

# **Barriers to Advancement of Female Faculty in Higher Education: An Examination of Student Evaluations of Teaching, Work-Family Conflict and Perceived Organizational Support**

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*The purpose of this study was to examine perceptions of barriers faculty face in higher education and to determine if those barriers disproportionately impact career advancement based on gender. Specifically, the researchers considered student evaluations of teaching (SETs), work-family conflict (WFC), and perceived organizational support (POS). From a survey administered to 197 professionals in higher education, results indicated women are disadvantaged due to these three barriers, especially as it pertains to their students' impressions and expectations of them. Findings suggest increased POS can garner improvements to combat WFC, and in return mold organizational cultures and practices to be more considerate of potential gender biases that exist.*

*Keywords: Work-Family Conflict, Higher Education, Barriers, Career Advancement, Gender Bias*

## **INTRODUCTION**

While the number of female professors in the United States is rising, men have traditionally dominated the profession. In a report on the state of women in higher education during the 2015-2016 academic year, the American Council on Education found the total number of male faculty members (438,789) at degree-granting postsecondary institutions was still higher than that of female faculty members (368,243). The same report noted disparities in higher-rank positions. Men outnumber women in the ranks of full professor and associate professor while women outnumber men in the ranks of assistant professor, instructor, and lecturer (Johnson, 2017). Even more alarming is the fact that the salary gap between men and women at the same faculty rank remains. Women made 83 percent of what male faculty made in 1972 and 82 percent of what male faculty made in 2009. During the 2015-2016 academic year, female faculty made approximately 82.5% of what male faculty made. The gap is higher at private institutions in comparison to public institutions (Johnson, 2017).

Men also outnumber women in leadership positions such as presidents, chief academic officers, and on governing boards. For those serving in these leadership roles, men are more likely to be married and have kids in comparison to their female counterparts (Johnson, 2017), suggesting the glass ceiling made up of intangible systemic barriers preventing women from leadership positions still exists. Despite the growth in female academics, data show women are not ascending to leadership roles, but instead hold a greater share of the entry-level, service, and teaching only positions. Research has also identified challenges in retaining talented women beyond entry-level positions (Soyars, 2017), as women often encounter stereotypes and biases that may impede their advancement to higher levels (Smith, Rosenstein, Nikolov, & Chaney, 2019). The reasons for the lack of advancement and retention warrant attention and further investigation. For the purposes of the present study, the following barriers of advancement were examined: gender bias on student evaluations, work-family conflict, and perceived organizational support.

Research has attributed the lack of advancement of female academics to gender bias in student evaluations of teaching (SETs). While professors are evaluated in the areas of service and scholarship, students' perceptions of faculty are also an important factor, often the only factor, taken into consideration when evaluating teaching. Since there is such an emphasis on SETs, it is imperative to understand the differences in perceptions of students with respect to the gender of professors (Sosa & Sagas, 2008). In studies on the differences in how men and women are evaluated, women traditionally receive lower SET scores, despite evidence showing students appear to learn as much from women as men (Boring, 2017) and neither students' grades nor self-study hours are affected by the gender of the instructor (Mengal, Sauermann, & Zolitz, 2019). Students' ability to learn from female faculty may be attributed to the more nurturing character traits traditionally associated with female gender norms. Women are conventionally viewed as kind, helpful, sensitive, and sympathetic, whereas men are viewed as more confident, ambitious, independent, and assertive (Eckes, 2002). Male professors are also regarded as more knowledgeable than women and are perceived as having better class leadership skills (Boring, 2017). The continually reaffirmed gender bias present in SETs is troublesome as it may have direct and indirect effects on the career progression of women. An example of a direct effect is a female faculty member not receiving promotion or tenure because of low SET scores. An example of an indirect effect is that the gender bias could be detrimental to the confidence of female faculty. As such, female faculty may overcompensate when planning and preparing course materials in an effort to improve their SET scores. Consequently, this reallocation of time and resources to teaching may negatively impact other required components of their positions such as their research productivity (Mengel, Sauermann, & Zolitz, 2019).

