

# Stressed, Interrupted, and Under- Estimated: Experiences of Women and URM Faculty During One Workday

*KerryAnn O'Meara*

*University of Maryland, College Park*

*Liana Sayer*

*University of Maryland, College Park*

*Gudrun Nyunt*

*Northern Illinois University*

*Courtney Lennartz*

*University of Maryland, College Park*

**Abstract:** *In this exploratory, descriptive study, we used time diaries to understand the content and quality of faculty work experiences and interactions (specifically looking at work activities, feelings of stress and being rushed, micro-aggressions and micro-affirmations) and differences in work experiences by gender and race. We found that while all faculty work long hours, women and underrepresented minority (URM) faculty face unique challenges in their work day*

**KerryAnn O'Meara** is a Professor in Higher Education the University of Maryland, College Park.

**Liana Sayer** is a Professor in Sociology at the University of Maryland, College Park.

**Gudrun Nyunt** is a Visiting Assistant Professor in Higher Education at the Northern Illinois University.

**Courtney Lennartz** is a Doctoral Candidate in Counseling, Higher Education and Special Education at the University of Maryland, College Park.

*including spending less time on research (women) and more time on mentoring and advising (URM faculty), experiencing higher levels of time pressure (women), and encountering more micro-aggressions and less micro-affirmations (women and URM faculty).*

**Keywords:** professional interactions, stress, workload, faculty time use

## Introduction

Experiences of time pressure among faculty have increased since the 1990s because of rising expectations regarding teaching, research, and service (Jacobs & Winslow, 2004a, 2004b). Faculty report working long hours and experiencing time pressure, stress, and work/family conflict (Damaske, Ecklund, Lincoln, & White, 2014; Fox, Fonseca, & Bao, 2011). Women and underrepresented minority (URM) faculty may be particularly impacted by time pressure as much research indicates that women and URM faculty spend more time on teaching, mentoring, and service – tasks that are not as highly regarded in academic reward systems – and thus struggle to find time for research (Acker & Armenti, 2004; Baez, 2000; Barrett & Barrett, 2011; Griffin, Pifer, Humphrey & Hazelwood, 2011; Misra, Lundquist, Holmes, & Agiomavritis, 2011; O’Meara, 2016; Rosser, 2004). Women and URM faculty have also been found to have fewer positive professional interactions with colleagues, which further hurts the quality of their work time (Eagan & Garvey, 2015; Holleran, Whitehead, Schmader, & Mehl, 2011; Mackey, 2017; O’Meara, Bennett, & Niehaus, 2016; Ridgeway & Smith-Lovin, 1999). These challenges can lead to lower satisfaction and productivity and can negatively impact career advancement and retention of women and URM faculty (Aguirre, 2000; Gardner, 2012; Turner & Myers, 2000).

The purpose of this exploratory study was to better understand faculty work experiences, overall, and differences by gender, race and ethnicity. We asked faculty to record what they spend their time on as well as reflect on the quality of their work time and interactions over one workday. Specifically, we examined faculty experiences of being rushed and/or stressed and experiences of micro-affirmations and micro-aggressions. Microaffirmations are “tiny acts of opening doors to opportunity, gestures of inclusion and caring, and graceful acts of listening” (Rowe, 2008, p. 4). Microaggressions are the everyday verbal, nonverbal, and environmental slights, snubs, or insults, whether

intentional or unintentional, that communicate hostile, derogatory, or negative messages toward marginalized groups in society (Sue et al., 2007). By examining not just what faculty spend their time on, but the quality of work time and professional interactions, our study strives to provide a more holistic picture of faculty's daily work experiences.

Our study adds to the literature by utilizing a method that is not commonly used to understand faculty – time diaries – to more accurately capture faculty experiences (Henderson, 2018). Our instrument asked faculty to record how they spent their time as well as note small, micro-level work experiences, in real time as they occurred within a 24-hour period. Reporting time allocations and “marking” small professional interactions or daily work experiences that advantage some groups and disadvantage others is difficult. Past research has used annual faculty surveys, interviews, and focus groups, which require that faculty recall time allocations and experiences that could have occurred up to 6 months or a year before. Participants are typically asked to provide a global sense of the climate or work experience, for example by exploring views on faculty's “fit” within their departments or overall impressions of the fairness of workload allocations. These types of questions require the participant to merge many small experiences into one larger, general sense of their workload or environment. While such methods can provide important insights into faculty's perceptions of work experiences, they do not allow for a more immediate and careful accounting of work activities and micro-interactions as they occur.

This study has important implications for practice as how faculty spend their time as well as faculty's experiences of feeling stressed or rushed, affirmed and supported by colleagues, or excluded and under-estimated in their work have been found to impact stress levels, job satisfaction, time to promotion, and retention (Jacobs & Winslow, 2004a, 2004b; Rosser, 2004). Better understanding these experiences – and differences by gender, race, and ethnicity – is thus essential for efforts to create more equitable and inclusive academic workplaces. In addition, while the focus of most diversity and inclusion work relates to understanding the experiences of the marginalized, understanding the experiences of the privileged – those affirmed by colleagues and more satisfied with their workday – is also instructive. A study such as this helps to unveil different nuances in how women and men, and URM and white faculty

move through their workday and thus allows for a better understanding of the range of faculty experiences.

