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Reasonableness and Clarity of Tenure Expectations: Gender and Race Differences in Faculty Perceptions

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Reasonableness and Clarity of Tenure Expectations: Gender and Race Differences in Faculty Perceptions

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy in Public Policy

by

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Abstract

This dissertation studies how higher education policies and practices can affect faculty retention and proposes changes that higher education institutions need to make to retain their faculty. Faculty assessment of reasonableness of tenure expectations is explored in the first manuscript and faculty perceptions of clarity of tenure expectations are explored in the second and third manuscripts. Job satisfaction data from a sample of 2438 tenure-track assistant professors at research universities is used.

The first manuscript investigates the reasonableness of tenure expectations as it relates to work-life balance. The focus is on whether women's and men's appraisal of departmental and institutional support for family-work balance and satisfaction with family-friendly policies influence their perceptions of reasonableness of tenure expectations. Bivariate results reveal that women are less likely than men to report that tenure expectations are reasonable. Multivariate results show that for both women and men assessment of departmental and institutional support for family-work balance and satisfaction with family-friendly policies have a positive influence on their perceptions of reasonableness of tenure expectations.

The second manuscript explores whether women's and men's assessment of tenure related departmental practices influence their perceptions of clarity of tenure expectations. Findings reveal that women are less likely than men to perceive the expectations for getting tenure as clear. Other results show that for both men and women assessment of fairness in tenure decision- making and in tenure evaluation, and assessment of received messages about the requirements for tenure have a significant and positive effect on their perceptions of clarity of tenure expectations.

The third manuscript looks at how the intersection of gender and race influences faculty perceptions of clarity of tenure expectations. The study also seeks to identify predictors of perceptions of clarity for the intersectionality defined groups (minority women, minority men, white women, and white men). Bivariate results reveal no significant differences in minority women's perceptions of clarity compared to all other faculty. The multivariate results show that the model does not explain minority women's perceptions of clarity of tenure expectations as well as it explains white women's and white men's perceptions of clarity of tenure expectations.

Acknowledgements

If I were to describe the dissertation process in two words it would have to be "patience" and "perseverance." This was the first time I worked on something that requires so much time, attention to detail and frequent change of plans when things did not go according to the initial expectations. While the process has been arduous and at times seemed impossible to complete, I have been lucky to have supportive dissertation committee members who helped me turn the "impossible" into possible. Having said that, I would like to thank Dr. Anna Zajicek, my dissertation director, for her continuous help and for her advice that lifted my spirit when I felt down. Without a doubt, Dr. Z's work on the dissertation and her advice were instrumental in moving the project along.

I would also like to thank Dr. Brinck Kerr, whose input, especially with regard to the methods part of the dissertation, made the project feasible. Thank you, Dr. Kerr, for your guidance through the intricate area of quantitative methods. I would also like to thank Dr. Shauna Morimoto for her feedback on my numerous versions of the dissertation articles. Thank you, Dr. Morimoto, your feedback improved the quality of this dissertation. I am also grateful to Dr. Valerie Hunt and to Dr. Ketevan Mamiseishvili for their feedback and questions that challenged me to look in new ways at the problems encountered during this dissertation journey.

Dedication

This dissertation is dedicated to my family.

Table of Contents

Articles submitted for publication

Chapter 1: Rodica Lisnic, Anna Zajicek and Brinck Kerr. "Work-Life Balance and Reasonableness of Tenure Expectations: Gender Difference in Faculty Experiences." Paper submitted to Innovative Higher Education journal.

Chapter 2: Rodica Lisnic, Anna Zajicek and Brinck Kerr. "Faculty Assessment of Clarity of Tenure Expectations: Does Gender Matter?" Paper under review with the NASPA Journal About Women in Higher Education.

Introduction and Policy Problem

Higher education policy has traditionally focused on student outcomes like graduation rates, keeping college affordable, and producing a large enough pool of diverse knowledge workers to meet national as well as state-level strategic needs (AASCU 2016). Relatedly, affirmative action programs have been implemented in higher education institutions with the purpose of "advancing and influencing policy for building diverse, inclusive campus communities" (Iverson 2007, p. 587). This usually has been accomplished through development and implementation of diversity action plans that are designed to attract and retain both underrepresented students and faculty (Iverson 2007). At the national level, these higher education policy mandates have been guided by the public policies and programs that attempted to correct the issues of women's and minorities' underrepresentation and low retention rates in academia. For example, Title VII of the Civil Rights Act of 1964 "prohibits discrimination in employment on the basis of sex, race, national origin, and religion" (p. 68, Hill and Warbelow 2006). Title IX Education Amendment of 1972 refers specifically to educational institutions and prohibits discrimination in employment based on gender.

Some scholars (Edelman and Petterson 1999 cited by Dobbin et al. 2011, Acker 2006), however, warn that employer diversity programs, created as a response to some of the public policies mentioned above, most often are inefficient, ceremonial, and disconnected from institutional practices. Such equal opportunity initiatives have become inefficient especially after the deregulation of compliance reviews and lawsuits in the 1980s (Dobbin and Kalev 2007). As Acker (2006) explains "affirmative action programs have become mere bureaucratic paper shuffling in most organizations, undermined by a lack of outside enforcement and inside activism and by legal attacks by white men claiming reverse discrimination" (p. 456). In order to

1

make diversity efforts more effective, institutions-centered theorists (Nonet and Selznick 1978 cited by Dobin, Schrage and Kalev 2009) recommend that institutions should implement substantive programs with specific goals, rather than procedural innovations.

While there is an abundance of federal higher education policies designed to increase diversity among faculty members at higher education institutions, fewer policies address issues related to the retention of women and minority faculty. The Family and Medical Leave Act (FMLA) of 1993 aimed to address family needs at the place of work by allowing family leaves for employees who have newborns, ill children, ill spouse, and ill relatives (Armenia & Gerstel 2006). Since women faculty rather than male faculty are the ones who most often assume such responsibilities, FMLA might have contributed to the reduction of gender inequality in academia and to an increase in their retention (Ward and Wolf-Wendel 2004). However, within departments with cultures that are not conducive to faculty family-work balance and that sanction faculty who take time off for family related responsibilities, women, as well as men, faculty are not likely to use FMLA (Drago et al. 2005).

Few of the diversity initiatives derived from equal opportunity public policies have successfully addressed the subtle cultural factors that make an academic institution gendered and racialized and that continue to adversely impact the careers of women and minority faculty (Morimoto et al. 2010). Without addressing the less obvious cultural and gender biases that exist in academic institutions, the national and institutional policies risk to be inadequately implemented if implemented at all (Fox 2008). In fact, these subtle micro-inequities have now largely replaced blatant discrimination, accumulating over time and producing major disadvantages for minority faculty as well as white women faculty (Valian 1998). Valian (2004) asserts that it is cognitive and cultural gender and racial schemas that lay the foundation for the

institutional culture and later contribute to the perpetuation of stereotypes against women and minority faculty. Once the racial and gender biases become part of the "way things work around here" they become invisible to the participants who act upon them (Valian 2004). Accordingly, the gendered and racialized organizations are the ones in which "advantage and disadvantage, exploitation and control, action and emotion, meaning and identity, are patterned through and in terms of a distinction between" women and men of different racial/ethnic groups (Acker 1990, p. 146). In such organizations gender and race/ethnicity have become embedded within the organizational structures, practices and policies, ideologies, images of the ideal professional/worker, and interactions within the workplace.

The gendering and racialization of the organization are not always easily noted but they nonetheless contribute to unequal distribution of opportunities among members of the organization (Acker 1990, 2011), leading to tangible outcomes, which include the fact that compared with their male counterparts, women's careers are more likely to be discontinued at crucial milestones, such as tenure (Etzkowitz et al. 2000). In fact, even after earning a tenure-track position, women faculty are more likely than male faculty in the same position to encounter institutional barriers in getting tenure and promotion, which eventually leads to women's increased attrition rates (Valian 2004, Bilimoria et al. 2008). The more subtle gendered and racialized micro-inequities in academia include vague tenure criteria, lack of adequate child care on campus, lack of support from senior faculty, and hostile workplace environment (Fassinger 2008).

With regard to gender, in higher education institutions, women's chances to get tenure are decreased because of the institutional policies and practices that inadequately support work-family balance and because of the institutional and cultural stereotype that the "ideal" worker is

one who is unattached to family responsibilities (Phillips 1993, Allison 2007). Finkel and Olswang (1996) and Armenti (2004) assert that tenure-track women faculty prefer to postpone childbearing until after getting tenure because of perceived negative impact of having children on tenure chances. In addition, lack of clarity in tenure criteria and review process were reported more often by women faculty than by male faculty as significant impediments to their advancement (Johnsrud & Atwater 1993, Rosser 2007). The impediments related to vague tenure criteria might be further exacerbated if women faculty are not well integrated into the departmental culture and if they do not have access to professional networks (Johnsrud 1993, Winkel 2000).

However, since institutional culture and processes as well as interactions are both gendered and racialized, minority women experience institutional barriers and exclusions that are different from those experienced either by minority men or by white women (Acker 2011). Not surprisingly, minority women are the least represented group among faculty, especially in STEM departments. In light of the findings (MacLahlan 2000) which show that senior faculty tend to mentor and support junior faculty from similar social backgrounds to their own, it appears that minority women have slimmer chances to have a mentor or professionally collaborate with senior faculty within their department. Indeed, MacLahlan (2000) found that a woman of color is very likely to be the only minority woman faculty in the majority of departments across US universities and colleges, which means that she has fewer mentoring chances. Thus, minority women faculty face the consequences of a double disadvantage stemming from structural barriers created by gender and race.

Research Questions

This three-prong study seeks to unveil potentially existing gender and racial differences in tenure-track faculty perceptions of reasonableness and clarity of tenure expectations. The study is built around three manuscripts, each addressing a set of research questions and identifying a set of factors, some suggested by previous literature, that explain faculty perceptions of clarity and reasonableness of tenure expectations.

The first manuscript examines whether and how faculty assessment of departmental and institutional support for family-work balance, faculty satisfaction with family-friendly policies and gender affect faculty perceptions of the reasonableness of tenure expectations. Particular attention is given to gender differences in perceptions of the reasonableness of tenure expectations. Moreover, it examines whether the assessment of support for family-work balance and satisfaction with family-friendly policies has a similar effect on women's and men's perceptions of the reasonableness of tenure expectations. This study is guided by the following research questions:

1. Are there gender differences in tenure-track faculty perceptions of the reasonableness of tenure expectations?

2. Does faculty assessment of departmental and institutional support for family-work balance and faculty satisfaction with family-friendly policies influence faculty perceptions of how reasonable tenure expectations are?

3. Do assessment of departmental and institutional support for family-work balance and satisfaction with family-friendly policies have a similar effect on women's and men's perceptions of the reasonableness of tenure expectations?

The second manuscript investigates the extent to which faculty assessment of mentoring within the department, satisfaction with relationships with peers, receiving feedback on tenure

progress, assessment of fairness in tenure decisions and evaluations and gender affect their

perceptions of clarity of tenure expectations. Particular emphasis is placed on gender differences

in perceptions of clarity of tenure expectations and on whether assessment of mentoring within

the department, satisfaction with relationships with peers, receiving feedback on tenure progress,

and assessment of fairness in tenure decisions and evaluations have a similar effect on women's

and men's perceptions of clarity of tenure expectations. The research questions guiding this

study are the following:

1. Are there gender differences in tenure-track faculty perceptions of the clarity of tenure

   expectations?

2. Does faculty assessment of mentoring within the department, satisfaction with

   relationships with peers, receiving feedback on tenure progress, assessment of fairness in

   tenure decisions and evaluations influence faculty perceptions of the clarity of tenure

   expectations?

3. Does faculty assessment of mentoring within the department, satisfaction with

   relationships with peers, receiving feedback on tenure progress, assessment of fairness in

   tenure decisions and evaluations have a similar effect on women's and men's perceptions

   of the clarity of tenure expectations?

Similar to the second manuscript, the third manuscript examines explanatory factors for

faculty perceptions of clarity of tenure expectations. In addition to all the variables accounted for

in the previous study though, this study looks at the intersection between gender and race and

identifies whether similar or disparate models explain perceptions of clarity of tenure

expectations for faculty occupying different intersectional locations. The research questions

guiding this study are:

6

1. How does the intersection between gender and race affect perceptions of the clarity of tenure expectations?

2. To what extent do minority women's assessment of mentoring within the department, satisfaction with relationships with peers, receiving feedback on tenure progress, assessment of fairness in tenure decisions and evaluations affect their perception of the clarity of tenure expectations?

The broader purpose of this study is to gain an understanding of how gendered and racialized academia is today. The answer to the question of whether academia is still a gendered and racialized organization, as previously asserted by feminist scholars (Acker 1990, 2012; Britton and Logan 2008), can emerge by looking at faculty perceptions of institutional practices and policies. To put it differently, the inference that the path towards tenure in academia is structurally determined by gender and race can be made if there are significant differences in faculty perceptions of clarity and reasonableness of tenure expectations.

Significance of Study

The presence of diverse faculty in universities and colleges across the U.S. has a positive impact on the institutional culture and on the learning experiences of students (Nelson, Brammer and Rhodes 2007). The cultural values and knowledge provided by scientists coming from diverse backgrounds can contribute to innovative solutions to a variety of economic and social issues, on the one hand, and important scientific discoveries, on the other (Nelson, Brammer and Rhodes 2007). Consequently, hiring and retaining diverse faculty members is important for improving student success, including improving graduation rates. Achieving faculty diversity has been an important expressed goal in the U.S. colleges and universities (Conklin and Robbins-McNeish 2006). However, in spite of extant efforts and the recognition of positive influences on

educational experiences, the representation of women and minorities in universities, especially in science, technology, engineering and math (STEM) departments has been very low and insufficient for national economic, cultural and scientific growth (Nelson and Rogers 2003).

Besides addressing knowledge gaps in the literature this project has implications for the retention of women and minority faculty. As discussed above, the presence of diverse faculty in universities and colleges across the U.S. has a positive impact on institutional cultures and on the learning experiences of students (Nelson, Brammer and Rhodes 2007). Consequently, hiring and retaining diverse faculty members is important for improving student success, including an increase in graduation rates.

This study represents the first attempt to create a model that would explain faculty's perceptions of reasonableness of tenure expectations. Reasonableness of tenure expectations/how manageable work requirements are can be related to faculty ability, especially women's ability, to balance work and family responsibilities (Allison 2007). The multivariate model, however, focuses only on institutional and departmental factors that can influence faculty ability to manage work requirements. Thus, the multivariate model for the reasonableness of tenure reveals whether women's, or both men's and women's perceptions of the reasonableness of tenure expectations are influenced by institutional and departmental support for family-work balance. Whether the departmental culture and institutional policies recognize and accommodate faculty members' various life roles related to both family and work responsibilities is also explored, thus, revealing whether the unencumbered by family responsibilities worker is still the "ideal" worker. Further, the answers to this study provide an insight into the influence of institutional family-friendly policies on faculty ability to manage work requirements, thus, exposing whether both women's and men's careers are affected by family responsibilities. This investigation

8

provides recommendations for institutional, cultural and/or policy change that can contribute to the retention of faculty who have family responsibilities.

This study is also the first attempt to create a model to help explain faculty perceptions of the clarity of tenure expectations. Understanding the tenure process is important for faculty because it helps them become successful and it decreases attrition rates. Research suggests that women faculty are less likely than men faculty to understand their roles on the tenure-track (Ponjuan et al. 2011), while minority women faculty are the least likely faculty to have a clear understanding of the tenure process (Agathangelou and Ling 2002). In line with gendered organization theory's assumption, this is the case because women and especially minority women are less likely to be part of professional and informal information networks and their work is less likely to be evaluated justly.

The model for perceptions of the clarity of tenure expectations reveals the factors that contribute to an understanding of the tenure process for faculty and also the social groups who have the most and the least access to tenure requirements related venues of information. Knowing the factors that contribute to more clarity for diverse groups of faculty during the tenure process would help universities develop strategies to make the tenure process more transparent for all faculty. At the same time, information regarding the groups of faculty that have the most and the least access to informal professional networks would help institutions in making reforms to the institutional culture that leads to imbalances.

Organization of Dissertation

The study is organized into five chapters. Chapter two consists of the manuscript called "Work-life balance and the reasonableness of tenure expectations: Gender differences in faculty experiences." Chapter three presents the manuscript titled "Faculty assessment of the clarity of

tenure expectations: Does gender matter?" The fourth chapter presents the manuscript named

"Gender and race differences in faculty assessment of the clarity of tenure expectations." In the

final, fifth chapter, a summary of findings, and theoretical and policy implications are discussed.

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Chapter 1

Work-Life Balance and Reasonableness of Tenure Expectations: Gender Differences in Faculty Experiences

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Work-Life Balance and Reasonableness of Tenure Expectations: Gender Differences in Faculty Experiences

Abstract

Perceptions of work-life balance and of reasonableness of tenure expectations are key faculty retention factors. Using job satisfaction data from 2438 tenure-track assistant professors at research universities, we explore whether faculty appraisal of select institutional factors influence their assessments of reasonableness of tenure expectations. Results reveal that women faculty are less likely than men to report tenure expectations are reasonable. Departmental support for family-work balance, personal attainment of family-work balance, and workload have the strongest association with reasonableness. For both women and men perceptions of departmental and institutional support for family-work balance and satisfaction with family-friendly policies have a positive influence on their assessment of reasonableness of tenure expectations.

Keywords: gender, work-family balance, family-friendly policies, higher education

Work-Life Balance and Reasonableness of Tenure Expectations: Gender Differences in

Faculty Experiences

Despite two decades of institutional changes addressing gender disparities (Rosser & Chameau, 2006) and significant strides that women faculty have made at U.S. universities, women's chances to achieve tenure continue to lag behind those of men (Roos & Gatta, 2009; Rosser, 2007). Evidence suggests that women faculty who do achieve tenure tend to fit into the male organizational model (Etzkowitz, Kemelgor, & Uzzi, 2000), which, as the concept of "gendered organizations" suggests (Acker, 1990, p. 146), defines the "ideal" worker as one who is largely unaffected by family responsibilities (Williams, 2000). Reasons why women faculty still face challenges in combining family and work demands are multiple (Comer & Stites-Doe, 2006). Although both women and increasingly men faculty have "caring commitments," these commitments continue to place more demands on women's time (Ash, Carr, Goldstein, & Friedman, 2004; Carr et al., 1998; Ward & Wolf-Wendel, 2004). Moreover, the impact of gender equity related institutional changes is hindered by the overall increase in teaching, research, and service expectations, steeper competition for grant funding, and longer wait times for getting published in top journals (Eagan Jr & Garvey, 2015; Cathy A. Trower, 2012). Although faculty productivity does not appear to be affected by family responsibilities, which, as some research suggests, may actually motivate faculty to work harder (Eagan Jr & Garvey, 2015), raising tenure expectations may be seen as less reasonable by "those who are actively engaged in caring commitments" (Munn-Giddings, 1998, p. 59).

In 2005, the Collaborative on Academic Careers in Higher Education (COACHE) has begun measuring tenure reasonableness among participating institutions. Subsequently, the issue of tenure reasonableness—that is, how achievable one thinks the requirements for tenure are—

has moved to the center of institutional assessment of policies and practices contributing to or hindering faculty careers (Cathy A Trower, 2009; Cathy A. Trower & Gallagher, 2008). Since then tenure reasonableness has also been used in studies of tenure review fairness (Lawrence, Celis, & Ott, 2014), faculty's personal fit with the institution (Awando, 2014), and job satisfaction (Creamer, Saddler, & Layne, 2008; Jackson, Latimer, & Stoiko, 2016; Maahs-Fladung, 2009). While all faculty appraise the reasonableness of the tenure expectations prior to accepting a job, the evaluation is ongoing, influencing faculty's assessments of whether it is practical to stay. For pre-tenure faculty, this appraisal includes the feasibility of balancing tenure requirements with family responsibilities while also considering the availability of family-friendly policies and departmental as well as institutional support for family-work balance (Rosser & Chameau, 2006).

