

# THE TICK TOCK OF THE TENURE CLOCK

A Thesis

by

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## ABSTRACT

Tenure is the focal career goal for any tenure-track assistant professors and the probationary period—the time between hire and mandatory review for tenure—is often rather short, usually 5-7 years. Any setback or challenge to productivity during that time could derail an otherwise promising career. In response to this problem, universities have developed tenure clock extension policies. Despite the increased implementation of flexible tenure clock policies, the effects of these policies on job outcomes and well-being are not yet understood.

The present study examines the link between tenure clock extension status and multiple job attitudes including job satisfaction, burnout, turnover intentions as well as psychological well-being. The extent to which these relationships are influenced by the sex of the faculty member, whether the faculty member works in a science, technology, engineering or math (STEM) or nonSTEM department, and the faculty member's perception of the family-supportiveness of their department are also examined. Survey data from faculty members revealed that faculty who extended the clock have less psychological well-being compared to those who did not extend, and that family-supportive organizational perceptions did not moderate this relationship. Further, women were found to have more negative job attitudes and psychological well-being compared to men regardless of tenure clock extension and STEM status, and STEM faculty reported higher turnover intentions than nonSTEM faculty. Implications for university

policies and future tenure clock research are discussed.

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## INTRODUCTION

Assistant professors strive for the goal of achieving tenure; job security typically accompanies tenure, making it a highly regarded goal to work toward. The time between hire and mandatory review for tenure is usually only 5-7 years. Any events that delay progress toward tenure could end an otherwise promising career. Therefore, many universities have developed policies for extending the tenure clock, which is an extension of the probationary period resulting in a delay in the mandatory time for tenure review. Flexible tenure clock policies were originally designed to attract and retain women in academia and to facilitate equity and work-family balance (Manchester et al., 2010). Hollenshead et al. (2005) found that higher education institutions in all categories (i.e., Research I and II, Doctoral I and II, Master's I and II, Baccalaureate I and II, and Associate) offered tenure clock extension policies, and this policy was the most frequent policy reported of all work-family policies examined. Further, Hollenshead et al. (2005) found that the more research-oriented the institution, the more likely they were to have a formal tenure clock extension policy. Many of these institutions allowed both men and women to utilize tenure clock extension policies, with research, doctoral, and associate degree institutions offering the option of extending the tenure clock to both men and women equally; Master's and Baccalaureate institutions were found to be less likely to allow both men and women to extend the tenure clock. Over time, tenure clock extension policies have broadened such that they are now available to both sexes and for many reasons, not just to accommodate the arrival of a baby (Thornton, 2005), though women are significantly more likely to extend the tenure clock compared to men (Quinn, 2010,

Thornton, 2005).

The handful of studies that examine flexible tenure clock policies have mostly focused on who uses these policies and the job-related effects they have. Quinn (2010) found that women were more likely than men to leave their tenure track positions prior to achieving tenure regardless of flexible tenure clock policy use, and extenders (i.e., people who availed themselves of a flexible tenure clock policy) were 72% more likely to separate from their tenure track position. In multi-cohort studies of faculty members at a large research university, Manchester et al. (2010) found there is a wage (but not promotion) penalty associated with extending the tenure clock for family reasons rather than nonfamily reasons (e.g., lab construction problems) that cannot be explained by differences in productivity (Manchester, Leslie, & Kramer, 2013). However, extenders have higher promotion rates than non-extendors (Manchester et al., 2013). Finally, Pribbenow, Sheridan, Winchell, Benting, Handelsman, and Carnes (2010) found that extendors are less satisfied with the tenure process and are less likely to (a) feel supported, (b) feel that their job fits with tenure criteria, and (c) get feedback on their advancement towards tenure.

Like these recent studies, the current study examines the effects of extending the tenure clock. However, the current study departs from previous research by framing the use of tenure clock extension policies as a stressor, investigating the effect of extending the clock on indicators of job and personal well-being (job satisfaction, burnout, turnover intentions, psychological well-being) that are commonly examined in studies on stress (e.g., Ostroff, 1992; Lee & Ashforth, 1996; Sonnentag & Frese, 2012). While the goal of



tenure clock extensions is to reduce stress, there are reasons to expect more stress associated with extending the tenure clock, and that is the focus of this thesis.

Further, social-contextual factors related to the faculty member's sex and academic department's STEM (science, technology, engineering, or math) vs. nonSTEM designation are also considered. Additionally, this study examines whether the relationship between extending the tenure clock and negative outcomes are moderated by family-supportive organizational perceptions.

### **Extending the Tenure Clock**

Three tenure clock extension statuses will be examined: those who did not extend the clock, those who considered extending but did not, and those who extended the tenure clock. Compared to people who do not extend the tenure clock, there are three possible effects of a tenure clock extension<sup>1</sup>: people will have worse outcomes, people will have better outcomes, or people will have the same outcomes. I propose that people who extend the tenure clock will, in general, have worse outcomes than people who do not. In this thesis, I will address the theories that explain why this is likely for nonextenders vs. extenders. Sex is expected to influence the relationships between extending the clock and outcomes, as is the extent to which the work environment is perceived to be family supportive, and whether the faculty member works in a STEM or nonSTEM department. The following sections will provide an overview of relevant

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<sup>1</sup> It is possible that these effects for extenders and non-extenders differ across social contexts. I discuss this further in later sections.

theories and extant flexible tenure clock literature, as well as describe the outcomes of interest.

However, there is little theory that clarifies for the “considered” group, which will be a research question. Those who considered might have (a) had an eligible reason for extending but decided they would not need the extra time, (b) requested but were denied the extension, or (c) intended to extend the clock for a reason not eligible for the extension, and therefore did not extend. It is possible that actually extending the tenure clock drives the proposed negative relationship with extending the clock, or that the event leading to the extension drives the relationship, or the combination of the two. Due to the lack of understanding about why these people considered but ultimately did not extend the clock, and the lack of theory regarding this topic, I propose the following:

*Research Question: What does this experience look like for people who considered extending the clock? Are their experiences more similar to extenders or nonextenders?*

### **Stress and Extending the Tenure Clock**

Stress theory explains why this is likely. Stress is defined broadly as “the experience of encountering or anticipating adversity in one’s goal-related efforts” (Carver & Connor-Smith, 2010, p. 684). Although stressors (i.e., the events that lead to stress) can be positive events, stress itself is typically considered to be negative and has been associated with many incapacitating health issues such as cardiovascular disease and upper respiratory disease as well as exacerbation of chronic diseases such as autoimmune disease, rheumatoid arthritis, and multiple sclerosis (Schneiderman,

Ironson, & Siegel, 2005). Events leading to extending the tenure clock can be considered stressors, because they represent interruptions in the goal-related efforts of faculty striving to obtain tenure.

According to Holmes and Rahe's (1967) social readjustment rating scale (SRRS), different life events produce different levels of stress. The SRRS is dated but still commonly used 40+ years later in stress literature. Further, this scale was more recently reevaluated and found to be a robust tool for predicting stress-related outcomes (Scully, Tosi, & Banning, 2000). The stress level associated with the particular life event influences social readjustment and onset of illnesses. The SRRS includes both positive and negative life events, with the top ten events being: death of a spouse, divorce, marital separation, jail term, death of a close family member, personal injury or illness, marriage, fired from work, marital reconciliation, and retirement. Each of these life events requires the individual to alter his or her ongoing pattern of life (Holmes & Rahe, 1967). Faculty members extend the clock for many reasons (e.g., health issues, divorce, child-related reasons, etc.), the majority of which are included near the top of the SRRS, indicating that they are most stressful in comparison to other stressful life events. Thus, the majority of events that lead to tenure clock extensions are considered to be life-changing events of great magnitude, making it necessary for the person to cope with and adapt to their new life path. Additionally, some people extend the tenure clock for serious but temporary illnesses. For example, bench scientists or marine biologists who break a leg (not life threatening) are likely to get extensions because they literally cannot complete the work while in a cast. The act of coping with and adapting to these new circumstances is

stressful whether they are temporary or permanent in nature, above and beyond the stress felt by all faculty members who are striving for tenure (Pribbenow et al., 2010).