Another barrier that may impede the advancement of female academics is work-family conflict (WFC). WFC is "a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect" (Greenhaus & Beutell, 1985, p. 77). Because of this conflict, participation in one's work role may be negatively impacted by participation in the family role. There are many detrimental effects of WFC, including depression, anxiety, burnout, absenteeism, less job and life satisfaction, and difficult parent-child relationships (Allen, Herst, Bruck, & Sutton, 2000). Research on WFC suggests longer work hours and higher workloads can increase conflict (Pitt-Catsouphes, Kossek, & Sweet, 2006) and women typically report higher levels of WFC (Ruppner & Huffman, 2014). Thus, female faculty experiencing WFC may risk advancement opportunities because of inter-role conflict and pressures between one's role as a mother and one's role as a professor being mutually incompatible in some respect.

For those who experience WFC, perceived organizational support (POS) may alleviate some of the stress that results from the inter-role conflict. POS refers to the degree in which employees feel valued and supported in the workplace (Eisenberger, Huntington, Hutchison, & Sowa, 1986). POS is positively related to organizational trust (DeConinck, 2010), commitment to the organization (Rhoades & Eisenberger, 2002), and job satisfaction (Riggle, Edmondson, & Hansen, 2009). Likewise, low POS is related to turnover intention and job stress (Allen, Shore, & Griffeth, 2003). In other words, those who feel supported within their organizations are more likely to have positive experiences, while those that do not feel supported are more likely to feel stress and leave their positions. In the context of the present study, this is particularly important in determining if female academics are choosing to opt out of

potentially successful careers because of a perceived lack of support and stress resulting from low POS or if they are being pushed out of advancement opportunities. While research has explored the consequences of POS and its relationship to stress, research examining the relationship between WFC and POS in the higher education setting is scarce. For this reason, the purpose of the present study was to examine the perceptions of academics on the potential barriers of SETs, WFC, and POS.

## LITERATURE REVIEW

Despite the fact that the number of women enrolling in graduate programs has steadily increased, the number of women that continue careers in academia is comparatively low (Mengal et al., 2019). For example, in an examination of women in the field of economics in 2015, McElroy (2016) found women comprised only 28% of assistant professors, 24% of associate professors, and 12% of full professors. Similarly, a study examining the gender breakdown of U.S. medical school faculty in 2018 found women comprised 46% of assistant professors, 37% of associate professors, and 24% of full professors (AAMC, 2019). These disparities exist despite women representing approximately 50% of enrollment in medical schools since the 1980s (AAMC, 2016). A number of potential factors, including comfort in salary negotiations and job competitiveness, have been offered to explain why men dominate some areas of academia (Leibbrandt & List, 2015; Mengal et al., 2019). The question is if these factors result in women being pushed out of advancement opportunities, or if they choose to opt out of successful careers (Livingston, 2014). For the purposes of the present study, the following factors were explored: gender bias on student evaluations, work-family conflict, and perceived organizational support.

### Gender Bias on Student Evaluations

Student evaluations of teaching (SETs) are used as a mechanism to solicit student feedback to continuously improve teaching and course quality (Rosen, 2018). They are often considered a direct measure of student satisfaction with a course and an indirect measure of learning (Murray, 2007). SETs are frequently used by administrators in the selection of teaching award winners and institutional reviews of programs (Benton & Cashin, 2014). Perhaps even more importantly, SETs are used in personnel matters such as hiring, tenure, and promotion decisions (Benton & Cashin, 2014; Mengal et al., 2019). For these reasons, they have an impact on career progression. Thus, SETs are a potential barrier to the promotion of female faculty that must be considered.

While there is controversy surrounding the interpretation of SETs in the measuring of teaching effectiveness, they continue to be used as an evaluative mechanism. Because of their widespread use in academia, it is necessary to address the gender bias that is regularly found in the data produced from SETs. Gender bias is present in university teaching evaluations if different evaluations of men and women cannot be explained by objective differences in teaching quality (Mengal et al., 2019). Put simply, female instructors are generally evaluated more critically than their male colleagues, even if differences do not exist in the quality of instruction (Mitchell & Martin, 2018). In course evaluations, students demonstrate varying expectations of faculty based on gender, and rate accordingly (Taylor, Smith, Rode, & Hardin, 2017). In a study exploring gender biases in SETs, Boring (2017) found male students give significantly higher overall satisfaction scores to male professors in comparison to female professors even though the female professors were just as effective and efficient as their male colleagues. Further, male instructors were rewarded for non-time-consuming dimensions of the course (e.g., leadership skills), while female instructors were recognized for more time-consuming skills (e.g., preparation of course materials). Mitchell and Martin (2018) examined the SETs of two identical online courses, one taught by a man and one taught by a woman. The male professors received significantly higher ordinal scores on the SETs, even when questions focused on factors that were the same in each course such as course materials and textbooks. In a similar study by MacNell, Driscoll, and Hunt (2015), instructors in an identical online class each operated under two different gender identities. The male identity of each professor, regardless of their actual gender, was rated significantly higher than the female identity further supporting the notion that gender bias exists in SETs.