Recent tenure-track faculty surveys conducted by COACHE (2006, 2007, 2008, 2010) show that, compared to men faculty, women faculty perceive tenure expectations as less reasonable, these gender differences remain largely unexplained. Further, while there is an ample research of the effects of family obligations on faculty productivity (Carr et al., 1998; Eagan Jr & Garvey, 2015; Sax, Hagedorn, Arredondo, & Dicrisi III, 2002), despite the critical role that balancing tenure requirements with family responsibilities plays in pre-tenure faculty lives (Armenti, 2004), no study, to our knowledge, has investigated whether different factors related to the balance between family and work responsibilities influence faculty perceptions of how reasonable tenure expectations are. To address this gap, we examine whether and how tenure-track faculty assessment of balance between family and work responsibilities, satisfaction with family-friendly policies, and assessment of departmental and institutional support for family-work balance affect their appraisal of reasonableness of tenure expectations regarding their

17

performance as scholars.[1] We also consider gender differences and whether gender has a multiplicative effect on the dependent variable by influencing evaluation of departmental and institutional support for family-work balance and satisfaction with family-friendly policies. This study is guided by the following research questions:

1. Are there gender differences in tenure-track faculty perceptions of reasonableness of tenure expectations?

2. Does faculty assessment of departmental and institutional support for family-work balance and faculty satisfaction with family-friendly policies influence faculty perceptions of how reasonable tenure expectations are?

3. Do assessment of departmental and institutional support for family-work balance and satisfaction with family-friendly policies have a similar effect on women's and men's perceptions of reasonableness of tenure expectations?

Study Framework: Gender, Family Responsibilities, and the Reasonableness of Tenure

Acker (1990) asserts that bureaucratic organizations are not gender-neutral, but rather are permeated by gendered assumptions, practices, and policies. Although the official organizational discourse and policies present job positions as devoid of ascriptive connotations, the actual job requirements and organizational norms imply that the worker is a traditional married man whose wife takes care of the family's needs (Acker, 2011). This man-as-normative is especially visible in institutional policies and practices regarding familial support, which are still designed according to the traditional male life-course (Acker, 1990). Within such a framework, workers cannot have many responsibilities outside the organization, as that would make them less suited

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[1] Since our sample consists of tenure-track faculty at very high research and high research universities where the most important faculty role is that of a scholar, we chose tenure expectations reasonableness regarding performance as a scholar as the dependent variable.

for the job (Acker, 1990). In this context, research suggests that family friendly institutional

contexts increase faculty retention rates and faculty's ability to balance family and work

(Bracken, Allen, & Dean, 2006; Hollenshead, Sullivan, Smith, August, & Hamilton, 2005;

O'Meara & Campbell, 2011). The ideal academic earns his/her tenure within seven years of

academic appointment and fulfills his/her duties for 40 years uninterruptedly—that is, without

taking child-related leave (Drago & Williams, 2000). For women, this normative assumption

puts pressure to reach tenure when they have to simultaneously conduct research, teach, perform

community service, and meet their family responsibilities (Drago & Williams, 2000). Based on

this we hypothesize: *(1). Tenure-track women faculty are less likely than their male counterparts*

to report that tenure expectations regarding performance as scholars are reasonable.

Women faculty mention challenges related to work-family balance as the number one

academic career struggle (Ash et al., 2004; Dey, 1994; Elliott, 2008). Compared to their male

counterparts, women faculty with children are less likely to achieve tenure during the same

timeframe (Mason & Goulden, 2002; White, 2005). In fact, most women faculty who achieve

tenure are unmarried and do not have children (Mason & Goulden, 2002), while women who

have children often consider giving up their academic careers (Rosser & Lane, 2002). In

contrast, tenured men are more likely to be both married and have children (White, 2005) as

men's careers seem to benefit, not suffer, from family expansion (Mason & Goulden, 2002).

Still, recent findings show that having children younger than six years or school-aged children

(6-18 years) has similar influence on both men and women faculty's assessments of family-work

conflict (Fox, Fonseca, & Bao, 2011).[2] In light of this, we hypothesize: *(2). Compared to faculty*

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[2] Fox, Fonseca, and Bao (2011) define "family-to-work conflict" as "the extent to which faculty
report that family and household responsibilities interfere with work" and "work-to-family

who do not have dependent children, tenure-track faculty who have dependent children are less likely to report that tenure expectations are reasonable.

Solomon's (2011) study suggests that most faculty who do not have children, but are married or single conform to the norm of the "ideal worker" by adopting work styles that leave little space for a personal life. Faculty with children, both women and men, on the other hand, resist the "ideal worker" expectations and dedicate their time to both family and work. Nevertheless, "women report significantly higher interference of both family on work and work on family than men do" (Fox et al., 2011, p. 727). The gender difference, however, is higher with regard to the interference of family responsibilities with work (Fox et al., 2011). Based on these findings, we formulate the following hypothesis: *(3). Tenure-track faculty who have been able to find the right balance between professional life and personal life are more likely to report greater reasonableness in tenure expectations.*

Other family duties related to care for an elderly person have been found to be significant stressors and detractors to job satisfaction for non-tenured women faculty, but not for men faculty (Hagedorn & Sax, 2003). Women faculty also have "more responsibilities when caring for an elderly relative and have more difficulties meeting those responsibilities" (Elliott, 2003, pp. 169-170). Family Caregiver Alliance (2012) data show that the majority of informal caregivers (66%) for ill/disabled adults and for the elderly are women. With the Baby Boomer generation growing older, it appears that women currently on the tenure track would be challenged to take on elder care (Bonawitz & Andel, 2009). Taking into consideration the literature on elderly care and ill family member responsibilities of faculty, we formulate the

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conflict" as "the extent to which faculty report that work interferes with family and household" (p. 720).

following hypotheses: *(4). Compared to faculty who do not care for a disabled or ill family member, tenure-track faculty who care for a disabled or ill family member are less likely to report that tenure expectations are reasonable. (5). Compared to faculty who do not provide care for an elderly person, tenure-track faculty who provide care for an elderly person are less likely to report that tenure expectations are reasonable.*

Family-Friendly Policies at U.S. Universities

As we have discussed above, women faculty's careers are more often affected by child and other family responsibilities than are men's. Family-friendly policies have been designed to alleviate some of the pressures faced by faculty, by enabling them to continue their careers while attending to their families (O'Meara & Campbell, 2011).

The federal FMLA policy provides "up to12 weeks of unpaid leave to employees, who have worked 1250 hours or more in the preceding 12 months, in order to have or adopt a baby, or care for oneself, or a child, spouse or parent" (MacLachlan, 2000, p. 8). While the federal policy ensures unpaid leave, some states also provide paid dependent care leave, which is available for parental leave, maternity or paternity leave, and adoptive parent leave for infant care and leaves for ailing parents or partners. Both women and men faculty can take parental/family leave. Research, however, indicates that women faculty are more likely to report that "family leave" is important for their careers (Schneller, 2012). Furthermore, even when both women and men faculty take parental leave, women faculty take on more child-related responsibilities while on leave. In fact, men faculty might be using their parental leave differently, devoting the time to professional purposes and for increasing research productivity (Rhoads & Rhoads, 2004). Regardless of how faculty spend their leave, being satisfied with parental leave policies should affect how both women and men faculty assess the reasonableness of tenure expectations. The

relationship between these two factors, however, should be stronger for women faculty. In light

of this literature, we propose the following hypotheses: *(6). Tenure-track faculty who are*

satisfied with family medical/parental leave policies at their institution are more likely to report

greater reasonableness in tenure expectations. (7). Compared to men faculty, tenure-track

women faculty who are satisfied with the family medical/parental leave policies at their

institution are more likely to report tenure expectations as reasonable.

Besides the FMLA, *tenure clock stop* policies that "allow a tenure-track faculty member

to have a temporary pause in the tenure clock to accommodate special circumstances" are the

most often offered (Hollenshead et al., 2005, p. 44; Waltman & Hollenshead, 2005). These

policies are used for childbirth, adoption, significant personal medical illness, and extensive care

needs of dependents. Usually, women faculty need and use tenure clock stop policies more than

men faculty (Hollenshead et al., 2005; Quinn, 2010). Also, women faculty are more likely than

men faculty to receive more than one tenure-clock extension (Quinn, 2010) and to perceive the

policy as important for their career success (Schneller, 2012). Accordingly, we hypothesize: (*8).*

Tenure-track faculty who are satisfied with stop-the-clock policies at their institution are more

likely to report greater reasonableness in tenure expectations. (9). Compared to men faculty,

tenure-track women faculty who are satisfied with the stop-the-clock policies at their institution

are more likely to report that tenure expectations are reasonable.

Finally, another family-friendly policy, *modified duties*, allows "a faculty member to

reduce her or his teaching, research, or service load for a temporary period (usually a term or

two) without a commensurate reduction in pay" (Hollenshead et al., 2005, p. 44; Smith &

Waltman, 2006). Modified duties are helpful for faculty, who due to responsibilities for children

and elders, cannot perform their work duties full-time. Compared to men faculty, women faculty

perceive "modified duties" policies to be more important for their career success (Schneller, 2012). Our hypotheses are: *(10). Tenure-track faculty who are satisfied with flexible workload/modified duties policies at their institution are more likely to report greater reasonableness in tenure expectations. (11). Compared to men faculty, tenure-track women faculty who are satisfied with the flexible workload/modified duties policies at their institution are more likely to report that tenure expectations are reasonable.*

Departmental and Institutional Support of Family-Work Balance and the Reasonableness of Tenure

Departmental cultures and institutional policies play an important role in an employee's ability to successfully balance work and family (Valcour & Batt, 2003). When departmental cultures do not value family-work balance, but rather emphasize work commitments, then employees, in particular women, might view this culture as hindering their career possibilities (Perlow, 1997; Valcour & Batt, 2003). "Workaholic" and male values embedded in departmental cultures have been identified as contributing to the perpetuation of the stereotype that family duties can damage career advancement (Hollenshead et al., 2005). With regard to departmental support, men and women faculty differ in their assessment of how supportive their departments are. For example, O'Laughlin and Bischoff (2005) found that compared to men faculty, women faculty are less likely to report that their departments are supportive in achieving a balance between work and family. Taking this literature into consideration, we propose the following hypotheses: *(12). Tenure-track faculty who agree that their departmental colleagues do what they can to make personal/family obligations and an academic career compatible are more likely to report greater reasonableness in tenure expectations. (13). Compared to men faculty, tenure-track women faculty who agree that their departmental colleagues do what they*

can to make personal/family obligations and an academic career compatible are more likely to report that tenure expectations are reasonable.

Hollenshead et al. (2005) explain that university administrators can shape institutional culture through policies or handbooks that explain how and whether taking family leave would affect annual tenure evaluations. These formal documents should also caution promotion committees not to punish faculty who use family-friendly policies. Such formal statement have the potential to shatter the cultural expectations that family duties endanger one's career and can encourage faculty to use family-friendly policies (Drago et al., 2005). Again women and men faculty have different opinions about institutional support for family-work balance. Namely, compared to men faculty, women faculty are less likely to report that their institutions are supporting faculty in achieving a balance between work and family (O'Laughlin & Bischoff, 2005). In light of this literature, we formulate the following hypotheses: (*14). Tenure-track faculty who agree that their institution does what it can to make personal/family obligations and an academic career compatible are more likely to report greater reasonableness in tenure expectations. (15). Compared to men faculty, tenure-track women faculty who agree that their institution does what it can to make personal/family obligations and an academic career compatible are more likely to report that tenure expectations are reasonable.*

Workload in Academia

For tenure-track faculty, the number of hours worked per week and intensity of work requirements are positively associated with their reported work-related stress and inability to adequately balance work and personal life (O'Laughlin & Bischoff, 2005; Solomon, 2011). Women, however, report higher levels of dissatisfaction with the workload (measured as number of hours spent on work responsibilities) compared to men (Jacobs & Winslow, 2004). Hence, we

propose the following hypothesis: *(16). Tenure-track faculty who are more satisfied with their workload are more likely to report that tenure expectations are reasonable.*

Research Design

COACHE Survey and Institutional Type

This study uses data from the Harvard University Collaborative on Academic Careers in Higher Education (COACHE) survey on tenure-track faculty job satisfaction are used. Since the COACHE survey was first implemented in 2005, about 200 higher education institutions have participated. A purposive sampling process was implemented to arrive at the final sample for this study. The selection criteria used for choosing the purposive sample were: time, type of institution, tenure status, and professorial rank. First, a relatively recent data slice (2011–2012) sheds light on the current academic environment and tenure-track faculty's perceptions of it. Second, since previous research (Jackson, 2004; Nelson and Rogers, 2003) suggests that gender inequalities are more pervasive within the competitive environment of research universities, only "very high research activity" and "high research activity" universities were included in the sample. Third, because this study addresses questions about faculty perceptions of reasonableness of tenure expectations, only assistant professor, tenure-track faculty data were included in the sample.

Study Participants

The participants in this study are 2438 tenure-track assistant professors. Females make up 48.2% (1176), while males represent 51.8% (1262). With regard to other characteristics, 35.6% (865) of respondents have children who are infants, toddlers, or pre-schoolers; 337 (39%) of these parents are female faculty, while 528 (61%) are male faculty; 6.7% (162) of respondents are caregivers for elders; 74.1% (120) of these caregivers are female and 25.9% (42) are male;

5% (127) of respondents have in their responsibility a disabled or ill family member; 71% (90) of

faculty with such responsibilities are women and 29% (37) are men.

Dependent and Independent Variables

Perceptions of Reasonableness of Tenure Expectations

To measure faculty perceptions of reasonableness of tenure expectations, the COACHE

survey uses a Likert scale. For the dependent variable we use the following survey question: "Is

what is expected in order to earn tenure reasonable to you regarding your performance as a

scholar" (COACHE Codebook, 2012). Faculty responses were measured on a scale from 1 to 5,

1 meaning "Very unreasonable" and 5 meaning "Very reasonable." "Not applicable" and

"Decline to answer" options are also available. The dependent variable and most of the

independent variables were collapsed from 5 categories into 3 categories. Table 1 contains a

detailed description of the variables in the study.

Table 1 Variables

Variable Name	Item #	Item Content Description
Reasonableness of Tenure Expectations	Q138A	Is what is expected in order to earn tenure reasonable to you regarding your performance as a scholar
Family-Friendly Policies		*Please rate your level of satisfaction of dissatisfaction with the following aspects of your employment:*
Family Leave	Q95J	Family medical/parental leave
Modified Duties	Q95K	Flexible workload/modified duties for parental or other family reasons
Stop-the-Clock	Q95L	Stop-the-clock for parental or other family reasons
Work-Life Balance		*Please rate your level of agreement or disagreement with the following statements:*
Professional-Personal Balance	Q200A	I have been able to find the right balance, for me, between my professional life and my personal/family life
Institutional Support for work-life balance	Q200B	My institution does what it can to make personal/family obligations (e.g., childcare or eldercare) and an academic career compatible
Departmental Support for Work-Life Balance	Q200C	My departmental colleagues do what they can to make personal/family obligations (e.g., childcare or eldercare) and an academic career compatible
Family Responsibilities		*Do you have any of the following responsibilities?*
Care for Children	Q295_1	Infants, toddlers, or pre-school age children who live with you at least half the year
Care for Elders	Q295_4	Elders for whom you are providing ongoing care for more than 3 hours a week
Care for an Ill Family Member	Q295_5	A disabled or ill family member
Workload		*Please rate your level of satisfaction or dissatisfaction with the following:*
	Q70A	The number of courses you teach
	Q70D	The number of students in the classes you teach
	Q60E	The number of students you advise/mentor
	Q45B	Portion of your time spent on research

Given that at research universities the main role of a tenure-track assistant professor is

that of a scholar and scholarship is the main tenure criterion, this study focuses on tenure

reasonableness in the area of scholarship. Gender, coded as 1 for female and 0 for male, is the independent variable of most interest in this study. Other independent variables include *satisfaction with family-friendly policies*: family medical/parental leave, flexible workload/modified duties, and stop-the-clock policies; and, the level of agreement that there is *institutional and departmental support for family-work balance* (see Table 1). Several control variables (workload and family status) are also tested. The composite variable "workload" was created using the following variables: satisfaction with number of courses taught, satisfaction with number of students taught, satisfaction with number of students to advise/mentor, and satisfaction with amount of time spent on research. This composite variable has a reliability coefficient of .54. The *family status variables* include: respondent has infant, toddler, or pre-school children; respondent provides care for an elder; respondent has the responsibility of caring for a disabled/ill family member. Variable "to have found the right balance between professional life and personal life" is also included as a control variable.

Methods of Data Analysis

To determine the relationship and strength of association between faculty perceptions of reasonableness of tenure expectations as a scholar and multiple independent variables, we conduct chi-square and tau-b tests. Since the dependent variable satisfies the parallel proportional odds assumption (Long, 1997; Miller & Volker, 1985), to determine which variables have the most influence on faculty perceptions of reasonableness of tenure expectations, we use ordered logistic regression. We tested several interaction models to examine the multiplicative effect that gender may have on perceived reasonableness of tenure expectations. Interaction terms were created by combining dummy variables created from

28

independent variable categories with gender. STATA statistical software was used to perform data analysis.

Findings

Our main goals are 1) to identify if there are gender differences in faculty perceptions of reasonableness of tenure expectations, and 2) to create a model with theoretically informed independent variables that helps to explain women's and men's perceptions of reasonableness of tenure expectations. First, we discuss the bivariate results.

Bivariate Results

The bivariate results are presented in Table 2. Most independent variables, including faculty satisfaction with family-related policies, faculty satisfaction with the number of courses taught, the number of students taught, and the number of students to advise, and faculty satisfaction with the amount of time spent on research are significantly and positively related to perceptions of reasonableness of tenure expectations. Moreover, faculty who have found balance between professional and family life, and who agree that their institutional and departmental colleagues do what they can to make family obligations and an academic career compatible, perceive tenure expectations to be more reasonable. In contrast, the bivariate tests revealed that faculty who care for elders and faculty who care for a disabled or ill family member consider tenure expectations less reasonable. The tests showed no statistically significant relationship between perceptions of reasonableness of tenure and respondents having infant, toddler, or pre-school children.

Table 2 Relationship between Reasonableness of Tenure Expectations and Independent Variables

Variables	Chi-square	P>Chi-square	df	tau-b	n
Family Leave	57.476	0.000	4	0.147	1166
Modified Duties	70.763	0.000	4	0.190	1254
Stop-the-Clock	39.059	0.000	4	0.147	1098
Professional-Personal Balance	167.493	0.000	4	0.259	2154
Institutional Support for Work-Life Balance	153.925	0.000	4	0.243	1795
Departmental Support for Work-Life Balance	170.641	0.000	4	0.249	1929
Satisfaction with Number of Courses Taught	78.944	0.000	4	0.175	2101
Satisfaction with Number of Students Taught	65.847	0.000	4	0.143	2093
Satisfaction with Number of Students to Mentor	100.936	0.000	4	0.190	2143
Satisfaction with Time Spent on Research	191.605	0.000	4	0.265	2218
Care for Children	4.562	0.102	2	_	2227
Care for Elders	17.452	0.000	2	_	2227
Care for an Ill Family Member	18.209	0.000	2	_	2227

The bivariate results with gender as the independent variable show that compared to men women view tenure expectations as less reasonable (Table 3). With regard to family-friendly policies, the bivariate results reveal that while women faculty are less satisfied with family medical/parental leave policies and with flexible workload/modified duties, men are less satisfied with stop-the-clock for parental leave.

Table 3 Relationship between Gender and Other Variables

Variables	Chi-square	P>Chi-square	df	n
Reasonableness of Tenure Expectations	25.654	0.000	2	2227
Family Leave	7.069	0.029	2	1228
Modified Duties	16.467	0.000	2	1319
Stop-the-Clock	14.344	0.001	2	1152
Professional-Personal Balance	25.713	0.000	2	2254
Institutional Support for Work-Life Balance	17.034	0.000	2	1872
Departmental Support for Work-Life Balance	14.208	0.001	2	2011
Satisfaction with Number of Courses Taught	10.215	0.006	2	2245
Satisfaction with Number of Students Taught	4.019	0.134	2	2236
Satisfaction with Number of Students to Mentor	21.268	0.000	2	2295
Satisfaction with Time Spent on Research	60.409	0.000	2	2387
Care for Children	47.270	0.000	1	2427
Care for Elders	34.173	0.000	1	2427
Care for an Ill Family Member	27.252	0.000	1	2427

Concerning the work-life balance variables, the data show that compared to men, women faculty are less likely to have found balance between professional and family life, or to agree that their institution and their departments do what they can to make family obligations and an academic career compatible. Data also reveal that women are less satisfied with the number of courses taught, the number of advisees, and with the time spent on research; no significant gender differences were found regarding satisfaction with the number of students taught.

Other bivariate results on family status variables indicate that while women faculty are less likely have infant, toddler, or pre-school children, they are more likely to provide care for elders and to have the responsibility of caring for a disabled/ill family member.