Though some reasons for extending the tenure clock are positive events (e.g., childbirth), they are nonetheless stressful events that interfere with the expected progression of a tenure-track, untenured professor. Tenure clock extension policies are designed to give faculty members additional time to meet tenure requirements due to the presence of an event that makes the traditional tenure timeline problematic, which in turn should reduce their stress levels. However, the effectiveness of these policies at reducing stress is unknown. In fact, the actual process of extending the tenure clock could be a stressful event because it is a deviation from the typical and preferred career path of junior professors.

Further, Thornton (2005) found that 60.6% of doctoral universities do not direct tenure review committees on how to handle tenure review of faculty members who have extended the clock, other than “use your own judgment.” This lack of direction on how to evaluate a tenure candidate who received an extension leaves room for negative evaluations of the candidate because the tenure clock was extended or for expectations that the faculty member accomplish more with the extra time they were given, which is not the intention of the policy. Such lack of ambiguity might be an additional source of stress for those who choose to extend the clock. Pribbenow et al.’s (2010) work provides some support for this idea, as they showed that men and women who extended the clock were generally less satisfied with the tenure process, less likely to feel supported, less

likely to feel that their job fit with tenure criteria, and less likely to get feedback on their advancement towards tenure than those who did not extend the tenure clock.

In an examination of promotion and pay outcomes rather than well-being and attitudes, Manchester et al. (2013) recently found that faculty members who extended the clock for family reasons experienced a salary penalty compared to those who did not extend the clock, and this penalty was not explained by differences in productivity. However, they unexpectedly found that those who extended the tenure clock had higher promotion rates than those who did not. This finding is the only positive outcome found to be associated with extending the tenure clock and represents an inconsistency in the literature.

Thus, tenure clock extension is stressful in two ways. First, it is a proxy for a stressful situation, because extensions occur in the context of a major life event (e.g., birth of a child), major illness (e.g., cancer, broken leg), or failure of the organization to meet its obligations to the faculty member (e.g., lab not built in sufficient time to conduct research). Second, the process of extending the tenure clock and the subsequent reactions of colleagues and tenure review committee members is also stressful. Consistent with the broader literature on stress and the relevant tenure clock (see Jex & Crossley, 2004, for a review), I hypothesize that worse outcomes will occur for tenure clock extenders than those who did not extend the tenure clock.

*Hypothesis 1: Extending the tenure clock will be (a) negatively related to job satisfaction and (b) psychological well-being, and positively related to (c) turnover intentions and (d) burnout.*

## **Sex as a Predictor of Job Attitudes and Well-Being in Male-Dominated Academia**

The research on sex differences as a predictor of job outcomes in academia indicates that female faculty members will have more negative outcomes than male faculty members. Using 2007-2008 data from the Higher Education Research Institute examining over 22,000 faculty members at more than 370 four-year universities in the US, Hurtado and DeAngelo (2009) discovered that female faculty are less satisfied with their retirement benefits and salary compared to male faculty, and that female faculty experience more stress related to their research demands, expectations to publish, and teaching loads than male faculty. These sex differences were especially pronounced when comparing female full professors and male full professors, with women reporting significantly less satisfaction with their teaching loads and prospects for scholarly pursuits. The research on turnover in academia is less clear. Some have found sex differences among tenured faculty, with tenured women having higher turnover (Johnsrud & Heck, 1994), and others finding tenured men to have higher turnover (Smart, 1990).

Women likely experience greater work-family conflict and role overload than men. Role overload occurs when a person is cognitively overextended because he or she has too many responsibilities and commitments under time pressure (Jones, Chonko, Rangarajan, & Roberts, 2007). Role overload is related to role conflict, which occurs when two roles incompatibly compete for a person's cognitive resources and time. Of particular interest here is work-family conflict, which occurs when work roles and family roles incompatibly compete for a person's cognitive resources and time (Greenhaus &

Beutell, 1985). Work-family conflict (WFC) in particular, and role overload in general, are stressors that have a deleterious effect on job attitudes and well-being (for a review, see Allen, Herst, Bruck, & Sutton, 2000; Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005).

Thus, this view suggests that women will experience greater role overload and work-family conflict than men, thus resulting in worse job attitudes and psychological well-being. There is some evidence to support this contention, as women extend more often than men and are more likely to extend the tenure clock for family reasons than men (Manchester et al., 2010). Further, women also work what has been referred to as “the second shift” (Hochschild & Machung, 1989). The second shift is the work that women are expected to do at home in addition to their paid work. Working women are still responsible for more of the household and family responsibilities than men (Bianchi, 2011; Bianchi, Robinson, & Milke, 2006; Drago & Williams, 2000; Press & Townsley, 1998; Shelton & John, 1996). Additionally, the tenure system in academia was designed when faculty members were mostly married men with housewives who handled all of the household responsibilities (Hochschild, 1975), making it a difficult goal for women who still take on the majority of family responsibilities. To even the casual observer, it is clear that obtaining tenure at a research-I university (the setting of this study) is more than a full time job.

It is also likely challenging to be a woman in academia due to others’ misperceptions of work-family conflict (WFC). A recent study found that managers overestimate women’s work-family conflict (Hoobler, Wayne, & Lemmon, 2009). While

women are more likely to have higher WFC than men, managers in this study perceived women to have higher WFC than men, even when controlling for the women's self-reported WFC and measures of their family-related duties (eldercare responsibilities, number of children under 12 years of age, etc.) (Hoobler, Wayne, & Lemmon, 2009). Further, these inaccurate managerial perceptions resulted in managers viewing women as having less fit with the organization, lower performance, and less fit with their jobs, which resulted in lower likelihood of being nominated for promotions (Hoobler, Wayne, & Lemmon, 2009). Women working in academia, particularly ones that need accommodations such as tenure clock extensions, likely experience the effects of others' skewed perceptions of their WFC in addition to the added WFC they experience compared to men.

Posing an additional career obstacle, female faculty members are asked to do more academic service than their male counterparts, partly because they are women (Mitchell & Hesli, 2013; Park, 1996). Departments are motivated and/or required to have diverse search committees. Given the relatively low number of women in most departments, this requires a greater proportion of the women in the department to serve on such committees than the men; thus, it would be a particular woman's turn to serve more often than it would be a particular man's turn to serve. Additionally, there are concerns about implicit bias in academia, whereby women are required to be significantly better to receive the same credit that men receive with fewer qualifications and accomplishments (e.g., Moss-Racusin, Dovidio, Brescoll, Graham, & Handelsman 2012; Steinpreis, Anders, & Ritzke, 1999; Wenneras & Wold, 1997).



*Hypothesis 2: Women faculty members will experience a) higher turnover intentions, b) more burnout, c) less job satisfaction, and d) less psychological well-being than men faculty members.*

### **Sex as a Predictor of Job Attitudes and Well-Being After Extending the Clock**

Women extend the clock more often than men at all types of higher education institutions (Thornton, 2005). Given the history of tenure clock extension policies as a form of maternity leave policy, it seems likely that extending the tenure clock could have differential effects for men and women. However, there are competing theories on this issue, such that there are persuasive arguments to suggest that tenure clock extension has: (a) more negative outcomes for women than men or (b) more negative outcomes for men than women. The following section will outline support for each of the competing hypotheses.

Beyond the theoretical reasoning for women having worse outcomes than men in academia generally, traditional gender roles might also be a factor in causing women who extend the tenure clock to have worse outcomes than men who extend. Traditional gender roles hold that women manage the home and dependents, and that they are less capable of work success than men (Valian, 1999). Extending the tenure clock may be perceived as a sign of the already presumed incompetence or an inability of women to meet job expectations, which will exacerbate the issue of others doubting that women can succeed in academia because “their place is in the home,” per traditional gender roles. Thus, women who extend the tenure clock face two challenges: 1) being a woman in academia, and 2) seeming less committed to their job due to flexibility stigma

(Williams, 2000) than a faculty member who stays on the traditional tenure track time schedule. Together, these theories and empirical evidence suggest that women who extend the tenure clock will have worse outcomes than men who extend the tenure clock.

*Hypothesis 3a: Women who extend the tenure clock will experience a) higher turnover intentions, b) more burnout, c) less job satisfaction, and d) less psychological well-being than men who extend the tenure clock.*

In contrast, theories about traditional gender roles may also suggest that men will have worse outcomes than women among people who extend the tenure clock.

