

### **Diversity in the Workplace & Workplace Bullying**

The following two sections consisted of original questions regarding gender and ethnic diversity in the workplace. The first question, “How well do you fit the norms for your gender?” was presented on a scale of 1-5, in which ‘1’ indicated ‘not well at all’ and ‘5’ indicated ‘extremely well.’ The next six questions, 1. “Do you present a binary gender in the workplace (e.g., male or female rather than transgender, non-binary, etc.)” 2. “Do you believe sexism is still present in the workplace?” 3. “Have you noticed a decline in workplace sexism in recent years?” 4. “Do you believe racism is still present in the workplace?” 5. “Have you noticed a decline in workplace racism in recent years?” and 6. “Has the COVID-19 situation brought to light any diversity issues? If so, explain.” offered

‘yes’ or ‘no’ responses to participants, with an option for a typed explanation for their answer on the last question. Finally, participants were asked if they or someone they knew experienced work-related bullying or cyberbullying before and/or during COVID-19.

### **Qualitative Questions**

The study concluded with several open-ended short-response questions regarding participants' experiences with race, gender, and COVID-19 in the workplace. Example items range from “Have you ever felt that your race or gender disadvantaged you or someone you know in the workplace? Please explain.” to “How do you maintain boundaries between work and home when working online?” Participants are then thanked for their participation and provided a debriefing statement with additional resources on the topic.

## **ANALYSES**

**Hypotheses 1a, 1b, 2a, 2b:** To address these hypotheses, each conceptually related dependent variable was analyzed in 2 (gender: male/female) x 2 (ethnicity: White/Non-White) between-subjects multivariate analyses of variance (MANOVA). While the options for transgender, genderfluid/non-binary, and ‘other’ gender identities were provided, respondents in this sample only reported binary male/female identities; there was no artificial collapsing of groups to fit a binary for the variable of gender. On the other hand, the ethnic identities Black/African, Hispanic/Latinx, Asian, and self-identified ‘Other’ were represented in the sample, but individual group membership was so small that these identities were condensed into a ‘Non-White’ category to make inferential analysis possible. Box’s M tests were conducted using both the full ethnicity variable (with all

reported identities represented) and with the binary ethnicity variable (White/Non-White). While the test was significant in both cases, group sizes ( $p < 0.05$  in all analyses), MANOVAs with group sizes greater than 30 are robust against violations of the homogeneity of variance-covariance matrices assumption (Peter & Bennett, 2007). As only the binary ethnicity variable allowed for groups of this size, it was used in all following analyses.

While the quasi-independent variables listed here (gender and binary ethnicity) will remain the same across these analyses, a series of continuous outcome variables will be tested:

- *Dependent Variables in Hypothesis 1a & b. Academic Tetrad*
  - Hours spent weekly on teaching
  - Hours spent weekly on research
  - Hours spent weekly on service
  - Hours spent weekly on home and family
- *Dependent Variables in Hypothesis 2a & b. Workplace Variables*
  - Job Satisfaction
  - Job Embeddedness
  - Organizational Commitment
  - Work Culture
  - Burnout

**Hypotheses 1c and 2c:** To assess these hypotheses, participants' scores on the dependent variable before the COVID-19 online transition were subtracted from their

scores on that same dependent variable during the COVID-19 online transition to find an overall difference score. The difference scores were used as the continuous dependent variable in the analysis described above. As the work culture scale was longer than the other scales, they were only administered once to reduce attrition rates and thus are not present in Hypothesis 2c.

- *Dependent Variables in Hypothesis 1c. Academic Tetrad*
  - Hours spent weekly on teaching (pre/during COVID difference score)
  - Hours spent weekly on research (pre/during COVID difference score)
  - Hours spent weekly on service (pre/during COVID difference score)
  - Hours spent weekly on home and family (pre/during COVID difference score)
- *Dependent Variables in Hypothesis 2c. Workplace Variables*
  - Job Satisfaction (pre/during COVID difference score)
  - Job Embeddedness (pre/during COVID difference score)
  - Organizational Commitment (pre/during COVID difference score)

**Hypothesis 3:** To assess the impact of the COVID-19 online transition on work-life balance, participants' scores on work-life balance while working from home during COVID-19 were subtracted from their score on work-life balance while working in person before COVID-19 to find an overall difference score. This difference score was used as the continuous dependent variable in the analysis described above.

- *Hypothesis 3. Impact of COVID-19*
  - Work-life balance difference score

Following significant multivariate effects, univariate analyses were examined. Reliability analyses were also conducted to ensure the internal consistency of the scales used in the study.

If significant effects are found in the above analyses, a factorial analysis of covariance (Factorial ANCOVA) was used to control for possible covariates, checking to see if the discrepancies between groups shrank when other factors were controlled for. The covariates to be tested were:

- Job level
- Presence of children at home
- Presence of spouse at home
- Degree of masculinity contest work culture

## **RESULTS**

### **Hypothesis 1**

A two-way multivariate analysis of variance (MANOVA) was performed to test whether there was an interaction between gender and ethnicity on the number of hours spent weekly on teaching, research, service, and home, as well as to check for main effects on each of the independent variables across the dependent variables. Multivariate main effects of gender approached significance,  $F(4, 104) = 2.42, p = .053, \eta^2 = .09$ , and the test revealed a significant main effect of ethnicity,  $F(4, 104) = 2.81, p = .029, \eta^2 = .10$ , as

well as a significant interaction of gender and ethnicity,  $F(4, 104) = 2.42, p = .049, \eta^2 = .09$ .

### ***Gender***

The univariate  $F$  test for gender was significant for weekly hours spent teaching,  $F(1, 107) = 4.50, p = .036, \eta^2 = .04$ . Men ( $M = 33.78, SD = 30.45$ ) reported significantly more time spent teaching than women ( $M = 30.72, SD = 26.53$ ) although there was a high degree of variability for both genders. While the effect was significant, the difference in gender only explained 4% of the variance in weekly hours spent on teaching. No significant differences by gender were observed on weekly hours spent on research, service, and home,  $ps > .05$ .