## **Guiding Perspectives**

Psychological and sociological research on time pressure and social psychological research on micro-aggressions and affirmations guided our study. In this section we outline research and theory from each area.

### **Time Pressures and Their Consequences**

Experiencing time pressure at work is not unique to faculty experiences. Job pressure, or feeling that one has to work quickly and without sufficient time to do all work tasks, is experienced by 9 of 10 American workers (Schieman, 2013). While time pressure experienced over a short period of time (e.g., before a deadline) can act as a motivator, long-term exposure to time pressure has been found to have negative effects on work engagement (Baethge, Vahle-Hinz, Schulte-Braucks, & van Dick, 2018). College educated professionals, who are more likely to experience flexibility and autonomy in their schedules, tend to work particularly long hours defined as 50 or more hours a week (Jacobs & Gerson, 2004; Ziker et al, 2014). Not surprisingly, college educated professionals also report higher levels of job pressure and time binds that result from the blurring of spatial and temporal work and home boundaries and roles. In one study, women, overall, were more likely than men (29 compared to 17 percent respectively) to feel stressed and experience the psychological consequences of work-family tension that can leave them feeling emotionally drained at the end of the workday (Jacobs & Gerson, 2004).

Stress process theory hypothesizes that a mismatch between time resources and role demands reduces subjective perceptions of control and increases chronic stress (Moen & Roehling, 2005; Pearlin, Schieman, Fazio, & Meersman, 2005). The range of health behaviors and outcomes affected by stress include lack of exercise (Nomaguchi & Bianchi, 2004; Stults-Kolehmainen & Sinha, 2014), disrupted sleep (Burgard & Ailshire, 2013; Maume, Sebastian, & Bardo, 2010), poor eating habits (Allen & Armstrong, 2006; Skead, Rogers, & Doraisamy, 2018), and anxiety and depression (Conway, Rutter, & Brown, 2016; Skead et al., 2018; Wang, Lesage, Schmitz, & Drapeau, 2008). Reduced work stress

and work/family conflict not only improves overall health but has also been associated with improved work-related outcomes (Kelly et al., 2008). Thus, understanding feelings of stress and being rushed is important to supporting not only the well-being but also the productivity and career advancement of individuals.

Our review of the psychological and sociological research on time pressure indicated that to gain a more holistic picture of faculty members' work experiences, our study needed to explore not only the number of hours faculty work and the types of activities faculty engage in but also faculty's experiences of stress and time pressure.

### **Micro-affirmations and Micro-aggressions**

In addition to experiences of time pressure, we were interested in small daily experiences of micro-affirmations and micro-aggressions. Micro-affirmations, or small acts of support, recognition, or inclusion occur when people wish to help others succeed and can positively impact individuals' experiences (Cohen, Garcia, Apfel, & Master, 2006; Rowe, 2008). Common micro-affirmations, well documented in the social psychological literature are having your opinions and thoughts matter to colleagues, receiving helpful feedback, receiving recognition for accomplishments, and being made to feel like an insider by virtue of inclusion in professional interactions and networks (Rowe, 2008; Scully & Rowe, 2009).

Micro-aggressions, brief, everyday exchanges that send denigrating messages to individuals because of their membership in marginalized identity groups, may be unconsciously delivered and often take the form of subtle slights, snubs, and questions about one's ability and belonging (Solorzano, Allen, & Carroll, 2002; Solorzano, Ceja, & Yosso, 2000; Sue et al., 2007). Common micro-aggressions are being interrupted or spoken over at meetings, others taking credit for your ideas, having your expertise, knowledge, or skills under-estimated, and being excluded from networks, groups, or activities (Solorzano et al., 2002; Solorzano et al., 2000; Sue et al., 2007).

Much experimental work in psychology has documented experiences of micro-aggressions and micro-affirmations, especially by race and gender that shape perceptions of faculty accomplishments, identification of

individuals as competent, and professional interactions (Gutiérrez y Muhs, Niemann, González, & Harris, 2012; Knobloch-Westerwick, Glynn, & Huges, 2013; Steinpreis, Anders, & Ritzke, 1999). For example, after video-recording 119 job talks for engineering faculty, Blair-Loy et al. (2017) found that women candidates were interrupted more than men candidates. URM faculty report micro-aggressions from White colleagues and students such as colleagues assuming faculty of color are incompetent (Pittman, 2012; Solorzano, 1998; Sue et al., 2007).

Micro-inequities and discrimination in professional interactions can negatively impact faculty's productivity, commitment to the institution, satisfaction, and retention (Eagan & Garvey, 2015; Holleran et al., 2010; Mackey, 2017; O'Meara et al., 2016). For example, in a survey study of associate professors from 50 universities, Mackey (2017) found that professional interactions in the work environment served as a key explanatory factor in faculty organizational commitment and satisfaction, as well as intent to leave. A lack of positive professional interactions at work also means a lack of social capital, as positive professional interactions are not only helpful as interpersonal support but carry with them career sponsorship, mentoring, information, and allies in faculty careers (Ridgeway & Smith-Lovin, 1999).