Research suggests students also tend to value characteristics in their professors that match gender stereotypes. For instance, women are evaluated more on personality and appearance and are more likely to be labeled as a “teacher” rather than a “professor” (Mitchell & Martin, 2018). Female instructors are also expected to display feminine interpersonal traits, such as warmth and accessibility (MacNell, et al., 2015). Women who adhere to these gendered expectations are viewed more favorably by students than those that do not (Andersen & Miller, 1997). This puts female professors in a difficult position in which gendered expectations conflict with professional expectations of faculty. In other words, female professors are expected to be accessible and personable, but these same traits can lead students to view female professors as less competent or effective (MacNell et al., 2015). Students oftentimes have negative views of those who veer from the gendered expectations and are authoritative and knowledgeable. Consequently, women are expected to embody the traditionally feminine traits, while also maintaining a high degree of professionalism and competence (MacNell et al., 2015). Men, on the other hand, are assumed to have legitimate authority and leadership skills (Mengel et al., 2019). They are evaluated on effectiveness traits, such as professionalism and objectivity. Interpersonal traits that are considered a necessity for female professors are an added bonus if depicted by male professors; however, the absence of the interpersonal traits does not negatively impact SETs of men (MacNell et al., 2015).

The gender bias present in SETs can disproportionately impact the confidence and beliefs of young, female academics. Consequently, a reallocation of resources from research to teaching can take place, as female instructors may anticipate the bias and compensate by working harder on their courses (Peterson, Biederman, Anderson, Ditonto, & Roe, 2019). Further, female professors may believe they need to make themselves more available to their students, which may lead to frequent interruptions and prioritizing their students above other job responsibilities. This may have detrimental effects on research productivity, which is an essential component of the evaluation process for many faculty members (Link, Swann, & Bozeman, 2008).

Given the omnipresence of SETs in higher education, it is essential to address the gender bias in the evaluation process. To address the impact of gender bias on student evaluations, Peterson et al. (2019) conducted an experiment in which students were randomly assigned to either receive the standard student evaluation instrument or the same instrument with additional language intended to reduce gender bias. The modified instrument included information on unconscious and unintentional biases students might have about the race and gender of the instructor. Students were asked to try to resist typical gender stereotypes when evaluating their instructors. The results of the study found students in the modified instrument condition had significantly higher rankings (as much as half a point on a five-point scale) of female faculty than those in the standard instrument group. The findings suggest providing students with cues that make them aware of gender bias can mitigate gender bias on SETs. While this is just one possibility to lessen gender bias on SETs, continued use of SETs as they are currently worded in the evaluation process is discriminatory (Mitchell & Martin, 2018). The gender bias in these ratings is a form of inequality women in academia must face and it is often unaccounted for in promotion and tenure decisions (MacNell et al., 2014).

### **Work-Family Conflict**

In addition to gender bias on student evaluations, another barrier to advancement that some women face is that of work-family conflict (WFC). WFC results from role imbalance in which the pressures from the work role and those from the family role are incompatible in some respect leading to inter-role conflict (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964). Past research on the interaction between work and family suggests women are more likely to experience WFC than their male counterparts (Akanbi, 2016; Allen & Finkelstein, 2014). This may be attributed to a combination of the growing number of mothers in the workforce and traditional gender roles. In 1975, 47.4% of mothers in the United States participated in the labor force. This number increased to 71.5% in 2017 (U.S. Department of Labor, 2018). While there was a drastic increase of mothers in the workforce, the responsibilities at home did not decrease. Women are still expected to perform a majority of the housekeeping and childcare (Bianci & Milkie, 2010), yet experience the same stressors as their male colleagues in the workplace. Thus,

responsibilities from one's work role can place great demands on individuals and impact their home role and vice versa.