### ***Ethnicity***

The univariate  $F$  test of ethnicity was significant for weekly hours spent on teaching,  $F(1, 107) = 5.94, p = .016, \eta^2 = .05$  and weekly hours spent on home activities,  $F(1, 107) = 6.20, p = .014, \eta^2 = .06$ . Non-white professors ( $M = 37.48, SD = 35.34$ ) reported more time spent teaching than white professors ( $M = 29.67, SD = 24.35$ ), although there was again a high degree of variability for both groups. Conversely, white professors ( $M = 29.90, SD = 29.10$ ) reported more time spent on home activities than non-white professors ( $M = 17.36, SD = 22.13$ ), although there was again a high degree of variability for both groups.

The test indicated no significant difference by ethnicity on weekly hours spent on research or service,  $ps > .05$ .

### ***Hypothesis 1a: Interaction of Gender and Ethnicity***

The univariate  $F$  tests showed a significant effect of the interaction between gender and ethnicity for weekly hours spent on teaching,  $F(1, 107) = 6.51, p = .012, \eta^2 = .06$ . A simple effects test showed no significant difference by gender between white professors ( $ps > .05$ ), but non-white men ( $M = 60.00, SD = 43.01$ ) reported significantly more hours spent on teaching as compared to non-white women ( $M = 30.28, SD = 30.04$ ),  $p = .009$ , as seen in Figure 1.

The test indicated no significant effect of the interaction between gender and ethnicity for weekly hours spent on research, service, or home,  $ps > .05$ .

### ***Hypothesis 1b: Relevant Covariates***

A two-way multivariate analysis of covariance (MANCOVA) was performed to test the impact of controlling four conceptually relevant variables in the model: job level (tenured, untenured on tenure track, or untenured in a non-tenure track position), the presence of children at home, the presence of a spouse at home, and degree of masculinity contest culture.

There was no major change from controlling for job level; patterns of significance and percentage of variance explained remained the same. Controlling for the presence of children at home reduced the interaction between gender and ethnicity from significant to approaching significance ( $p = .054$ ), although the proportion of variance explained did not change. However, controlling for the presence of a spouse reduced ethnicity from a significant predictor to approaching significance ( $p = .050$ ) and rendered the interaction between gender and ethnicity insignificant ( $p = .090$ ). Controlling for the degree of

masculinity contest culture rendered the interaction between gender and ethnicity insignificant ( $p = .066$ ).

***Hypothesis 1c: Impact of COVID-19***

A two-way MANOVA was conducted to test the presence of an interaction between gender and ethnicity on the difference scores (hours during the COVID-19 online transition minus hours estimated before the COVID-19 online transition) on the hours spent weekly on teaching, research, service, and home, as well as to check for main effects on each of the independent variables across the dependent variables.

Only the multivariate result for ethnicity was significant,  $F(4, 104) = 4.25, p = .003, \eta^2 = .14$ . The univariate  $F$  tests showed a significant difference between white and non-white professors for weekly hours spent on teaching,  $F(1, 107) = 10.75, p = .001, \eta^2 = .09$ . Non-white professors displayed an average decrease of 6.03 hours in their weekly time spent teaching ( $SD = 19.70$ ), compared to white professors who reported an average increase of 4.81 hours in their weekly time spent teaching ( $SD = 19.70$ ).

To further investigate the impact of the COVID-19 online transition on these outcome variables, regardless of gender and ethnicity, a paired samples t-Test was conducted on the hours reported during the COVID-19 online transition and the hours estimated after the COVID-19 online transition on each of the four dependent variables; hours spent weekly on teaching, research, service, and home activities. While there were no significant differences in time expenditure on teaching and service ( $ps > .05$ ), participants spent significantly less time on research after moving to online work ( $M = 9.63, SD = 13.56$ ) than before ( $M = 12.60, SD = 14.81$ ),  $t(110) = 2.93, p = .004$ . Participants

also reported spending more time on home activities after moving to online work ( $M = 29.25, SD = 28.82$  ) than before ( $M = 26.17, SD = 27.72$ ),  $t(111) = -2.70, p = .008$ .

A follow-up analysis was conducted to explore whether there was a difference in total hours being reported, but the two-way ANOVA was not significant based on gender, ethnicity, or the interaction between the two. However, a paired samples t-Test showed that participants overall reported more hours total after moving to online work ( $M = 82.12, SD = 37.80$ ) than before ( $M = 79.32, SD = 36.12$ ),  $t(110) = -2.67, p = .009$ .

## **Hypothesis 2**

A two-way MANOVA was performed to test whether there was an interaction between gender and ethnicity on job satisfaction, job embeddedness, and organizational commitment as well as to check for main effects on each of the independent variables across the dependent variables. However, the test revealed no significant multivariate effects,  $ps > .05$ .

As it is inversely related to the other dependent variables, a separate two-way ANOVA was conducted to test the impact of gender, ethnicity, and the interaction between the two on burnout. The analysis showed no significant main effects of gender or ethnicity alone.

### ***Hypothesis 2a: Interaction of Gender and Ethnicity***

However, the test did reveal a significant interaction between gender and ethnicity,  $F(1, 107) = 4.45, p = .037, \eta^2 = .04$ . A simple effects test showed no significant difference by gender between non-white professors, but white women ( $M = 2.6, SD = .53$ ) displayed

significantly higher scores on burnout as compared to white men ( $M = 2.2$ ,  $SD = .45$ ),  $p = .001$ , as seen in Figure 2.