Micro-inequities are also linked to experiences of time pressure and stress. Hutchins and Rainbolt (2017) found that academic faculty experience measurable psychological stress when their professional legitimacy and expertise is questioned. Stress based on micro-inequities may be particularly common for women and faculty of color. Hurtado, Eagan, Pryor, Whang, and Tran (2012), for example, found that women were twice as likely as men to report experiencing stress due to subtle discrimination from faculty colleagues, and Black faculty were two and a half times as likely. Just like time pressure and stress, micro-inequities and discrimination can, over time, cause health problems, dissatisfaction, and faculty departure (Gardner, 2012; Griffin et al., 2011; Stout, Staiger, & Jennings, 2007). Thus, any study trying to gain a more holistic picture of faculty work experiences, and particularly the quality of these experiences, needs to consider the frequency of micro-aggressions and micro-affirmations.

Based on our review of the literature, we decided to explore the content and quality of daily work experiences by focusing on overall time spent

at work, time allocation to different tasks, feelings of stress and rush, and experiences of micro-affirmation and aggression. The research questions that guided this study were:

- During their reported workday, how much time did faculty report spending at work?
- During their reported workday, what tasks did faculty engage in (research vs. teaching vs. service) and for how long?
- During their reported workday, did faculty report being rushed and stressed?
- During their reported workday, did faculty report micro-aggressions or micro-affirmations?
- How, if at all, did these experiences differ by gender, race, and rank?

## Methods

### Research Design

To understand the content and quality of faculty work experiences over a randomly chosen workday, we asked faculty to complete a 24-hour time diary and answer a set of questions about their experiences on that day. Time diaries are common among economists and sociologists striving to understand how people spend their time (Aguiar & Hurst, 2007; Jacobs & Gerson, 2001; Sayer, 2005). Time diaries have provided insights into the in- and out-of-class experiences of college students (George, Dixon, Stansal, Gelb, & Pheri, 2008; Jacobsen & Forste, 2011; Mokhtari, Reichard, & Gardner, 2009) but have been used less often to study faculty work experiences (for exceptions see Ziker, 2014 and O'Meara, Kuvaeva, Nyunt, Jackson, & Waugaman, 2017).

Participants in our study were asked to reflect on a single workday one day after it occurred. Our instrument, which was developed in partnership with the Maryland Time Use Lab (MTUL) at the University of Maryland, allowed us to collect information on all activities, their location, and co-presence of others, on the diary day. This method

provides a comprehensive assessment of temporal dimensions of all daily experiences and interactions with others and is less subject to recall and social desirability bias compared to cross-sectional national surveys (Juster, Ono, & Stafford, 2003). We piloted our instrument in a previous study with 111 associate and full professors at 13 universities and used feedback from this earlier pilot to make minor revisions to our survey instrument. For example, we made edits to improve the flow between questions and clarified eligibility language to state that non-tenure track faculty were invited to participate if they were full time.

In addition to tracking time use, participants were also asked to respond to a set of questions focused on the quality of work experiences that day. Specifically, we had two survey items on feeling rushed and stressed, which were developed from surveys conducted routinely on stress by the American Psychological Association (2012), the Pew Research Center (2017), and the American Institute of Stress (2018). We also included four survey items on micro-aggressions and four on micro-affirmations. To develop these items, we identified a long list of potential micro-aggressions and affirmations based on an extensive literature review. We then prioritized and ultimately included in our study micro-aggressions and micro-affirmations that (a) have been most commonly documented in previous studies of organizational life (Gutiérrez y Muhs et al., 2012; O'Meara, Templeton, & Nyunt, 2018; Solorzano, 1998), (b) have been found to have the greatest effect on stress (Eagan & Garvey, 2015), and/or (c) are most salient for faculty trying to earn legitimacy and recognition in a college/university environment (O'Meara et al., 2018). The survey items related to micro-aggressions included being interrupted in a meeting, having someone else take credit for your ideas, having your knowledge or skills under-estimated, and not being included in a group or activity. For micro-affirmations, we used survey items regarding having one's ideas and opinions matter to colleagues, receiving helpful feedback, receiving recognition of one's work by colleagues or students, and feeling like an insider.

## **Participant Selection**

After receiving approval from our Institutional Review Board, we sent an email message explaining the study purpose and format to academic administrators via the American Association of State Colleges and Universities network and NSF-funded ADVANCE programs, both



groups that have an interest in faculty careers, diversity, and inclusion. We offered to provide aggregate reports of the data to allow institutions to better understand the experiences of their faculty, which we did within four months of completing data collection. Institutional liaisons (primarily associate provosts, institutional researchers and/or deans) from 16 public 4-year institutions expressed interest in the study. Liaisons provided us with email addresses of their full-time faculty, an N of 6,712. We invited all 6,712 faculty via e-mail to participate. Institutional liaisons also sent their own messages to further encourage participation.

Our response rate was 12.5%. Of the 835 participants, 57% were women and 43% were men; and the majority (87%) identified as White.