Traditional gender roles position men as hard working and unlikely to serve as the primary caregiver to their children because it is the traditional gender role of women to handle the household and children (Eagly, 1987). Male extenders may be perceived as more feminine because extensions were originally developed for mothers on the tenure track, and women have been found to utilize tenure clock extension policies almost twice as often as men (Quinn, 2010), giving them a feminine quality. Supporting this view, a recent qualitative study of male faculty found that men reported being penalized by the university system if they seemed to be “too committed” to their families, as their colleagues expected academic responsibilities to take precedence over parenting (Sallee, 2012). This study also examined tenure clock policy use, with one participant reporting that he was advised that women use the policies, not men, regardless of their availability. Men who request the use of work-family policies experience negative pushback that is attributed to stigmatizing men who are unabashedly committed to family duties as “feminine” (Rudman & Mescher, 2013; Vandello, Hettinger, Bosson, & Siddiqi, 2013),

which is thought to be inferior to masculine. This stigma, referred to as femininity stigma, is experienced by men who request family leave which has been found to predict less rewards (i.e., promotions) and more penalties (i.e. salary reductions and demotions) (Rudman & Mescher, 2013).

Further, because men extend the tenure clock half as often as women (Quinn, 2010), male extenders might be treated as tokens (Kanter, 1977) by their colleagues. Tokens are seen as outsiders and are scrutinized heavily by the dominant individuals of the group (in this case, those who continue on the traditional tenure path). Consequently, tokens experience social isolation (Kanter, 1977). If men extending the tenure clock were common, extending the tenure clock would perhaps not be a source of judgment, but because they are one of the few, they will be scrutinized. Extending the tenure clock could lead men to experience a lot of negativity from other male colleagues in the workplace, resulting in more negative outcomes than women who extend the tenure clock.

*Hypothesis 3b: Men who extend the tenure clock experience a) higher turnover intentions, b) more burnout, c) less job satisfaction, and d) less psychological well-being than women who extend.*

### **STEM vs. NonSTEM Departments**

Although there are competing hypotheses about whether men or women as a whole experience worse outcomes, it is not clear whether men or women will experience worse outcomes as a result of extending the clock across all departments. It seems likely that: a) faculty working in STEM will have more negative outcomes than those working

in nonSTEM (regardless of sex); b) women working in STEM will have more negative outcomes than those working in nonSTEM; and, c) STEM women who extend the tenure clock will have the worst outcomes of all. I discuss each of these issues in turn.

Literature on working in STEM has primarily focused on negative outcomes for women working in STEM rather than men working in STEM. To my knowledge, there is no literature that examines how working in STEM vs. nonSTEM leads to negative outcomes for both sexes. However, it seems likely that faculty in STEM disciplines experience more stress and therefore worse outcomes than faculty in nonSTEM fields. First, faculty working in STEM disciplines might have less autonomy over their work arrangements than faculty in nonSTEM departments. Although faculty members working in both STEM and nonSTEM must be present for teaching and meetings, those working in nonSTEM (e.g., philosophers, political scientists, and the like) seem to have (on the average) more flexibility in where and when they conduct their research, resulting in more autonomy with regard to where and how they work. For example, a philosopher of biology can write about the evolutionary constraints on the whorled shells of land snails (Sansom, 2003) from the comfort of his own kitchen at midnight, but a biologist studying the mating practices of whorled shell land snails has to go to the lab space where the snails are kept, fed, and under university oversight. In accordance with the job characteristics model (Hackman & Oldham, 1976), which has previously been used to study job outcomes of university employees (Mark & Smith, 2012), autonomy regarding how and when work is done is an important job facet such that increased autonomy improves job outcomes. Thus, those working in STEM are likely to have worse

outcomes than those working in nonSTEM as a result of reduced autonomy.

Additionally, there are higher work pressures in STEM fields related to obtaining grant funding; whereas academics in all fields are expected to pursue external funding, at least at Research universities, this is especially the case in STEM fields. Therefore,

*Hypothesis 4: Those working in STEM departments will experience a) higher turnover intentions, b) more burnout, c) less job satisfaction, and d) less psychological well-being than those working in nonSTEM.*

### **Interaction Between Sex and STEM Status**

Although more women are earning degrees in STEM fields, women are still underrepresented at all ranks of academia in STEM (Glass & Minnotte, 2010). Further, female faculty in STEM drop out of the STEM pipeline at a higher rate than men as their careers progress (Blickenstaff, 2005), and one study found that women in STEM were less satisfied with their jobs than men in STEM at a research-intensive university (Bozeman, 2011). It is possible that women leave STEM disciplines at a higher rate than men because of their stressful experiences. Due to the underrepresentation of women in STEM disciplines, they might feel left out. When underrepresented and numerically few, women feel like tokens (Kanter, 1977), or lack appropriate mentors (Ragins & Cotton, 1993; Ragins & Scandura, 1994), all of which would make the experience of being in STEM more stressful for women than men. These differential stressors make it likely that women in STEM experience more stress than women working in nonSTEM, resulting in worse outcomes and their eventual departure from STEM fields.

*Hypothesis 5: There will be a significant interaction between sex and STEM status such that women working in STEM departments will experience a) higher turnover intentions, b) more burnout, c) less job satisfaction, and d) less psychological well-being than all other groups.*

**Interactive effects among sex, STEM status, and tenure clock extension status**

Additionally, there are many reasons why STEM departments may be less supportive of tenure clock extensions compared to nonSTEM departments. For example, those in nonSTEM can likely complete research away from the office or laboratory, while much of STEM work must be completed on-site. This need for on-site work in STEM might mean more scrutiny for faculty who extend the clock because their absence will be noted. Further, there may be barriers to using family-friendly benefits and policies as intended, regardless of the STEM departments' intentions to be family-friendly and allow the use of tenure clock extension policies. The very nature of STEM does not as easily lend itself to being family-friendly as nonSTEM. For example, a lot of STEM research must be conducted in a physical lab, sometimes with noxious or dangerous chemicals. It is often difficult to start up and extend on-going experimentation to accommodate the absence of key personnel due to childbirth (or pregnancy, as some STEM research uses teratogens) or other reasons applicable to tenure clock extension. A few months away from the lab could actually result in a set-back of a year or more.

Additionally, STEM faculty who extend the clock will likely be more heavily stigmatized as less hard working than those who continue on the traditional tenure track due to the ideal worker norm of STEM and the flexibility stigma experienced by those

who violate it (Cech & Blair-Loy, 2014). Flexibility stigma can be defined as the negative penalties toward workers who seem to violate the ideal worker norm by actually seeking or having others perceive that they need workplace accommodations to take care of their personal responsibilities (Williams, 2000). A recent study investigating a similar sample of STEM faculty, described as “ideal workers” due to their STEM status at a top research university, found that those who reported experiencing flexibility stigma had less job satisfaction, lower intentions to stay, and less work-life balance (Cech & Blair-Loy, 2014). Additionally, those who experienced flexibility stigma were found to be more likely to consider leaving academia for positions in industry compared to their non-stigmatized colleagues. Though this research did not compare STEM and nonSTEM faculty, it is clear that flexibility stigma exists in STEM and results in negative outcomes.

In addition to flexibility stigma, women who extend the tenure clock could support the inaccurate notion stemming from traditional gender roles that women cannot make it in academia, and working in a STEM department likely exacerbates this effect (Kanter, 1977; Valian, 1999), representing a double-outsider situation compared to men in STEM who continue on the traditional tenure track. Further, women working in STEM are much more likely to leave their field than women in nonSTEM professional positions, and many of those who leave STEM (31.5% compared to 6% for those who leave nonSTEM positions) become employed in another field rather than leaving the workforce entirely (Glass, Sassler, Levitte, & Michelmore, 2013). For these reasons, the combination of being a woman, extending the clock, and working in a STEM department will lead to the most negative outcomes.