Multivariate Results

We used a theory-based approach to develop the first two multivariate models, which include our primary variables of interest. The third multivariate model contains control variables

as well. Multiple regression models that test for the presence of interaction effect of gender and

other independent variables on assessment of clarity of tenure expectations, were run.[3] Tests for

collinearity indicate no collinearity between the independent variables selected for the

multivariate analysis. A Brant test results show that with one exception (family-friendly policies

model), the models the models satisfy the parallel proportional odds assumption. Multiple

iterations were used in order to arrive at the model in each grouping. Omnibus and multivariate

results can be viewed in Table 4.

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[3] No significant interaction effects were found. A table with results is presented in the Appendix
of this paper.

Table 4 Ordered Logistic Regression Results for Tenure Reasonableness by Groups and Variables

Group	model coefficients				model summary	
	n	chi2	Df	p	log likelihood	R2
Family-Friendly Policies	731	47.86	4	0.000	-534.730	0.043
Policies/Work-Life Balance	849	109.2	5	0.000	-598.041	0.084
Full Model	781	182.23	10	0.000	-504.567	0.153

						95% CI	
Variable	B	S.E	Z $^{-stat}$	p(Z)	df	Lower	Upper
Family-Friendly Policies							
Family Leave	0.277	0.138	2.01	0.045	4	0.006	0.547
Modified Duties	0.345	0.131	2.63	0.008	4	0.088	0.601
Stop-the-Clock	0.172	0.139	1.24	0.216	4	-0.101	0.445
Gender	-0.443	0.174	-2.55	0.011	4	-0.783	-0.103
Policies/Work Life Balance							
Family Leave	0.142	0.124	1.14	0.254	5	-0.102	0.385
Modified Duties	0.121	0.13	0.93	0.352	5	-0.134	0.377
Institutional Support for Work-Life Balance	0.223	0.122	1.83	0.067	5	-0.015	0.461
Departmental Support for Work-Life Balance	0.68	0.116	5.85	0.000	5	0.452	0.907
Gender	-0.486	0.163	-2.99	0.003	5	-0.804	-0.167
Full Model							
Family Leave	0.147	0.134	1.09	0.274	10	-0.116	0.41
Modified Duties	0.154	0.143	1.08	0.281	10	-0.126	0.433
Professional-Personal Balance	0.518	0.107	4.84	0.000	10	0.308	0.728
Institutional Support for Work-Life Balance	-0.165	0.139	-1.18	0.238	10	-0.438	0.109
Departmental Support for Work-Life Balance	0.527	0.132	3.99	0.000	10	0.267	0.785
Workload	0.275	0.046	5.97	0.000	10	0.185	0.365
Care for Children	0.29	0.179	1.62	0.105	10	-0.061	0.641
Care for Elders	-0.237	0.502	-0.47	0.636	10	-1.221	0.746
Care for Ill Family Member	-0.434	0.363	-1.2	0.232	10	-1.147	0.278
Gender	-0.293	0.181	-1.62	0.106	10	-0.648	0.063

Family-Friendly Policies Model

The multivariate model for family-friendly policies contains the following variables: satisfaction with family medical/parental leave, satisfaction with flexible workload/modified duties, satisfaction with stop-the-clock policies, and gender as independent variables regressed on perceptions of reasonableness of tenure expectations. The model failed the Brant test; however, we confirmed the ordered logistic regression results for this model by running a logistic regression test. Three multivariate models that included each independent variable along with gender were employed. These models reveal that while satisfaction with family medical/parental leave and satisfaction with flexible workload/modified duties variables satisfy the parallel proportional odds assumption, satisfaction with stop-the-clock policies does not. Thus, this variable was not included in the subsequent multivariate models. The chi-square value for this model (chi2 (4) = 47.86, p = .001) suggests that at least one regression coefficient in the model is significant and different from zero.

Hypothesis: Tenure-track faculty who are satisfied with family medical/parental leave policies at their institution are more likely to report greater reasonableness in tenure expectations. Our results confirm this hypothesis. The regression coefficient (.28, p = .045) indicates that, when controlling for other variables, faculty who are satisfied with this policy perceive tenure expectations as more reasonable, compared to faculty who are dissatisfied and faculty who are neither satisfied nor dissatisfied.

Hypothesis: Tenure-track faculty who are satisfied with flexible workload/modified duties policies at their institution are more likely to report greater reasonableness in tenure expectations. The results support this hypothesis. The regression coefficient value (.35, p = .008) suggests that, when controlling for other variables, faculty who are satisfied with flexible

workload/modified duties policies perceive tenure expectations as more reasonable compared to faculty who are dissatisfied and faculty who are neither satisfied nor dissatisfied.

Hypothesis: Tenure-track faculty who are satisfied with stop-the-clock policies at their institution are more likely to report greater reasonableness in tenure expectations. The data do not support this hypothesis. The regression coefficient for satisfaction with stop-the-clock policies is not significant.

Gender in this model is negatively related to perceptions of reasonableness of tenure expectations (coefficient = -.44, p = .011), suggesting that women are less likely than men to perceive tenure expectations as reasonable when controlling for satisfaction with family-friendly policies.

Model with Family-Friendly Policies and Work-Life Balance Variables

The second multivariate model included gender, the family-friendly policies variables (except stop-the-clock), institutional and departmental support for family obligations variables, and perceptions of reasonableness of tenure expectations. The chi-square results (chi2 (5) = 109.20, p ≤ .001) indicate that the value of at least one regression coefficient in the model is greater than zero and significant.

Hypothesis: Tenure-track faculty who agree that their institution does what it can to make personal/family obligations and an academic career compatible are more likely to report greater reasonableness in tenure expectations. The results do not support this hypothesis at a conventional level of significance. However, at the level of p ≤ .10 the results indicate that faculty who agree that their institution does what it can to make personal/family obligations and an academic career compatible perceive tenure expectations as more reasonable (coefficient = .22, p ≤ .07).

Hypothesis: Tenure-track faculty who agree that their departmental colleagues do what they can to make personal/family obligations and an academic career compatible are more likely to report greater reasonableness in tenure expectations. The results confirm this hypothesis and indicate that faculty who agree that their departmental colleagues do what they can to make personal/family obligations and an academic career compatible perceive tenure expectations as more reasonable (coefficient = .68, $p \leq .001$).

Gender in this model has a significant and negative relationship with perceptions of reasonableness of tenure expectations (coefficient = -.49, $p \leq .01$). This result suggests that women are less likely to perceive tenure expectations as reasonable when controlling for work-life balance variables.

Three variables in this model significantly influence perceptions of reasonableness of tenure expectations: agreement that the institution does what it can to make personal/family obligations and an academic career compatible, agreement that there is departmental support for work-life balance, and gender. Family medical/parental leave and flexible workload/modified duties are no longer significantly associated with perceptions of reasonableness.

Full Multivariate Model

The full multivariate model consists of the independent variables included in the previous model with the addition of control variables (balance between professional and personal life; workload; having an infant, toddler or pre-school children; caring for elders or an ill/disabled family member). Consistent with the previous model, agreement that there is departmental support for work-life balance (coefficient = .53, $p \leq .001$) has a positive significant effect on perceptions of reasonableness; other independent variables, including gender, are not significant.

36

The full multivariate model also contains several control variables. *Hypothesis: Tenure-track faculty who have been able to find the right balance between professional life and personal life are more likely to report greater reasonableness in tenure expectations.* The results confirm this hypothesis. The regression coefficient (.52, p = .001) indicates that faculty who have been able to find the right balance between professional life and personal life perceive tenure expectations as more reasonable.

Another control variable included in the model is workload. *Hypothesis: Tenure-track faculty who are more satisfied with their workload are more likely to report that tenure expectations are reasonable.* The coefficient for "workload" is positive and significant, indicating that, controlling for other variables, faculty who are more satisfied with their workload perceive tenure expectations to be more reasonable (coefficient = .28, p = .001).

The control variables related to family status (respondent has infant, toddler or pre-school children; respondent cares for an ill/disabled family member; and respondent provides care for elders) are not significant.

Discussion and Policy Implications

This study addresses the gap in the existing literature regarding the nature of gender differences in faculty perceptions of how reasonable tenure expectations are. The goals of this study were to, first, determine if there are gender differences in faculty perceptions of reasonableness of tenure expectations, and, second, to establish whether these perceptions are influenced by faculty assessment of institutional and departmental support for family-work balance, and by faculty satisfaction with family-friendly policies.

Our bivariate results confirm previous research findings showing that women 1) are less likely to report that tenure expectations are reasonable and agree that their institution and

departmental colleagues do what they can to make family obligations and an academic career compatible (COACHE, 2008, 2010; O'Laughlin & Bischoff, 2005); and, 2) are less satisfied with family medical/parental leave policies and with flexible workload/modified duties policies (Hollenshead et al., 2005; Rhoads & Rhoads, 2004). Contrary to expectations (Quinn, 2010), however, our results show that men are less satisfied with stop-the-clock policies. This unexpected finding may reflect the fact that while gender neutral stop-the-clock policies benefit men than women faculty, at many universities, these policies first applied to mothers and only recently became gender neutral (Antecol, Bedard, & Stearns, 2016). The bivariate results for the control variables also confirm existing findings. Compared to men faculty, women faculty are less likely to have found work-life balance (Fox et al., 2011); are less satisfied with their workload (Jacobs & Winslow, 2004b); are more likely to provide care for elders for more than 3 hours a week (Elliott, 2003); are more likely to care for a disabled or ill family member (Family Caregiver Alliance, 2012); and have fewer children (Mason & Goulden, 2002).

With regard to factors that influence faculty perceptions of the reasonableness of tenure expectations, we found that satisfaction with family medical/parental leave and flexible workload/modified duties policies have a positive impact. This is consistent with our hypotheses and existing research (O'Meara & Campbell, 2011). However, we did not find gender differences in satisfaction with family/parental leave or satisfaction with flexible workload/modified duties policies' effects upon perceptions of the reasonableness of tenure expectations. This finding contradicts the results of previous research which indicates that, compared to men faculty, women faculty perceive that family-friendly policies are more important for their career success (Schneller, 2012). While women faculty may view family-friendly policies as more important for their career success, the satisfaction with these policies does not differentiate women's and

38

men's perceptions of the reasonableness of tenure expectations. Consequently, our study indicates that by making family medical/parental leave and workload/modified duties policies available to faculty, institutions may improve both women and men faculty's perceptions of tenure requirements. However, since our bivariate results show that women faculty are more likely to be dissatisfied with family-friendly policies, it is possible their workplace satisfaction will be more affected by the availability of such policies.

When we introduced additional variables, including institutional and departmental support for work-family balance, we found that these factors have significant and positive effects on faculty perceptions of the reasonableness of tenure expectations, but faculty satisfaction with family-friendly policies no longer has a significant influence on these perceptions. These findings are congruent with our hypotheses and existing studies (Allison, 2007; Drago et al., 2005), which show that the availability of family-friendly policies is useful only when institutions and departments encourage faculty to take advantage of these policies.

This study and existing research reveal that women faculty perform more family care duties than men faculty (Elliott, 2003; White, 2005). Hence, we hypothesized that the assessment of departmental and institutional support for work-family balance would have more influence on women's perceptions of tenure reasonableness. This hypothesis was not confirmed; for both women and men faculty, perceptions of institutional and departmental support for family-work balance have a similar positive effect on their assessment of reasonableness of tenure expectations. Consequently, by providing/improving institutional and departmental support for family-work balance, institutions and departments can improve both women's and men's perceptions of the reasonableness of tenure expectations, hence increasing faculty job satisfaction. However, since our bivariate analyses showed that women faculty are more likely

to disagree that their departments and institutions provide adequate support for family-work balance, improvements in institutional and departmental support would more likely improve women's perceptions of departmental and institutional climate.

The results of the final multivariate model that included several control variables show that what matters most for faculty perceptions of the reasonableness of tenure expectations is the departmental support for family-work balance, workload, and the self-assessed ability to achieve work-life balance. Family responsibilities, the family-friendly policies, and the institutional support for work-life balance are not significant. These findings are in line with other studies (Allison, 2007; Colbeck, 2006; Drago et al., 2005), showing that faculty are hesitant to take advantage of family-friendly policies in the absence of a departmental culture that encourages them to use available resources. Gender, however, is not significant.

What are some likely explanations for the lack of gender differences in factors influencing perceptions of reasonableness? We believe that these results could be explained by generational changes. Specifically, compared to the "boomer" generation, younger generations of men faculty are more likely to believe that equal distribution of childcare work and other household responsibilities is beneficial for the whole family, and that family-friendly policies as well as departmental and institutional support are valuable for reaching family-work balance (Quinn & Trower, 2009; Rhoads & Rhoads, 2004). However, since in our study women faculty have more caring responsibilities for ill, disabled, and elderly family members, the overall need for support for work-life balance, however, is still patterned by gender. Moreover, women in this study are also less likely than men to agree that there is departmental support for work-life balance a situation which, according to existing research (Drago et al., 2005), makes women more reluctant than men to use family-friendly policies even though they need to.

The insignificance of family-friendly policies and institutional support for work-life balance on perceptions of reasonableness of tenure expectations relative to departmental support for work-life balance and workload could mean that institutional resources are inadequate, unavailable, or underutilized by faculty due to fear of career repercussions. Since faculty spend most of their work-time in their respective units, this finding reflects the importance of the immediate workplace environment on faculty lives. If the immediate work environment does not support faculty's multiple life roles, this is the environment that ultimately pressures the faculty to conform to the traditional image of an ideal worker (Drago & Williams, 2000).

Universities cannot directly affect faculty perceptions of whether tenure expectations are reasonable. However, they can implement strategies that address faculty perceptions of departmental support for work-family balance and faculty dissatisfaction, especially women's dissatisfaction (as this study reveals), with workload (Jacobs & Winslow, 2004a).

The limitations of the COACHE data affect the strength of our conclusions and depth of our explanations. First, this is a secondary data set, hence, we were limited to using only the available questions concerning perceptions and satisfaction. We are not able to examine the actual workloads, or utilization or effectiveness of work-family policies. The only assumption we could make is that the policies are available for faculty who provided an answer. Another limitation of this study is the non-random nature of the sample, which makes generalizability of findings to all academic institutions difficult. Academic institutions enroll in COACHE on a tri-annual basis by paying a fee, so the selection of a random sample is unfeasible.

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Appendix

Table 5 Ordered Logistic Regression results for Tenure Reasonableness by Interaction between Gender and Other Independent Variables

Variable name	B	S.E	Z-test statistic	p(Z)	df	95% CI Lower	95% CI Upper
Family Leave (Dissatisfied)	-0.687	0.237	-2.900	0.004	3	-1.151	-0.222
Gender	-0.594	0.149	-3.970	0.000	3	-0.887	-0.300
Family LeavexGender	0.069	0.315	0.220	0.826	3	-0.547	0.686
Family Leave (Satisfied)	0.739	0.201	3.670	0.000	3	0.344	1.133
Gender	-0.579	0.178	-3.250	0.001	3	-0.929	-0.230
Family LeavexGender	-0.091	0.266	-0.340	0.733	3	-0.613	0.431
Modified Duties (Dissatisfied)	-0.810	0.249	-3.260	0.001	3	-1.299	-0.323
Gender	-0.438	0.147	-2.980	0.003	3	-0.727	-0.150
Modified DutiesxGender	0.041	0.319	0.130	0.896	3	-0.584	0.667
Modified Duties (Satisfied)	0.920	0.194	4.740	0.000	3	0.539	1.301
Gender	-0.459	0.179	-2.570	0.010	3	-0.808	-0.109
Modified DutiesxGender	-0.054	0.263	-0.210	0.836	3	-0.569	0.460
Institutional Support for Work-Life Balance (Disagree)	-1.083	0.164	-6.620	0.000	3	-1.403	-0.762
Gender	-0.443	0.148	-2.990	0.003	3	-0.734	-0.152
Institutional SupportxGender	0.057	0.221	0.260	0.798	3	-0.376	0.489
Institutional Support for Work-Life Balance (Agree)	1.146	0.178	6.420	0.000	3	0.796	1.495
Gender	-0.447	0.129	-3.480	0.001	3	-0.699	-0.195
Institutional SupportxGender	0.056	0.247	0.230	0.820	3	-0.428	0.541
Departmental Support for Work-Life Balance (Disagree)	-1.097	0.193	-5.670	0.000	3	-1.148	-0.718
Gender	-0.414	0.119	-3.470	0.001	3	-0.647	-0.179
Departmental SupportxGender	-0.196	0.256	-0.770	0.443	3	-0.698	0.305
Departmental Support for Work-Life Balance (Agree)	1.254	0.157	7.960	0.000	3	0.946	1.563
Gender	-0.292	0.153	-1.910	0.055	3	-0.592	0.006
Departmental SupportxGender	-0.265	0.212	-1.250	0.212	3	-0.681	0.151

Chapter 2

Faculty Assessment of the Clarity of Tenure Expectations: Does Gender Matter?

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Faculty Assessment of the Clarity of Tenure Expectations:
Does Gender Matter?

Abstract

The purpose of the study is to explore predictors of faculty perceptions of the clarity of tenure expectations. We use gendered organization theory as the conceptual lens with which to examine whether women's and men's perceptions of mentoring and messages about requirements for tenure, satisfaction with relationships with peers, feedback on progress towards tenure, and perception of fairness in tenure decision-making and evaluation have a similar effect on their assessment of clarity of tenure expectations. Data from the Harvard University Collaborative on Academic Careers in Higher Education (COACHE) survey of tenure-track faculty job satisfaction (2011, 2012) is used. Findings reveal that women are less likely than men to perceive the expectations for tenure as clear. Other results suggest that perceptions of fairness in tenure decision making and in tenure evaluation, having received feedback on progress towards tenure and perceptions of messages about requirements for tenure have the strongest association with faculty assessment of the clarity of tenure expectations. For both men and women faculty though, perceptions of fairness in tenure decision making and in tenure evaluation and perceptions of messages about the requirements for tenure have an equally important role in influencing their assessment of the clarity of tenure expectations.

Keywords: gender, tenure-track faculty, clarity of tenure expectations, gendered organizations

Faculty Assessment of the Clarity of Tenure Expectations:
Does Gender Matter?

The strengthening of the scientific enterprise and the broadening of participation in science have been longstanding public policy issues. In the 1980s, addressing inequities in science participation gained a new momentum with the passage of the 1981 Equal Opportunities for Women and Minorities in Science and Technology Act. The policies aimed at broadening participation are underlined by the assumption that the scientific enterprise can thrive if it becomes more diverse, and utilizes the talents of a wide range of individuals. The recognition of the relationship between diversity and excellence is not limited to science and engineering; since 1971, the American Association of Colleges and Universities has been working on making the institutions of higher education more inclusive and equitable for both academic faculty and students.

Relatedly, women faculty have been enjoying legal protections from pay and employment discrimination since 1972, when the Equal pay Act and Title VII were amended to include employees in professional positions. Importantly, over the years, the proponents of gender equity realized that federal equity policies and programs are not enough to create diverse academic workforce; change strategies must be directed towards changing academic cultures, practices, and policies rather than solely addressing the disadvantages experienced by individual women faculty (Rosser and Chameau 2006). The importance of institutional change has also been recognized by social scientists. Since the 1990s, much attention has been given to analyzing organizational factors and processes, including workforce composition, formal policies and procedures, informal work relations, and the routine organizational practices that produce and reproduce ascriptive inequalities (Reskin 2003).

In this context, scholarship on the clarity of faculty evaluation criteria and processes bridges the issue of faculty diversity, especially as it relates to retention of diverse faculty, with the analyses of institutional mechanisms of inequality. For instance, between 2009 and 2010, 54.5% of men faculty and 40.6% of women faculty reached tenure (NCES, 2011), suggesting that women faculty are more likely to leave their institution than their male counterparts either before reaching tenure or because they might have been denied tenure. Extensive research exists on a variety of factors influencing this outcome, including gender differences in faculty productivity, job satisfaction, quality of interactions with other faculty, and departmental culture and climate (Callister, 2006, Xu 2008). Relatively less attention has been paid to the issues related to faculty evaluation, especially the clarity of evaluation criteria, which, as existing research suggests, are less clear to women than to men faculty (Rosser 2007, Fox 2015).

In this regard, the literature that examines faculty perceptions of tenure clarity can be divided into two categories. First, there are studies that use it as one of the predictors of job satisfaction, institutional fit, and of relationships with peers (e.g., Locke, Fitzpatrick and White 1983, Olsen, Maple and Stage 1995; Seifert and Umbach 2008, and Ponjuan, Conley and Trower 2011). Most of the studies in this category do not consider gender differences in faculty perceptions of clarity of criteria and requirements for tenure. The second category consists of recent studies (e.g., Gormley and Kennerly 2010, Lawrence, Celis and Ott 2014, and Fox 2015) that include gender as a predictor of clarity of requirements for tenure.