Table 1

<i>Participant Demographics</i>		
Demographics	Invited Faculty	
	<i>N</i>	%
<b>Total</b>	835	100.0
<b>Gender</b>		
Women	476	57.0
Men	358	42.9
Other	1	0.1
<b>Marital Status</b>		
Married or Cohabiting	635	80.1
Single (Divorced, Separated, Widowed, Never Married)	162	19.9
<b>Race/Ethnicity</b>		
White Only	726	86.95
Asian	43	5.15
Multiracial	21	2.51
Black/African American	18	2.16
American Indian/Alaskan Native	3	0.36
Hawaiian and other Pacific Islander	2	0.24
Spanish, Hispanic, or Latino	22	2.63
URM total (includes Black/African American, American Indian/Alaskan Native, Hawaiian and other Pacific Islander, and Spanish, Hispanic, or Latino)	66	7.90
<b>Rank</b>		
Tenure Track: Assistant Professor	212	25.4
Tenure Track: Associate Professor	188	22.5
Tenure Track: Full Professor	219	26.2
Non-Tenure Track and Other Faculty (including Librarians)	216	25.9

The sample included Assistant (25%), Associate (23%), Full (26%), and full-time non-tenure track/ other faculty (26%). See Table 1 for detailed demographics of participants.

## **Data Analysis**

We first calculated descriptive statistics to determine participant demographics and overall faculty responses on questions of worktime, work stress, being rushed, micro-aggressions and micro-affirmations. Next, we conducted one-way ANOVA analyses, a statistical procedure used to test whether the means of different sub-groups are equal. We used our ANOVA analyses to determine significant differences in our dependent variables – worktime, time spent on research vs. teaching/mentoring vs. service, experiences of stress and being rushed, working alone or with colleagues, micro-affirmations and micro-aggressions – during one faculty workday by rank, gender, and race (independent variables). For categories with multiple sub-groups (rank: assistant, associate, full, and non-tenure track/other faculty; and race: White, underrepresented minority, Asian), we conducted a post-hoc Tukey test (Gaur & Gaur, 2006) to understand where differences lie.

In our analysis for race, we looked at differences between White, underrepresented minority, and Asian faculty. We used the National Science Foundation’s definition of underrepresented minority (URM) faculty, which includes African Americans, Hispanics, American Indians, Alaska Natives, and Native Hawaiians or other Pacific Islanders. Three percent of faculty identified as multiracial. Because our survey did not allow for participants to clarify their racial/ethnic background within multiracial, we could not determine whether they would fit our URM category. Thus, we excluded these participants from the analysis.

## **Limitations**

Our study has several limitations. First, and most obviously, our study has a self-selected sample and a low response rate. As such, we acknowledge the potential for non-response bias. Faculty participated on a voluntary basis and we could only examine responses of those who agreed to participate. We therefore do not know if a certain type of person may be more likely to respond to this type of survey. Compared to national statistics (NCES 2017), women were slightly overrepresented

in our sample (NCES reports women faculty make up 46% of full-time faculty; of our participants, 57% were women). Non-tenure track/ other faculty were underrepresented compared to national statistics (26% of our participants compared to 54% nationally), but our breakdown of Assistant, Associate and Full Professors was comparable (25%, 23%, and 26% in our survey compared to 22%, 19%, and 22% nationally) (NCES, 2017). URM faculty were underrepresented (according to NCES 2017 data, URM faculty made up 20% of all full-time faculty at post-secondary institutions; among our survey participants, 8% identified as URM).

As has been found in previous research, it is challenging to solicit participation from email requests. The Pew Research Center (2012) reported that response rates for all types of surveys have declined in the United States and abroad. For example, response rates for telephone surveys dropped from 36% in 1997 to 9% in 2012 (Pew Research Center, 2012). However, studies have shown positive results for the basic generalizability of data from similar types of daily surveys with embedded 24-hour time diaries with small and unrepresentative samples (see for example, Robinson, 1999).

Our exploratory study provides insights into faculty time use, experiences of feeling rushed and stressed and of encountering micro-aggressions and affirmations at public 4-year institutions that can be further tested with a larger, more random sample in the future. Framed a different way, we were able to examine the quality of work experiences of 835 full-time faculty at 16 institutions. The sixteen 4-year public institutions were diverse in type, size, and location: Two were baccalaureate colleges, three were doctorate granting universities, 10 were masters institutions, and one was an international university. Our sample included tenure-track and non-tenure track faculty and our breakdown by rank was representative of national statistics. As such, our data provides a unique, descriptive snapshot of faculty worktime and experiences at 4-year public institutions, collected in real time that has been rare in higher education research.

## Findings

In this finding section, we first share how faculty participants, on average, spent their time and how often they experienced stress, feeling rushed, as well as microaggressions and microaffirmations. We then share findings regarding differences related to rank, gender, and race.

Overall, faculty spent an average of 11 hours and 29 minutes at work on the day of the survey ( $SD=3:17$ ). Faculty spent most of their time on teaching (5 hours 34 minutes,  $SD=2:13$ ), followed by research (1 hour 19 minutes,  $SD=2:13$ ), campus service (1 hour 21 minutes,  $SD=2:20$ ), advising and mentoring (35 minutes  $SD=1:28$ ), and disciplinary and professional service (7 minutes,  $SD=0:31$ ). Faculty also spent 1 hour and 4 minutes on other work-related activities ( $SD=2:04$ ) (see Table 2a). The amount of time spent on teaching (5 hours 34 minutes) compared to any other categories (research being next with 1 hour 19 minutes) indicates that teaching was the main activity our faculty participants engaged in during their workday.