*Hypothesis 6: There is an interaction among sex, tenure clock extension, and STEM status such that women working in STEM departments who extend the tenure clock will experience a) higher turnover intentions, b) more burnout, c) less job satisfaction, and d) less psychological well-being compared to all other groups.*

### **Family-Supportive Work Environments**

The extent to which employees perceive that their work organization is family-supportive (FSOP; Allen, 2001) is likely an important moderator of the tenure clock choice and outcomes relationship. Family-supportive work environments should buffer against the negative effects that arise from STEM discipline, sex, or tenure clock extension choice. In essence, in a family-supportive work environment, the proposed negative effects will be lessened because the climate of the department supports families, using family-friendly policies, and balancing family-work demands. Similarly, FSOP have been found to moderate the relationship between the availability of family-friendly benefits and the outcomes of affective commitment, job satisfaction, and work-family conflict (Allen, 2001). The present study will go one step further in showing that the family-supportiveness of the work environment can potentially lessen the proposed negative effects associated with extending the tenure clock.

*Hypothesis 7: Working in a family-supportive work environment will moderate the effects of extending the tenure clock on outcomes.*

### **The Effect of Tenure Clock Extension on Job Attitudes and Psychological Well-Being**

Thus, most of what is known about extending the tenure clock focuses on the



presence of policies and their use by men and women, with significantly less known about the effects of extending the clock. Even then, although most studies suggest that there are negative outcomes for extending the clock (Manchester et al., 2010; 2013; Pribbenow et al., 2010; Quinn, 2010), there appear to be some positive outcomes as well (Manchester et al., 2013). Further, little is known about the stress-related effects of tenure clock extension on well-being and job attitudes. The present study seeks to determine if use of tenure clock policies is beneficial to faculty members' job outcomes and psychological well-being, and will provide insight as to which faculty members are most at risk for experiencing negative effects from extending the tenure clock. Four outcomes will be examined: job satisfaction, burnout, turnover intentions, and psychological well-being.

**Job Satisfaction.** Job satisfaction is an employee's overall evaluative response to their job (Cammann, Fichman, Jenkins, & Klesh, 1983). Organizations with satisfied employees have been found to be more effective than those with less satisfied employees (Ostroff, 1992), and a meta-analysis has estimated the true mean correlation between job satisfaction and job performance to be moderate (.30; Judge, Thoresen, Bono, & Patton, 2001). Job satisfaction is relevant to this thesis because a faculty member may feel less satisfied with their job due to stress from extending the tenure clock, which in turn may lead to lower job performance and reduced university effectiveness.

**Burnout.** Burnout is a syndrome characterized by emotional exhaustion, depersonalization, and a lack of a sense of personal accomplishment (Maslach & Jackson, 1981). Role stressors have been found to relate to burnout in the literature (e.g.,

Peiro, Gonzalez-Roma, Tordera & Manas, 2001), and burnout was recently found to predict life dissatisfaction and depressive symptoms in a longitudinal three-wave study of Finnish dentists (Hakanen & Schaufeli, 2012). Thus, faculty who experience role stressors (e.g., the demands of the family and work roles), are likely to experience burnout.

**Turnover Intentions.** Turnover intentions are an employee's own projected probability that they will soon leave the organization permanently (Vandenberg & Nelson, 1999). In accordance with the unfolding model of turnover (Lee & Mitchell, 1994), there are many different paths that lead to voluntary turnover. For path 1 leavers, the shock (i.e., event) leads to the employee enacting a preexisting action plan which in turn results in voluntary turnover, and the shock can be positive or not, expected or not, and work-related or not (Lee, Mitchell, Wise, & Fireman, 1996). For the present study, path 1 holds some promise for explaining tenure clock extenders who chose to extend for childcare or eldercare reasons. Faculty members, following the birth or adoption of their first child, or the sudden illness of an elder for whom they intend to provide care, may enact the action plan whereby they stop working (or extend the tenure clock before eventually leaving their position), either temporarily or permanently, to care for the newborn child or elder. Further, if stress related to extending the clock leads to lower job satisfaction as proposed, faculty may intend to turnover simply because they are no longer satisfied with their jobs.

**Psychological well-being.** A recent longitudinal study found that work well-being predicts general well-being over time (Hakanen & Schaufeli, 2012). Further, an

examination of work characteristics and employee well-being found support for a model indicating that work characteristics affect psychological work adjustment factors (such as job satisfaction and perceived job stress) which in turn impact employee health and well-being (Wilson, DeJoy, Vandenberg, Richardson, & McGrath, 2004). Thus, faculty who experience reduced work-related well-being, operationalized as burnout, may have lower psychological well-being as a long term effect.

## METHOD

### Participants

All faculty members ( $N = 2,689$ ) at a southern university located in the United States were invited to participate in an online Faculty Climate Survey in February of 2013. A total of 1,223 or 44% of the faculty members responded. Sample demographics were similar to the population of university faculty, which is 77% white and 68% male; respondents were 81% white and 65% male. Respondents were full professors, (422, 34.5%), associate professors (289, 23.6%), assistant professors (189, 15.5%), and nontenure track professors (274, 22.4%). Some respondents also indicated that they currently serve as administrators (177, 14.5%), and a small number of respondents could not be classified due to missing information (49, 4%). Of those who responded to the question regarding department and that could be classified as either STEM or nonSTEM, 531 (43.4%) faculty members were in STEM departments, and 692 (56.6%) were in nonSTEM departments.

My analyses focused on faculty members who responded to the tenure clock extension status question ( $N = 713$ ). The respondents were predominantly male. Of the 704 who identified as either male or female, most were men ( $N = 474$ , 67%). STEM status was more evenly divided. Of the 666 respondents, there were only slightly more STEM faculty members ( $N = 356$ , 53%).

Of the faculty members who completed the tenure clock extension status question, some reported that they extended the tenure clock ( $N = 92$ ; 49% nonSTEM;

62% female), some considered but did not extend the clock ( $N = 70$ ; 52% STEM; 52% women), and some did neither ( $N = 551$ ; 52% STEM; 75% male).

### **Materials and Procedure**

All faculty members were emailed a link to the climate survey on behalf of the Office of the Dean of Faculties and the ADVANCE Center. The survey was created and available online via Qualtrics. Participants could take the survey online on any computer or tablet of their choosing at any time before the close of the survey. Faculty could also opt to take a paper-and-pencil version of the survey if they preferred it. The online administration of the survey ensured the confidentiality, but not anonymity, of all responses.

**Tenure clock extension status (TCES).** The survey contained five questions related to the tenure clock extension status, one of which is relevant for the present study (Appendix 1). The first question asked the participant to report their tenure clock extension status. I used this question to classify participants into three tenure clock extension status categories, thus limiting my sample to people who could be identified into one the following groups: those who extended the clock, those who considered extending but did not extend the clock, and those that did not consider or extend the tenure clock.

**Family-supportive organizational perceptions (FSOP).** An abbreviated, 5-item version of the family-supportive organizational perceptions scale (Allen, 2001; see Appendix 2) was used to measure the extent to which the faculty members' perceive that their departments are family-supportive.

**Outcomes.** The scales used to measure the outcomes are listed in Appendix 3. **Turnover intentions** were assessed using three items adapted from Cammann, Fichman, Jenkins, and Klesh (1983). **Burnout** was measured with six items from the Oldenburg Burnout Inventory (OLBI; Demerouti, Mostert & Bakker, 2010). **Job satisfaction** was measured using three items adapted from Cammann, Fichman, Jenkins, and Klesh (1983). **Psychological well-being** was assessed using nine items from the Brief Symptoms Inventory (BSI) which include Anxiety, Depression, and Hostility subscales (Derogatis & Spencer, 1983).

## RESULTS

Tables D-1a, D-1b, and D-1c show the means, standard deviations, and correlations among (a) job satisfaction, (b) turnover intentions, (c) burnout, and (d) psychological well-being for faculty members who responded to the first tenure clock question (shown on Appendix 1), which classified faculty into tenure clock extension statuses (did not extend, considered, and extended).

### Hypothesis 1

Hypothesis 1 proposed that people who extend the tenure clock will experience more negative outcomes than those who do not extend the clock. To test this hypothesis, I conducted a one-way multivariate analysis of variance (MANOVA) comparing faculty who extended the clock and those who did not extend the clock on outcomes. Hypothesis 1 was partially supported as shown on Table D-2/Figure C-1. Tenure clock extension status (TCES) had a significant effect on psychological well-being ( $F_{(1, 597)} = 4.75, p = .03, \eta^2 = .008$ ), but no effect on job satisfaction, turnover intentions, or burnout. People who extended the tenure clock reported significantly more psychological symptoms, and thus less psychological well-being, than those who did not extend the clock.