Specifically, Lawrence, Celis and Ott (2014) assess the effects of gender on the perceived fairness of tenure review, wherein fairness of tenure decision is a composite variable consisting of clarity of tenure expectations items, reasonableness of tenure expectations items, and expectation that tenure decision will be tied to ones performance item. They found that,

51

compared to their male counterparts, women faculty were less likely to see tenure decisions as fair. Fox (2015) uses data from nine U.S. research universities to build explanatory models for faculty perceptions of clarity of tenure criteria. She finds gender differences: for men both formal and informal organizational characteristics predict perceptions of clarity of tenure criteria, while for women faculty informal organizational indicators are stronger predictors of perceptions of clarity of tenure criteria than are the formal indicators.

The present study differs from earlier research. In contrast to the studies in the first category, we reverse the focus and ask how peer relationships might influence tenure-track faculty perceptions of the clarity of tenure expectations. In contrast to the research in the second category, our study distinguishes the clarity of tenure expectations as a scholar[4] from the clarity of tenure criteria, i.e., the clarity of how faculty work is evaluated, and we examine if there are significant gender differences while also introducing new independent variables for clarity of tenure expectations. We built on earlier COACHE reports and studies (2007, 2008 and Benson and Trower 2012), which find gender differences in tenure-track faculty assessments of the clarity of tenure expectations regarding performance as a scholar. However, we also move beyond extant descriptive analyses in that we attempt to determine the extent to which factors suggested by previous literature, including faculty assessment of mentoring, peer relations, tenure progress feedback, received messages and fairness in tenure decision making and evaluation differently influence women's and men's assessments of the clarity of tenure expectations.

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[4] Because our sample consists of tenure-track faculty at research universities where scholarship is the most important activity faculty perform, we chose "tenure expectations clarity as a scholar" as our dependent variable.

This study identifies the factors that lead to assessments of the clarity of tenure expectations in order to get a glimpse of the institutional practices that make the tenure process more/less transparent for women and men. Knowing the factors that affect women's and men's assessment of the clarity of tenure expectations could help universities to develop strategies that would render the tenure process more transparent for all faculty. The broader purpose of this study is to gain an understanding of whether after decades of gender equity efforts, academia is still gendered today. The answer to the question of whether academia is still a gendered organization, as previously asserted by feminist scholars (Acker 1990, 2012; Britton and Logan 2008), can be pursued in different ways. Here, we contribute to addressing this question by creating a model that would help to explain faculty assessment of institutional practices and policies, and more specifically, faculty perceptions of the clarity of tenure expectations.

In the next sections of the paper, we first discuss the relationship between gendered evaluations and the clarity of tenure expectations that apply to this project and also inform our research hypotheses. Next, we review the relevant literature on mentoring and relationships with peers.

Evaluations, Gender, and Tenure Clarity

Gendered organizations theory is relatively new and strongly influenced by feminist literature (Hearn & Parkin, 2001). According to gendered organizations theory, "organizations are doubly gendered" in that "the public domains and organizations within them are" more valued than "the private domains, and that within organizations the structure and processes are themselves gendered" (Hearn & Parkin, 2001, p. 9). Moreover, since organizations are gendered in the distribution and nature of institutional practices, they remain gendered even if demographically they are gender heterogeneous (Hearn & Parkin, 2001). Another important

53

tenet underlying this perspective is that gender inequities are not inevitably reproduced; rather they are contested and resisted. Hence, organizational actors must continually deploy sets of gendered tools, including discourses, patterns of interactions, and evaluations to maintain the gendering of organizations (Acker, 1990, 2000; Hearn & Parkin, 2001; Jeanes, Knights, & Martin, 2011).

For instance, the criteria of employee competence in a work organization do not necessarily translate "into gender-neutral selection decisions" (Acker 2006, p. 450). As Ridgeway and Correll (2004) assert, social structures, including gender, regulate the criteria for identifying the competent individual who is deserving of advancement. Moreover, "the same performance, idea, or product seems better to people when it comes from someone who is higher status rather than lower status" on the social structure ladder (p. 518). This implies that, when it comes to getting a promotion, women's ideas and performance might be subjected to harsher standards than those applied to their male colleagues (Ridgeway and Correll, 2004). In fact, previous research (Steinpreis et al. 1999, Trix and Psenka 2003) shows that tenure evaluators (both women and men) tend to view men's academic credentials more positively than those listed under the name of a woman candidate. Further, in their study of language used in defining institutional criteria for career advancement, Marchant et al. (2007) conclude that male gendered discourse around the idea of leadership negatively influences the academic advancement of women faculty, including lower rates of women faculty achieving tenure.

A study (Rosser 2007) about differences between female and male faculty applications for tenure and promotion also implies that compared to their male colleagues, tenure track women faculty perceive tenure expectations as less clear. Rosser (2007) asserts that men who apply for tenure and promotion have relatively similar and uniform CVs in terms of performance

outcomes related to teaching, research and service. In contrast, women's CVs are very diverse and many of them deviate (positively or negatively) from the norm of their professional peers. These and other findings suggest the possibility that many women applying for tenure and promotion are not fully aware of the requirements they need to fulfill in order to achieve tenure (Fox 2015). Taking into consideration gendered organization theory and previous research that suggests women faculty are less aware than men faculty of the requirements for tenure (Rosser 2007, Ponjuan, Conley and Trower 2011, Fox 2015) we hypothesize that (*1): Tenure track women faculty are less likely than their male counterparts to agree that tenure expectations as scholars are clear.*

Furthermore, Britton and Logan (2008) suggest that more bureaucratized organizations, such as universities, may be less gendered than organizations that consist of informal structures of work because formalization of procedures and transparency may create an environment wherein women can have a clearer path towards promotion. Research suggests that women scientists have more equal chances to advance their careers if there are clear rules, including tenure and promotion standards that inform employees about the expectations and criteria for evaluations (Long and Fox 1995, Roth and Sonnert 2011). This leads to the following hypothesis: *(2) Compared to their male counterparts, tenure track women who agree that tenure decisions are made based on performance criteria are more likely to report that tenure expectations are clear.*

Moreover, Castilla (2008) shows that if a department head's gender schema is skewed against women, discretion in promotion referrals will likely put women at a disadvantage regardless of their performance evaluation scores. In fact, Lawrence, Celis and Ott (2014) found that tenure track women faculty are less likely to perceive that the tenure review is fair and this

perception is mediated by women's higher propensity to report that "junior faculty are not treated equitably" (p. 172). Accordingly, based on extant research and the gendered organizations tenet that performance is evaluated arbitrarily depending on the candidates' gender we expect that*: (3) Women tenure track faculty who are satisfied with the department head's fairness in evaluation of their work are more likely than their male counterparts to report that tenure expectations are clear.*

Tenure Messages, Gender, and Tenure Clarity

As U.S. universities have become more accountable to the public, the tenure-system questioned more often, and the tenure review more stringent, junior faculty increasingly express that tenure "criteria and procedures require better definition and clearer communication" (Olsen and Sorcinelli,1992: 19; Price and Cotton, 2006: 13). Yet, scholars have described the tenure process as vague and tenure expectations as often communicated in an inconsistent and contradictory manner (Britton, 2009; Roos & Gatta, 2009). In this context, since women and men faculty experience the vagueness of tenure expectations, they both should benefit from a more formalized process. Hence we hypothesize that: *(4) Tenure track faculty who received formal feedback on progress towards tenure are more likely to report greater clarity in tenure expectations.* Yet, junior faculty often report that the information about tenure provided by senior faculty can be "not only unclear but also conflicting" (Austin and Rice 1998). Furthermore, tenure standards change when the departmental/college administration changes making it even more difficult for junior faculty to gain an understanding of tenure expectations (Austin and Rice 1998). Hence we hypothesize that*: (5) Tenure track faculty who have received consistent messages about requirements for tenure are more likely to report greater clarity in tenure expectations.*

To be sure, the consistency of messages appears to be more important to women faculty. First, women faculty are more likely to report receiving incongruent messages regarding tenure (Bird, 2011; Rosser, 2007). Second, women faculty are not as integrated into the departmental culture nor do they have the same access to professional networks as their male counterparts (Johnsrud 1993). Hence we hypothesize that: (6) *Compared to men faculty, tenure track women faculty who have received consistent messages about requirements for tenure are more likely to report that tenure expectations are clear.*

Mentoring, Gender, and Tenure Clarity

August and Waltman (2004) and Gibson (2004) argue that having a senior faculty member act as a mentor is very important for junior women faculty's success on the tenure-track. For junior faculty, in general, mentoring from senior faculty in the department has been suggested to positively affect their understanding of the requirements for tenure (Rosser 2007). Speaking daily with colleagues in the department is positively related to perceptions of criteria for tenure and promotion clarity and holds equal importance for both women and men faculty in predicting their assessments of criteria clarity (Fox 2015). Yet, compared to men faculty, women faculty are less likely to have mentors (Smith, Smith and Markham 2000, Rosser 2003, Rosser and Taylor 2009).

Because women faculty are less likely than men faculty to have informal mentoring relationships with mentors inside their departments, institutionally structured, formal mentoring programs are a good way to help them become connected to supportive networks of mentors (Wasburn 2007). Formal mentoring programs are beneficial for both women and men faculty. Compared to junior faculty who do not participate in a formal mentoring program (either campus-wide, college level or at the department level), faculty who participate in such programs

57

have higher rates of tenure achievement (Cox 1995, cited by Wasburn 2007), and perceive the institutional processes and expectations to be more clear (Pierce 1998). Hence we predict that:

(7) Tenure track faculty who agree more that the mentoring of pre-tenure faculty in their department is effective are more likely to report greater clarity in tenure expectations.

At the same time, research suggests that for women faculty formal mentoring programs can help "ease the transition into a new university culture, and combat the isolation that a new environment can bring" (Wasburn 2007, p. 68, Yen et al. 2007). Hence we hypothesize that: *(8) Compared to men faculty, tenure track women faculty who agree that there is effective mentoring of pre-tenure faculty in their department are more likely to report that tenure expectations are clear.*

Gender and Relationships with Peers and Tenure Clarity

In the absence of clear tenure expectations, it is formal and informal relationships with senior faculty that often are decisive in whether a candidate has complete knowledge about the requirements for tenure (McGuire 2002). However, gender affects not only the formal procedures detailing the criteria for a job position or the promotion and evaluation processes, but also the relationships between the members of an organization. Acker (2006, 2012) stresses that interactions within the workplace reinforce gender inequality. Indeed, Rosser and Lane (2002) found that some of the frequent challenges in women's academic careers are: "isolation and lack of camaraderie," "lack of mentoring due to small numbers of women in the department" as well as challenges in "gaining credibility and respectability from peers" (p. 167).

In light of this literature we formulate the following hypotheses: (9) *Tenure track faculty who are more satisfied with the amount of professional and personal interaction with tenured faculty in the department are more likely to report greater clarity in tenure expectations.*

Research Design

In this section, we first discuss the survey data used in this study, followed by a description of the sample and variables. Lastly, we discuss the methods used for data analyses.

COACHE Survey and Institutional Type

For the purposes of this study, we used data from the Harvard University Collaborative on Academic Careers in Higher Education (COACHE) survey on tenure-track faculty job satisfaction. The main purpose of COACHE is to provide leaders of the participating institutions with information regarding peers, and with solutions for improving the retention and hiring rates of faculty. To date, since its original administration in 2005, approximately 200 U.S. institutions of higher education participated in COACHE.

Because higher education institutions vary "from one another in terms of basic missions and goals" (Lucas and Murry 2011, p. 4), tenure processes are very different across various types of universities. For the purposes of this study, we use data from tenure track faculty at Research Universities (RU/VH) that engage in "very high research activity" and Research Universities (RU/H) that have "high research activity" as defined by the Carnegie Classification (Carnegie Foundation).[5]

Sample Selection and Participants

Time, type of institution, tenure status, and professorial rank were used as sorting factors for selecting a purposive sample. The 2011-2012 annual data slice is included in the study. Since this study inquires about faculty perceptions of clarity of tenure expectations, only tenure-track assistant professors are included in the sample. The sample for this study consists of 2438 tenure-

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[5] For more information about the Carnegie classification please visit:
http://carnegieclassifications.iu.edu/descriptions/basic.php

track assistant professors. Women faculty represent 48.2% (1176) of the sample; men faculty represent 51.8% (1262).

Dependent and Independent Variables

Perceptions of the Clarity of Tenure Expectations

The COACHE survey measures faculty perceptions using a 5-point ordinal scale. The dependent variable in this study is: "Is what's expected in order to earn tenure clear to you regarding your performance as a scholar:" Responses are measured on a scale from 1 to 5, 1 meaning "very unclear," 2 "somewhat unclear," 3 "neither clear nor unclear," 4 "somewhat clear," and 5 "very clear." "Not applicable" and "Decline to answer" options are also available.

After performing an initial chi-square analysis the results revealed that many data cells had fewer than five observations. Hence, the dependent variable's 5 categories were collapsed into 3 categories (1 'unclear,' 2 'neither clear nor unclear,' 3 'clear'). A detailed description of variables in this study can be found in Table 1.

Table 1 Variables

Variable Name	Item #	Item Content Description
Dependent Variable		
Clarity of tenure expectations	Q137A	As a Scholar : Is What is expected in order to earn tenure clear to you regarding your performance as a scholar
Independent Variables		
Messages, Fairness and Evaluation		
Consistent messages on tenure	Q139A	I have received consistent messages from tenured faculty about the requirements for tenure. - Rate your level of agreement or disagreement
Tenure Decision based on Performance	Q139B	In my opinion, tenure decisions here are made primarily on performance-based criteria (e.g., research/creative work, teaching, and/or service) rather than on non-performance-based criteria (e.g., politics, relationships, and/or demographics). - Rate your level of agreement or disagreement
Satisfaction with fair evaluation	Q185L	My department head's or chair's: Fairness in evaluating my work - Rate your level of satisfaction or dissatisfaction
Received formal feedback on tenure progress	Q145B	Have you received formal feedback on your progress toward tenure? Yes/No
Mentoring		
Effective mentoring of faculty	Q130A	There is effective mentoring of pre-tenure faculty in my department - Rate agreement or disagreement
Mentoring Effectiveness : within department	Q125A	Mentoring from someone in the department -Rate the effectiveness
Relations with Peers		*Please rate your level of satisfaction or dissatisfaction with the following*
Satisfaction with Interaction: Tenured: Professional	Q205D	The amount of professional interaction you have with tenured faculty in your department
Satisfaction with Interaction: Tenured: Personal	Q205E	The amount of personal interaction you have with tenured faculty in your department
Tenure Stage	Q15	In what year did you earn your current rank at this institution?

Since our sample consists of tenure-track faculty from high research and very high research activity universities, we assume that scholarship is the most important aspect of tenure decisions. Hence, we focus on faculty assessment of the clarity of tenure expectations with regard to scholarship.

First, we used gender as an *independent* dichotomous variable (male and female). Other variables that are used to help explain perceptions of the clarity of tenure expectations are: faculty agreement level with the statement that they "have received consistent messages from tenured faculty about the requirements for tenure," and with the statement: "In my opinion, tenure decisions here are made primarily on performance-based criteria (e.g., research/creative work, teaching, and/or service) rather than on non-performance-based criteria (e.g., politics, relationships, and/or demographics)." Also, faculty satisfaction level with: "My department head's or chair's: Fairness in evaluating my work" and "Have you received formal feedback on your progress toward tenure?" are included as independent variables in the study.

Other independent variables for faculty assessment of clarity of tenure expectations are related to *mentoring*. *Mentoring variables consist of* agreement level with "there is effective mentoring of pre-tenure faculty in my department," and perceptions of "mentoring from someone in your department" effectiveness. Because these two mentoring variables measure a similar perception (*effectiveness of mentoring*) they were joined into a single variable (reliability coefficient = .81) in the regression analysis.

Several control variables are also included in the study: *relationships with peers*, and *tenure stage*. The *relationships with peers* variables are: satisfaction with the amount of professional interaction with tenured faculty in the department, and satisfaction with the amount of personal interaction with tenured faculty in the department. In the multivariate analysis these

two variables were combined to create one variable (satisfaction with interactions with tenured faculty) that has a reliability coefficient of .82.

The COACHE survey collects data on the year tenure track faculty were hired in the present rank at their institution. Tenure stage, measured by the length of stay in the tenure-track position and academic rank, influences faculty satisfaction levels with interaction with peers (Ponjuan, Conley and Trower 2011) and their perceived clarity of criteria for tenure and promotion (Fox 2015). Therefore, the "year of earning current rank" (Q15) variable was recoded into a new variable labeled "tenure stage" with categories 'early tenure-track' (1-3 years in current position) and 'late tenure-track' (4 years or above in current position). 30% of faculty are in early tenure-track stage and 70% are in late tenure-track stage.

Methods of Data Analysis

Chi-square tests were used to determine the relationship between perceptions of the clarity of tenure expectations and several independent variables. Another chi-square analysis was performed to determine the relationship between gender and several dependent variables. Kendall's tau-b and lambda were used to assess the strength of relationships between the independent and dependent variables.

To assess the role that the selected independent variables have in influencing the dependent variable, multivariate models were constructed using ordered logistic regression. A variable with ordered categories can be used in multiple regression models when the model satisfies the proportional odds condition (Miller and Volker 1985, Long 1997). Cross unit and cross time invariance (the approximate similarity in variable definition across time and space) is an assumption that must at least be met approximately before drawing inferences from cross-

sectional regression models (Berry 1993). The error diagnostics of the regression models such as multicollinearity, error term, and heteroscedasticity are used to help determine the best model.

In order to understand the multiplicative effect that gender has on perceptions of the clarity of tenure expectations clarity by influencing another independent variable, we tested multiple interaction terms. Interaction terms were created by combining dummy variables, created from independent variable categories, with gender. To analyze the data, we used STATA software.

Findings

Below we first present the results of the bivariate analysis, followed by a discussion of our multivariate analyses.

Bivariate Results

The bivariate results are presented in Table 2. After conducting the bivariate analysis (chi-square and Kendall's tau-b) for perceptions of the clarity of tenure expectations and multiple independent variables, we found that most of these variables are associated with the clarity of tenure expectations. The results reveal that when faculty have positive perceptions of relationships with peers, mentoring, fairness in tenure decision making, fairness of the evaluation process, and receive consistent messages on tenure, they tend to consider tenure expectations to be more clear. The exception is tenure stage, which is not significant.

Table 2 Relationship between Clarity of Tenure Expectations and Independent Variables

Independent variables	n	Chi-squared	P>Chi-squared	df	tau-b
Consistent messages on tenure	2291	575.948	0.000	4	0.459
Tenure Decision based on Performance	2254	377.079	0.000	4	0.365
Satisfaction with fair evaluation	2127	235.318	0.000	4	0.296
Received formal feedback on tenure progress	2274	58.701	0.000	2	-
Effective mentoring of faculty	2266	271.068	0.000	4	0.303
Mentoring effectiveness: within the department	2121	181.574	0.000	4	0.248
Satisfaction with Interaction : Tenured: Professional	2239	146.534	0.000	4	0.227
Satisfaction with Interaction: Tenured: Personal	2226	121.989	0.000	4	0.199
Tenure stage	2251	1.192	0.551	2	-

The chi-square (lambda[6]) bivariate analysis results, reported in Table 3, show significant gender differences in perceptions of clarity of tenure expectations as a scholar, with women faculty considering tenure expectations to be less clear than men faculty. Thus, confirming our hypothesis that: *Tenure track women faculty are less likely than their male counterparts to agree that tenure expectations as a scholar are clear.*

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[6] When "the mode of each independent variable is the same as the overall mode of the dependent variable, lambda will always be zero" even when the number of column observations for the categories are different across the rows (Johnson, Reynolds, and Mycoff 2008, p. 451). Thus, we do not report the lambda results.

Table 3 Relationship between Gender and Dependent Variables

Dependent Variables	n	Chi-squared	P>Chi-squared	df
Clarity of tenure expectations	2328	8.996	0.011	2
Consistent messages on tenure	2299	20.292	0.000	2
Tenure Decision based on Performance	2263	13.573	0.001	2
Satisfaction with fair evaluation	2136	26.000	0.000	2
Received formal feedback on tenure progress	2286	0.351	0.554	1
Effective mentoring of faculty	2289	18.064	0.000	2
Mentoring effectiveness: within the department	2141	16.281	0.000	2
Satisfaction with Interaction : Tenured: Professional	2254	16.617	0.000	2
Satisfaction with Interaction: Tenured: Personal	2241	13.874	0.001	2
Tenure Stage	2342	4.664	0.031	1

Moreover, compared to men faculty, women faculty are more likely to be dissatisfied with peer relations and with the fairness of the department chair in evaluating their work, are less likely to agree that tenure decisions are made based on performance criteria, that they received consistent messages about tenure, and that mentoring is effective. No significant gender differences are found for received formal feedback on progress toward tenure.