Three major types of conflicts have been identified in the work-family relationship: time-based conflict, strain-based conflict, and behavior-based conflict (Greenhaus & Beutell, 1985). Time-based conflict may result from a number of factors such as excessive work, schedule conflicts, marital status, family size, or the presence of children at home; the conflict arises when the time required to accomplish a role in one domain makes it difficult to complete an obligation in another domain (Beauregard, 2006). For instance, excessive work may impede on family responsibilities related to one's partner, spouse, or children. Strain-based conflicts result from strain or fatigue in one role affecting performance in another (Akanbi, 2016). Shaheen (2012) identified family stress, negative emotional spillover, parental conflict, and marital conflicts as examples of strain-based conflicts. Finally, behavior-based conflict results from behavior in one role being incompatible with behaviors in another role, expressed by the inability to adjust behaviors between the two roles. For example, the problem-solving behaviors used at one's job may not necessarily work to solve problems in one's home and conflict can ensue.

Organizations, individuals, and families can be impacted by WFC. At the organizational level, WFC has been found to impact job performance (Karatepe & Sokmen, 2006), job satisfaction (Bhowon, 2013), and job stress (Bacharach, Bamberger, & Conley, 1991). Similarly, those experiencing WFC were found to lack commitment to the organization (Allen, Herst, Bruck, & Sutton, 2000). At the individual level, WFC has been linked to depression and anxiety (Lapierre & Allen, 2006), emotional exhaustion (Crawford, Shanine, Whitman, & Kacmar, 2016), and insomnia (Williams, Franche, Ibrahim, Mustard, & Layton, 2006). At the family level, those experiencing WFC have reported low levels of marital satisfaction and family dissatisfaction (Kalliath, Kalliath, & Singh, 2011). This is attributed to the fact that women are expected to perform their roles as working professionals, while simultaneously fulfilling their obligations as spouse, homemaker, and mother (Treistman, 2004). Attempts to find time and energy to successfully fulfill roles within one's career and within one's family lead to inter-role conflict (Akanbi, 2016). The presence of this inter-role conflict may inevitably cause women to leave their professions. In a Center for Work-Life Policy survey of women with advanced degrees, results suggest that some women were pushed out of their jobs due to the difficulties of balancing work and family. Amongst those that stepped away from their careers, 69% said they would not have done so had they had more flexible work arrangements (Livingston, 2014).

Because universities are stressful work environments with expectations to secure grants, publish in high quality journals, and teach increasing numbers of students (Winefield, Boyd, & Winefield, 2014), higher education is a unique career field to explore with respect to WFC. Flexible working arrangements in which employees can work from home are common amongst faculty; however, a consequence of this flexibility is that many academics find themselves working during the evenings and on weekends when they could be spending time with their families (Winefield et al., 2014). As such, even though reporting to a family-supportive supervisor and having flexible hours reduce WFC, having to take work home blurs the work-home boundary and increases WFC (Breugh & Frye, 2008; Winefield et al., 2014). To meet expectations for publications and other work-related responsibilities, academics report working extended hours beyond the traditional 40-hour workweek to manage the pressure (Torp, Lysfjord, Midje, 2018). High workload, increased stress, and low job security are often identified as the consequences of this attempt at work-life balance (Torp et al., 2018). For these reasons, creating environments in which faculty can perform effectively in both work and nonwork domains is exceptionally important. Facilitating this process fosters positive work attitudes and increasing levels of organizational commitment (Carlson, Grzywack, & Kacmar, 2010). Research specific to WFC in higher education has demonstrated gender differences in WFC of faculty members with women experiencing higher levels than men (Fox, Fonseca, & Bao, 2011; Torp et al., 2018). Additionally, employees that are high performers and perfectionists, both characteristics of many in higher education, commonly face WFC (Mitchelson, 2009).

## **Perceived Organizational Support**

The presence of WFC and its resulting stress in higher education necessitates the examination of perceived organizational support (POS). POS is the degree to which employees believe the organization and their superiors value their contributions and care about their well-being (Eisenberger et al., 1986). While employers value employee dedication because those that are committed to the organization perform better, have reduced absenteeism, and are less likely to quit their jobs, employees are concerned with the organization's commitment to and support of them (Rhoades & Eisenberger, 2002). Employees believe their favorable or unfavorable treatment is an indication that the organization favors or disfavors them (Rhoades & Eisenberger, 2002). If they feel as though they are being treated poorly, employees assume they are not valued or supported.