Further, I conducted a MANOVA with all three tenure clock extensions statuses included (extended, considered, and did not extend). Means for the considered group are included in Table D-2 and Figure C-1. Tenure clock extension status (TCES) had a significant effect on turnover intentions ( $F_{(1, 666)} = 3.13, p < .05, \eta^2 = .009$ ), but no effect on job satisfaction, burnout, or psychological well-being. However, Tukey HSD *post hoc* test results showed that the TCES groups were not different for turnover intentions. This

Tukey HSD result is likely due to the unequal number of respondents in each group (*N*s for each group are shown on the following Table D-2). Thus, in answer to research question 1, the “considered” group appeared no different than the other two tenure clock extension status groups.

### **Hypothesis 2**

Hypothesis 2 proposed that female faculty have more negative outcomes than male faculty. To test this hypothesis, I conducted a one-way MANOVA. Hypothesis 2 was supported for job satisfaction ( $F_{(1, 661)} = 7.73, p < .01, \eta^2 = .012$ ), turnover intentions ( $F_{(1, 661)} = 5.26, p < .05, \eta^2 = .008$ ), burnout ( $F_{(1, 661)} = 11.91, p < .01, \eta^2 = .018$ ), and psychological well-being ( $F_{(1, 661)} = 14.47, p < .01, \eta^2 = .021$ ), as shown in Table D-3/Figure C-2. Women faculty reported significantly less job satisfaction, higher turnover intentions, more burnout, and more psychological symptoms, and thus less psychological well-being, than men faculty.

### **Hypothesis 3**

Hypothesis 3a and 3b proposed competing hypotheses, which stated that either women (3a) or men (3b) who extend the tenure clock experience worse outcomes than the opposite sex who extend. To test this hypothesis, I conducted a one-way MANOVA using only participants who extended the tenure clock. Hypothesis 3a was not supported, nor was hypothesis 3b, as shown on Table D-4. Sex did not have a significant effect on (a) job satisfaction, (b) turnover intentions, (c) burnout, or (d) psychological well-being.



## Hypotheses 4, 5, and 6

Hypothesis 4 proposed that faculty working in STEM departments have more negative outcomes than those working in non-STEM. Hypothesis 5 qualified Hypothesis 4, proposing that women working in STEM departments will have the most negative outcomes compared to all other groups. Finally, Hypothesis 6 proposed a three-way interaction among sex, tenure clock extension status, and STEM status such that women working in STEM departments who extend the tenure clock will have the most negative outcomes compared to all other groups. To test these hypotheses, I conducted a series of MANOVAs.

Hypothesis 4 was partially supported as shown on Table D-5/Figure C-3. STEM status had a significant effect on turnover intentions, ( $F_{(1,627)} = 11.01, p < .01, \eta^2 = .017$ ), but no effect on job satisfaction ( $F_{(1,627)} = 2.76, p = .12, \eta^2 = .004$ ), burnout ( $F_{(1,627)} = .33, p = .57, \eta^2 = .001$ ), or psychological well-being ( $F_{(1,627)} = .75, p = .39, \eta^2 = .001$ ). Faculty working in STEM departments reported significantly higher turnover intentions than those working in nonSTEM departments.

**Additional analysis for STEM status and autonomy.** To further investigate why hypothesis 4 was only partially supported, I conducted an additional analysis to determine if my assertion that STEM faculty have less autonomy than nonSTEM faculty is actually true. To test this, I ran an ANOVA to see if STEM status has a significant effect on the autonomy of scheduling work activities. There was not a significant effect ( $F_{(1,564)} = 3.85, p = .05, \eta^2 = .007$ ).

Hypothesis 5 was not supported. The interaction of STEM status and sex did not have a significant effect on (a) job satisfaction ( $F_{(1,621)} = 1.37, p = .24, \eta^2 = .002$ ), (b)

turnover intentions ( $F_{(1,621)} = .33, p = .57, \eta^2 = .001$ ), (c) burnout ( $F_{(1,621)} = 2.25, p = .13, \eta^2 = .004$ ), or (d) psychological well-being ( $F_{(1,621)} = .56, p = .39, \eta^2 = .001$ ).

Hypothesis 6 was not supported, as shown on Table D-6. The interaction among sex, tenure clock extension status, and STEM status did not have a significant effect on (a) job satisfaction ( $F_{(1,553)} = 3.01, p = .08, \eta^2 = .005$ ), (b) turnover intentions ( $F_{(1,553)} = 3.41, p = .07, \eta^2 = .006$ ), (c) burnout ( $F_{(1,553)} = .43, p = .51, \eta^2 = .001$ ), or (d) psychological well-being ( $F_{(1,553)} = 1.30, p = .26, \eta^2 = .002$ ).

Further, I conducted a MANOVA with all three tenure clock extensions statuses included (extended, considered, and did not extend). Means for those who considered extended the tenure clock are included in Table D-6. The interaction of sex, STEM status, and TCES had a significant effect on turnover intentions ( $F_{(1,613)} = 3.19, p < .05, \eta^2 = .010$ ), but no effect on job satisfaction, burnout, or psychological well-being, as shown in Figures C-4 and C-5. However, the Tukey HSD *post hoc* test results showed that the TCES groups were not different for turnover intentions. This Tukey HSD result is likely due to the unequal number of respondents in each group (*Ns* for each group are shown on the Table D-6). Thus, in answer to research question 1, the “considered” group appeared no different than the other two tenure clock extension status groups.

### **Hypothesis 7**

Hypothesis 7 proposed that working in a family-supportive work environment moderates the effects of extending the tenure clock on outcomes. To test this hypothesis, I conducted a series of multiple regressions. Hypothesis 7 was not supported, as shown on Table D-7. The relationships between tenure clock extension status (TCES) and (a)

job satisfaction, (b) turnover intentions, (c) burnout, and (d) psychological symptoms, were not moderated by family-supportive organizational perceptions (FSOP).

## SUMMARY

The purpose of this study was to examine the unique and joint effects of tenure clock extension status, sex, and STEM status on job outcomes and psychological well-being of tenure-track faculty. Faculty who extended the tenure clock had significantly more psychological symptoms, and thus less psychological well-being, than those who did not extend. FSOP did not moderate the relationships between TCES and job satisfaction, turnover intentions, burnout, or psychological symptoms. Whereas female faculty members reported significantly lower job satisfaction, higher turnover intentions, more burnout, and lower psychological well-being compared to male faculty members, there were no significant differences between men and women who extended the tenure clock on any of the four outcomes examined. STEM faculty had higher turnover intentions than nonSTEM, but the interaction of STEM status and sex did not have significant effect on any of the outcomes, nor did the interaction of STEM status, sex, and TCES. In response to my research question regarding faculty members who only considered extended the clock, this group was not found to be significantly different from either the “did not consider” or “extended” groups for any of the hypotheses.

### **Extending the Clock Does Not Reduce Stress, Regardless of FSOP**

This study contributes to the literature by identifying a problem that many perceive to already be resolved by the existence of a tenure clock extension policy: despite the widespread development of flexible tenure clock policies, those who cannot proceed on the traditional tenure clock are still disadvantaged, having lower psychological well-being than faculty who proceed on the traditional tenure clock.

Tenure clock extensions are granted for events that are generally stressful, such as illness, new child, or problems with lab construction. Assuming that people did feel stress from these events (which was unmeasured in this study), the results of this study indicate that extending the tenure clock either has no effect on the stress associated with the reasons for extending the tenure clock or has the unintended effect of increasing stress. It is possible that the stress associated with the events is too great to be remedied by an extra year on the tenure clock, or that the stress and flexibility stigma associated with extending the tenure clock add much more stress. This added stress likely counteracts any slight reduction in stress provided by having the extra year to achieve tenure.

Results indicate that the negative effect associated with extending the tenure clock is a problem that is not remedied by working in a family-supportive work environment. It is possible that the stress associated with extending the tenure clock is not remedied by working in a family-supportive environment because the stress stems from having doubts about achieving tenure. The policy and requirements for tenure remain unchanged regardless of whether or not the faculty member works with colleagues that respect family responsibilities, and these requirements are likely more daunting for a faculty member that has extended the clock.

