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## Reflecting on an academic career: associations between past mentoring investments and career benefits

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**Reflecting on an Academic Career:****Associations Between Past Mentoring Investments and Career Benefits**

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### Abstract

Receiving mentoring is positive associated with lasting career benefits for academic protégés; however, less is known about the connection to long-term career gains for mentors. In this study national sample of retired academics were surveyed to examine the associations between past mentoring behaviors and current evaluations of their careers. Participants ( $N=277$ ) were on average 73.6 ( $SD=6.2$ ) years old with 34.9 ( $SD=8.0$ ) years of occupational tenure and 7.7 ( $SD=5.8$ ) years post-retirement. Structural equation modeling results demonstrated that having more protégés ( $\beta=.19, p=.024$ ) and engaging in more mentoring behaviors ( $\beta=.18, p=.027$ ) were associated with objective career achievements. However, mentoring behaviors, and not the number of protégés, were linked to subjective career achievements ( $\beta=.33, p<.001$ ).

Interestingly, previous mentoring experiences were not related to career satisfaction. While prior research demonstrates that mentors experience short-term benefits from mentoring, the present study's findings suggest that mentors may also experience long-term objective and subjective career benefits.

*Keywords:* higher education, retired academics, career satisfaction, career success

### **Reflecting on an Academic Career:**

#### **Associations Between Past Mentoring Investments and Career Benefits**

Mentoring demands commitments of time and energy that are shown to have both positive and negative consequences for short-term career success (Anafarta & Apaydin, 2016; Lunsford et al., 2018; Morales et al., 2017). While there are costs and benefits of being a mentor to students or junior colleagues at different snapshots of the career trajectory, certain gains from mentoring may take more time to unfold, suggesting that the full impact of mentorships on career development cannot be entirely known until retirement (Hagler & Rhodes, 2018; Miranda-Chan & Nakamura, 2016). Benefits of mentoring in higher education may not be realized until decades later because career success for student mentees may be further prolonged (e.g., after graduate school, post-doctoral study) and these payoffs are rarely attributed to one mentor (e.g., Hagler & Rhodes, 2018; Terry & Ghosh, 2015). Mentors must weigh the time and energy inputs of mentoring against the prospective gains of social capital, leadership recognition, learning from mentees, and generativity (Hall et al., 2018; Małota, 2019) without a reasonable estimate of the magnitude of those potential benefits. In the present study we use retrospective report from people who have concluded their careers to answer—are workplace mentoring behaviors linked to long-term career benefits in academia?

Mentoring occurs when a more experienced and knowledgeable individual commits to actively fostering the professional or personal development of a less experienced and knowledgeable person (Allen & Eby, 2011; Dominguez & Kochan, 2020; Kram, 1985; McKinsey, 2016). The benefits of being mentored for an early-career professional or emerging scholar are vast and well-documented (e.g., Allen et al., 2004; Crisp & Cruz, 2009; Jyoti & Sharma, 2015; Lund et al., 2019; Ragins et al., 2000; Schlosser et al., 2011; Tenenbaum et al.,

2001; Turban et al., 2017) and derive from the career and psychosocial functions that mentors provide (Kram, 1985) as well as the social capital mentors share with their protégés.

Coleman (1988) defined social capital as any aspect of a social structure that generates benefits to the individuals within that system. Accordingly, valuable interpersonal relationships at work can provide enduring benefits through cumulative social networking and shared resources. The benefit of shared social capital to protégés is often highlighted in the literature, as good mentorships are cooperating relationships that provide individuals with support to facilitate individual and collective goal achievement (Burgess et al., 2018; Form et al., 2017). In turn, protégés may provide mentors with potentially enduring career benefits such as greater knowledge about one's field, more visibility within one's organization/domain, and more opportunities to optimize resource usage (Hall et al., 2018). Thus, mentoring can potentially be a significant source of social capital for both mentors and protégés in the workplace.