### ***Hypothesis 2b: Relevant Covariates***

A series of two-way ANCOVAs were run to test the impact of job level, the presence of children, the presence of a spouse, or degree of masculinity contest culture individually on the relationship between the interaction of gender and ethnicity on burnout. Of these, only the degree of masculinity contest culture significantly impacted the model,  $F(1, 103) = 10.73$ ,  $p = .001$ ,  $\eta^2 = .09$ . Including this covariate in the model rendered the interaction between gender and ethnicity no longer significant,  $F(1, 106) = 3.07$ ,  $p = .083$ ,  $\eta^2 = .08$ .

### ***Hypothesis 2c: Impact of COVID-19***

A two-way MANOVA was conducted to test the presence of an interaction between gender and ethnicity on the difference scores (hours during the COVID-19 online transition minus hours estimated before the COVID-19 online transition) on job satisfaction, job embeddedness, and organizational commitment, as well as to check for main effects on each of the independent variables across the dependent variables.

Only the multivariate result for ethnicity was significant,  $F(3, 105) = 7.00$ ,  $p < .001$ ,  $\eta^2 = .17$ . The univariate  $F$  tests showed a significant difference between white and non-white professors for the difference scores on job satisfaction,  $F(1, 107) = 6.09$ ,  $p = .015$ ,  $\eta^2 = .05$ , and the difference scores on organizational commitment,  $F(1, 107) = 8.76$ ,  $p = .004$ ,  $\eta^2 = .08$ . Non-white professors displayed a significantly greater decrease in job satisfaction ( $M = -.79$ ,  $SD = 1.38$ ) as compared to their white colleagues ( $M = -.15$ ,  $SD = .85$ ). However, non-white professors actually reported an increase in organizational

commitment ( $M = .16$ ,  $SD = .63$ ), which was significantly different from the decrease reported by their white colleagues ( $M = -.31$ ,  $SD = .81$ ).

To further investigate the impact of the COVID-19 online transition on these outcome variables, regardless of gender and ethnicity, a paired samples t-Test was conducted on the scores on job satisfaction, job embeddedness, and organizational commitment reported during the COVID-19 online transition and during the COVID-19 online transition. This analysis found significant differences on all three outcome variables; job satisfaction,  $t(110) = 4.94$ ,  $p < .001$ , job embeddedness,  $t(110) = 5.83$ ,  $p < .001$ , and organizational commitment,  $t(110) = 2.25$ ,  $p = .026$ . In each case, the means were significantly lower during the COVID-19 online transition, scores on job satisfaction were higher before moving to online work ( $M = 5.49$ ,  $SD = 1.08$ ) than after ( $M = 1.49$ ,  $SD = 1.49$ ), job embeddedness scores were higher before moving to online work ( $M = .16$ ,  $SD = 1.34$ ) than after ( $M = 4.17$ ,  $SD = 1.55$ ), and organizational commitment scores were higher before moving to online work ( $M = 4.55$ ,  $SD = 1.36$ ) than after ( $M = 4.38$ ,  $SD = 1.50$ ).

### **Hypothesis 3**

A two-way ANOVA was performed to test whether there was an interaction between gender and ethnicity on the work-life balance difference scores (reported work-life balance during the COVID-19 online transition minus reported work-life balance before the COVID-19 online transition), as well as to check for main effects on each of the independent variables on the dependent variable. However, the test revealed no significant effect from gender or ethnicity,  $ps > .05$ .

### ***Hypothesis 3a: Interaction of Gender and Ethnicity***

The above analysis did not reveal any interaction between gender and ethnicity on the work-life balance difference scores,  $p > .05$ .

### ***Hypothesis 3b: Relevant Covariates***

Because there was no significant effect to check for shrinkage in when covariates are added, no covariate analyses were conducted.

### ***Hypothesis 3c: Impact of COVID-19***

The analysis above found no significant effects in terms of gender and ethnicity, but a paired samples t-Test was implemented to test the effects of the COVID-19 online transition on work-life balance. The analysis revealed that work-life balance scores were significantly higher before moving to online work ( $M = 4.40, SD = 1.47$ ) than after ( $M = 3.93, SD = 1.75$ ),  $t(110) = 3.10, p = .002$ .

## **DISCUSSION**

The purpose of this study was to empirically examine the role that gender, ethnicity, and the intersectional interaction between them play across several aspects in the job of a professor. First was the idea that female and non-white professors may be devoting a disproportionate amount of time to work that is not formally rewarded with additional pay or tenure, channeling their efforts into academic service and home/family duties rather than formally rewarded areas of work, such as teaching and research. Second, it set out to test the experiences of female and non-white professors on several key workplace variables: job satisfaction, job embeddedness, organizational commitment, and burnout. Third, this study sought to explore the possible discrepancies in work-life balance across the online

work transition through an intersectional lens. Finally, each of these three central ideas was examined in terms of potentially relevant factors; job level, presence of children at home, presence of spouse at home, and degree of masculinity contest work culture, as well as tracked for changes on all outcome variables across the COVID-19 transition to online work.

### **Academic Tetrad**

Hypothesis 1 proposed that there would be significant differences based on gender and ethnicity in the number of hours spent on the four facets of the academic tetrad. This study confirmed that gender, ethnicity, and the interaction between the two did impact the time spent on these activities - but not in the expected directions.

Men reported more hours spent teaching than women, but there was no difference between men and women on research, service, or home activities. This finding comes in direct opposition to the previous literature, which found men spending more time on research, and women spending more time on service and home (Guarino & Borden, 2017; Lee, 2012). It is unclear why the results of this study are in direct opposition to the bodies of research before it, but this is an interesting new direction for future research to explore.

In terms of ethnicity, non-white professors reported more time spent on teaching, and less time on home activities. This may be explained by previous research on student evaluations of teaching; professors belonging to an ethnic minority often face lower evaluations even when there is no difference in actual teaching quality, leading to increased fatigue (Boring, 2014; Laube et al., 2015). Non-white professors may be putting more time into their teaching in an attempt to raise these artificially lowered scores, leaving them with

less time to spend at home. This directly negates the hypothesis that non-white professors would spend more time on unrewarded facets of the academic tetrad, but does bring to light new and concerning patterns to consider.