### **Women Have More Negative Outcomes**

Faculty women consistently had worse outcomes than faculty men, regardless of STEM status or tenure clock extension status. This is not surprising, as many studies have found that the climate for women in academia is poor (e.g., Settles, Cortina,

Stewart, & Malley, 2007). However, contrary to the literature on women in STEM, women in STEM did not have significantly more negative outcomes than other combinations of sex and STEM status. Regardless of discipline, women have more negative outcomes than men, which suggests that this is not a discipline-specific problem but rather a problem that is persistent across all of academia—and likely all of the workforce. Society still subscribes to traditional gender roles which claim that a woman's place is in the home (Eagly, 1987). Women with the same qualifications are still deemed to be less competent and less hireable than their male peers when applying for jobs (Moss-Racusin, Dovidio, Brescoll, Graham, & Handelsman 2012). Implicit bias still controls our mental models of employees in certain occupations (Fiske, 2002). These issues are pervasive and make being a woman in academia a difficult challenge, regardless of field of study.

### **STEM Has Higher Turnover Intentions**

Although faculty working in STEM did not have lower job satisfaction, higher burnout, and less psychological well-being compared to those in nonSTEM, STEM faculty reported higher turnover intentions. It is possible that STEM faculty are happy in their positions but intend to turnover for a position either in an academic setting or in industry that is preferable due to tangential reasons (e.g. location). These other possible reasons for turnover intentions are beyond the scope of this paper and the survey from which it was derived, but future researchers interested in the STEM pipeline in academia should consider these issues to explain why STEM graduates either do not enter academia or end up leaving academia.

## **Limitations and Future Directions**

This study is hampered by its cross-sectional nature, small sample, and self-report measures. A longitudinal study is necessary to establish that extending the tenure clock leads to lower psychological well-being. Without longitudinal data, there is room for the possibility that faculty with lower psychological well-being (whether in general, or following the precipitating event) are more likely to extend the tenure clock compared to those with higher psychological well-being (i.e., reverse causality). Thus, we are unable to determine whether there is change in well-being within person, and if there is, whether that change happens following the precipitating event or the tenure clock extension.

The small sample size in this study meant that there was insufficient power to detect even large effects for some of the hypotheses. In particular, Hypotheses 3a, 3b, 5, and 6 make comparisons among several groups, resulting in even smaller group sizes after dividing up the small number of participants who reported extending the tenure clock ( $N = 92$ ). There are trends in the data that suggest that these hypotheses are worth future research attention. Future research should replicate this work in larger samples, as well as longitudinally, in order to obtain sufficient power to adequately test these hypotheses. Further, much larger samples would allow for the examination of additional factors, such as the specific events that precipitated the tenure clock extension.

Another limitation of the present study was the inability to identify why faculty members intended to turnover. While most measures of turnover intentions presume *voluntary* turnover, it might be that the faculty member intends to turnover in anticipation of being involuntarily—either formally or informally—pushed out of the

university. Notably, the specific university examined has a 3rd-year review policy whereby faculty members are given formal feedback regarding progress toward tenure. It is possible that faculty members who extended the clock prior to their 3-year review were given reason to believe that they would not receive tenure at the end of their probationary period and thus intend to leave the university before they are denied tenure.

The present study would have benefitted from the inclusion of a productivity assessment as a control variable. Although a self-report measure of productivity was included in the survey instrument, I chose not to include it because it is a self-report measure. Further, if the person recently extended the tenure clock, they likely *are* less productive than others at the moment, but this may not be related to their productivity or career success long term. For these reasons, a more long-term and objective measure of productivity should be examined as an outcome in the future, especially given the mixed results of Manchester et al. (2013).

## **Conclusion**

While it is not clear whether the extension itself or the reasons for extending lead to lower psychological well-being, these findings suggest that universities should acknowledge that instituting a tenure clock extension policy is not a cure-all for productive faculty who need additional time to achieve tenure. Tenure committee practices for faculty who have taken a tenure clock extension have been shown to be highly subjective (Thornton, 2005), which likely contributes to the problem of biases towards women in academia. This study highlights the need for changes in academia to ensure that female faculty will experience the same success for the same effort as male



faculty. Further, this work echoes Thornton's (2005) claim that academia needs restructuring so that success as a full-time faculty member and having a family life are compatible goals. We hope that this study provides additional insight into academia and demonstrates that academic leadership needs to find other ways than tenure clock extensions to resolve these problems.

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## **APPENDIX A**

### **CLIMATE SURVEY QUESTIONS RELATED TO TENURE CLOCK**

#### **EXTENSION**

1. If you are/were an assistant professor at TAMU, did you ever consider requesting to extend your tenure clock?
  - NA (I was never an assistant professor at TAMU)
  - No, I never considered it.
  - Yes, I considered it but I chose not to request it.
  - Yes, I considered it and requested it.

## APPENDIX B

### MEASURES OF PSYCHOLOGICAL WELL-BEING AND JOB OUTCOMES

#### Psychological Well-Being

During the PAST 12 MONTHS, have you been distressed by...

(1 = *Not at all*, 2 = *A little bit*, 3 = *Moderately*, 4 = *Quite a bit*, 5 = *Extremely*)

- a. Feeling suddenly scared for no reason.
- b. Temper outbursts that you could not control.
- c. Feeling lonely.
- d. Feeling tense or keyed up.
- e. Feeling blue.
- f. Feeling no interest in things.
- g. Feeling fearful.
- h. Having urges to break or smash things.
- i. Getting into frequent arguments.

#### Job Satisfaction

Please indicate your level of agreement with each of the following statements.

(1 = *strongly disagree*, 5 = *strongly agree*)

- a. All things considered, I am satisfied with my job.
- b. I would recommend employment at Texas A&M to a colleague.
- c. Overall, I like working at Texas A&M University.

#### Turnover Intentions

Please indicate your level of agreement with each of the following statements.

(1 = *strongly disagree*, 5 = *strongly agree*)

- a. I often think about quitting this job.
- b. I am actively looking for another job.
- c. I will probably look for a new job during the next year.

**Burnout**

Please indicate your level of agreement with each of the following statements.

(1 = *strongly disagree*, 5 = *strongly agree*)

- a. I always find new and interesting aspects in my work. (R)
- b. I can stand the pressure of my work well. (R)
- c. Lately, I tend to think less during my work and just execute it mechanically.
- d. During my work, I often feel emotionally drained.
- e. Sometimes I feel really disgusted with my work.
- f. After work, I usually feel worn out and weary.

**Family-Supportive Organizational Perceptions (FSOP)**

To what extent do you agree that each of the following statements represent the philosophy or beliefs of the majority of the members of your department?

(1 = *not at all*, 5 = *to a great extent*)

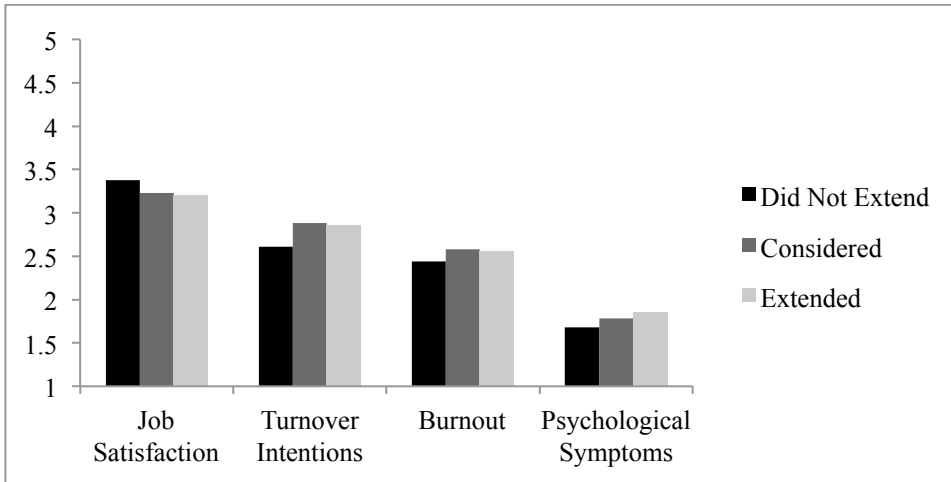
- a. Work should be the primary priority in a person's life. (R)
- b. It is considered taboo to talk about life outside of work. (R)
- c. Individuals who take time off to attend to personal matters are not committed to their work. (R)
- d. It is assumed that the most productive employees are those who put their work before their family life. (R)
- e. The ideal faculty member is one who is available 24 hours a day. (R)

## APPENDIX C

### FIGURES OF MEANS AND INTERACTIONS

Figure C-1

*Means for Outcomes by Tenure Clock Extension Status*



*Note.* Did Not Extend = faculty who did not extend the tenure clock; Considered = faculty who considered extending the tenure clock but did not actually do so; Extended = faculty who extended the tenure clock.