Across various professional fields, individuals who serve as career mentors garner a variety of short-term career benefits. For instance, mentors experience greater subjective career success (Dyrberg & Michelsen, 2017; Ghosh & Reio, 2013), along with reporting greater career satisfaction and commitment and better work-related well-being (Ghosh et al., 2019; Kennett & Lomas, 2015; Lunsford et al., 2018). There is also evidence that mentors experience objective career benefits, reporting faster rates of promotion, earning higher salaries (Allen et al., 2006; Choi et al., 2019; Voytko et al., 2018), and being perceived by their peers and bosses as more deserving of promotion (Bardone-Cone, 2018; Kalpazidou Schmidt & Faber, 2016) than those who do not mentor; however, these findings have small effects that are somewhat inconsistent (Allen et al., 2004; Ghosh & Reio, 2013).

Conversely, not all studies find that workplace mentoring is universally beneficial to career success (e.g., Hall et al., 2018; Limeri et al., 2019; McKinsey, 2016; O'Brien et al., 2018; Richard et al., 2019). For instance, some notable career costs of mentoring include the time commitment required of the mentor, abuse of the relationship by the protégé, and perceptions by others within the organization of favoritism toward the protégé (Barrett et al., 2017; Hall et al., 2018; McKinsey, 2016). Issues with mentoring largely stem from a poor mentor-protégé fit, with interpersonal issues resulting in a belief that the relationship was more of a cost than a benefit (Limeri et al., 2019; O'Brien et al., 2018). At their worst, these interpersonal relationships can be destructive, involving a breach of trust, exploitation, and even sabotage (Eby et al., 2008; Limeri et al., 2019). Consequently, the costs associated with mentoring can take a heavy toll, resulting in exhaustion, and eventually, burnout (Hall et al., 2018; McKinsey, 2016).

Although workplace mentoring has demonstrated career costs and benefits, most researchers assess mentors while they are still in their careers (Eby et al., 2006; Garza et al., 2018; Ghosh & Reio, 2013; Miranda-Chan & Nakamura, 2016), and do not capture the longer-term benefits of mentoring to one's later career success. Eby and colleagues (2006) explicitly investigated whether mentoring's short-term benefits predict long-term outcomes for mentors. Employees of two large state universities (excluding professors) were concurrently surveyed about proximal benefits and distal outcomes of mentoring. While subjective benefits of mentoring (i.e., improved job performance, recognition by others, rewarding experiences, and building a loyal base of support) predicted work attitude, they were not related to objective career success measures such as promotion or salary increases, suggesting a mismatch between the objective and subjective career success associated with mentoring. In interpreting these results, Eby and colleagues cautioned that promotions and salary increases may take longer to



manifest, occurring beyond the study's timeframe. Therefore, to understand the overall impact of mentoring, it is best to measure career success at the end of a career.

Furthermore, while researchers ask mentors to report on their collective experiences as professional mentors up to the time of the study, most research is conducted with professionals who may have many years of mentoring ahead of them before retirement. Researchers focus more on the specific mentoring functions provided by a mentor (e.g., psychosocial support, career support, or role modeling) rather than the number of protégés and breadth of impact (Shanahan et al., 2015). Therefore, they may capture the quality of mentoring provided up to a point in a career but fail to account for the arc of a career trajectory and the accumulated benefit of many different mentoring experiences. The costs and benefits of being a mentor may vary at different points in one's career, and individuals who commit to mentoring many protégés across a long career may see very different outcomes to those who mentor one or two individuals. Therefore, it is useful to account for the number of mentoring relationships a professional has engaged in and the quality of these relationships.