On the other hand, organizations that ensure their employees feel valued are able to reap the positive outcomes of high POS. The consequences of high POS are beneficial to both the employee and the employer, as high POS improves work attitude and produces effective work behavior (Miao, 2010). Additionally, high POS is positively correlated to job satisfaction, attitude toward the organization, and employees' interest in their work (Rhoades & Eisenberger, 2002). POS also leads to feelings of obligation to care about the organization's well-being and a desire to help the organization achieve its goals (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001). These positive organizational outcomes of POS occur because employees who infer they are being supported seek to repay this favorable treatment. The employees feel valued and assured that if they ever need help from the organization to carry out their jobs or deal with stressful situation, aid will be available (Rhoades & Eisenberger, 2002).

Much like the findings from general business literature, research in the higher education setting found POS to be correlated with job performance (Guan et al., 2014). More specifically, high POS was positively correlated to favorable job performance. While this finding mirrors the results of other studies, perceptions of POS within academia seemingly vary from one study to the next. For instance, a study of faculty by Nasurdin and O'Driscoll (2011) found intense workloads increased WFC regardless of POS. This finding was attributed to the fact that POS was considered to be modest in the study's setting rather than high. In a more recent study in higher education, Bukhari and Kamal (2017) found POS was positively related to organizational commitment, job performance, organizational citizenship behavior, and job satisfaction. They also determined POS was negatively related to perceived organizational politics, turnover intention, and job stress. When considering WFC and POS together, the dominant hypothesis is that social support lessens the impact of stressors because it serves as a resource to help mitigate the outcomes of stress (Thomas & Ganster, 1995). More specifically, POS can alleviate WFC through family-supportive policies along with supportive colleagues (Nasurdin & O'Driscoll, 2011).

## **Statement of Problem and Research Questions**

Gender bias on SETs, WFC, and POS are all potential barriers to the advancement of women in higher education. While previous studies have examined each of these concepts alone, as well as WFC and POS together, the present study aims to add to the growing body of literature on barriers to the advancement of women in higher education by examining the three factors together. Thus, the purpose of the present study was to examine the perceptions of academics on each of these potential barriers. The goal of the research was to provide insight into the abovementioned discrepancies and propose programming to address gaps that exist. The following research questions were used to address the purpose of the study.

***RQ<sub>1</sub>:** Is there a relationship between gender identity and perceptions of student evaluations?*

***RQ<sub>2</sub>:** Is there a relationship between gender identity and work-family conflict?*

***RQ<sub>3</sub>:** Is there a relationship between gender identity and perceived organizational support?*

## METHOD

The present study utilized survey research to provide a quantitative description of trends, attitudes, and opinions of professors in higher education. The study was cross-sectional with the intent to generalize from the sample of professors to the population of professors in the United States. The sample was a convenience sample, as faculty members were recruited via email and through social media with the hashtag #academictwitter. The survey was administered via Qualtrics.

### Research Instrument

The survey began with items specific to higher education, including academic rank, and years worked in higher education. It continued with demographic items including gender, marital status, ethnicity, and whether or not the participant has children. To measure work-family conflict, Carlson, Kacmar, and Williams's (2000) work-family conflict scale ( $\alpha = 0.87$ ) was used. The work-family conflict scale includes six subscales. For the present study, four of the six subscales were used: time-based work interference with family (e.g., I have to miss family activities due to the amount of time I must spend on work responsibilities), time-based family interference with work (e.g., I have to miss work activities due to the amount of time I spend on family responsibilities), strain-based work interference with family (e.g., When I get home from work I am too frazzled to participate in family activities/responsibilities), and strain-based family interference with work (e.g., Due to stress at home, I am often preoccupied with family matters at work). This section of the survey included 12 items, three for each of the four subscales.

The survey continued with 12 items to measure faculty perceptions of student evaluations. The items were adopted from the work of Kogan, Schoenfeld-Tacher, and Hellyer (2010). The perceived impact certain factors have on SETs was measured through four items. A sample item is "How much impact do you think *your* gender has on their evaluation of you?" The general perception of student evaluations items was measured through eight items. A sample item is "Student ratings reflect the quality of instruction well."

The survey continued with five items from Eisenberger et al.'s (1986) Survey of Perceived Organizational Support (SPOS). Satisfaction with the employee's performance was measured through three items. A sample item is "The organization values my contribution to its well-being." Consideration of the employee's goals and opinions was measured through two items. A sample item is "The organization strongly considers my goals." The survey concluded with an open-ended item soliciting additional information on the experiences of participants in higher education.