Delving into the idea of intersectionality, non-white men reported more hours spent on teaching than non-white women. Again, it is unclear why this trend is occurring; previous research appears nearly unanimous in the finding that women spend more time on teaching (Bernat & Holschuh, 2015; Winslow, 2010). If this were truly a reaction to lower teaching evaluations, we would expect nonwhite women to report the most time spent on teaching - as they tend to receive the lowest evaluations after work quality is controlled for (Boring, 2014). Thus, the hypothesis that non-white women would spend even more time on the unrewarded facets (service and home activities) was unsupported by this study, and more research is needed to understand why. One possibility is that reporting a weekly time expenditure did not sufficiently capture the working experience. Some aspects of the job may come up less frequently, especially in service work. For example, undergraduate advising may take up a large chunk of time once a semester when students are signing up for classes. This more rare but very time-consuming service activity may not have been factored into responses on this survey, missing a large aspect of the construct. Future research should explore other metrics of time, and use longitudinal data when possible.

Regarding the impact of relevant covariates, no changes were found when job level was controlled for, which is surprising given the literature on tenure faculty taking the brunt of service load to allow untenured faculty to focus on the research needed for promotion

(Bernat & Holschuh, 2015; Guarino & Borden, 2017). The presence of children and spouses at home, as well as degree of masculinity contest culture were found to be relevant and should be explored further in future research.

Surprisingly, this study found no differences based on gender or ethnicity on the discrepancy between the time spent on the four facets of the academic tetrad before versus during the COVID-19 online transition. However, participants on the whole reported spending significantly less time on research and more time on home activities when working online. Previous research suggested that women's research would be disproportionately inhibited by childcare and housework duties while working from home, but this study suggests there was actually a universal impact of the COVID-19 online transition; people were affected regardless of race or gender. It also appears that there was no difference in the total hours reported in terms of gender and ethnicity (i.e., women did not simply report more hours than men), but participants on the whole reported more hours total on the academic tetrad when working online. This finding may be validating for professors who had others assume they were doing less work while online, and shows just how universal the obstacles posed by the COVID-19 online transition were.

### **Workplace Variables**

Hypothesis 2 proposed that women and non-white professors would score lower on job satisfaction, job embeddedness, and organizational commitment, and score higher on burnout. On a positive note, women and non-white professors were just as satisfied with, embedded in, and committed to the job as their white and male counterparts. However, white women did report higher burnout than white men. This relationship was explained

by the degree of masculinity contest culture; workplaces that valued traits related to toxic masculinity may lead to increased burnout in white women. It was surprising to find no difference in burnout between men and women among non-white professors; previous literature indicated that cognitive overload from multiple minority identities results in a greater risk of burnout (Bernat & Holschuh, 2015). Perhaps these negative impacts were lessening in academia - at least until the COVID-19 online transition to online work.

Non-white professors reported a greater decrease in job satisfaction after moving online, despite there being no ethnicity-specific changes to hours spent on the academic tetrad before and after the COVID-19 transition. Puzzlingly, they also showed an increase in organizational commitment when working online, while their white colleagues exhibited decreased commitment. It is possible that these changes were actually due to confounding societal events that occurred at the same time as the online transition. The Black Lives Matter protests highlighted racial inequality in America, supplemented by the #Black in the Ivory movement to expose mistreatment in academia. Additionally, the #Stop Asian Hate movement sprang up to expose racism against Asians in the wake of COVID-19. These social issues may have increased racial tension in the workplace, lowering satisfaction with their current job but making it difficult to find a new job (thus raising commitment). While these effects were specific to non-white professors, the overall negative impacts of COVID-19 were again universal. Participants reported a significant decrease in job satisfaction and embeddedness regardless of gender or ethnicity. Overall, professors were less happy with their job and felt less immersed in their work community when working online, and white professors felt less committed to their organizations.

Additionally, this study found that professors experienced lower work-life balance when working online, regardless of gender or ethnicity.

### **Descriptive Statistics**

However, racism and sexism are far from over in the academic workplace. When asked if they believed sexism was still present in the workplace, the majority of participants said ‘yes,’ and just over half hadn’t even seen a decline. The effect was similar, but slightly stronger, for ethnicity. However, the majority (64.9%) did not feel that the situation regarding COVID-19 had brought any diversity issues to light. For the most part, this aligns with the other findings in this study; while impacts of gender and ethnicity are present, many negative impacts of the COVID-19 online transition were universal.

### **Implications**

This study brings to light several important implications for practice. First, men are reporting more hours spent teaching than women, especially men of color; a finding which directly contradicts previous research, and that current theoretical frameworks provide no explanation for. Further research is needed to identify whether this is a fluke of the sample, or a new trend in the field. Perhaps as women begin to dominate the area of academia and actively combat gender stereotypes, they are bringing about a role reversal in teaching load, and evening out gender imbalances in other areas of the academic tetrad. Notably, there were no gender differences in service load and home/family activities, both of which had been extensively documented as areas women put more time into.

However, increases in time spent teaching for non-white professors may come at the cost of home and family life. Racially skewed teaching evaluations may be at the root

of this, so universities may need to consider less biased measures for performance appraisal to avoid this imbalance. Universities should be careful not to assume racism and sexism to be in the past; the majority of professors in this sample indicated not only that both were still present in the workplace, but that neither was even on the decline. Given the attention drawn to racial inequality by recent social movements, universities must pay close attention to their handling of diversity in the workplace.