### **The Current Study**

In the current study, we examine the association between the breadth and depth of mentoring behaviors and career benefits reported by retired academics. In studying exclusively retired individuals, we aim to answer the following research questions:

- 1) Does the number of proteges that university faculty engage over the course of their careers (i.e., breadth of mentoring) predict their perceptions of career success and career satisfaction as reported in retirement?*

- 2) *Does the extent of the mentoring functions that university faculty provide over the course of their careers (i.e., depth of mentoring) predict their perceptions of career success and career satisfaction as reported in retirement?*

While most academic faculty engage in mentoring, we target the breadth (i.e., number of mentees) and depth (i.e., providing more in-depth mentoring behaviors/functions) of mentoring behaviors they engaged in for their career to test the hypotheses that:

*Hypothesis 1: Retired academics who report having more mentees during their career will experience greater objective and subjective career benefits.*

*Hypothesis 2: Retired academics who report more mentoring behaviors during their career will experience greater objective and subjective career benefits.*

## **Method**

### **Participants**

Participants were 277 retired academics from a geographically balanced national sample. Table 1 contains the complete descriptive profile of the sample. The mean age of participants was 73.6 ( $SD = 6.2$ ). Participants were mostly male (83.4%), White (94.2%), and married (81.2%). Respondents came from varied academic disciplines, including the social sciences (30.7%), natural sciences (25.3%) and professional and applied sciences (23.1%). The smallest represented disciplines were humanities (11.9%) and formal sciences (8.7%). The average length of participants' academic careers was 34.89 years ( $SD = 7.79$ ), and they had been retired for an average of 7.73 years ( $SD = 5.78$ ). Respondents reported a strong history of serving as mentors during their academic careers, with 80.9% self-identifying as mentors. While there are no concrete guidelines regarding sample size for SEM, according to some of the most cited

guidelines, a sample size of 300 is considered sufficiently large to handle more complex models (Comrey & Lee, 2013; Tabachnick & Fidell, 2013).

## **Procedures**

Study participants were recruited using two distinct practices. In the first recruiting practice, an internet search was performed using the terms “retired professors,” “retired professor emails,” and “emeritus professor emails” to identify qualified academic institutions (public and private, not-for-profit, post-secondary) that published the email addresses of retired academic faculty members. From the institutions identified, a sample of 40 academic institutions were selected quasi-randomly to include institutions from each of the four U.S. Census regions. Finally, from these 40 selected institutions, a random sample of email addresses for professors designated with emeritus status was drawn across all academic departments. To complement the internet search recruiting practice, a second practice was implemented to obtain the email addresses of retired academics affiliated with institutions that did not publish emeritus faculty members’ email addresses. In collaboration with two professional organizations for retired academics, access was granted to retired academics’ personal email addresses within these organizations’ memberships. For more details, see Miranda-Chan and Nakamura (2016).

The final sample was predominately (95%) attained through the internet search method. Study participants selected using both sources were compared to identify group differences. The comparison showed that participants from both sources were similar, with the following exception: Komogorov-Smirnov Z results indicated a significant difference ( $D = 1.39, p = .041$ ) for occupational tenure; participants recruited by Internet search reported 35.34 years of occupational tenure compared to 30.21 years for participants recruited through professional organizations (Miranda-Chan & Nakamura, 2016).

Invitations to participate in the study were sent by email and a final sample of 277 respondents corresponded, resulting in a response rate of 22.2%. In this survey research project, participants completed an online survey that included measures of objective and subjective career success, experiences of mentoring, and other variables related to well-being in later life (see Miranda-Chan & Nakamura, 2016). To reduce priming when answering earlier items about career experiences, mentoring was not explicitly identified during any stage of the procedures as the focal point of the study and participants reported on mentoring experiences later in the survey.

## **Measures**

### ***Objective Career Benefits***

**Objective career achievement.** A three-item scale measuring career rewards was created to assess objective career benefits. Cronbach's alpha, a measure of internal consistency that captures inter-item correlation, for these three items was .73, suggesting that these items correlated with one another moderately well. Items were adapted from Eby and colleagues' (2006) study of long-term mentoring outcomes. Participants rated the amount of rewards and recognition they received compared to their peers on a 7-point Likert scale ranging from 1 (much less) to 7 (much more). The items included: "*compared to my peers... 'I held leadership positions,' 'I received rewards and recognition,' and 'my highest salary was \_\_\_'*". A higher score on the scale indicates more career achievements compared to one's peers.