## RESULTS

After data collection and cleaning, 197 observations were deemed suitable for further analysis. Of these 197 participants, 37.1% were assistant professors ( $n = 73$ ), 27.9% were associate professors ( $n = 55$ ), 21.8% were full professors ( $n = 43$ ), and 13.2% were instructors/lecturers ( $n = 26$ ). The sample was predominately White (86.8%), male (52.3%), married (70.6%), and tenured (42.1%). Of the male participants, 67.0% had children while 44.3% of female participants had children.

Prior to addressing the research questions, the reliability of each of the scales was examined via Cronbach's alpha. Table 1 outlines the descriptive statistics and internal consistency reliability for the five scales used in the study. It was necessary to reverse score the following item from the POS scale: "My department feels that anyone could perform my job as well as I do." Once this item was reverse scored, each of the scales exhibited reliability measures greater than the .70 threshold suggested by Nunnally and Bernstein (1994).

**TABLE 1**  
**DESCRIPTIVE STATISTICS AND INTERNAL CONSISTENCY OF EACH SCALE**

<u>Scale</u>	<u>M</u>	<u>SD</u>	<u><math>\alpha</math></u>
<b>Time Based Work Interference with Family</b>	7.36	2.549	.792
My work keeps me from my family activities more than I would like.	2.70	1.059	
The time I must devote to my job keeps me from participating equally in household responsibilities and activities.	2.25	1.039	
I have to miss family activities due to the amount of time I must spend on work responsibilities.	2.40	.936	
<b>Time Based Family Interference with Work</b>	6.92	2.864	.890
The time I spend with my family often causes me not to spend time in activities at work that could be helpful to my career.	2.59	1.144	
The time I spend on family responsibilities often interferes with my work responsibilities.	2.34	1.091	
I have to miss work activities due to the amount of time I spend on family responsibilities.	1.99	.922	
<b>Strain Based Work Interference with Family</b>	7.40	2.542	.853
When I get home from work I am often too frazzled to participate in family activities/responsibilities.	2.21	.869	
I am often so emotionally drained when I get home from work that it prevents me from contributing to my family.	2.76	1.043	
Due to all the pressures at work, sometimes when I come home I am too stressed to do the things I enjoy.	2.42	.976	
<b>Strain Based Family Interference with Work</b>	6.45	2.435	.850
Because I am often stressed from my family responsibilities, I have a hard time concentrating on my work.	2.32	1.012	
Tension and anxiety from my family life often weaken my ability to do my job.	2.15	.945	
Due to stress at home, I am often preoccupied with family matters at work.	1.97	.810	
<b>Perceived Organizational Support</b>	17.67	5.145	.899
My department values my contribution to its well-being.	3.84	1.235	
My department takes pride in my accomplishments at work.	3.72	1.217	
My department feels that anyone could perform my job as well as I do.*	3.30	1.229	
My department strongly considers my goals and values.	3.22	1.191	
My department cares about my opinions.	3.60	1.224	

\* item was reverse scored

Of the participants, one individual identified as gender-variant/non-conforming and one individual chose other. To protect the identity of these two participants, we only analyzed the responses of those that identified as female and those that identified as male. To address the first research question, which explored the relationship between gender and perceptions of student evaluations, t-tests were used. Significant differences were found between male and female participants on three of the items. The first significant relationship was found on the item asking respondents about students' expectations for a high grade impacting their evaluation scores. Women ( $M = 4.00$ ,  $SD = 0.96$ ) found this to be more impactful than men ( $M = 3.57$ ,  $SD = 1.17$ ),  $p < .01$ . Significant differences were also found in the impact respondents believed their age/experience has on their student evaluation scores. Women ( $M = 3.98$ ,  $SD = 0.96$ ), again, found this concept to be more impactful than men ( $M = 3.52$ ,  $SD = 1.02$ ),  $p < .01$ . Finally,



significant differences were found in the impact participants believed their gender has on their student evaluations. Female faculty ( $M = 3.92$ ,  $SD = 1.14$ ) believe their gender has a much greater influence on their student evaluations than male faculty ( $M = 2.91$ ,  $SD = 1.33$ ),  $p < .01$ . Table 2 provides additional results for the t-tests.