Tenure stage and gender are related. Specifically, the chi-square results indicate that compared to men faculty there are fewer women faculty in the early tenure-track stage (1-3 years at the institution). An approximate equal number of men and women faculty are in the late tenure-track stage (4 or more years at the institution).

Multivariate Results

We used a theory-based approach to construct our first multivariate model. The primary model includes independent variables drawn from the framework. The second multivariate model includes control variables as well. Multiple regression (ordered logistic with categorical

dependent variable) models were run to test for the presence of interaction effect of gender and perceptions of fairness in tenure decision making and tenure evaluation, perceptions of messages about requirements for tenure and perceptions of mentoring on assessment of clarity of tenure expectations.[7] To determine whether the models satisfy the parallel proportional odds assumption, Brant tests were performed for each model. The results show that all models conform to the assumption. Models that did not pass the Brant test were removed from analysis. Also, diagnostics for multicollinearity were conducted, before running each multivariate model. The results do not suggest the presence of multicollinearity. Omnibus and multivariate results are reported in Table 4.

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[7] No significant interaction effects were identified (table with results can be found in the Appendix of this paper).

Table 4 Ordered Logistic Regression results for Tenure Clarity by groups and variables

Group	model coefficients				model summary	
	n	chi2	df	p	log likelihood	R2
Messages, Fairness, Evaluation and Mentoring	1835	548.37	6	0.000	-966.15	0.22
Full Model	1747	505.45	8	0.000	-918.81	0.22

						95% CI	
Variable	B	S.E	Z -stat	p(Z)	df	Lower	Upper
Messages, Fairness, Evaluation and Mentoring							
Consistent messages on tenure	1.048	0.081	12.94	0.000	6	0.889	1.207
Tenure Decision based on Performance	0.511	0.082	6.22	0.000	6	0.349	0.672
Satisfaction with fair evaluation	0.353	0.096	3.66	0.000	6	0.164	0.541
1Received formal feedback on tenure progress	0.47	0.143	3.28	0.001	6	0.189	0.751
Effectiveness of Mentoring	0.138	0.042	3.3	0.001	6	0.056	0.22
Gender	0.138	0.128	1.08	0.282	6	-0.113	0.389
Full Model							
Consistent messages on tenure	1.053	0.084	12.56	0.000	8	0.889	1.218
Tenure Decision based on Performance	0.496	0.085	5.8	0.000	8	0.329	0.664
Satisfaction with fair evaluation	0.331	0.101	3.25	0.001	8	0.131	0.53
Received formal feedback on tenure progress	0.52	0.154	3.37	0.001	8	0.217	0.823
Effectiveness of mentoring	0.133	0.045	2.93	0.003	8	0.044	0.222
Satisfaction with Interaction with Tenured Faculty	-0.018	0.051	-0.35	0.725	8	-0.117	0.081
Tenure Stage	-0.052	0.154	-0.34	0.736	8	-0.353	0.25
Gender	0.107	0.132	0.81	0.417	8	-0.152	0.367

Multivariate Model for Messages on Tenure, Fairness of Tenure Evaluation and Decisions,

Formal Evaluation and Mentoring Variables

This multivariate model includes the following variables: agreement level on received consistent messages about tenure requirements, agreement level regarding the bias/non-bias of tenure decisions, satisfaction level with the department head's fairness in work evaluation, received formal feedback on progress toward tenure, effectiveness of mentoring and gender as the independent variables regressed on perceptions of tenure expectations clarity. The chi-square value (chi2 (6) = 548.37, p ≤ .001), suggests that at least one regression coefficient in the model is significant.

Hypothesis: Tenure track faculty who have received consistent messages about requirements for tenure are more likely to report greater clarity in tenure expectations. The results support this hypothesis. The regression coefficient of 1.05 (p ≤ .001) indicates that compared to faculty who did not receive consistent messages about tenure requirements and faculty who neither agree nor disagree to have received such messages, faculty who received consistent messages about tenure requirements perceive tenure expectations to be more clear, when controlling for other variables in the model.

Hypothesis: Tenure track faculty who agree that tenure decisions are made based on performance criteria are more likely to report greater clarity in tenure expectations. This hypothesis is confirmed by the regression results. The regression coefficient value of 0.51 (p ≤ .001) means that faculty who agree that tenure decisions are made based on performance criteria perceive tenure expectations to be more clear compared to faculty who disagree and faculty who neither agree nor disagree that tenure decisions are made based on performance criteria (when controlling for other variables in the model).

Hypothesis: Tenure track faculty who are satisfied with the department head's fairness in evaluation of their work are more likely to report greater clarity in tenure expectations. Our analysis supports this hypothesis. The regression coefficient of 0.35 ($p \leq .001$) suggests that faculty who are satisfied with the department head's fairness in evaluation of their work perceive more clarity in tenure expectations compared to faculty who are dissatisfied and faculty who are neither satisfied nor dissatisfied with the department head's fairness in evaluation of their work.

Hypothesis: Tenure track faculty who received formal feedback on progress towards tenure are more likely to report greater clarity in tenure expectations. The regression results confirm this hypothesis and show that compared to faculty who did not receive formal feedback on progress towards tenure, faculty who received formal feedback on progress towards tenure perceive tenure expectations to be more clear (regression coefficient = 0.47 ($p \leq .001$) (when controlling for other variables in the model).

Hypothesis: Tenure track faculty who agree more that the mentoring of pre-tenure faculty in their department is effective are more likely to report greater clarity in tenure expectations. The results validate this hypothesis and show a regression coefficient value of 0.14 ($p \leq .001$) which suggests that compared to tenure track faculty who do not perceive that the mentoring of pre- tenure faculty in their department is effective, tenure track faculty who consider this mentoring more effective also perceive tenure expectations to be more clear (when controlling for other variables in the model).

With the exception of gender, all these independent variables are associated with perceptions of tenure expectations clarity when controlling for the rest of the variables in the model. Five other models that included gender and each independent variable were run. While

70

each of the independent variables in the four models has a significant and positive association with assessment of tenure expectations clarity, gender does not.

Full Multivariate Model

A multivariate model that includes all the independent variables mentioned in the above multivariate model plus the control variables was tested. The chi-square test (chi2 (8) = 505.45, p ≤ .001) reveals that at least one regression coefficient in the model is significant and is different from 0.

Five independent variables included in this model are positively related to perceptions of the clarity of tenure expectations. Specifically, agreement to have received consistent messages about tenure requirements has a 1.05 (p ≤ .001) regression coefficient, agreement that tenure decisions are made based on performance criteria has a regression coefficient of 0.49 (p ≤ .001), satisfaction with the department head's fairness in work evaluation has a regression coefficient of 0.33 (p ≤ .001), received formal feedback on progress toward tenure with a regression coefficient of 0.52 (p ≤ .001) and perception that mentoring of pre-tenure faculty in the department is effective (regression coefficient of 0.13 (p ≤ .01).

The control variables and gender are not related to perceptions of the clarity of tenure expectations. *Hypothesis: Tenure track faculty who are more satisfied with the amount of professional and personal interaction with tenured faculty in the department are more likely to report greater clarity in tenure expectations.* The results do not support this hypothesis.

Hypothesis: Compared to tenure track faculty in early tenure-track stage, tenure track faculty who are in late tenure-track stage are more likely to perceive tenure expectations as clear. The data disconfirms this hypothesis and shows that tenure stage is not related to the clarity of tenure expectations.

Discussion and Conclusion

By exploring how faculty assessments of the clarity of tenure expectations regarding performance as a scholar are shaped by faculty views of mentoring, peer relations, performance feedback, fairness in tenure evaluation and decision making, this study contributes to the literature assessing the gendered nature of institutions of higher education. Although we cannot conclude that the research universities employing the faculty members who answered the COACHE survey are objectively gendered, we conclude that faculty perceptions of important faculty career-related organizational factors are gendered. Our study and conclusions are informed by gendered organizations theory, which we applied to determine 1) whether for tenure-track faculty at research universities the assessment of the clarity of tenure expectations is gendered; and 2) whether women's and men's assessments of the clarity of tenure expectations is influenced similarly by the same predictive factors. In addition, we examined the extent to which select organizational factors suggested by previous literature as important to faculty success including faculty assessment of mentoring, peer relations, tenure progress feedback, received messages and fairness are gendered.

With regard to gender differences, the results are in line with our expectations and previous research findings. Specifically, compared to men, women faculty are less likely to perceive tenure expectations as clear (COACHE 2007, 2008); are less likely to agree that mentoring is effective (Rosser 2003, Rosser and Taylor 2009), are less satisfied with relationships with senior faculty (Callister 2006, Ponjuan, Conley and Trower 2011), and are more likely to perceive that tenure evaluations and decisions are unfair (Steinpreis et al. 1999, Trix and Psenka 2003). This means that gender still matters in terms of women faculty

continuing to experience a perceived disadvantage in several areas that are important to their successful careers.

The only variable that is unrelated to gender is whether the faculty received formal feedback on progress toward tenure. This finding seems to yield some support to the idea that the more formalized arrangements may be less gendered, hence such arrangements may help address some of the disadvantages that women faculty face (Britton and Logan 2008). This latter point is supported by studies suggesting that women scientists have more equal chances to advance their careers if tenure and promotion expectations and criteria for evaluation are more formalized (Long and Fox 1995, Roth and Sonnert 2011).

When gender was added along with other variables into multivariate models, the results show a different outcome. Specifically, several independent variables that are related to the clarity of tenure expectations for all tenure-track faculty. These variables include positive assessment of tenure progress feedback, receiving messages on requirements for tenure, fairness in tenure decision making, mentoring in the department, effectiveness of mentoring within the department, and assessment of professional and personal interaction with tenured faculty. Gender, however, is unrelated to our dependent variable. This finding suggests that other independent variables have a stronger effect on perceptions of clarity of tenure expectations in comparison to the effect of gender which is not significant.

First, congruent with our hypotheses, our first multivariate model indicates that tenure-track faculty who received consistent messages about tenure requirements, who agree that tenure decisions are based on performance criteria, who are satisfied with the department head's fairness in evaluation of their work, who received formal feedback on progress towards tenure, and who believe that there is effective mentoring within the department, are more likely to

perceive tenure expectations as clear. Gender does not have a significant effect on clarity of tenure expectations in the multivariate model. Furthermore, the interaction models reveal no significant interaction effects between gender and each of the independent variables on perceptions of the clarity of tenure expectations. Using the gendered organization tenet that institutional practices like performance evaluations and decision-making regarding promotion function in a way that disadvantage women and privilege men (Hearn & Parkin, 2001), we assumed that men faculty would perceive tenure expectations as clear regardless of whether they think tenure decisions and evaluations are fair or not, and regardless of whether they think the messages about tenure are consistent or inconsistent.

Thus, for both women and men faculty, understanding of tenure expectations is subject to similar uncertainties related to whether tenure evaluation and decisions are fair, and whether the messages received from tenured faculty are consistent. This suggests that both women and men faculty are likely to benefit from cultural and institutional policy changes encouraging a greater consistency of tenure messages, better association between performance criteria and tenure decisions, better understanding of how department chairs evaluate faculty work, and more formalized feedback. Still, as our bivariate results show, women faculty are more likely to benefit from such changes in terms of gaining a better understanding of the expectations for tenure since they are less likely than men to perceive that tenure evaluations and decisions are fair and that the messages about tenure requirements are consistent.

Other interaction terms results suggest that for both women and men junior faculty the development of mentoring programs within the department could bring benefits in terms of helping them better understand the expectations for tenure. However, since as indicated by our bivariate analyses women faculty are less likely to agree that there is effective mentoring of pre-

74

tenure faculty in the department and less likely to indicate that the mentoring from someone inside the department is effective, women faculty are more likely to benefit from such arrangements than their male counterparts.

Policy Implications

Overall, our results imply that for pre-tenure faculty understanding of tenure expectations is less influenced by receiving formal feedback on progress towards tenure, and by having effective mentoring within the department, and more influenced by the consistency of messages, about requirements for tenure, received from tenured faculty and by whether junior faculty think tenure decisions and tenure progress evaluations are fair. This means that the clarity of tenure expectations for tenure track faculty is most influenced by how junior faculty think people in decision-making positions perceive their performance and progress towards tenure. As noted by gendered organizations scholars (Britton and Logan 2008), within organizations where there is a clear path towards achievement of promotion, with formal rules and structures, women are more likely to succeed. Based on our results though, it seems that the path towards tenure is filled with uncertainties and subjective considerations. Thus, this could make the tenure-track more difficult for women faculty. Indeed, despite the interaction terms results which show that for both men and women considerations regarding fairness in evaluation and tenure decisions and consistency of messages about requirements for tenure are important for how clear the tenure expectations are, our results reveal that compared to men faculty, women faculty are less likely to perceive tenure expectations as clear. Furthermore, compared to men faculty, women faculty are more dissatisfied with the department chair's fairness in evaluating their work, do not agree that tenure decisions are made based on performance criteria, do not agree that they received consistent messages about tenure, and do not agree that mentoring is effective.

This means that even though men faculty agree that the messages on tenure, the fairness in tenure decision making and evaluation are important for their understanding of tenure expectations, the clarity of tenure expectations is not as negatively affected by these factors for them as it is for women faculty.

In her recent work, Fox (2015: 507), one of the most renown scholars in the area of gender, academy, and policy, argues that "clarity of evaluation is important not only to academic departments and universities but also to science policies and policy makers more broadly." This is especially the case in the context of increasing public accountability, strategic investments in science education, calls for transparency, and the overall growing costs of higher education. When policy makers are expected to hold the institutions of higher education accountable and the institutions of higher education are expected to equalize opportunities for social mobility and increasingly generate returns on public and private investments, the gender neutral clarity of "what is expected and what is rewarded….is not only an issue for individual faculty members" (Fox 2015: 507). Instead, it is a broader educational and science policy issue, with implications for the general gender equality agenda.

Therefore, higher education institutions should strive to render the understanding of tenure expectations by pre-tenure faculty devoid of reliance on subjective factors like decision-makers' discretion by establishing departmental accountability measures that should include the tracking of formal feedback and tenure progress evaluations. Besides formal feedback, institutions should implement effective mentoring programs which as our research shows can improve the clarity of tenure expectations for all junior faculty members. However, women faculty would benefit more from such programs since they are less likely to agree that mentoring in their department is effective.

Limitations

       The data used in this study comes from a secondary source and perhaps framing different questions/variables would help in providing better recommendations for improving faculty members' understanding of tenure expectations. For example, it is not clear whether the two mentoring variables in the survey refer to formal or informal mentoring. Distinguishing between the two types of mentoring is important since existing research indicates that formal mentoring can improve women faculty's chances of success, especially in departments where they cannot easily find mentors (Wasburn 2007). The non-random nature of the sample also could affect the results and their generalizability. Universities enroll in COACHE and pay a fee that gives them a three year membership. This makes the selection of a random sample among the participants in COACHE unfeasible. Causality cannot be inferred based on the results in this study due to the cross-sectional nature of the data.

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Appendix

Table 5 Ordered Logistic Regression results for Tenure clarity by Interaction between Gender and other independent variables

Variable	B	S.E	Z -test statistic	p(Z)	df	95% CI Lower	Upper
Consistent messages on tenure (Disagree)	-2.186	0.150	-14.550	0.000	3	-2.481	-1.892
Gender	0.057	0.173	0.330	0.742	3	-0.283	0.397
Messages*Gender	-0.127	0.218	-0.580	0.560	3	-0.555	0.300
Consistent messages on tenure (Agree)	2.382	0.180	13.230	0.000	3	2.029	2.734
Gender	-0.184	0.115	-1.600	0.110	3	-0.410	0.042
Messages*Gender	0.399	0.276	1.440	0.149	3	-0.142	0.942
Tenure Decision based on Performance (Disagree)	-1.728	0.167	-10.320	0.000	3	-2.056	-1.400
Gender	-0.116	0.118	-0.980	0.326	3	-0.347	0.115
Decision*Gender	0.073	0.229	0.320	0.749	3	-0.375	0.522
Tenure Decision based on Performance (Agree)	1.691	0.144	11.700	0.000	3	1.407	1.974
Gender	-0.096	0.139	-0.690	0.488	3	-0.368	0.175
Decision*Gender	0.059	0.210	0.290	0.775	3	-0.345	0.463
Satisfaction with fair evaluation (Dissatisfied)	-1.953	0.233	-8.370	0.000	3	-2.410	-1.495
Gender	-0.231	0.109	-2.100	0.036	3	-0.446	-0.015
Evaluation*Gender	0.594	0.306	1.940	0.053	3	-0.007	1.194
Satisfaction with fair evaluation (Satisfied)	1.543	0.157	9.790	0.000	3	1.234	1.852
Gender	0.061	0.171	0.360	0.722	3	-0.274	0.396
Evaluation*Gender	-0.220	0.215	-1.020	0.306	3	-0.642	0.202
Effective mentoring of faculty (Disagree)	-1.515	0.143	-10.590	0.000	3	-1.795	-1.234
Gender	-0.179	0.153	-1.160	0.245	3	-0.480	0.123
Mentoring*Gender	0.119	0.202	0.590	0.555	3	-0.277	0.516

Table 5 Ordered Logistic Regression results for Tenure clarity by Interaction between Gender and other independent variables (Cont.)

Variable	B	S.E	Z-test statistic	p(Z)	df	95% CI Lower	95% CI Upper
Effective mentoring of faculty (Agree)	1.435	0.152	9.430	0.000	3	1.137	1.733
Gender	-0.176	0.118	-1.490	0.137	3	-0.408	0.056
Mentoring*Gender	0.056	0.218	0.260	0.798	3	-0.372	0.483
Mentoring effectiveness: within the department (Ineffective)	-1.209	0.157	-7.710	0.000	3	-1.517	-0.902
Gender	-0.116	0.125	-0.930	0.354	3	-0.360	0.129
Mentoring*Gender	-0.049	0.219	-0.220	0.823	3	-0.479	0.380
Mentoring effectiveness: within the department (Effective)	1.109	0.144	7.710	0.000	3	0.827	1.392
Gender	-0.224	0.144	-1.550	0.120	3	-0.507	0.059
Mentoring*Gender	0.046	0.205	0.230	0.822	3	-0.355	0.448

Chapter 3

Gender and Race Differences in Faculty Assessment of the Clarity of Tenure Expectations

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Gender and Race Differences in Faculty Assessment of the Clarity of Tenure Expectations

Abstract

This study looks at how the intersection of gender and race influences faculty perceptions of the clarity of tenure expectations. The study also seeks to identify potential predictors (assessment of mentoring, relationships with peers, feedback on progress towards tenure, and of fairness in tenure decision-making and evaluation) of perceptions of the clarity of tenure expectations for the intersectionality defined groups (minority women, minority men, white women, and white men). We use the gendered and racialized organizations theoretical lens to interpret our results. The dataset in this study comes from the Harvard University Collaborative on Academic Careers in Higher Education (COACHE) survey of tenure-track faculty job satisfaction (2011, 2012). Bivariate results reveal no significant differences in minority women's perceptions of the clarity tenure expectations compared to all other faculty. Other bivariate results show that compared to white men, minority women are less satisfied with the relationships with peers, and with the fairness in the evaluation of their work. Moreover, they are also less likely to agree that mentoring is effective, tenure decisions are fair, and the messages about tenure are consistent. The multivariate results show that the proposed explanatory model does not explain minority women's perceptions of clarity of tenure expectations as well as it explains white women's and white men's perceptions of clarity of tenure expectations.

Keywords: minority women faculty, clarity of tenure expectations, higher education

Gender and Race Differences in Faculty Assessment of the Clarity of Tenure Expectations

The "cognitive core" of science is inseparable from the cultural norms and social practices that exist in the context surrounding science (Harding 2005). Gender and racial inequalities found in the larger society affect academic institutions on a deep cultural level, leading to the creation of institutional practices that tend to inhibit experiential and intellectual diversity (Brown-Glaude, 2010; Maher & Tetreault, 2007; Moore, Acosta, Perry, & Edwards, 2010; Sondergaard, 2005; Tokarczyk & Fay, 1993) and put white women and women and men of color[8] at a disadvantage compared to their white male colleagues (Harding 2005; Valian 2004). Over the years, the federal government introduced several policies and programs that attempted to address gender and racial inequalities and the lack of diversity in the workplace, including in higher education. First, the issue of employment discrimination "on the basis of sex, race, national origin, and religion" was targeted through Title VII of the Civil Rights Act of 1964 (p. 68, Hill and Warbelow 2006). Second, both the federal government and individual academic institutions implemented both the more general (e.g. Affirmative Action) and the more targeted programs, such as the NSF ADVANCE and diversity plans, addressing white women's and minorities' underrepresentation among the faculty and their low retention rates.