Table 2a

Overall Participant Descriptive Statistics on Worktime and Work Activities ( $N=835$ )

Activity	<i>M</i>	<i>SD</i>
Overall Worktime	11:29	3:17
Time Spent on Research	1:19	2:13
Time Spent on Teaching Activities	5:34	3:54
Time Spent on Advising and Mentoring	0:35	1:28
Time Spent on Disciplinary and Professional Service	0:07	0:31
Time Spent on Campus Service	1:21	2:20
Time Spent on Other Work-Related Activities	0:35	1:19
Time Spent on Work-Related Travel	1:04	1:16

Next, we highlight work experiences of our faculty participants related to stress, feeling rushed, micro-aggressions, and microaffirmations (see Table 2b). During the workday, 71% of respondents experienced moderate to considerable stress. More than half (55%) of the participants indicated that they sometimes felt rushed as they went throughout their day; 32% almost always felt rushed (see Table 2b).

Most participants did not experience any of the four micro-aggressions we asked about during the recorded workday. However, 21% reported

being interrupted or spoken over at a meeting and 19.8% reported that their expertise, knowledge, or skills were under-estimated (see Table 2b). Thus, while, overall, participants had more positive work experiences related to micro-aggressions, over one fifth of faculty participants did experience certain microaggressions during that specific workday.

Results regarding micro-affirmations were mixed. The majority of participants believed that their opinion and thoughts mattered in a discussion or interaction with colleagues that day (61%) and felt like an insider at work (62%). Just under half of respondents (41%) reported receiving recognition of their work by colleagues or students (on or off-campus) during their workday and 33% of faculty reported that they received helpful feedback on the day of the time diary (see Table 2b).

Thus, many of our faculty participants were affirmed during their workday at least in the global sense of feeling like an insider and having opinions and thoughts that they perceived mattered to others. Perhaps because recognition and feedback require more specific types of work experiences, such as meetings, presentations, and/or discussion with colleagues, and these work experiences might not happen every day, there was less reporting of them. It could also be true that as academic life has become more rushed and focused on somewhat bureaucratic tasks there are fewer opportunities for these micro-affirmations to occur. The reason for the difference in the types of micro-affirmations experienced is not possible to know from this one view of this data.

Table 2b

*Overall Participant Descriptive Statistics on Work Stress, Feeling Rushed, and Micro-Aggressions and Micro-Affirmations*

Survey Item	Response	N	%
<b>Stress (N=821)</b>			
In general, how much stress did you experience from your job during this day?	No stress	22	2.7%
	Little stress	218	26.6%
	Moderate stress	456	55.5%
	Considerable stress	125	15.2%
<b>Feeling rushed (N=817)</b>			
As you went through your day, would you say you...	Almost always felt rushed	264	32.3%
	Sometimes felt rushed	452	55.3%
	Almost never felt rushed	101	12.4%
<b>Micro-aggressions (N=823)</b>			
I was interrupted or spoken over at a meeting.	No	650	79%
	Yes	173	21.0%
Someone else took credit for my ideas.	No	770	93.6%
	Yes	53	6.4%
My expertise, knowledge, or skills were underestimated.	No	660	80.2%
	Yes	163	19.8%
I was not included in a group or activity when I wanted to be.	No	769	93.4%
	Yes	54	6.6%
<b>Micro-affirmations (N=823)</b>			
It was clear that my opinion and thoughts mattered in a discussion or interaction with colleagues	No	321	39.0%
	Yes	502	61.0%
I received helpful feedback today.	No	549	66.7%
	Yes	274	33.3%
I received recognition of my work by colleagues or students (on or off-campus)	No	485	58.9%
	Yes	338	41.1%
I felt like an insider at work, like I belong.	No	317	38.5%
	Yes	506	61.5%

Thus, many of our faculty participants were affirmed during their workday at least in the global sense of feeling like an insider and having opinions and thoughts that they perceived mattered to others. Perhaps because recognition and feedback require more specific types of work experiences, such as meetings, presentations, and/or discussion with colleagues, and these work experiences might not happen every day, there was less reporting of them. It could also be true that as academic life has become more rushed and focused on somewhat bureaucratic tasks there are fewer opportunities for these micro-affirmations to occur. The reason for the difference in the types of micro-affirmations experienced is not possible to know from this one view of this data.

## Differences by Rank

Next, we share responses from our ANOVA analyses regarding differences by rank, gender, and race. As would be expected, among our participants non-tenure/other track faculty spent significantly less time on research than tenure-track assistant, associate, and full professors (29 minutes compared to 1:43, 1:19, and 1:42, respectively) and significantly more time on teaching than tenure-track associate, and full professors (6:26 compared to 5:07, and 5:09, respectively). Non-tenure track/other faculty spent significantly less time on disciplinary service than tenure-track full professors (0:03 compared to 0:11, respectively) as well as significantly less time on campus service than tenure-track associate and full professors (1:05 compared to 1:49 and 1:44, respectively). Non-tenure track/other faculty also reported significantly less stress and indicated feeling less rushed than tenure-track assistant professors (2.72 compared to 2.95, respectively, for stress; 1.88 compared to 1.71, respectively, for feeling rushed with lower means indicating feeling rushed more often).