**TABLE 2**  
**RELATIONSHIP BETWEEN GENDER AND PERCEPTIONS OF STUDENT EVALUATIONS**

<u>Question/Statement</u>	<u>Gender</u>	<u>M</u>	<u>SD</u>	<u>p-value</u>
If a student expects to receive a high grade in your class, how much impact do you feel this has on their evaluation of you?	female	4.00	0.96	<.01
	male	3.57	1.17	
How much impact do you think the age/experience of students has on their evaluation of you?	female	3.87	1.04	0.12
	male	3.63	1.00	
How much impact do you think your age/experience has on their evaluations of you?	female	3.98	0.96	<.01
	male	3.52	1.02	
How much impact do you think your gender has on their evaluation of you?	female	3.91	1.14	<.01
	male	2.91	1.32	
Most students take the evaluation process seriously.	female	2.72	1.02	0.34
	male	2.57	1.01	
In general, the evaluations do not provide any useful information.	female	2.90	1.04	0.61
	male	2.82	1.07	
Faculty members, in general, tend to water down their requirements in order to get favorable ratings.	female	3.05	1.10	0.64
	male	3.13	1.05	
Administering the course and teacher evaluations every semester is a waste of time.	female	2.43	0.97	<.05
	male	2.74	1.17	
Instructors who demand a lot from their students get low evaluations.	female	3.28	1.03	0.18
	male	3.06	1.13	
Student ratings measure how nice an instructor is.	female	3.44	0.92	0.31
	male	3.29	1.00	
Student ratings reflect the quality of instruction well.	female	2.78	0.99	0.84
	male	2.75	1.05	
One does not have to be a good instructor in order to get positive evaluations.	female	3.77	1.06	0.41
	male	3.64	1.08	

To address the second research question, a t-test was conducted to examine differences between scores on the WFC scale and gender identity. Respondents were included if they chose male or female as well as if they answered the 12 questions within the WFC scale. Results showed non-significant differences on each subscale as well as non-significant differences between male participants ( $M = 28.1$ ,  $SD = 7.9$ ) and female participants ( $M = 28$ ,  $SD = 8.7$ ) for the total work-family conflict score,  $p > .05$ .

To further examine the WFC of participants, a k-group between subjects multivariate analysis of variance (MANOVA) was conducted on WFC and parental status. WFC served as the dependent variable and consisted of the four subscale scores with the following four groups serving as the independent variable: female parent, male parent, female non-parent, male non-parent. Using Pillai's trace criterion, the combination of WFC scores was significantly associated with the four groups  $F(12, 510) = 2.7, p = .002$ . Results showed that female parents had the highest score on all four WFC scales for the four groups. Table 3 provides means, standard deviation and significance differences amongst the four groups.

**TABLE 3**  
**RELATIONSHIP BETWEEN GENDER AND WORK-FAMILY CONFLICT**

<u>WFC Scale</u>	<u>Female Parents</u>	<u>Male Parents</u>	<u>Female Non-Parents</u>	<u>Male Non-Parents</u>
Strain Based Family	2.40 [0.80]	2.28 [0.86]	1.90 [0.70]	2.00 [0.66]
Time Based Work	2.64 [0.89]	2.46 [0.88]	2.25 [0.81]	2.49 [0.82]
Strain Based Work	2.71 [0.87]	2.39 [0.81]	2.41 [0.85]	2.38 [0.81]
Time Based Family	2.75 [0.96]	2.48 [0.98]	1.88 [0.67]	2.01 [0.86]

To address the third research question, t-tests were conducted to examine the relationship between the POS and gender identity. Results showed significant differences between the statement of "My department strongly considers by goals and values." For this statement, female participants had significantly lower scores ( $M = 3.05, SD = 1.2$ ) compared to male participants ( $M = 3.41, SD = 1.13$ ). There were no significant differences amongst other POS questions/statements between male and female participants. To further examine the relationship between POS and gender, a total POS score was calculated. Group differences were examined based on gender using a t-test. Results showed significant differences between total POS scores between male and female participants,  $p < .05$ . Men had statistically significant higher POS scores ( $M = 18.5, SD = 4.7$ ) compared to women ( $M = 16.9, SD = 5.4$ ), suggesting the male participants perceived higher levels of support from their organizations than the female participants.