In this context, some scholars (Dobbin and Kalev 2007, Edelman and Petterson 1999, Acker 2006) warn that employer diversity programs created in response to the diversity and

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[8] The focus of this paper is on historically underrepresented in US minority women (American Indian/Native Alaskan, Black/African-American, and Hispanic/Latino). We recognize that the experiences of each minority group in academia are unique. However, due to sample size we had to combine all the non-white faculty into one group of minority faculty. In light of the racialized organization theory (Acker 2011) which asserts that compared to their White colleagues, minority employees have lower status within a workplace, we expect that minority faculty regardless of their ethnicity/race will have similar experiences of marginalization with the academy.

equity-oriented public policies are often inefficient and disconnected from institutional practices. In order to make diversity efforts more effective, institutions-centered theorists (Nonet and Selznick 1978 cited by Dobin, Schrage and Kalev 2009) recommend that, in addition to procedural innovations, institutions should implement substantive programs with specific goals addressing the underlying cultural norms and social practices, especially those of informality, secrecy, and ambiguity.

While the implementation of formalized, transparent, and clear evaluation and promotion procedures will not necessarily change the normative system, it does address some of the informal ways of functioning and social practices that limit white women's and minorities' access to information. When "organizational requirements are overtly defined so that employees clearly understand how to obtain grants and promotion" (Roth and Sonnert 2010, p. 388), the advancement is more likely to occur based on their merit and regardless of gender, race and other ascriptive attributes (Baron et al. 2007, Britton 2008).

Importantly, academia is one of those bureaucratic institutions where informal ways of functioning are prominent (McGuire 2002; Ponjuan et al. 2011) mostly due to the fact that the procedures and evaluative criteria for tenure and promotion tend to be ill defined and unclear. As a result, faculty are compelled to seek the support of informal networks that provide information necessary for understanding the path to promotion and other institutional rewards Eckel, Green, Hill, and Mallon 1999). Although empirical research on social networks in the academy is scant, existing research and gendered and racialized organization theory (Acker 2006, Acker 2011) suggest minority women are the least likely to have access to these networks.

As a result of a disadvantage stemming from structural barriers created by interactions of gender and race/ethnicity, in many academic departments across US research universities there

are very few women of color among the faculty (MacLahlan 2000). Senior faculty tend to mentor

and support junior faculty of the same social backgrounds (MacLahlan 2000). Consequently,

minority women have the least chance to have a mentor or to professionally collaborate with

senior faculty within their department. Indeed, available studies of minority women faculty

(Medina and Luna 2000; Boyd, Cintron, and Alexander-Snow, 2010) indicate that they are

isolated in their professional pursuits and that senior and other junior faculty in their departments

often show no interest in collaborating or in simply interacting with them. Facing such a work

environment, minority women faculty tend to have the least knowledge of the

requirements/expectations for tenure and feel a constant pressure to outperform and prove that

they deserve the academic position (Nelson and Rogers 2003). Despite their efforts, minority

women are "less likely than either non-Hispanic white women or men of any racial group to be

awarded tenure" (Leggon 2006, p. 329).

Although the achievement of tenure and promotion is a very complex process affected by

several factors, recent studies suggest that the clarity of tenure expectations and standards is an

important component of success. Importantly, most quantitative literature that looks at faculty

assessment of clarity of tenure does so by examining the effects of gender (e.g., Gormley and

Kennerly 2010, Lawrence, Celis and Ott 2014, and Fox 2015). Minority women faculty's

assessment of clarity of tenure has been examined in qualitative studies (e.g. Agathangelou and

Ling 2002, Beloney-Morisson 2003). While these studies provide useful knowledge about issues

faced by minority women faculty, including limited collegial support and mentoring, they do not

account for the factors that influence minority women's assessment of clarity of tenure.

A report using COACHE data (Trower and Bleak 2004) presents descriptive results

showing that compared to white women and men of color, women of color are less likely to

perceive the tenure process and tenure criteria as clear. In addition, compared to men of color, women of color are less likely to report that the expectations for scholarly and teaching performance[9] are clear. A more recent COACHE report (Benson and Mathews 2014) shows that with the exception of Latina women, who report the highest level of clarity of whether they will achieve tenure, and compared to all other faculty (white men, white women, Latino men, Asian/Pacific Islander men, Black/African American men and American Indian/Native Alaskan men), Asian/Pacific Islander women, Black/African American women and American Indian/Native Alaskan women are the least likely groups to have clarity as to whether they will achieve tenure. We build upon these COACHE descriptive results to develop explanatory models for minority women faculty's assessment of clarity of tenure expectations.

One of the goals in this study is to create an explanatory model for minority women faculty's assessment of clarity of tenure expectations. In order to understand the influence that gender and race combined have on minority women faculty's experiences on the tenure-track, the explanatory model for minority women faculty's assessment of clarity of tenure expectations is compared to the predictor models designed separately for minority men, white women, and white men. The research questions guiding this study are: How does the interaction between gender and race affect assessment of clarity of tenure expectations? To what extent do faculty's satisfaction with collegiality (relationships with peers, mentoring), assessment of feedback on tenure progress (performance reviews, fairness in tenure decisions and evaluation), and

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[9] Our sample consists of faculty from research universities where scholarship and teaching are the most important activities faculty engage in, and thus, we chose "tenure expectations clarity regarding performance as a scholar, as a teacher and as an advisor to students" as the focus of this study.

assessment of consistency of messages about tenure requirements affect the perceptions of clarity of tenure expectations for each intersectionally defined group?

By answering these questions, we will identify whether the same factors affect in a similar or differing way faculty perceptions of clarity of tenure expectations. Understanding the expectations for tenure directly contributes to faculty success in achieving tenure. This understanding is gained when the faculty member receives consistent and fair evaluations on progress towards tenure, and when collegial relationships and mentoring facilitate this understanding of the requirements for tenure. In a more general sense, by addressing the above questions this study also aims to determine whether the gendered and racialized organization theory assumptions that institutions are affected by the gender and race of its members and that gender and racial biases are embedded within institutional culture, policies and practices (Acker 1990, 2012, Britton and Logan 2012) are applicable to institutions of higher education. This assertion can be made if the findings reveal significant differences along gender and racial lines in faculty assessment of clarity of tenure expectations and in the factors that influence clarity.

Whether the efforts aimed at retaining minority faculty by creating more diverse and inclusive communities in higher education institutions have been successful can be assessed by examining minority faculty's perceptions, in particular minority women's perceptions, regarding their experiences on the tenure-track. Specifically, the institutional success in making the tenure process more transparent can be determined by identifying the factors that influence faculty assessment of clarity of tenure expectations. The explanatory model for assessment of clarity of tenure expectations would reveal the factors/means of information that contribute to an understanding of the tenure process for faculty and also the social groups who have the most and the least access to these venues of information. Revealing the factors that lead to a better

91

understanding of tenure expectations by a diverse group of faculty can have important implications for potential institutional policy changes needed to render the tenure process more transparent for all faculty. Moreover, findings showing which groups of faculty have a more restricted access to informal venues that provide information about the tenure process and related practices can be used by universities to inform changes in their institutional culture that contributes to the potential unequal access to information.

Theoretical Framework and Tenure Clarity

Intersectional perspective recognizes that workers have gender, race and class and other social categories as part of their identity (Acker 2011). Furthermore, these identifiers cannot be looked at as separate social constructs, but rather as interactive social constructs that create unique effects of advantage/disadvantage on someone's life, in order to understand a worker's experience within the workplace. Thus, Acker (2011) suggests that the hierarchical structures within organizations, the interactions within the workplace, the institutional culture and institutional processes are gendered as well as racialized. Consequently, within an organization the interaction between gender and race will create for minority women institutional barriers and experiences of exclusion that are different from those experienced either by minority men or by white women (Acker 2011).

According to Acker (1990, 2012) the "ideal worker" is not only a man, but he is most often a white, middle class, heterosexual man. Thus, not only the white female bodies, but also the black and brown bodies, regardless of gender, are viewed as being incompatible with the work positions that are mainly occupied by white men. Black and brown bodies according to the racialized organizational logic are more suited for subservient, menial jobs (Acker 2011). Furthermore, the intersection between race and gender also creates expectations within the

92

organization that minority women should fulfill subservient roles that confirm both racialized and gendered stereotypes.

Because organizations are gendered and racialized at the same time, there are additional barriers for men and women of color to advance in their careers (Acker 2011). The decision process involving the selection of the person who deserves the promotion is influenced most often by gender and race of both the evaluator and the evaluated, except in the case where the dominant unmarked classification is of the white male (Acker 2006). Similarly, Ridgeway and Correll (2004) emphasize that social structures like gender and race are very much influential in the process of determining a candidate's competence and chances for advancement. Consequently, "the same performance, idea, or product seems better to people when it comes from someone who is higher status rather than lower status" on the social structure ladder (p. 518). Thus, the evaluation processes for career advancement within organizations are permeated with gender and racial biases, and that leads to expectations and criteria regarding performance being used arbitrarily, disadvantaging most of all minority women faculty (Acker 2011).

Gender and racial inequalities are created not only as a result of decision makers' biases in the process of work evaluations and promotion decisions, but also during every day workplace interactions between members of the organization (Acker 2011). Acker (2011, 2012) explains that interactions within the workplace are often guided by stereotypes about a particular social group and by the definition of the "other" which is used for distinguishing and forming a majority social/professional network. Aguirre (2000) asserts that because of the risk of discrimination based on both gender and race, minority women faculty experience the academic workplace differently from white women and minority men. Minority women faculty experience

marginalization at higher rates than other faculty, marginalization which, according to hooks, (1990, p. 149) means being "part of the whole but outside the main body."

Tenure Clarity Literature

Not having access to informal networks and professional collaboration opportunities makes it difficult for minority women to gain an understanding of the tenure process and to become successful on the tenure-track (Mitchell and Miller 2011). Moreover, Carlson (2009) contends that women faculty of color are often invisible and excluded from information circles and thus "lack the institutional knowledge" that would help them become successful in their academic careers. For example, the Latina faculty in Medina and Luna (2000) study mentioned that, even after repeatedly asking senior faculty in their department about the available grants, they have not received the relevant information. Some minority women faculty express that the administration's expectations regarding performance for tenure are confusing and that the performance evaluations usually do not match the performance criteria in the formal tenure policies and procedures (Boyd, Cintron and Alexander-Snow 2010). In light of this literature we formulate the following hypothesis: *1. Compared to all other tenure-track faculty, minority women faculty are less likely to report that tenure expectations are clear.*

In academia, compared to white men and white women faculty, minority women faculty's academic performance is scrutinized more stringently when it comes to tenure evaluation (Agathangelou and Ling 2002). Specifically, hidden tenure standards are applied to minority women's performance, standards that are not clearly/formally formulated nor applied to other faculty (white men and white women faculty) (Beloney-Morisson 2003, Agathangelou and Ling 2002, Thomas and Hollenshead 2001). For example, at most research universities, faculty (white and male) with a good research dossier can get tenure despite having less success in

94

teaching and service. At the same time, at the same universities, minority women faculty have been denied tenure, despite an exemplary research dossier, on the grounds of "unsatisfactory" service performance (Agathangelou and Ling 2002). These allegations most of the time stem from senior faculty's expectations that minority women faculty should fulfill the role of the "diversity hire" and spend a lot of time on advising minority students and engaging in diversity activities related to race and gender on campus, even though such activities seriously detract from the time needed for doing research (Sotello and Turner 2002). Still, these "minority services," which often time minority women faculty value, are not considered important for satisfying the service related requirements for getting tenure (Thomas and Hollenshead 2001). Therefore, by having in place these hidden service related tenure expectations that apply only to minority women, and that make the chances of getting tenure equally unlikely whether minority women fulfill those expectations or not, the academy "double-binds any talented, non-mainstream faculty" and compels her to behave according to the stereotypical image of the subordinate minority woman and eventually, to leave the academy (Agathangelou and Ling 2002, p. 378). Taking into consideration this literature we formulate the following hypotheses: *2. Minority women's assessment of tenure decisions has a significant influence upon their perceptions of clarity of tenure expectations.*

3. Minority women's satisfaction level with the department head's fairness in evaluating their work has a significant influence on their perceptions of clarity of tenure expectations.

4. Minority women's assessment of messages received about the requirements for tenure has a significant influence on their perceptions of clarity of tenure expectations.

95

Relationships with Peers Literature

Minority women faculty report that their experience interacting with peers (both senior and junior faculty) in a majority white academic department is less than positive. In fact, minority women's decision to leave faculty positions is influenced by negative relationships with peers and by the incompetence stereotype cast upon them by their peers (Mitchell and Miller 2011). Medina and Luna (2000) also found that Latina women faculty feel like outsiders within the academy because of the attitudes other faculty have towards their race, gender and class combined. These women's reflections suggest that they feel visible within their departments because of their racial/ethnic backgrounds and not because of their professional capabilities (Medina and Luna 2000). Also, there are excessive expectations for minority women faculty to participate in various minority-serving committees and to sustain an advising role for students from similar ethnic/gender backgrounds, activities that usually are not rewarded adequately during the tenure review (Sotello and Turner 2002).

Minority women faculty are frequently excluded from departmental professional networks and from research collaboration opportunities with senior faculty and most of the time their publications are single author publications (Beloney-Morisson 2003). African-American women faculty feel the highest level of social isolation (exclusion from supportive networks) compared to all other groups of faculty (Smith and Calasanti 2005). African-American women faculty also report one of the highest levels of institutional isolation (lack of access to and interaction with organizational sources of power) second only to the institutional isolation level reported by Asian American women faculty (Smith and Calasanti 2005). In light of this literature we propose the following hypothesis: *5. Minority women's satisfaction with the amount of*

professional and personal interaction with tenured faculty has significant influence on their

perceptions of clarity of tenure expectations.

Mentoring Literature

Minority women faculty are not likely to receive mentoring in their departments, but they

try to create support networks and mentoring relationships outside the department (Boyd,

Cintron and Alexander-Snow 2010, Thomas and Hollenshead 2001). For example, minority

women faculty find mentoring opportunities within the ethnic section of their professional

associations (Thomas and Hollenshead 2001). Professional organizations like Sisters of the

Academy offer support to African-American junior women faculty by pairing them with senior

faculty mentors. Also, "participants take part in group mentoring where they learn from

questions and challenges of the mentors' other protégées" (Davis 2011, p. 31). Social scientists

point out the lack of formal mentoring relationships for minority women at majority white

universities and recommend that these institutions facilitate opportunities for minority women

junior faculty to meet other minority women senior and junior faculty in order to develop

mentoring relationships (Medina and Luna 2000, Sotello and Turner 2002, Davis 2011). Based

on this literature we formulate the following hypothesis: *6. Minority women's assessment about*

the effectiveness of mentoring of pre-tenure faculty in the department has significant influence on

their perceptions of clarity of tenure expectations.

Intersectional Perspective

According to the intersectional perspective (Griffin & Museus, 2011; Museus, 2011;

Pifer, 2011; Zambrana et al., 2015), the interaction of racial/ethnic and gender identities should

have an effect on the faculty assessment of clarity of tenure expectations (Smooth, 2016). In this

study, in addition to assessing how the interaction between gender and race affect assessment of

clarity of tenure expectations, we apply the intersectional perspective to determine whether the same factors affect faculty perceptions of clarity of tenure expectations. In order to understand the influence that gender and race combined have on minority women faculty's experiences on the tenure-track, the explanatory model for minority women faculty's assessment of clarity of tenure expectations is compared to the predictor models designed separately for minority men, white women, and white men. In this context, for the intersectional perspective to be supported, we should observe differences in the determinants of faculty perceptions of clarity of tenure expectations across the four gender and racial/ethnic groups. For instance, we should observe that minority women's satisfaction level with the department head's fairness in evaluating their work has a significant influence on their perceptions of clarity of tenure expectations, but has a null or even negative effect on other intersectionally defined groups.

Research Design

COACHE Survey

Data from the Harvard University Collaborative on Academic Careers in Higher Education (COACHE) survey on tenure-track faculty job satisfaction is used in this study. COACHE was created with the purpose to support higher education institutions with information that would help them increase faculty success and implement necessary changes in the academic workplace. The survey was administered on a larger scale starting 2005 to present day. So far around 200 institutions participated in COACHE.

Sample and Study Participants

The sample for this study was chosen using time (when the data was collected), type of institution, tenure status, professorial rank and race/ethnicity as the selection criteria. The 2011-2012 annual data slice is relatively recent and helps reveal current faculty perspectives on the academic workplace. Since previous research (Jackson 2004, Nelson and Rogers 2003) suggests

that gender and racial inequalities are more pervasive within the competitive environment of research universities, only "very high research activity" and "high research activity" universities, as defined by the Carnegie Classification, were included in the sample. Because the purpose of this study is related to minority faculty assessment about clarity of tenure expectations, only tenure-track, assistant professors are included in the sample. The selected sample[10] contains data on pre-tenured faculty who are members of historically underrepresented social groups (American Indian/Native Alaskan, Black/African-American, and Hispanic/Latino) in US institutions of higher education compared to their representation in US overall population. White faculty are also included in the study as the comparison group.

Using these sample selection criteria, we arrived at our final sample consisting of 2128 (1128 male and 1000 female) white faculty who make up 87.3% of the total, and 310 (134 male and 176 female) minority faculty. There are 28 (12 male and 16 female) American Indian/Native Alaskan faculty who account for 1.1% of the total number of faculty, 148 (56 male and 92 female) African-American faculty make up about 6.1% of the total, and 134 (66 male and 68 female) Hispanic/Latino faculty make up for the rest 5.5% of the total.

Dependent and Independent Variables

A central question in this study is whether there are differences in faculty assessment of clarity of tenure expectations along gender and racial lines. The COACHE survey measures faculty perceptions of clarity of tenure expectations using a Likert scale. One of the questions in the dependent variable is the following: "Is what's expected in order to earn tenure clear to you regarding your performance as a scholar:" Responses are measured on a scale from 1 to 5, 1

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[10] The selected sample excludes the following groups: Asian, Asian American and Pacific Islander, Multiracial, and Other.

meaning "very unclear," 2 "somewhat unclear," 3 "neither clear nor unclear," 4 "somewhat clear," and 5 "very clear." "not applicable" and "decline to answer" options are also available. Given that the main roles of a tenure-track assistant professor are those of a scholar, a teacher and an advisor/mentor to students, this study focuses on these three roles when it comes to perceptions of clarity of tenure expectations. Thus, the dependent variable used in our regression analyses is a composite of three questions (with a range of 1 - 13): "Is what's expected in order to earn tenure clear to you regarding your performance as a scholar," "Is what's expected in order to earn tenure clear to you regarding your performance as teacher," "Is what's expected in order to earn tenure clear to you regarding your performance as an advisor to students," that has a reliability coefficient of .76. A detailed description of variables is provided in Table 1.

Table 1 Variables

Variable Name	Item #	Item Content Description
Dependent Variable		
Clarity of Tenure Expectations		Composite variable created from Q137A, Q137B, and Q137C Range (3-15), recoded as (1-13)
Clarity of tenure expectations	Q137A	As a Scholar: Is What is expected in order to earn tenure clear to you regarding your performance as a scholar
Clarity of tenure expectations	Q137B	A teacher: Is what's expected in order to earn tenure clear to you regarding your performance as a teacher.
Clarity of tenure expectations	Q137C	An advisor to students: Is what's expected in order to earn tenure clear to you regarding your performance as an advisor to students.
Demographic Grouping Variables		
Gender	Gender	Gender collapsed to two categories: female and male
Race	Race	Race collapsed to two categories: White and Minority
Gender*Race		Gender and race combined into one categorical grouping variable with four categories; Minority men, Minority women, White men, and White women
Independent Variables		
Messages, Fairness and Evaluation		
Consistent messages on tenure	Q139A	I have received consistent messages from tenured faculty about the requirements for tenure. - Rate your level of agreement or disagreement
Tenure Decision based on Performance	Q139B	In my opinion, tenure decisions here are made primarily on performance-based criteria (e.g., research/creative work, teaching, and/or service) rather than on non-performance-based criteria (e.g., politics, relationships, and/or demographics). - Rate your level of agreement or disagreement
Satisfaction with fair evaluation	Q185L	My department head's or chair's: Fairness in evaluating my work - Rate your level of satisfaction or dissatisfaction
Received formal feedback on tenure progress	Q145B	Have you received formal feedback on your progress toward tenure? Yes/No

Table 1 Variables (Cont.)