Figure C-2

*Sex Differences in Outcome Variables*

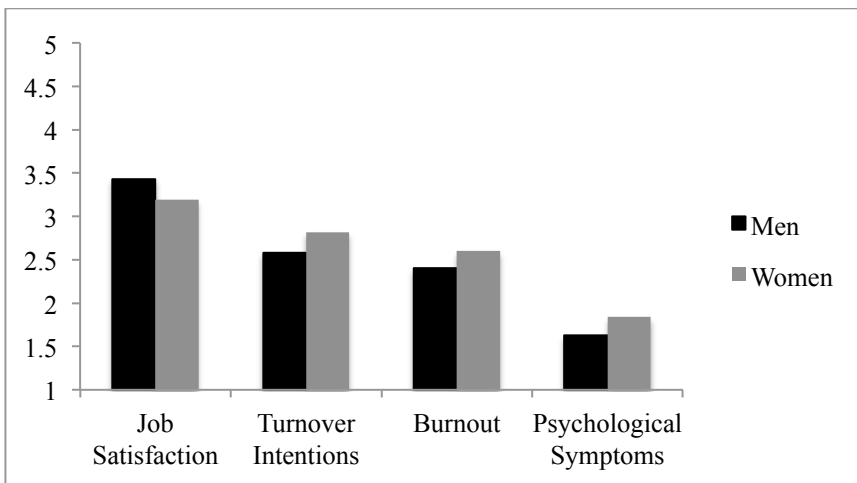


Figure C-3

*Means for Outcomes of Faculty by STEM Status*

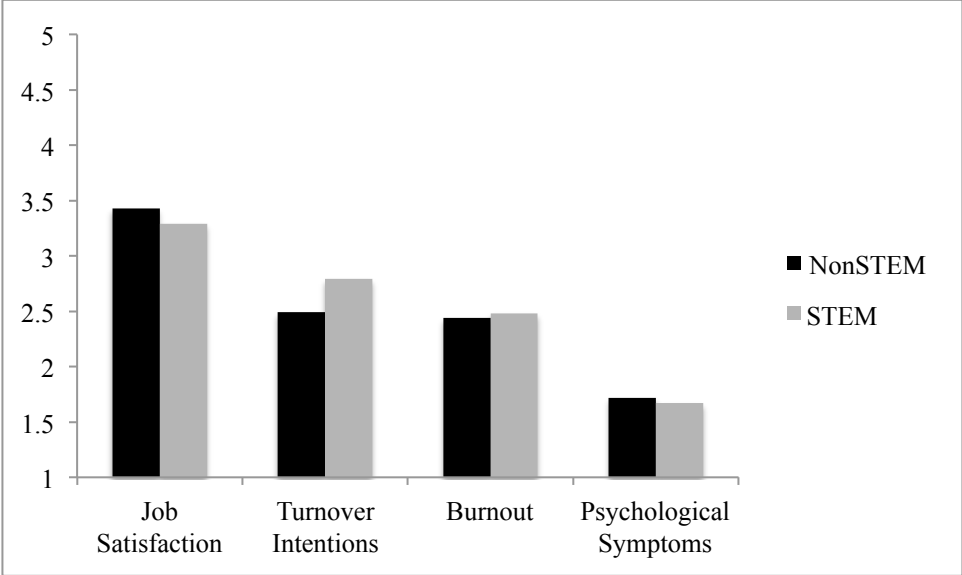


Figure C-4

*TCES by STEM Status on Turnover Intentions for Women*

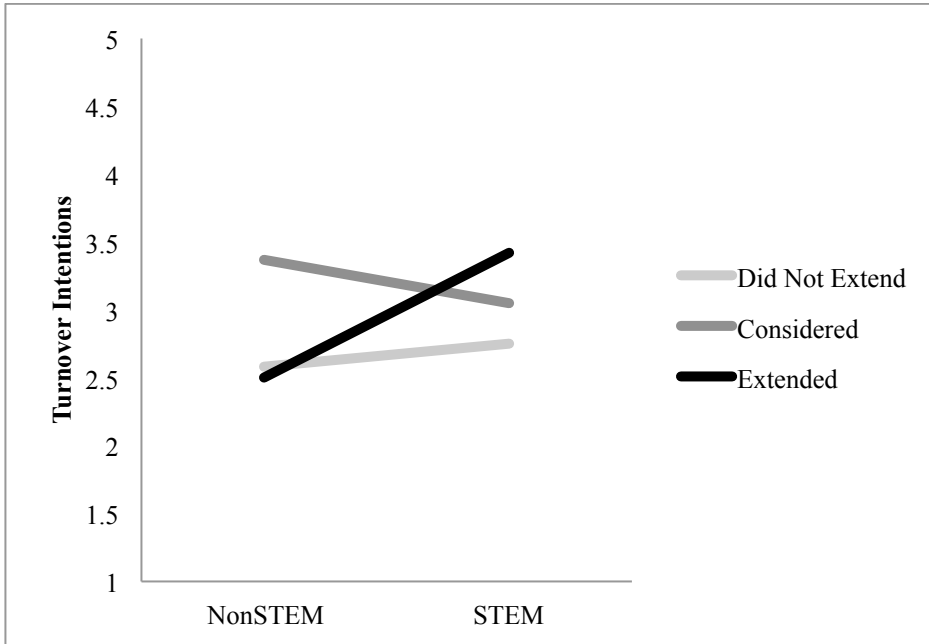
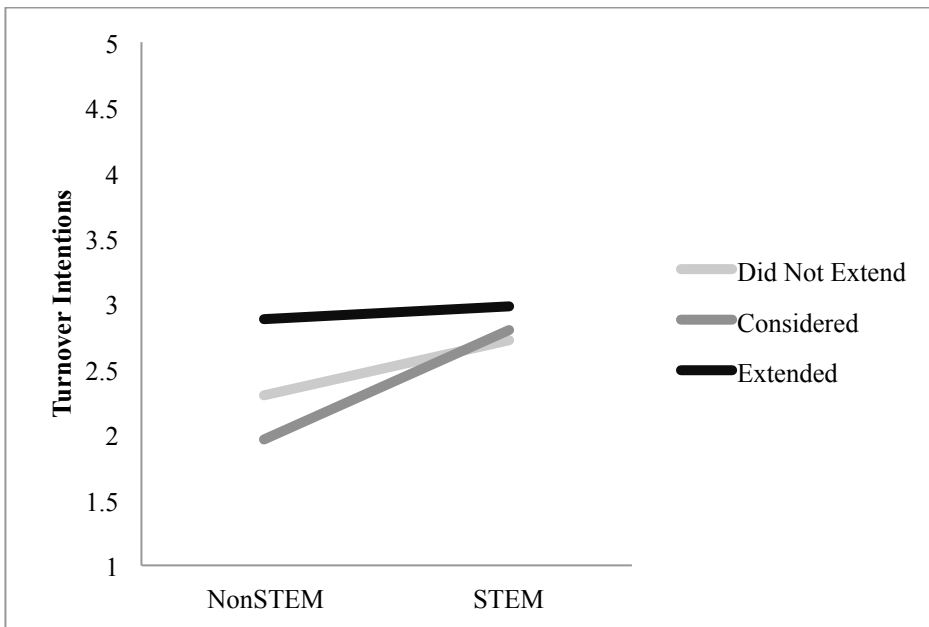


Figure C-5

*TCES by STEM Status on Turnover Intentions for Men*



## APPENDIX D

### TABLES OF MEANS AND HIERARCHICAL REGRESSIONS

Table D-1a

*Means, Standard Deviations, and Correlations Among Variables for TCES Did Not Extend*

		<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1.	Job Satisfaction	3.36	1.06						
2.	Turnover Intentions	2.64	1.14	-.70**					
3.	Burnout	2.45	0.74	-.39**	.39**				
	Psychological								
4.	Symptoms	1.68	0.67	-.36**	.33**	.57**			
5.	FSOP	3.89	0.83	.21**	-.17**	-.24**	-.27**		
6.	STEM Status	0.54	0.50	-.08	-.13**	.01	-.04	-.03	
7.	Sex	1.25	0.43	-.10*	.05	-.15**	.17**	-.06	-.22**

*Note.* *N* = 510-543. STEM status: NonSTEM = 0; STEM = 1. Sex: Male = 1; Female = 2.