With regard to tenure-track faculty at different ranks (see Table 3a), full professors spent significantly more time in work-related activities (overall) than assistant professors (11:57 compared to 11:07, respectively). There were no statistically significant differences between assistant, associate, and full professors with regard to time spent on research, teaching, advising and mentoring, and disciplinary service. However, assistant professors spent significantly less time on campus service than associate and full professors (0:50 compared to 1:49 and 1:44, respectively). Though full professors, overall, spent more time in work-related activities than assistant and associate professors, the level of stress and experiences of feeling rushed during participants' workday decreased as rank increased, though differences were not statistically significant. There were no statistically significant results for micro-aggressions or micro-affirmations observed by rank (see Table 3b).

Table 3a

*Significant Differences in Worktime and Work Activities by Rank*

Activity		Mean	SD	df	F-value	p-value
Overall Worktime	Assistant	11:07*	3:00	3 834	3.169	0.024
	Associate	11:40	3:15			
	Full	11:57*	3:24			
	Non-Tenure-Track/Other Faculty	11:12	3:22			
Time Spent on Research	Assistant	1:43***	2:24	3 834	15.518	<0.001
	Associate	1:19**	2:15			
	Full	1:42***	2:22			
	Non-Tenure-Track/Other Faculty	0:29***	1:18			
Time Spent on Teaching Activities	Assistant	5:30	3:23	3 834	5.288	0.001
	Associate	5:07**	3:44			
	Full	5:09**	4:15			
	Non-Tenure-Track/Other Faculty	6:26**	4:00			
Time Spent on Disciplinary or Professional Service	Assistant	0:07	0:31	3 834	2.714	0.044
	Associate	0:07	0:30			
	Full	0:11*	0:40			
	Non-Tenure-Track/Other Faculty	0:03*	0:16			
Time Spent on Campus Service	Assistant	0:50***	1:35	3 834	8.961	<0.001
	Associate	1:49***	2:39			
	Full	1:44***	2:22			
	Non-Tenure-Track/Other Faculty	1:05*	2:27			

\*p<.05 \*\*p<.01 \*\*\*p<.001 (based on Tukey post-hoc results)

Overall, differences by rank indicated that our participants' experiences matched expectations for each rank and position type: Assistant professors were protected from campus service but experienced more stress and indicated feeling more rushed, presumably due to requirements related to achieving tenure; tenure-track faculty spent more time on research and less time on teaching than non-tenure track faculty, which aligns with position requirements for the different types of positions; and moving up in rank reduced feelings of stress and being rushed.



Table 3b

*Significant Differences in Work Stress, Rush, Micro-Aggressions and Micro-Affirmations by Rank*

Survey Item		Mean	SD	df	F-value	p-value
<b>Stress</b>						
In general, how much stress did you experience from your job during this day?	Assistant	2.95**	.717	3 819	4.351	0.005
	Associate	2.88	.668			
	Full	2.78	.726			
	Non-Tenure-Track Faculty	2.72**	.685			
<b>Rushed<sup>1</sup></b>						
As you went through your day, would you say you...	Assistant	1.71*	0.647	3 815	3.772	0.010
	Associate	1.74	0.623			
	Full	1.87	0.651			
	Non-Tenure-Track Faculty	1.88*	0.615			

<sup>1</sup>Lower means indicate feeling rushed more often.

\*p<.05 \*\*p<.01 \*\*\*p<.001

## Differences by Gender

Our ANOVA analyses did not indicate statistically significant differences in overall worktime by gender. Women participants, however, spent significantly less time on research than men (1:07 compared to 1:33, respectively; see Table 4a).

Table 4a

*Significant Differences in Worktime and Work Activities by Gender*

Activity		Mean	S.D.	df	F-value	p-value
Time Spent on Research	Women	1:07	2:00	2 832	4.178	0.016
	Men	1:33	2:23			

We found statistically significant differences regarding quality of work time (see Table 4b). Women were more likely to experience stress during their workday than men (2.88 compared to 2.76, respectively) and were more likely than men to feel rushed throughout the day (1.73 vs 1.90, respectively). Women also experienced more instances of micro-aggressions than men in three of the four experiences we asked about including being interrupted or spoken over at a meeting (0.24 v. 0.17),

someone else taking credit for their ideas (0.08 v. 0.04), and their expertise, knowledge, or skills being under-estimated (0.23 v. 0.16).

Among our participants, women thus seem to spend less time on work activities important for promotion (research) and encounter more negative experiences (stress, feeling rushed, micro-aggressions) during their workday.

Table 4b

*Significant Differences in Work Stress, Rush, Micro-Aggressions, and Micro-Affirmations by Gender*

Survey Item		Mean	S.D.	df	F-value	p-value
<b>Stress</b>						
In general, how much stress did you experience from your job during this day?	Women	2.88	0.701	2	5.883	0.016
				817		
	Men	2.76	0.705			
<b>Rushed<sup>1</sup></b>						
As you went through your day, would you say you...	Women	1.73	0.628	2	15.074	<0.001
				813		
	Men	1.90	0.639			
<b>Micro-aggressions &amp; Micro-affirmations</b>						
I was interrupted or spoken over at a meeting	Women	0.24	0.428	819	5.886	0.014
	Men	0.17	0.377			
Someone else took credit for my ideas	Women	0.08	0.271	819	4.013	0.038
	Men	0.04	0.207			
My expertise, knowledge, or skills were under-estimated	Women	0.23	0.419	819	5.030	0.023
	Men	0.16	0.370			

<sup>1</sup>Lower means indicate feeling rushed more often.