Variable Name	Item #	Item Content Description
Mentoring		Composite variable created from Q130A and Q125A. Range (2-6)
Effective mentoring of faculty	Q130A	There is effective mentoring of pre-tenure faculty in my department - Rate agreement or disagreement
Mentoring Effectiveness: within department	Q125A	Mentoring from someone in the department -Rate the effectiveness
Relations with Peers		Composite variable created from Q205D and Q205E. Range (2-6)
Satisfaction with Interaction: Tenured: Professional	Q205D	The amount of professional interaction you have with tenured faculty in your department - Rate your level of satisfaction or dissatisfaction
Satisfaction with Interaction: Tenured: Personal	Q205E	The amount of personal interaction you have with tenured faculty in your department - Rate your level of satisfaction or dissatisfaction

Two demographic variables, gender (female and male) and race (white and minority) are included in the study as the grouping variable of most interest. After selecting the race groups of interest in this study, the race variable had multiple categories: American Indian or Native Alaskan; Black or African-American; Hispanic or Latino; and white (non-Hispanic), which were collapsed to form a dichotomous variable (white and minority). Further, race and gender were combined to form a single grouping variable with four categories, namely minority women, minority men, white women, and white men.

Multiple other independent variables are used to predict faculty perceptions of clarity of tenure expectations. Some of these variables concern agreement level with the following statements: "I have received consistent messages from tenured faculty about the requirements for tenure," "In my opinion, tenure decisions here are made primarily on performance-based criteria

(e.g., research/creative work, teaching, and/or service) rather than on non-performance-based criteria (e.g., politics, relationships, and/or demographics)." To maintain minimum cell size of greater than 5 observations per cell, the five categories in the independent categorical variables were collapsed into three categories. Furthermore, faculty satisfaction with: "My department head's or chair's: Fairness in evaluating my work," and faculty having received feedback on progress towards tenure are also included as independent variables in the study.

Other selected predictors for perceptions of clarity of tenure expectations concern faculty perceptions of *mentoring*. Specifically, the survey asks tenure-track faculty to report whether: "There is effective mentoring of pre-tenure faculty in my department (agreement level)," and whether "Mentoring from someone in your department" is effective. Since they measure the same concept (*effectiveness of mentoring*) and for the purpose of multivariate analyses these two variables were combined into one variable (range 2-6; coefficient of reliability = .81).

We also included variables regarding *relationships with peers*. The survey asks faculty to state their level of satisfaction with: "The amount of professional interaction you have with tenured faculty in your department," and "The amount of personal interaction you have with tenured faculty in your department." In the multivariate analyses these two variables were joined to form one variable (*satisfaction with interactions with tenured faculty*) that has a reliability coefficient of .82.

Methods of Data Analysis

Bivariate Analysis

Kruskall Wallis, a nonparametric test of significance, was used to identify the existence of differences in perceptions regarding the dependent and independent variables among the four faculty groups. Kruskall Wallis "tests the null hypothesis that all population distributions are

identical, against the non-directional alternative that at least one of the population distributions is different from at least one of the others" (Weinberg and Knapp 2002, p. 549). Mann Whitney tests were run only for those variables for which the Kruskall Wallis test showed significant group differences. Mann Whitney test identifies differences between two groups when the variables being tested are ordinal and the samples are unequal in size (Acock 2012).

Linear Regression Analysis

The goal of this study is to create an explanatory model for minority women faculty's assessment of clarity of tenure expectations. In order to understand the influence that gender and race combined have on minority women faculty's experiences on the tenure-track, we have created models that would reveal whether the same factors predict perceptions of clarity of tenure expectations for the intersectionally defined groups (minority women, minority men, white women and white men). As such we are interested to determine whether the parameter estimates are significant, and to identify the direction of each estimate. Thus, separate regression models were tested for the four groups of faculty and included independent variables suggested by existing research to be significant predictors of clarity (Lisnic, Zajicek and Kerr 2016). The chosen dependent variable for analyses is a continuous variable and thus ordinary least squares regression analysis was considered most appropriate. The post-tests such as collinearity and error term are performed to determine the best fit and validity of the model (Berry 1993).

Findings

We first discuss our bivariate results followed by a presentation of the multivariate results.

Bivariate Results

The bivariate analyses help us answer our first research question: How does the intersection between gender and race affect assessment of clarity of tenure expectations? In addition to answering this question these analyses reveal the gender and race differences in faculty members' assessment of fairness in tenure decisions and evaluations, messages about requirements for tenure, relationships with peers and mentoring. With the exception of relationships with peers, all these variables were previously found (Lisnic, Zajicek and Kerr 2016) to be significant predictors of faculty assessment of clarity of tenure expectations. Because the Kruskall Wallis test only indicates the existence of a group difference among our four groups and does not exactly show where the group difference is, we will present only the Mann Whitney test results for those variables for which Kruskall Wallis[11] came out significant. The Mann Whitney results can be seen in table 2.

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[11] Kruskall Wallis results revealed no significant group differences in faculty members' perceptions regarding the following variables: received formal feedback on progress toward tenure and effectiveness of mentoring from someone in the department.

Table 2   Wilcoxin-Mann-Whitney test comparison for Variables by Faculty groups (Gender and Race)

Variable Names	White men*/White women	White men*/Minority men	White men*/Minority women	White women*/Minority men	White women*/Minority women	Minority men*/Minority women
Clarity as a Scholar	-2.201*	1.144	0.359	2.113*	1.459	-0.655
Clarity as a Teacher	-2.552**	1.469	-0.145	2.519*	1.196	-1.325
Clarity as an Advisor to Students	-3.062**	-0.922	-1.646	0.479	-0.121	-0.444
Consistent messages on tenure	-3.092**	0.395	-2.344*	1.812	-0.597	-1.925
Tenure Decision based on Performance	-3.477***	-0.652	-2.161*	0.935	-0.232	-0.928
Satisfaction with fair evaluation	-4.765***	-0.705	-3.271***	1.492	-0.571	-1.608
Effective mentoring of faculty	-3.054**	-0.247	-2.062*	1.201	-0.408	-1.257
Satisfaction with Interaction: Tenured: Professional	-3.144***	-0.531	-4.1***	0.973	-2.196*	-2.37*
Satisfaction with Interaction: Tenured: Personal	-3.618***	-2.923**	-3.631***	-1.063	-1.623	-0.355

Note: *$p<0.05$, **$p<0.01$,***$p<0.001$.

As seen in Table 2, in comparison with white men, being a white woman has a significant negative influence on assessment of clarity of tenure expectations regarding performance as a scholar, teacher, and advisor. White women perceive significantly less clarity compared to white men and compared to minority men. In comparison to minority men, being female and white also has a negative influence on assessment of clarity of tenure expectations regarding performance as a scholar and as a teacher. These bivariate results contradict our hypothesis that: *Compared to all other tenure-track faculty, minority women faculty are less likely to report that tenure expectations are clear* and reveal that white women are the group of faculty least likely to report that tenure expectations are clear.

Regarding the consistency of messages, the fairness of tenure decisions and evaluation, and the effectiveness of mentoring, our results show that white women and minority women rate these variables not as favorably as white men. Namely, when compared to white men, both minority and white women are less likely to agree that they have received consistent messages about the requirements for tenure, are less likely to agree that tenure decisions are made based on performance criteria, are less satisfied with their department chair's fairness in evaluating their work, and are less likely to agree that there is effective mentoring of pre-tenure faculty in their department. No other faculty group comparisons show significant differences in perceptions of these four variables.

Other results reveal intersectional differences in faculty perceptions regarding the satisfaction with the amount of professional interaction with tenured faculty. Specifically, compared to white men, minority men and white women, minority women are less likely to be satisfied with the amount of professional interaction with tenured faculty. Also, compared to white men, white women are less likely to be satisfied with the amount of professional

107

interaction with tenured faculty. Regarding the satisfaction with personal interaction with tenured faculty we found that compared to white men, both minority women and white women are significantly less likely to be satisfied with the amount of personal interaction with tenured faculty. Moreover, compared to white men, minority men are significantly less likely to be satisfied with the amount of personal interaction with tenured faculty.

Multivariate Results

The multivariate results answer our second research question: Does minority women faculty's satisfaction with collegiality (peer relations, mentoring), assessment of feedback (performance reviews, fairness in tenure decisions and evaluation), and assessment of received messages about requirements for tenure affect their perceptions of clarity of tenure expectations and does the effect differ from the other intersectionally defined groups (minority men, white men, and white women)? We used theory and existing research to build our multivariate models. Separate regression models were tested for all four faculty groups. Each model for each faculty group consists of six independent variables plus the dependent variable. The F tests for all faculty groups are significant at the $p<0.001$ level, which means that the selected independent variables reliably predict the dependent variable. Diagnostics for multicollinearity were performed. The results do not suggest the presence of multicollinearity. Multivariate results are presented in Table 3.

Table 3 Determinants of Clarity by Race and Gender

Variable	Minority Faculty						White Faculty					
	Female	T-score	p(T)	Male	T-Score	p(T)	Female	T-Score	p(T)	Male	T-score	p(T)
Consistent messages on tenure	1.468	5.2	0.000	1.006	2.77	0.007	0.789	7.74	0.000	1.15	11.23	0.000
Tenure Decision based on Performance	0.313	0.94	0.349	0.107	0.28	0.782	0.902	7.45	0.000	0.526	4.03	0.000
Satisfaction with fair evaluation	0.982	2.62	0.010	0.847	1.53	0.13	0.65	4.6	0.000	0.489	3.06	0.002
Received formal feedback on tenure progress	1.216	2.41	0.018	1.204	2.08	0.041	0.515	2.39	0.017	0.466	2.35	0.019
Effectiveness of Mentoring	0.358	2.16	0.033	0.222	1.12	0.264	0.134	2.28	0.023	0.18	3.17	0.002
Satisfaction with Interaction with Tenured Faculty	0.043	0.25	0.807	0.196	0.85	0.4	0.1505	2.31	0.021	0.15	2.17	0.030
Intercept	1.577	1.59	0.114	3.322	2.00	0.048	3.552	8.18	0.000	3.786	8.56	0.000
F Test/p(F)	20.99***			7.52***			68.92***			79.92***		
Degrees of Freedom (model)	6			6			6			6		
No of Observations	115			93			718			828		
R-Squared	0.5383			0.3441			0.3677			0.3687		
adjusted R-Squared	0.5127			0.2984			0.3624			0.3641		

Note: *p<0.05, **p<0.01, ***p<0.001.

1. Hypothesis: Minority women's assessment of received messages about the requirements for tenure has a significant influence on their perceptions of clarity of tenure expectations. The regression results show that for minority women this relationship is significant and positive (p <0.001); for every unit change in minority women's assessment of received messages about the requirements for tenure, there is a 1.468 unit increase in their perceptions of clarity of tenure expectations. Our results also reveal that the relationship between the assessment of received messages about the requirements for tenure and perceptions of clarity of tenure expectations is significant and positive for the other groups, white women, white men, and minority men.

2. Hypothesis: Minority women's assessment of tenure decisions has a significant influence upon their perceptions of clarity of tenure expectations. Our results reveal that there is no significant relationship between minority women's assessment of tenure decisions and their perceptions of clarity of tenure expectations. The relationship is not significant for minority men as well. However, there is significance of relationship between assessment of tenure decisions and perceptions of clarity of tenure expectations for white women and white men (p<0.001). Thus, we reject the proposed hypothesis that minority women's assessment of tenure decisions has a significant influence on their perceptions of clarity of tenure expectations. Importantly, in this case we note an intersectional pattern of differences within each gender group. Specifically, while the assessment of tenure decisions is not significant for minority women or minority men, it is significant for their white counterparts, white women and white men, respectively.

3. Hypothesis: Minority women's satisfaction with the department head's fairness in evaluating their work has a significant influence on their perceptions of clarity of tenure expectations. The regression results show that, for every unit change in minority women's

satisfaction level with the department head's fairness in evaluating their work, there is a 0.982 unit increase ($p < 0.01$) in their perceptions of clarity of tenure expectations. For both white women and white men, satisfaction with the department head's fairness in evaluating their work has a significant and positive relationship with perceptions of clarity of tenure expectations. However, for minority men faculty, satisfaction with the department head's fairness in evaluating their work does not have a significant effect on their perceptions of clarity of tenure expectations. With regard to intersectionality, we note a gender difference within the minority faculty group and racial/ethnic differences among the men in the group. Specifically, while the department head's fairness in evaluating faculty's work is significant for minority women it is not significant for minority men. Moreover, while the department head's fairness in evaluating faculty's work is significant for white men it is not significant for minority men.

*4. Hypothesis: Minority women faculty receiving formal feedback about progress towards tenure has significant influence on their perceptions of clarity of tenure expectatio*ns*.* The analysis reveals that, for minority women faculty, receiving formal feedback about their progress towards tenure contributes to a 1.26 unit increase in their perceptions of clarity of tenure expectations. The relationship is significant at the 0.05 p level.

The results also indicate that for all other faculty groups receiving formal feedback about their progress towards tenure and perceptions of clarity of tenure expectations are positive and significant. Hence, with regard to intersectionality, we do not note a pattern of difference across any of the intersectionally defined groups.

5. Hypothesis: Minority women's assessment about the effectiveness of mentoring of pre-tenure faculty in the department has significant influence on their perceptions of clarity of tenure expectations. The regression results show that, for every unit change in minority women's

assessment of mentoring, there is a 0.358 unit increase ($p < 0.05$) in their perceptions of clarity of tenure expectations. The regressions models indicate that there is a significant and positive relationship between faculty assessment of mentoring and perceptions of clarity of tenure expectations across all faculty groups except minority men. Thus, we can affirm that there is a significant relationship between faculty assessment of mentoring and perceptions of clarity of tenure expectations for minority women. With regard to intersectionality, again, we note a gender difference within the minority faculty group and racial/ethnic differences among the men in the group. Specifically, while the relationship between the assessment of mentoring and perceptions of clarity of tenure expectations is significant for minority women, it is not significant for minority men. Moreover, while the relationship between the assessment of mentoring and perceptions of clarity of tenure expectations is significant for white men it is not significant for minority men.

6. Hypothesis: Minority women's satisfaction with the amount of professional and personal interaction with tenured faculty has a significant influence on their perceptions of clarity of tenure expectations. This hypothesis is not supported. The analysis shows that the relationship between satisfaction with interaction with tenured faculty and perceptions of clarity of tenure expectations is not significant for minority women faculty. While this relationship is not significant for minority men faculty, it is significant for white women and white men faculty groups. Hence, in this case, we note an intersectional pattern of differences within each gender group. Specifically, while the satisfaction with interaction with tenured faculty is not significant for minority women or minority men, it is significant for their white counterparts, white women and white men, respectively.

112

Discussion and Conclusion

In this study, we sought to examine how minority women faculty compare to all other faculty in terms of perception of clarity of tenure expectations and its predictors. We also sought to determine whether the factors previously identified as predictors of clarity of tenure expectations (Lisnic, Zajicek and Kerr 2016) are significant in the explanatory models designed separately for minority women, minority men, white women, and white men. The results of this study inform the gendered and racialized organizations theory by analyzing whether faculty members' assessments of fairness in tenure decisions and evaluation, messages about the requirements for tenure, relationships with peers and mentoring and their influence on faculty perceptions of clarity of tenure expectations are patterned by both race and gender. While based on the gendered and racialized organization theory and extant research we expected that minority women and men would perceive less clarity in tenure expectations, our bivariate results do not affirm this expectation. However, the analysis reveals that, with the exception of assessment of received messages about the requirements for tenure and receiving formal feedback about their progress towards tenure, intersectional patterns exist for the intersectionally defined groups. Below we discuss these findings in more detail.

Contrary to our expectations informed by existing research (Agathangelou and Ling 2002, Beloney-Morisson 2003), the bivariate results reveal that White women are the least likely to perceive that tenure expectations are clear. Existing research (Lisnic, Zajicek and Kerr 2016) that uses the same dataset shows that compared to men faculty, women faculty assess tenure expectations as being less clear. The finding that compared to white men and white women, minority women and minority men do not perceive lower levels of clarity regarding the expectations for tenure (minority men in fact perceive more clarity regarding the expectations for getting tenure than white women) introduces intersectional complexity to this line of research

113

and begs the question of whether minority faculty assume that the criteria for getting tenure and the expectations for getting tenure are same. For instance, Newman (1999) explains that African American faculty assume that, as implied by the formal tenure criteria, their success in achieving tenure is based on their intellectual capacity, and on their involvement in research, teaching and committee work. Lee and Leonard (2001) assert that "performance standards are often subsumed within the written procedures for tenure and promotion and serve as directional guides for faculty responsibilities. However, in many instances, those standards only surface during periods of review" (p. 176). Junior faculty become aware of these unspoken standards/expectations during interactions with departmental colleagues, especially during interactions with tenured faculty. Our bivariate results however, show that minority faculty (both women and men) are less likely than white faculty (both men and women) to be satisfied with the amount of interactions with tenured faculty. Thus, it is possible that minority faculty in our study are not aware of these unwritten expectations for getting tenure because they have not had enough formal and informal interactions with tenured faculty.

Consistent with previous research findings, this study reveals that compared to white men, minority women are less likely to agree that they have received consistent messages about the requirements for tenure, are less likely to agree that tenure decisions are made based on performance criteria (Agathangelou and Ling 2002, Thomas and Hollenshead 2001), are less satisfied with their department chair's fairness in evaluating their work (Boyd, Cintron and Alexander-Snow 2010) and, are less likely to agree that there is effective mentoring of pre-tenure faculty in their department (Boyd, Cintron and Alexander-Snow 2010). Compared to white men, white women also reported lower levels of agreement and satisfaction with the above mentioned departmental tenure practices. These results corroborate the findings in Lisnic, Zajicek and Kerr

(2016) which also reveal that women faculty are less satisfied than men with the departmental practices that influence the clarity of tenure expectations. Also, in line with existing research (Smith and Calasanti 2005), this study suggests that compared to white men, minority men and white women, minority women are the least likely to be satisfied with the amount of professional interaction with tenured faculty.

The multivariate models were constructed in order to: 1) determine whether assessment of received messages about the requirements for tenure, assessment of fairness in tenure decisions and evaluations, receiving formal feedback on progress towards tenure, and satisfaction with collegiality (mentoring and relationships with peers), influence minority women's perceptions of clarity of tenure expectations, and 2) assess whether for the four intersectional groups the same factors affect in a similar or differing ways faculty perceptions of clarity of tenure expectations. With regard to the first point, our results reveal that for minority women, all factors, except their assessment of tenure decisions and satisfaction with interactions with tenured faculty, have a significant and positive influence upon their perceptions of clarity of tenure expectations. These results provide partial support for the gendered and racialized organization theory (Acker 2011) and existing literature (Beloney-Morisson 2003, Agathangelou and Ling 2002) which suggest that the factors included in our analysis should have a significant effect on perceptions of clarity of tenure expectations.

With regard to the second purpose of our analysis, this study analysis reveals that, with the exception of assessment of received messages about the requirements for tenure and receiving formal feedback about their progress towards tenure, intersectional patterns exist for the four intersectionally defined groups. Specifically, the multivariate results showed that faculty

who received consistent messages about the requirements for tenure, and who received formal feedback on progress towards tenure are all likely to perceive more clarity in tenure expectations.

These results suggest that improvements in departmental practices that address the consistency of messages about the requirements for tenure that tenured faculty transmit to junior faculty and the requirement of formal feedback on progress towards tenure can be beneficial for all faculty, regardless of gender and race.

Other multivariate findings support the usefulness of the intersectional perspective in understanding the differences in factors affecting perceptions of tenure clarity for each intersectionally defined group. First, the results show that white women and white men faculty members who agree that tenure decisions are made based on performance criteria and who are more satisfied with the amount of professional and personal interactions with tenured faculty are more likely to report that the expectations for getting tenure are clear. Minority women and minority men faculty members, on the other hand, do not experience a significant change in their assessment of how clear tenure expectations are, regardless of whether they agree or disagree that tenure decisions are made based on performance criteria and regardless of whether they are more or less satisfied with the amount of professional and personal interactions with tenured faculty.

These findings imply that minority women and men may view the performance criteria (research, teaching and service) based on which tenure decisions are made, as biased. For example, minority faculty question unclear tenure criteria assumptions about what constitutes a "valid" area of research, the "best" research methodology, or the "best" journal (Johnsrud and Sadao 1998, Stanley 2006). Thus, departmental efforts to make performance-based criteria (research, teaching and service) more clear and tenure decision-makers accountable for

116

implementing without bias the criteria could support all faculty, including minority women and minority men in better understanding the expectations for getting tenure.