Additionally, the COVID-19 transition to online work had a variety of negative impacts; when working online, professors took time away from research to focus on home/family duties. Since research is so highly tied to promotion and tenure in academia, this could be seriously damaging for newer faculty members attempting to gain tenure. However, this impact did not discriminate by gender or ethnicity, so it does not appear to be differentially impacting promotion and pay for minority groups. It is safe to say that professors were not slacking off while working online; the professors in this study reported working more hours total while working from home. However, this came with lower job satisfaction, job embeddedness, and organizational commitment, each of which relates to important outcomes for the organization. Job satisfaction is tied to worker motivation and organizational productivity (Aziri, 2011), job embeddedness is a strong predictor of voluntary turnover, volitional absences, organizational citizenship behavior, and overall job performance (Lee et al., 2004), and organizational commitment embodies an employee's desire to stay with their organization (Aude et al., 2007). Further research on the other half of the online transition is needed; did these scores return to normal after transitioning back to in-person work, or will universities need to put in additional effort to

raise them? As these factors are tied to critical aspects of organizational success, it is vital to track their progress. Additionally, this study used a cross-sectional design, asking participants to estimate what their responses would have been before transitioning online. For professors dissatisfied with online work, they may have misremembered in-person work as better than it was. Studies with longitudinal data collection may paint a clearer picture of these factors.

### **Limitations and Considerations**

Many of the effects found in this study run counter to the bodies of previous research and theoretical foundations available, throwing the results of this study into question. This may be due to severe limitations in sample size and diversity; a large portion of this sample came from a single university in the southeastern U.S. with relatively low levels of diversity. Nearly all of the analyses revealed high levels of variation within the groups. One possible contributing factor is that multiple non-white ethnicities were lumped together to make inferential statistics possible. While this was necessary to obtain usable group sizes, the experiences of each racial identity are unique and should not be regarded as a monolith. Future research should focus on recruiting enough minority members to examine each ethnicity on its own, and capture their unique experiences. That said, this collapsing of discrete identities does not entirely explain the high variance observed in this study; it was high for white professors as well. An additional possibility is that academia itself is broad; attitudes toward diversity (in terms of both gender and ethnicity) may vary significantly across departments or fields. Future research covering broader samples may wish to collect and control for academic fields. Finally, there may also have been a selection

bias in terms of who chose to complete the survey; professors experiencing more negative impacts from the COVID-19 transition to online work may have been more willing to share their opinions. This could artificially inflate the negative impacts observed in the transition to online work.

## **Conclusion**

On the whole, this study set out to test the role of gender, ethnicity, and the interaction between the two across three central facets related to the role of professor; the academic tetrad of teaching, research, service, and home/family activities, key workplace variables such as job satisfaction, job embeddedness, organizational commitment, and burnout, as well as the discrepancy in work-life balance before and during the transition to online work. Each of these three facets was additionally analyzed in terms of potentially relevant covariates; job level, presence of children at home, presence of spouse at home, and degree of masculinity contest culture, and as tracked across the COVID-19 transition to online work. Analyses revealed largely unexpected results that differed from previous bodies of research and theoretical frameworks, but created interesting new directions for future research.

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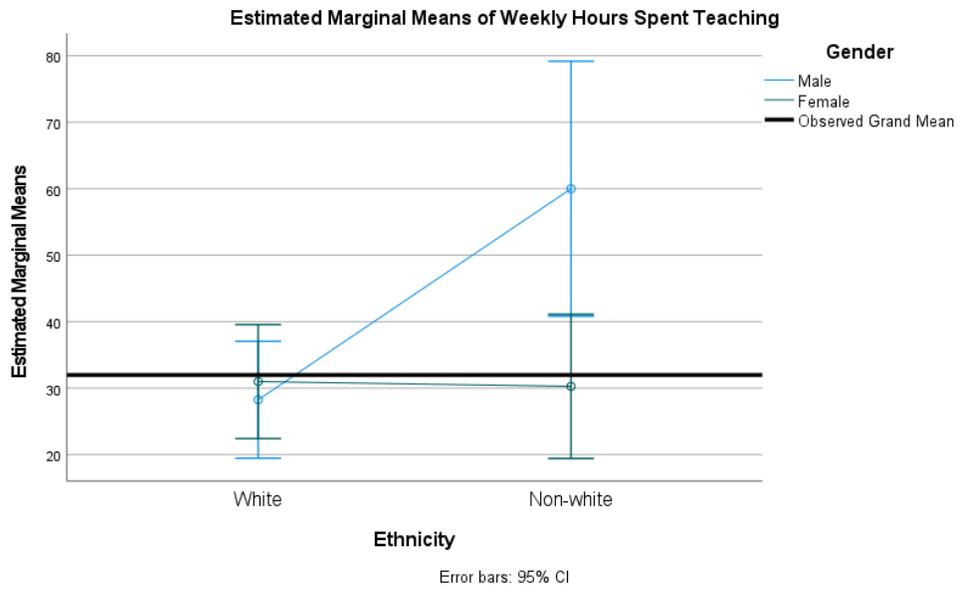
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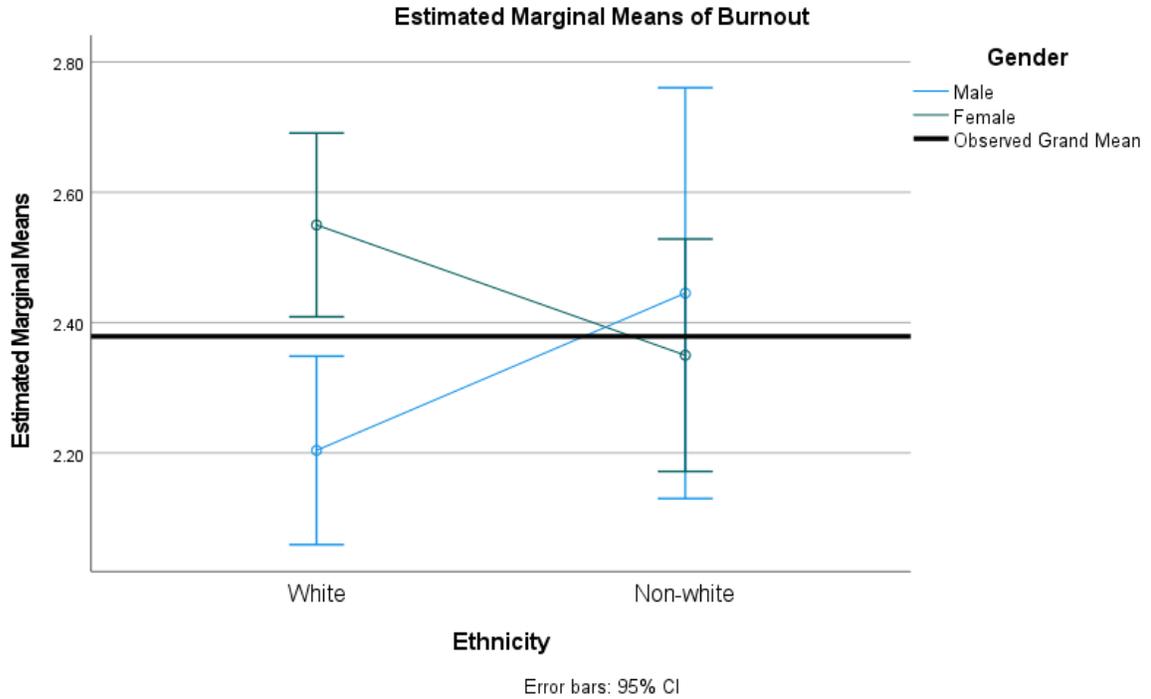
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**Figure 1**