\*p<.05 \*\*p<.01 \*\*\*p<.001

## Differences by Race

Our ANOVA analyses did not indicate statistically significant differences by race for overall worktime. URM faculty and White faculty spent significantly less time on research than Asian faculty (1:03 and 1:15 compared to 2:45, respectively). URM faculty spent significantly more time advising and mentoring students than White and Asian faculty (1:08 compared to 0:34 and 0:31, respectively; see Table 5a).

Table 5a

<i>Significant Differences in Worktime and Work Activities by Race</i>						
Activity		Mean	SD	df	F-value	p-value
<b>Time Spent on Research</b>	White	1:15***	2:11	2 835	9.696	<.001
	URM faculty	1:03**	1:41			
	Asian	2:45***	2:42			
<b>Time Spent on Advising and Mentoring</b>	White	0:34*	1:23	2 835	3.290	0.038
	URM faculty	1:08*	2:47			
	Asian	0:31	0:56			

\*p<.05 \*\*p<.01 \*\*\*p<.001

There were no significant differences by race observed regarding feeling stressed or rushed throughout the day. There were however statistically significant differences by race for micro-aggressions and micro-affirmations (see Table 5b). URM faculty were more likely to report being interrupted or spoken over at a meeting than White faculty (0.36 compared to 0.22, respectively). White faculty were more likely to report that their opinion and thoughts mattered in a discussion or interaction with colleagues than Asian faculty (0.63 compared to 0.39, respectively).

Table 5b

<i>Significant Differences in Work Stress, Rush, Micro-Aggressions, and Micro-Affirmations by Race</i>						
Survey Item		Mean	SD	df	F value	p-value
<b>Micro-agressions &amp; Micro-affirmations</b>						
I was interrupted or spoken over at a meeting	White	0.20*	0.403	2 822	3.167	0.043
	URM faculty	0.36*	0.484			
	Asian	0.17	0.381			
It was clear my thoughts mattered in a discussion or interaction with colleagues	White	0.63**	0.484	2 822	2.787	0.006
	URM faculty	0.53	0.505			
	Asian	0.39**	0.494			

\*p<.05 \*\*p<.01 \*\*\*p<.001

Thus, among our participants, URM faculty seem to spend less time on activities important for promotion (research) and more time on activities less valued in promotion processes (advising and mentoring). URM

faculty also encounter more negative experiences (micro-aggressions) throughout their workday. Asian faculty participants, on the other hand, spend more time on activities important for promotion (research) but also encounter more negative work experiences (micro-aggressions) than White faculty.

## **Discussion and Implications**

In this exploratory, descriptive study that used time diaries we sought to understand the content and quality of faculty work experiences on one randomly chosen workday. The time diary allowed participants to record work activities and the quality of their work experiences at a micro-level of detail, right after the work had happened. Although we were interested in the findings overall, we were particularly curious about whether we would find differences in daily work experiences by gender and race similar to those documented in more global assessments of work-life and climate (Eagan & Garvey, 2015; Gardner, 2012; Hart & Cress, 2008; Turner & Myers, 2000).

Time was an issue, in general, for participants. Our 835 faculty reported a long workday, which, on average, lasted 11 hours and 29 minutes. This finding is consistent with other literature that indicates faculty work over 60 hours a week (Misra, Lundquist, & Templer, 2012; Ziker et al., 2014). Tenure-track full professors reported spending significantly more time on work than tenure-track assistant professors. Full professors' increased work hours may be related to increased administrative and service responsibilities (Misra et al., 2012). This difference may also be due to assistant professors being protected from some service responsibilities, and more likely to have young children and other responsibilities outside of work. Previous research on faculty and parenthood found that faculty with young children spend less time on work than faculty with no or older children (Jacobs & Winslow, 2004a; Misra et al., 2012). Misra et al. (2012) further found that though full professors report the highest employment hours, they have the fewest combined hours of paid work, care, and housework.

While gender and race did not seem to impact overall work time, we found significant differences by gender and race, as well as rank, in the amount of time faculty spent on different types of work activities. Consistent with prior research we found women faculty engaged in less

research than men (Link, Swann, & Bozeman, 2008; Misra et al., 2012; Winslow, 2010), URM faculty involved in more mentoring and advising than other groups (Hurtado & Figueroa, 2013; Turner, Gonzalez, & Wong, 2011; Turner & Myers, 2000), and assistant professors somewhat protected from campus service (Ponjuan, Conley, & Trower, 2011; Trower, 2012). Our findings regarding race and gender are concerning as not all types of faculty activities are rewarded equally in faculty advancement. If women faculty are spending less time on research activities, and research is valued most for advancement, they are likely to take longer to advance, and may be more likely to leave the institution out of frustration with differential workloads (Barrett & Barrett, 2011; Misra et al., 2011; Stout et al., 2007). Likewise, while URM faculty may exercise critical agency by enacting commitments to students through engaging in more mentoring than White and Asian faculty peers (Baez, 2000; Griffin et al., 2011), this additional time spent on unrewarded activities may create a disadvantage toward advancement.