Departmental efforts to boost the amount of interactions between tenured and junior faculty could give an advantage, in terms of clarifying the expectations for getting tenure, to white women and white men faculty, but not to minority women and minority men faculty. This difference could be explained by minority women and men not having enough access to tenured faculty in the department for these relationships to have a significant influence on their perceptions of clarity of tenure expectations. Our bivariate findings indeed show that compared to white faculty, minority women and men and are less satisfied with the amount of interactions with tenured faculty in the department. Perhaps for minority faculty (both men and women) the issue lies not only in the amount of interactions, but also in the quality of interactions with tenured faculty. Thus, departmental efforts improve the quality of interactions among all faculty could benefit minority faculty in terms of understanding the expectations for tenure.

Other results reveal that white women, minority women and white men, who are satisfied with the department head's fairness in evaluating their work, perceive tenure expectations as more clear. For minority men, being satisfied or dissatisfied with the department head's fairness in evaluating their work does not have a significant effect on how clear they perceive tenure expectations to be. This finding could be explained by Newman (1999) study which suggests that for minority faculty understanding the expectations for getting tenure is related to knowing the formalized tenure criteria, rather than to subjective factors like the department head's fairness in evaluating their work. Thus, departmental initiatives to make the evaluations of faculty's work by the department head more fair could render tenure expectations more clear for all faculty members, except minority men.

Lastly, for minority women, white men, and white women more agreement that there is effective mentoring of pre-tenure faculty in the department contributes to more clarity of tenure expectations. However, for minority men more agreement that there is effective mentoring of pre-tenure faculty in the department does not have a significant influence on their perceptions of how clear tenure expectations are. This result could mean that even when minority men report that mentoring within the department is effective, the mentoring is not effective enough to influence their understanding of the expectations for tenure. Existing research does suggest that the cross-race mentoring within the department is not always providing adequate support for minority faculty and for that reason minority faculty often cultivate same-race mentoring relationship outside the department (Tillman 2001, Stanley 2006, Diggs et al. 2009). Thus, departmental initiatives should focus on creating mentoring programs that would provide venues of information regarding tenure criteria, tenure expectations and the distinction between the two to all junior faculty regardless of race and gender.

Overall, our multivariate models predict better white women's and white men's assessment of clarity of tenure expectations than they do minority women's and, especially minority men's perceptions. As argued above, the explanation for these findings could be that minority men and women junior faculty have not been socialized enough into the culture and politics of their departments to understand the difference between the formalized criteria for tenure and the expectations for tenure. Importantly, as seen in this study, the model proposed in this study is least applicable to minority men. Indeed, for minority men faculty the only determinants of clarity of tenure expectations are received formal feedback on tenure progress and received consistent messages about the requirements for tenure.

Policy Implications

Currently, at many U.S. universities, diversity programs are designed and implemented with the goal to improve the retention of minority faculty. At Colorado State University, for example, a program called New Beginnings "provides a formal mechanism to raise the level of awareness of junior faculty of color relative to tips, suggestions, and advice, thereby leveling the playing field in the tenure and promotion process" (Alire 2001, p. 24). Most often, however, in higher education institutions, diversity action plans are designed by Diversity Councils with the purpose of "advancing and influencing policy for building diverse, inclusive campus communities" (Iverson 2007, p. 587).

While such initiatives could help acclimatize minority faculty to the campus community, when it comes to minority faculty understanding the tenure criteria/expectations, such programs are out of reach. The tenure criteria, standards of performance and expectations are all a product of individual departments (Lee and Leonard 2011) and thus, faculty development initiatives and mentoring outside the department can do little to help faculty understand the requirements for tenure, especially the expectations for tenure. Based on our findings, even the mentoring relationships and the relationships with peers within the department are not effective enough to render the tenure expectations clear for minority women and men faculty.

Ideally, the tenure process would be uninfluenced by departmental politics and decision-makers' biases, and the most decisive factors in understanding the tenure criteria and tenure expectations (which should match) would be receiving formal feedback on progress towards tenure and formal mentoring. This scenario is unlikely in most departments where women and minority faculty are still very much underrepresented and departmental politics and biases based on demographics play a big role on who gets tenured and promoted (Johnsrud and Sadao 1998, Lee and Leonard 2001, Stanley 2006). Our findings reveal that tenure decision makers' biases,

119

the department head's fairness in evaluating faculty work and the messages regarding the requirements for tenure received from tenured faculty have significant influence on white women's, white men's, and minority women's perceptions of clarity of tenure expectations. Thus, in order to improve all faculty members' understanding of the clarity of tenure expectations, we recommend that universities and departments put efforts into making the tenure decisions and evaluations unbiased, by making decision makers and evaluators accountable.

Findings in this study suggest that junior minority faculty, especially minority men, are particularly likely to be victims of the vagaries of an ambiguous tenure process, since most likely they are unaware of the difference between tenure criteria and tenure expectations. Thus, we recommend, that in addition to the above mentioned initiative to render the clarity of tenure expectations less reliant on decision makers' biases, institutional and departmental efforts should also focus on creating effective mentoring programs that would help minority faculty, in particular minority men, understand departmental dynamics and politics that give rise to the existence of the "hidden" tenure expectations.

Also, it could be the case that since the path towards an academic tenure-track job is filled with numerous obstacles for minority women and minority men faculty (hence their underrepresentation in academia), more so than it is for white faculty, minority faculty who achieve such a position are most likely extraordinary individuals with the capability to navigate the myriad of hidden, informal rules while on the tenure-track.

Overall, the findings in this study reveal the need for profound changes in departmental culture that would allow for smoother interactions between faculty members regardless of race and gender. Positive and unprejudiced interactions among faculty members from diverse racial and gender backgrounds would eventually make the hidden expectations for tenure nonexistent.

Future Studies and Limitations

  Due to limited sample size, historically underrepresented faculty groups in this study have been aggregated into one group. However, the experiences of African American faculty compared to Latino/a faculty, and compared to Native American faculty could be quite different. Therefore, future research could look at faculty ethnicities/races separately when studying perceptions of clarity of tenure expectations. Based on findings in this study, further investigation into predictors of perceptions of clarity of tenure expectations for minority women and men is warranted. Because universities enroll in COACHE by paying a fee, which gives them a three-year membership, a random selection of participants cannot be achieved. Thus, the results cannot be generalized beyond the population studied. Also, the data in this study is cross-sectional and hence, causality cannot be inferred.

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Conclusions

This chapter provides a summary of the results from the three manuscripts and expands on the policy implications discussion. By connecting the findings from all the manuscripts this chapter builds a more cohesive picture of the factors that contribute to the success of a diverse body of faculty in higher education institutions.

The presence of diverse faculty in universities and colleges across the US has a positive impact on the institutional culture and on the learning experiences of students (Nelson, Brammer and Rhodes 2007). Consequently, hiring and retaining diverse faculty members is important for improving student success, including an increase in graduation rates. Besides addressing knowledge gaps in the literature, the main goal of this project was to contribute to a better understanding of institutional issues related to faculty retention, in particular the retention of women and minority faculty.

With this in mind, the more specific goal of this dissertation was to examine whether clarity and reasonableness of tenure expectations are influenced by faculty members' gender and race. Furthermore, I sought to determine whether institutional and departmental policies and practices influence similarly women's and men's perceptions of the reasonableness of tenure expectations and whether institutional and departmental policies and practices influence similarly minority women's and minority men's and White women's and White men's perceptions of the clarity of tenure expectations. A subsidiary goal was to determine whether policies and practices in higher education institutions are gendered and racialized, while keeping in mind that in the past decades a plethora of public policies and diversity programs have been implemented at research universities across US in order to achieve better representation of women and minorities among faculty.

The first manuscript examined whether and how faculty assessment of departmental and institutional support for family-work balance, faculty satisfaction with family-friendly policies and gender affect faculty perceptions of the reasonableness of tenure expectations. Overall, results show that women are less likely than men to perceive that tenure expectations are reasonable. Results also reveal that women are less likely than men to perceive that tenure expectations are clear. Compared to all other faculty (minority women, minority men and White men), White women are least likely to report that tenure expectations are clear.

One of the main and confirmed hypotheses regarding the reasonableness of tenure expectations is that faculty will perceive tenure expectations as reasonable when their institutions and departments provide support for balancing family and work responsibilities. The gendered organization theory based hypotheses that, because traditionally women's careers have been negatively affected by family related responsibilities, institutional and departmental support for family-work balance would have a stronger influence on women's, rather than men's, perceptions of reasonableness of tenure expectations, are not supported by results. Contrary to these expectations, I found that for both men and women support for work-life balance, in particular departmental support for work-life balance is influential on their perceptions of how reasonable tenure expectations are. However, even though for both men and women assessment of support for work-life balance has a similar influence on their perceptions of reasonableness of tenure expectations, the results show that women faculty perform more family related responsibilities (eldercare and ill family member care) and are less satisfied with their workload and with the institutional and departmental support for work-life balance than men faculty. Thus, while men agree that family-friendly policies and institutional and departmental support for

128

family-work balance are important for their ability to manage the work requirements, they do not have as many family responsibilities as women do.

The reasonableness study also reveals that compared to institutional support and family-friendly policies, departmental support for family-work balance has a stronger influence on women's and men's ability to manage work requirements. This finding is reminiscent of research by Colbeck and Drago (2005) and Drago et al. (2005) which suggests that the departmental culture is decisive in terms of whether women and men faculty will use the available family-friendly policies. The weak effect of family-friendly policies on perceptions of reasonableness reflects a departmental culture that is not conducive to faculty using these policies. This means that the departmental/organizational cultures still follow the outdated logic that the "ideal" worker is unencumbered by family responsibilities. However, women and men in this study do not conform to this "ideal."

The second manuscript investigated the extent to which faculty assessment of mentoring within the department, satisfaction with relationships with peers, receiving feedback on tenure progress, assessment of fairness in tenure decisions and evaluations and gender affect their perceptions of the clarity of tenure expectations. The study looked at factors, that according to existing research and gendered organization theory preclude women faculty from achieving tenure in academia (e.g. lack of mentoring, isolation, lack of fairness in tenure evaluations and decisions), and asks whether these factors and several other factors (e.g. feedback on tenure progress) affect women's and men's assessment of the clarity of tenure expectations. The exploration of these factors yielded interesting results.

For both women and men, the factors that have the most influence on how clearly they understand the tenure expectations are related to how these tenure-track faculty perceive that

their performance is viewed by tenure decision-makers. This finding suggests that the path towards tenure for junior faculty is filled with uncertainties and trepidations about whether tenure decision-makers view junior faculty's performance favorably. This is the case more for women than for men faculty since women are more likely to be dissatisfied with the fairness in tenure decisions and evaluations. The fact that for both men and women faculty subjective considerations like the assessment of fairness in tenure decisions and evaluations have the strongest influence (compared to mentoring, relationships with peers and feedback on tenure progress) on their perceptions of how clear tenure expectations are, could indicate that being a member of the proverbial "old boys' network" does not reduce as much as expected junior men's faculty concerns regarding their chances of becoming successful.

The results in the clarity of tenure study suggest that the experiences of faculty on the tenure-track is less gendered than expected. However, women faculty still have a disadvantage compared to men faculty because as previously asserted by gendered organization scholars (Britton and Logan 2008) unclear rules and subjectivity during the probation and promotion process affects women's chances of success more than they do men's. The findings indeed show that women faculty perceive less clarity in tenure expectations compared to men faculty. The lower levels of clarity reported by women is an indicator that their careers are potentially more negatively affected than men's by how they perceive decision-makers' fairness in tenure decisions and evaluations.

Similar to the second manuscript and to provide a more in-depth analysis of the clarity of tenure expectations, the third manuscript combined race and gender to examine explanatory factors for faculty perceptions of the clarity of tenure expectations. Specifically, the project focused on how race and gender combined, and along with other independent variables, affect

faculty perceptions of the clarity of tenure expectations. Thus, we created a model for minority women's perceptions of the clarity of tenure expectations and compared it with the models for all other faculty members' (minority men, White women and White men) assessment of tenure clarity. The variables included in the models are factors that, according to literature and gendered and racialized organization theory (Acker 2011), are most likely to affect minority women's success in the workplace. Thus, the study looks at whether minority women's perceptions of fairness in tenure decision-making and evaluation, satisfaction with relationships with peers, receiving feedback on tenure progress, and assessment of mentoring within the department influence their assessments of the clarity of tenure expectations.

The findings in this study did not come as a surprise because most of quantitative studies are based on White women's and White men's experiences in the academia. Hence, not surprisingly, factors included in the models better explain White women's and White men's perceptions of clarity than they explain minority women's and men's perceptions. At the same time, based on the gendered and racialized theory tenets (Acker 2011) and discussions of tenure as reflective of institutional power narratives (Agathangelou and Ling 2002), I expected that concerns regarding fairness in tenure decision-making and evaluation, mentoring, and relationships with peers would have a stronger influence on minority faculty, especially minority women's assessment of clarity of tenure expectations. These findings can be explained in several ways.

First, it is possible that minority faculty, in particular minority men (whose clarity of tenure expectations is least explained by the model) think of the more objectively defined and formal criteria for tenure as being the same as the expectations for tenure, and thus, subjective concerns about fairness in evaluation and tenure decisions, and relationships with peers would

131

not have an influence on their assessment of clarity of tenure expectations. If this explanation is reality, then, it would seem to uphold the racialized and gendered organization theory based assumption that minority women and men would be less likely than White faculty to understand the "hidden" expectations for becoming successful in the workplace (getting tenure and promotion). Hence, our finding that minority women and men perceive more clarity regarding the expectations for getting tenure compared to White women and White men. Newman (1999) explains that unaware of the "hidden" tenure expectations, African American faculty assume that their success in achieving tenure strictly relies on their intellectual capacity, and on their involvement in research, teaching, and committee work. Junior faculty usually find out about the existence of the "hidden" tenure expectations from interactions with senior peers (Carlson 2009). The findings, however, reveal that compared to White women and White men, minority women and men are less satisfied with the amount of interactions they have with senior faculty in their department and thus, are less likely to learn about the expectations for getting tenure.

Second, it is possible that the minority faculty entering tenure-track positions at research universities in this country are extraordinary people who have experience successfully navigating the treacherous academic environment. Thus, the better understanding of expectations for getting tenure for them, compared to White faculty, would come from their experiential wisdom about the White institution's expectations of them, which in their view, could be clearly biased.

When it comes to interactions with peers, results confirm the gendered and racialized organization (Acker 2011) assumption that within an organization the interaction between gender and race will create for minority women institutional barriers and experiences of exclusion that are different from those experienced either by minority men or by white women. Indeed, our findings revealed that compared to White men, minority men and White women, minority

132

women are least likely to be satisfied with the amount of professional interaction with tenured faculty.

Implications for Policy and Practice

As shown in this dissertation, the overarching public policy (affirmative action and gender equity programs) goal to retain women and minorities in academia and support them in achieving success still needs work. That is the case because of departmental practices that are not conducive to unbiased tenure decisions and evaluations, which negatively affect women's and minorities' (both men and women) work outcomes, and that do not create a welcoming environment for all faculty, regardless of gender and race, and regardless of their family duties.

The reasonableness of tenure expectations study contributes to the field of family-work balance in higher education institutions by arguing that improvements in departmental support for family-work balance can help tenure-track faculty better manage work requirements. Moreover, greater departmental support for family-work balance can encourage faculty to use existing family-friendly policies, and thus, contribute to improvements in the perceptions of work requirements. As suggested by gendered organization scholars (Acker 2006, Fox 2008), changing the gendered cultural practices within academic departments is the best way that federal policies like FMLA will be effectively implemented. The need for departmental support for family-work balance and the need for using family-friendly policies are very much patterned by gender as our findings show that women faculty have more family related responsibilities compared to men faculty. Thus, institutions should design family-friendly policies that are available for both women and men faculty in cases related to arrival of a new family member, sickness of a child or an elderly family member, etc. However, institutions should keep in mind that women faculty might need these family-friendly policies more often than men faculty.

The study about the clarity of tenure expectations revealed that contrary to expectations, men's careers are affected by the same factors that usually hinder women's career success. However, these factors have a stronger influence on women's career outcomes/clarity of tenure expectations. Based on these findings, recommendations that higher education institutions implement policies and practices that would render the path towards tenure less uncertain and fairer for both men and women faculty, emerge. Fox (2015), for instance, argues that vagueness in the requirements for getting tenure is a matter of institutional accountability and public policy, especially since the lack of clarity affects predominantly historically underrepresented groups in academia (women and minorities). Thus, this study recommends that institutions and departments create formal and clearly written tenure policies and feedback on tenure progress, thus making the subjective factors less important for understanding the criteria and expectations for getting tenure. Based on this study, I also recommend that institutions/departments implement or improve existing mentoring programs because they help faculty, especially women faculty, better understand the expectations for getting tenure.

The policy and practice implications of the intersectional study regarding the clarity of tenure expectations are multifold. First, based on the study findings it is recommended that cultural changes within departments be set in motion in order to improve collegiality among peers, and thus, give minority faculty (both women and men) access to collegial and informal relationships that carry with them the benefit of learning about the expectations for tenure. Second, the findings in this study show that mentoring is not effective in helping minority men understand the expectations for tenure. Therefore, improvements in the departmental mentoring programs should provide minority faculty, especially minority men, with additional information about the nature of the expectations for getting tenure. Third, the findings in this study support

the recommendation that departments make clear what the performance-based criteria (research, teaching and service) are, and also make tenure decision-makers accountable for implementing without bias these criteria, in order to help all faculty, especially minority women and minority men in better understanding the expectations for getting tenure. In the long term these initiatives will help retain minority faculty.

Limitations and Future Research

The experiences of faculty from various ethnical and racial backgrounds, could vary across categories. However, due to the inadequate sample availability of minority faculty in the third manuscript, the different minority groups such as African American, Native American and Hispanic groups have been collapsed into a minority/non-minority dichotomous grouping variable, risking variations in results due to homogenization effects for different racial minorities. Therefore, future research could look at historically underrepresented faculty groups belonging to different ethnicities/races separately when studying perceptions of the clarity of tenure expectations. Findings in the third manuscript also warrant further research about whether minority faculty understand the difference between tenure criteria (which are found in the formally written tenure policies) and tenure expectations (which are the informal and unwritten expectations that can be known through interactions with peers).

The first manuscript (reasonableness of tenure study) suggests that research on faculty (both women and men) utilization of family-friendly policies, on the effectiveness of family-friendly policies and their influence on faculty perceptions of the reasonableness of tenure expectations is necessary to get a clearer picture about the role that these policies play for faculty's beliefs of how manageable the work requirements are. The source of data for this study is a secondary data set, which posed limitations on the available questions on family-friendly

135

policies. Variables that measure faculty satisfaction with family-friendly policies do not say about the utilization or the effectiveness of these policies. The only assumption we could make is that these policies are available for faculty who provided an answer.

The second manuscript (clarity of tenure study) revealed that mentoring can help faculty better understand the expectations for getting tenure. However, it is not clear from the secondary data set questions which question refers to formal mentoring and which question refers to informal mentoring. According to existing research (Wasburn 2007) making a clear distinction between the two types of mentoring is important because practice has shown that formal mentoring is more effectively helping women achieve success, especially in departments where they cannot easily find mentors (Wasburn 2007).

Because the sample in this dissertation is non-random, results from this research cannot be generalized beyond the population of academic faculty. Universities usually enroll in COACHE by paying a fee, which earns them a three-year membership, and thus, random selection of universities is not possible. Also, a cause and effect relationship analysis for investigating temporal precedence cannot be pursued due to the sample data selected for this study being cross-sectional.

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January 21, 2016

MEMORANDUM

TO:	Rodica Lisnic Anna Zajicek
FROM:	Ro Windwalker IRB Coordinator
RE:	PROJECT CONTINUATION
IRB Protocol #:	13-02-464
Protocol Title:	*Tenure Requirements Reasonableness and Clarity: Gender and Racial Differences in Faculty Perceptions*
Review Type:	☒ EXEMPT ☐ EXPEDITED ☐ FULL IRB
Previous Approval Period:	Start Date: 02/13/2013 Expiration Date: 02/12/2016
New Expiration Date:	02/12/2017

Your request to extend the referenced protocol has been approved by the IRB. If at the end of this period you wish to continue the project, you must submit a request using the form *Continuing Review for IRB Approved Projects*, prior to the expiration date. Failure to obtain approval for a continuation on or prior to this new expiration date will result in termination of the protocol and you will be required to submit a new protocol to the IRB before continuing the project. Data collected past the protocol expiration date may need to be eliminated from the dataset should you wish to publish. Only data collected under a currently approved protocol can be certified by the IRB for any purpose.

This protocol is closed to enrollment. If you wish to make *any* modifications in the approved protocol, including enrolling more participants, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 109 MLKG Building, 5-2208, or irb@uark.edu.

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138