## DISCUSSION

Findings from this study provide several implications for researchers and professionals in higher education. First, and most importantly, it is evident there is a disparity amongst gender identities in the field illustrating an equity imbalance. A far-reaching consequence of these findings could mean fewer female academics entering the profession or some opting out of successful careers in academia all together. Gender bias through student evaluations, work-family conflict (WFC), and perceived organizational support (POS) have each been found to disadvantage women in academic professions. While academic fields are still predominantly male, these challenges create additional deterrents for female professors and higher education administrators. Therefore, this study aimed to determine in what ways these potential barriers to advancement impede professional progress of female academics. The results of the study indicated significant differences between male and female participants with respect to grade expectations impacting SETs. Not only that, but a related significant difference exists between

gender identity and the impact of that identity on SETs. In both instances, female participants felt their reported gender identity had significant influence on these aspects of their teaching evaluations.

Gender bias on SETs has been found to exist in other studies (e.g., Boring, 2017; Mitchell & Martin, 2018). While the present study examined the perceptions of faculty regarding student evaluations rather than actual differences that exist, the findings suggest female faculty members believe gender bias is present on SETs. This belief alone is enough to impact their careers, as they may overcompensate in the teaching component of their positions in attempt to improve their SETs and sacrifice productivity in the research and/or service components. Given the importance of SETs in the evaluative process of faculty, it is imperative to recognize and address gender bias regardless if it is perceived or actual. One mechanism to address gender bias on SETs is to implement the findings of Peterson et al.'s (2019) research. Including cues to acknowledge and create awareness about gender bias on the actual SETs can mitigate its existence. For instance, the following statement was added to the SETs in Peterson et al.'s (2019) study.

...recognizes that student evaluations of teaching are often influenced by students' unconscious and unintentional biases about the race and gender of the instructor. Women and instructors of color are systematically rated lower in their teaching evaluations than white men, even when there are no actual differences in the instruction or in what students have learned. As you fill out the course evaluation please keep this in mind and make an effort to resist stereotypes about professors. Focus on your opinions about the content of the course (the assignments, the textbook, the in-class material) and not unrelated matters (the instructor's appearance) (p. 3).

It is important to note that results of evaluations can carry detrimental outcomes for college professors. Statements like the one above draw attention to the unconscious and unintentional biases that students might possess about women and people of color. The authors of the present study suggest higher education institutions implement similar cues on their SETs to lessen bias that influences the SETs of female faculty and directly and indirectly impacts their career progression.

The results of the second research question examining WFC and gender found mothers are much more likely than men and women that do not have children to experience time- and strain-based conflict due to their balancing of multiple roles. This finding supports the research of Fox et al. (2011) and Torp et al. (2018) who found female faculty members experience higher levels of WFC than male faculty members. It is imperative that administrators focus on addressing work overload to combat WFC and emphasize a culture that is supportive of work-life balance. One mechanism to do this is to create environments in which faculty can perform effectively in both work and nonwork functions. While academia is a profession in which emphasis is placed on productivity, the concept of productivity is commonly subjective. This leads academics to question if they are productive enough to meet expectations or if they need to work more to produce even more than they already have. Providing clear standards of performance would be exceptionally beneficial for faculty members struggling with work-life balance. Rather than constantly worrying about if what they are doing is enough, faculty can instead focus on reaching specific goals and metrics. Facilitating this process will lead to positive organizational outcomes, such as positive work attitudes and increasing levels of organizational commitment (Carlson et al., 2010).

The third research question examined the relationship between gender and POS. The results suggest that men feel more supported by their organizations than women do. While workplace challenges have historically disadvantaged women, organizational support and bias awareness programming can mitigate these hurdles. Research suggests social support lessens the impact of stressors associated with one's job because it serves as a resource to help mitigate the outcomes of stress (Thomas & Ganster, 1995). Thus, higher education institutions should facilitate the formation of social clubs or groups that fulfill this support function. For instance, establishing a women's network in which workshops and training is available to provide resources to address and overcome typical barriers faced by female academics could prove beneficial. More specifically, a network for mothers that are academics could provide an outlet for

those that feel a lack of support from their organizations. Meetings with others going through similar experiences can provide an outlet in which people can share their journeys and provide suggestions on what has worked for them. Trainings, workshops, and other support groups that address the challenges females face in higher education have the potential to increase POS. Increases in POS can, in turn, alleviate WFC through family-supportive policies along with supportive colleagues (Nasurdin & O'Driscoll, 2011).

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