**Figure 2**



## Appendix 1

### Qualtrics Survey: Online Work Transition for Professors

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#### Start of Block: Informed Consent

Q1

#### Consent Form for Participation in a Research Study

##### *Background Information:*

Dr. Robin Kowalski and Chelsea Robbins are inviting you to take part in a research study.

Dr. Kowalski is a professor at Clemson University, and Chelsea Robbins is a graduate student at Clemson University. The purpose of this research is to examine professor's experiences with work and work-life family balance in connection race and gender, across the COVID-19 online work transition.

##### *Voluntary Nature of the Study:*

Participation in this study is voluntary. The only alternative is to not participate. You are free to withdraw or discontinue participation at any time without penalty. You may print a copy of this consent form to keep for your records if you desire.

##### *Procedures:*

To be eligible to participate in this study, you must be at least 18 years of age and a resident of the United States. You must work as a professor. After consenting to participate, you will complete an online survey to provide information about your demographics as well as your perceptions of work before and during the COVID-19

transition to online work. You must answer all attention check questions correctly. It will take you about 15 minutes to complete.

*Risks and Benefits of Being in the Study:*

There are minimal risks in this study. You do not have to answer any questions that you do not want to answer. We do not know of any way you would benefit directly from taking part in this study. However, the information you provide will help to advance our knowledge of professorship, issues of gender and race, and online work.

*Confidentiality:*

The results of this study may be published in scientific journals, professional publications, or educational presentations. We will do everything we can to protect the confidentiality of your data. Your confidentiality will be kept to the degree permitted by the technology being used. No guarantees can be made regarding the interception of data sent via the Internet by any third parties. The survey itself includes no identifying information. The responses you provide on the survey could be used for future research studies or distributed to another investigator for future research studies without additional informed consent from you or your legally authorized representative. The data will be kept for approximately 5 years, while the data are analyzed and a write-up is prepared for presentation at a conference and publication in a peer-reviewed journal.

*Health Resources*

In the event that you experience a negative reaction from participating in this study, consider the following confidential resources. Should you need to speak with someone, please contact a local mental health professional. Or you can contact Crisis Chat:

<http://www.crisischat.org/>, free chat line available 2PM to 2AM, 7 days/week. Crisis Text Line: Text “START” to 741-741, service is free through most major phone service carriers and available 24/7.

*Whom to Contact with Questions:*

If you have questions about the study, you can contact the principal investigator, Dr. Robin Kowalski at Clemson University email ([rkowals@clemson.edu](mailto:rkowals@clemson.edu)). If you have any questions or concerns about your rights in this research study, please contact the Clemson University Office of Research Compliance (ORC) at [irb@clemson.edu](mailto:irb@clemson.edu). If you are outside of the Upstate South Carolina area, please use the ORC’s toll-free number, 866-297-3071. The Clemson IRB will not be able to answer some study-specific questions. However, you may contact the Clemson IRB if the research staff cannot be reached or if you wish to speak with someone other than the research staff.

*Certificate of Consent:*

By participating in the study, you indicate that you have read the information written above, been allowed to ask any questions, and you are voluntarily choosing to take part in this research. You do not give up any legal rights by taking part in this research study.

*Data Management:*

All responses to this survey are confidential and protected with a data management plan.

To view the data management plan for this survey, please use the following link:

<https://clemson.box.com/s/ksvx6n455zqs0z9ehn5n1mvzscuma3ge>

Q2 I understand & consent to participate in this study:

- Yes, I want to participate
- No, I do not want to participate

*Skip To: End of Survey If I understand & consent to participate in this study: = No, I do not want to participate*

**End of Block: Informed Consent**

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**Start of Block: Demographics**



Q3 My age is:

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Q4 I identify my gender as:

- Male
- Female
- Transgender Male
- Transgender Female
- Genderfluid/Non-binary
- Other, please specify: \_\_\_\_\_



Q5 I identify my ethnicity as:

- Asian
- Black/African
- Caucasian
- Hispanic/Latinx
- Native American
- Pacific Islander
- Other, please specify:

---

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Q6 Which option *best* fits your family structure **before COVID-19**?