Table D-1b

*Means, Standard Deviations, and Correlations Among Variables for TCES Considered*

		<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1.	Job Satisfaction	3.23	1.10						
2.	Turnover Intentions	2.88	1.20	-.73**					
3.	Burnout	2.58	0.68	-.54**	.40**				
4.	Psychological Symptoms	1.77	0.70	-.47**	.44**	.63**			
5.	FSOP	3.65	1.05	.53**	-.30*	-.44**	-.42**		
6.	STEM Status	0.56	0.50	.23	-.01	-.10	-.18	.15	
7.	Sex	1.52	0.50	-.12	.22	-.02	.06	-.08	-.29*

*Note.* *N* = 64-70. STEM status: NonSTEM = 0; STEM = 1. Sex: Male = 1; Female = 2.

Table D-1c

*Means, Standard Deviations, and Correlations Among Variables for TCES Extended*

		<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1.	Job Satisfaction	3.14	1.08						
2.	Turnover Intentions	2.90	1.10	-.57**					
3.	Burnout	2.57	0.74	-.15	.28**				
4.	Psychological Symptoms	1.85	0.68	-.45**	.22*	.32**			
5.	FSOP	3.50	1.12	.35**	-.19	-.17	-.34**		
6.	STEM Status	0.46	0.50	-.15	.26*	.20	.18	-.12	
7.	Sex	1.62	0.49	.05	-.02	.05	-.06	-.08	-.07

*Note.* *N* = 83-92. STEM status: NonSTEM = 0; STEM = 1. Sex: Male = 1; Female = 2.



Table D-2

*Means for Outcomes by Tenure Clock Extension Status*

	Job Satisfaction		Turnover Intentions		Burnout		Psychological Symptoms	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Did Not Extend ( <i>n</i> = 516)	3.38	1.06	2.61	1.13	2.44	0.74	1.68	0.67
Considered ( <i>n</i> = 70)	3.23	1.10	2.88	1.20	2.58	0.68	1.77	0.70
Extended ( <i>n</i> = 83)	3.20	1.06	2.86	1.13	2.56	0.73	1.85	0.68

*Note.* Did Not Extend = faculty who did not extend the tenure clock; Considered = faculty who considered extending the tenure clock but did not actually do so; Extended = faculty who extended the tenure clock.

Table D-3

*Sex Differences in Outcome Variables*

	Job Satisfaction		Turnover Intentions		Burnout		Psychological Symptoms	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Men	3.43	1.05	2.58	1.14	2.40	.72	1.63	0.64
Women	3.19*	1.07	2.82*	1.14	2.60*	.74	1.84*	0.71

*Note.* Means with an asterisk are significantly more negative than outcomes for men at the  $p < .05$  level.

Table D-4

*Mean Differences by Sex for Tenure Clock Extenders*

	Job Satisfaction		Turnover Intentions		Burnout		Psychological Symptoms	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Male Extenders ( <i>n</i> = 32)	3.09	1.18	2.88	1.21	2.54	0.71	1.90	0.66
Female Extenders ( <i>n</i> = 51)	3.27	0.98	2.85	1.08	2.58	0.74	1.82	0.69

*Note.* Extenders = faculty who extended the tenure clock.

Table D-5

*Means and Standard Deviations for Outcomes of Faculty by STEM Status*

	Job Satisfaction		Turnover Intentions		Burnout		Psychological Symptoms	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
NonSTEM ( <i>n</i> = 293)	3.43	1.11	2.49	1.14	2.44	0.74	1.72	0.70
STEM ( <i>n</i> = 336)	3.29	1.02	2.79*	1.13	2.48	0.72	1.67	0.63

*Note.* Means with an asterisk are significantly more negative than outcomes for NonSTEM at the  $p < .05$  level.

Table D-6

*Means for Outcomes based on Tenure Clock Extension Status by STEM status and Sex*

	Job Satisfaction		Turnover Intentions		Burnout		Psychological Symptoms	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<u>Men in NonSTEM</u>								
Did Not Extend ( <i>n</i> = 141)	3.67	1.00	2.30	1.08	2.30	0.75	1.60	0.67
Considered ( <i>n</i> = 9)	3.30	1.38	1.96	1.15	2.52	0.84	1.62	0.68
Extended ( <i>n</i> = 16)	3.06	1.32	2.88	1.36	2.31	0.61	1.86	0.71
<u>Men in STEM</u>								
Did Not Extend ( <i>n</i> = 223)	3.34	1.03	2.72	1.13	2.72	0.71	1.62	0.64
Considered ( <i>n</i> = 22)	3.42	0.97	2.80	1.07	2.58	0.55	1.65	0.43
Extended ( <i>n</i> = 14)	3.07	1.13	2.98	1.08	2.75	0.80	1.93	0.66
<u>Women in NonSTEM</u>								
Did Not Extend ( <i>n</i> = 80)	3.25	1.15	2.58	1.13	2.61	0.65	1.87	0.69
Considered ( <i>n</i> = 19)	2.72	2.72	3.37	1.29	2.74	0.69	2.02	0.87
Extended ( <i>n</i> = 26)	3.51	0.91	2.50	0.86	2.50	0.86	1.59	0.56
<u>Women in STEM</u>								
Did Not Extend ( <i>n</i> = 42)	3.23	1.01	2.75	1.09	2.59	0.82	1.76	0.65
Considered ( <i>n</i> = 14)	3.41	0.94	3.05	1.09	2.48	0.79	1.63	0.72
Extended ( <i>n</i> = 19)	2.90	0.93	3.42	1.19	2.54	0.59	1.92	0.65

*Note.* Did Not Extend = faculty who did not extend the tenure clock; Considered = faculty who considered extending the tenure clock but did not actually do so; Extended = faculty who extended the tenure clock.

Table D-7

*Hierarchical Regressions Testing the Moderating Role of FSOP on the Effect of TCES on Outcomes*

			Job Satisfaction			Turnover Intentions			Burnout			Psychological Symptoms		
			Coefficient	$R^2$	$\Delta R^2$	Coefficient	$R^2$	$\Delta R^2$	Coefficient	$R^2$	$\Delta R^2$	Coefficient	$R^2$	$\Delta R^2$
<u>Model 1</u>				.005	.004		.006	.005		.003	.001		.008	.006
Intercept	$i_1$		3.360*			2.638*			2.452*			1.677*		
TCES (X)	$b_1$		-.255			.262*			.114			1.71*		
<u>Model 2</u>				.057	.054		.035	.032		.054	.051		.087	.083
Intercept	$i_1$		2.299*			3.460*			3.205*			2.532*		
TCES (X)	$b_1$		-.098			1.56			.030			.076		
FSOP (M)	$b_2$		.278*			-.220*			-.193*			-.219*		
<u>Model 3</u>				.058	.053		.035	.030		.057	.053		.087	.082
Intercept	$i_1$		2.364*			3.485*			3.306*			2.550*		
TCES (X)	$b_1$		-.355			.015			-.378			.007		
FSOP (M)	$b_2$		.261*			-.229*			-.219*			-.223*		
$X \times M$	$b_3$		.071			.123			.114			.019		

Note. Coefficients with an asterisk are significant ( $p < .05$ ). TCES = tenure clock extension status; FSOP = family supportive organizational perceptions.