Our findings further highlight that race, gender, and rank not only influence the type of activities faculty engage in but also the quality of their work time. Overall, participants in our study experienced a lot of time pressures with 71% experiencing moderate to considerable stress and 88% feeling rushed sometimes to almost always during our randomly selected workday. Considering the long hours faculty worked that day, this finding is not surprising. Finding enough time to “do work” has been found to be a predominant source of stress for faculty, and time pressure has only increased since the 1990s due to increased demands on faculty time (Jacobs & Winslow, 2004a, 2004b). While many of our participants experienced feelings of stress and being rushed, these experiences were particularly prominent among tenure-track assistant professors and women. The experiences of faculty on the tenure track, particularly for new faculty, are characterized by stress, pressure, and uncertainty (Austin, 2002; Olson & Sorcinelli, 1992) and our study likewise found that tenure-track assistant professors felt significantly more stressed than non-tenure track faculty and levels of stress decreased as rank on the tenure track increased. Women faculty were also more likely than men to report feeling stressed and rushed during their workday, which was consistent with previous findings regarding the experiences of women on the tenure track (Acker & Armenti, 2004; Hart & Cress, 2008).

Although the quality of many of our participants' workdays suffered due to time pressure, our study tells a more positive story with regards to micro-affirmations and micro-aggressions, at least overall. None of the four micro-aggressions were experienced by more than 21% of participants. More than 60% of the 835 participants felt like an insider at work and felt that their opinions mattered, and over 40% received positive recognition during that one workday. This data presents an overall picture of workplace interactions that are more positive than negative.

However, consistent with prior research (Louis et al., 2016; Pittman, 2012; Solorzano, 1998; Yang & Carroll, 2016), women and URM faculty reported experiencing more instances of microaggressions and less microaffirmations. Specifically, women were more likely than men to experience three out of the four microaggressions; White faculty were more likely than Asian faculty to report feeling that their thoughts mattered with colleagues; and URM faculty were more likely to report being interrupted or spoken over at a meeting than their White peers. Thus, not only did women and URM faculty spend more time on less rewarded activities, they also experienced more stress and more negative professional interactions during their work time than men and/or White faculty, lowering the overall quality of their work time.

Our findings, overall, provide important and concerning insights into the work experiences of women and URM faculty. Throughout a workday, women and URM faculty participants experienced many disadvantages – from spending more time on less rewarded activities, to experiencing higher levels of stress, to encountering more micro-aggressions and fewer micro-affirmations. These findings are consistent with previous studies of faculty work experience and taken together, may explain lower levels of retention and advancement into higher ranks in academia (Eagan & Garvey, 2015; Hart & Cress, 2008). Disadvantages can also be linked to power. Time is a valuable resource in academic careers (O'Meara, 2016) and as Winslow (2010) has pointed out, time is power. Those with more power in academe tend to have more say in how they spend their workday and are thus able to engage in activities that are more rewarded and valued. Similarly, the quality of one's work time and one's professional interactions with colleagues also reflect one's power in a given work environment (Gutiérrez y Muhs et al., 2012).

Having your opinion count in a meeting and your voice not interrupted is likely to indicate that one has a certain amount of power within their work environment, while those encountering micro-aggressions are likely to have less power (Cortina, 2008; Young, Anderson & Stewart, 2014). Power is also closely related to faculty's pursuit of legitimacy – with high levels of stress and negative work experiences both explaining lower levels of legitimacy and helping to cause them. Legitimacy, however, is an important currency in higher education institutions (O'Meara et al., 2018). Lower levels of legitimacy can have serious implications for retention, advancement, and career success (Eagan & Garvey, 2015; Hurtado et al., 2012; O'Meara et al., 2018; Turner et al., 2011). Thus, to improve women and URM faculty's retention, advancement, and career success, all of the disadvantages identified in our study – which are linked to as well as reinforce power differences – need to be addressed including workload, the types of activities faculty spend their time on, as well as the quality of faculty's work time.

Our findings have several practical implications. First, these data provide yet another record of the increasing pressures on all faculty to work long hours and the stress associated with those demands. Campus leaders interested in promoting the long-term retention, morale, health and well-being of their faculty need to consider ways to allow faculty to “turn off” work. Second, time pressures and uncertainty in one's ability to achieve work-life balance have been connected to fewer graduate students indicating interest in pursuing academic careers (Austin, 2002). The drop-off in doctoral students' intentions to pursue careers in academia is particularly pronounced for women and URM doctoral students (Gibbs, McGready, Bennett, & Griffin, 2014; Posselt, Porter, & Kamimura, 2018), which is not surprising considering the added disadvantages women and URM faculty experience. These challenges thus need to be addressed, if academia wants to attract a more diverse group of future faculty. Third, as academic leaders and faculty colleagues work to create more inclusive academic environments, they need to consider various aspects of the work environment that influence one's quality of work time. It matters how workloads are distributed, who is affirmed and listened to in meetings, who is spoken over or interrupted, and how professional interactions transpire on a micro-level. Campus leaders should work with their faculty to engage in trainings on ways to shape more inclusive, equitable academic environments.

With regard to implications for future research, we believe this work should be replicated with a larger sample and with a larger number of examples of potential micro-affirmations and micro-aggressions, as well as other potential influences on one's quality of work time. The more that is known about the factors that influence one's work experiences (including workload, work activities, and quality of work time) the more that academic administrators and faculty can design effective trainings and provide support to create more inclusive departments. As our exploratory study indicates, faculty are experiencing micro-aggressions, stress and power differentials in how they spend their time every day. It is important to mark and account for these differences in order to reduce them.

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