- Don't live with a spouse, don't have kid(s)
- Don't live with a spouse, have kid(s) that don't live at home most of the time
- Don't live with a spouse, have kid(s) that do live at home at least most of the time
- Live with a spouse, don't have kid(s)
- Live with a spouse, have kid(s) that don't live at home most of the time
- Live with a spouse, have kid(s) that live at home at least most of the time

---

*Display This Question:*

*If Which option best fits your family structure before COVID-19? = Don't live with a spouse, have kid(s) that don't live at home most of the time*

*Or Which option best fits your family structure before COVID-19? = Don't live with a spouse, have kid(s) that do live at home at least most of the time*

*Or Which option best fits your family structure before COVID-19? = Live with a spouse, have kid(s) that don't live at home most of the time*

*Or Which option best fits your family structure before COVID-19? = Live with a spouse, have kid(s) that live at home at least most of the time*

Q7 How many children do you have, and what are their ages?

---

---

*Display This Question:*

*If Which option best fits your family structure before COVID-19? = Don't live with a spouse, have kid(s) that don't live at home most of the time*

*Or Which option best fits your family structure before COVID-19? = Don't live with a spouse, have kid(s) that do live at home at least most of the time*

*Or Which option best fits your family structure before COVID-19? = Live with a spouse, have kid(s) that don't live at home most of the time*

*Or Which option best fits your family structure before COVID-19? = Live with a spouse, have kid(s) that live at home at least most of the time*

**Q8 During COVID-19, did you have children at home who would otherwise have been in school or away?**

No

Yes

---

*Display This Question:*

*If Which option best fits your family structure before COVID-19? = Don't live with a spouse, have kid(s) that do live at home at least most of the time*

*Or Which option best fits your family structure before COVID-19? = Live with a spouse, have kid(s) that live at home at least most of the time*

*Or During COVID-19, did you have children at home who would otherwise have been in school or away? = Yes*

**Q9 When working from home during COVID-19,**

	Not at all	Slightly	Moderately	Very	Extremely
To what extent did having children around while working from home impede your performance of work duties?	<input type="radio"/>				

-----

Q10 What is the distribution of work in your household (please enter percentages).

	Myself	My Spouse	Household Staff (e.g. a maid)	Other
Indoor				
Outdoor				

End of Block: Demographics

---

Start of Block: Job Specifics

Q11 I am:

- Untenured in a non-tenure-track position
  - Untenured in a tenure-track position
  - Tenured in a tenure-track position
- 

Q12 For how many years have you worked in your current field/career path?

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Q13 Did you already perform your job **fully online** before the COVID-19 Online Transition?

- No
- Yes

End of Block: Job Specifics

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Start of Block: Academic Tetrad



Q14 Please indicate what **percentage** of your time you spend on the following activities per week. This includes time spent both at work and at home, and should total 100 percent.

	Teaching	Research	Service	Home & Family
Before COVID-19				
During COVID-19				



Q15 Please indicate the average **number of hours** you spend on each of the following activities **per week**. This includes time spent both at work and at home.

	Teaching	Research	Service	Home & Family
Before COVID-19				
During COVID-19				



Q16 Please indicate your **enjoyment** of the following activities **when working in-person**

	Dislike a great deal	Dislike a moderate amount	Dislike a little	Neither like nor dislike	Like a little	Like a moderate amount	Like a great deal
Teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Academic Service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Home & Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Q17 Please indicate your **enjoyment** of the following activities **when working online**

	Dislike a great deal	Dislike a moderate amount	Dislike a little	Neither like nor dislike	Like a little	Like a moderate amount	Like a great deal
Teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Home & Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Q18 Please rate the **importance** of these activities to **you**

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Teaching	<input type="radio"/>				
Research	<input type="radio"/>				
Academic Sevice	<input type="radio"/>				
Home & Family	<input type="radio"/>				

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Q19 Please rate the **importance** of these activities to **your institution**

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Teaching	<input type="radio"/>				
Research	<input type="radio"/>				
Academic Sevice	<input type="radio"/>				
Home & Family	<input type="radio"/>				

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Q20 Do you receive any of the following compensations for these activities?

Select all that apply.

	Additional financial compensation (above & beyond your usual salary)	Course release	Contributes significantly to performance appraisal	Contributes minorly to performance appraisal	No additional compensation
Research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Q21 What percentage of time do you spend on the following academic service activities?

Professional associations (e.g. assisting at a conference) : \_\_\_\_\_

Administration (e.g., department chair, dean) : \_\_\_\_\_

University committee work : \_\_\_\_\_

College committee work : \_\_\_\_\_

Departmental committee work : \_\_\_\_\_

Major advising : \_\_\_\_\_

Graduate student advising : \_\_\_\_\_

Honors thesis supervision : \_\_\_\_\_

Graduate thesis/dissertation supervision : \_\_\_\_\_

Total : \_\_\_\_\_

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Q22 To show that you are reading and paying attention to this survey, select 'always.'

How often do you breathe when on the job?

- Always
- Most of the time
- About half the time
- Sometimes
- Never

**End of Block: Academic Tetrad**

Q23 When working in- person,	Strongl y disagree	Disagre e	Somewha t disagree	Neither agree nor disagre e	Somewha t agree	Agre e	Strongl y agree
I have a good balance between the time I spend at work and the time I have available for non- work activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have difficulty balancin g my work and non- work activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that the balance between my work demands and non- work activities is about right.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Overall, I believe that my work and non-work life are balanced

Q24 When working online,	Strongl y disagree	Disagre e	Somewha t disagree	Neither agree nor disagre e	Somewha t agree	Agre e	Strongl y agree
I have a good balance between the time I spend at work and the time I had available for non- work activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have difficulty balancin g my work and non- work activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that the balance between my work demands and non- work activities is currently about right.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Overall, I believe that my work and non-work life are balanced

Q25 When working in-person,

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I find real enjoyment in my job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like my job more than the average person does	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am seldom bored with my job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would not consider taking another kind of job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most days I am enthusiastic about my job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel fairly well satisfied with my job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q26 When working online,

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I find real enjoyment in my job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like my job more than the average person does	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am seldom bored with my job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will not consider taking another kind of job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most days I am enthusiastic about my job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel fairly well satisfied with my job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Job Satisfaction

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Start of Block: Job Embeddedness

Q27 How strong is your sense of belonging in the workplace?

	Very weak	Moderately weak	Slightly weak	Neutral	Slightly strong	Moderately strong	Very Strong
When working in-person	<input type="radio"/>						
When working online	<input type="radio"/>						

Q28 When working in-person,

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I feel attached to this organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It would be difficult for me to leave this organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am too caught up in this organization to leave	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I simply could not leave the organization that I work for.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It would be easy for me to leave this organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am tightly connected to this organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q29 When working online,

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I feel attached to this organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It would be difficult for me to leave this organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am too caught up in this organization to leave	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I simply could not leave the organization that I work for.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It would be easy for me to leave this organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am tightly connected to this organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**End of Block: Job Embeddedness**

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**Start of Block: Organizational Commitment**

Q30 When working in-person,	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I feel 'emotionally attached' to this organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This organization has a great deal of personal meaning for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel a strong sense of belonging to my organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It would be very hard for me to leave this organization right now, even if I want to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
One of the few serious consequences of leaving this organization would be the scarcity of available alternatives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I believe  
that a person  
must always  
be loyal to  
their  
organization

One of the  
major  
reasons I  
continue to  
work for  
this  
organization  
is that I  
believe  
loyalty is  
important  
and  
therefore  
feel a sense  
of moral  
obligation to  
remain



Q31 When working online,	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I feel 'emotionally attached' to this organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This organization has a great deal of personal meaning for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel a strong sense of belonging to my organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It would have be very hard for me to leave this organization right now, even if I want to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
One of the few serious consequences of leaving this organization would be the scarcity of available alternatives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I believe that a person must always be loyal to their organization

One of the major reasons I continue to work for this organization is that I believe loyalty is important and therefore feel a sense of moral obligation to remain

**End of Block: Organizational Commitment**

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**Start of Block: Burnout**

Q32 Please indicate your agreement with the following statements:	Strongly Disagree	Disagree	Agree	Strongly Agree
I always find new and interesting aspects in my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are days when I feel tired before I arrive at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It happens more and more often that I talk about my work in a negative way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After work, I tend to need more time than in the past in order to relax and feel better	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can tolerate the pressure of my work very well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lately, I tend to think less at work and do my job almost mechanically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find my work to be a positive challenge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

During my work, I often feel emotionally drained	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Over time, one can become disconnected from this type of work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After working, I have enough energy for my leisure activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sometimes I feel sickened by my work tasks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After my work, I often feel worn out and weary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This is the only type of work I can imagine myself doing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Usually, I can manage the amount of my work well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel more engaged in my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I work, I usually feel energized	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**End of Block: Burnout**

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**Start of Block: MCCs**

Q33 In my organization:	Not at all true to my work environment	Somewhat untrue to my work environment	Neutral	Somewhat true to my work environment	Entirely true of my work environment
Admitting you don't know the answer makes you look weak	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expressing any emotion other than anger or pride is seen as weak	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It's important to be in good physical shape to be respected	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People who are physically smaller have to work harder to be respected	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To succeed you can't let family interfere with work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking days off is frowned upon	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

You're either  
in or you're  
out, and  
once you're  
out you're  
out

If you don't  
stand up for  
yourself  
people will  
step on you

End of Block: MCCs

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Start of Block: Diversity in the workplace

Q34 How well do you feel you fit the traditional norms for your gender?

	Not well at all	Slightly well	Moderately well	Very well	Extremely well
Please select one:	<input type="radio"/>				

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Q35 Please respond with 'yes' or 'no' to the following:

	No	Yes
Do you present a binary gender in the workplace (e.g. male or female rather than transgender, non-binary, etc.)	<input type="radio"/>	<input type="radio"/>
Do you believe sexism is still present in the workplace?	<input type="radio"/>	<input type="radio"/>
Have you noticed a decline in workplace sexism in recent years?	<input type="radio"/>	<input type="radio"/>
Do you believe racism is still present in the workplace?	<input type="radio"/>	<input type="radio"/>
Have you noticed a decline in workplace racism in recent years?	<input type="radio"/>	<input type="radio"/>
Has the COVID-19 situation brought to light any diversity issues? If so, explain.	<input type="radio"/>	<input type="radio"/>

End of Block: Diversity in the workplace

Start of Block: Bullying

Q36 Have you or someone you know experienced the following work-related bullying?

	Workplace Bullying		Workplace Cyberbullying	
	Yes	No	Yes	No

Before COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Q37 To show that you are reading and paying attention to this survey, select 'giraffe.'

- Zebra
- Giraffe
- Elephant

**End of Block: Bullying**

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**Start of Block: Qualitative Data**

Q38 Have you ever felt that your race or gender disadvantaged you or someone you know in the workplace? If you feel comfortable, please explain. Answers will be kept completely confidential.

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Q39 Have you struggled at all to maintain a balance between work and home life during the COVID-19 Online Transition? Please explain.

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Q40 How do you maintain boundaries between work and home when working in-person?

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Q41 How do you maintain boundaries between work and home when working online?

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Q42 Have you felt that your job status is threatened by the COVID-19 situation? Please explain.

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Q43 Is there anything you feel is relevant that was not asked by the survey?

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**End of Block: Qualitative Data**

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**Start of Block: Debriefing**

Q44 Thank you so much for sharing your thoughts! Your contributions are valuable for improving our understanding of professors' experiences through this time, and are greatly appreciated.

**End of Block: Debriefing**

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