**Career milestone pace.** Objective career benefits were also assessed with two items measuring the pace at which academics reached important career milestones (Eby et al., 2006). Cronbach's alpha was .79, again suggesting fair internal consistency. Participants rated the speed at which they reached associate and full professor status compared to their peers on a 7-point

Likert scale ranging from 1 (Much slower) to 7 (Much faster). Specific item wordings were:

*“compared to my peers... ‘I achieved associate professor status,’ and ‘I achieved full professor status’”*. Higher ratings indicate a faster attainment of associate and full professor status compared to one’s peers. Notably, this question did not apply to the 34 respondents who were not eligible for tenure.

### ***Subjective Career Benefits***

**Subjective career achievement.** An adapted version of the Perceived Career Success Scale (Turban & Dougherty, 1994) was used to measure subjective career achievements. One item from the original four was deleted to reduce the amount of shared error variance between items. Cronbach’s alpha for the three remaining items was .85 suggesting good internal consistency. Participants were asked to rate the extent they felt their career was successful on a 7-point Likert scale ranging from 1 (Not successful) to 7 (Very Successful). The three items included: *“How successful was your career?”*, *“Compared to your peers at your institution, how successful was your career?”*, and *“How successful do your significant others feel your career was?”*. Higher scores on the scale indicate a greater belief that one had a successful career.

**Career satisfaction.** Subjective career benefits were also assessed with a three-item scale measuring one’s satisfaction with their career choice. Items were adapted from the Global Job Satisfaction subscale of the Michigan Organizational Assessment Questionnaire (Cammann et al., 1983) by replacing the word *job* with *career* to reflect overall career satisfaction instead of global job satisfaction. Cronbach’s alpha for this short scale was .65, which suggests that these items were not as well-correlated with one another as would be ideal. Participants rated their satisfaction with their career choice on a 7-point Likert scale ranging from 1 (Strongly disagree) to 7 (Strongly agree). The three items included: *“In general, I did not like my career,”* *“I regret*

*not pursuing a different career,”* and *“If I had all the money in the world, I would have chosen a different career”*. All items were reversed coded, so higher scores indicate more satisfaction with one’s career choice.

### ***Past Mentoring Behaviors***

**Depth of mentoring provided.** To ensure that all respondents answered based upon the same conceptual definitions, before viewing survey questions related to mentoring, definitions for the terms “faculty mentor” and “mentoring” were provided in a prompt. The prompt was based on the definitions of Ragins, Cotton, and Miller (2000) and read:

As defined in the literature, “Faculty mentor is typically defined as a higher ranking, influential individual who had advanced experience and knowledge about the student’s field of study and is committed to providing developmental career and personal support to that protege.” A faculty advisor or major professor is not considered a ‘mentor’ unless a mentoring relationship develops between the faculty member and student that fits the above description. A student does not have to be formally assigned to you in order for a mentoring relationship to develop.

The amount of mentoring that an individual provided over their career history was assessed with Bozionelos’ (2004) measure of mentoring provided ( $\alpha = .90$ ). Scale items were revised and two were removed to assess mentoring in an academic setting. The remaining five-items were assessed on a 7-point scale from 1 (Never) to 7 (Very Frequently). A few items from the scale include: *“I introduced students to professionals in the field (i.e., helped them network),”* *“I gave students career advice,”* and *“I provided students with emotional support”*. A higher score on the scale indicated a greater level of participation and commitment to mentoring students over the course of the academics’ careers.

**Breadth of mentoring relationships.** The total number of mentees served across the participants’ career was measured by asking: *“Approximately how many students have you been a faculty mentor to?”*. Respondents made a selection from the following options: 1-5; 6-10; 11-

15, 16-20; 21-25; 26-30; More than 30. Both measures aimed to quantify the retired academics' level of participation and commitment to mentoring across the span of the academics' careers.

### ***Covariates***

Several personal and career-based demographic variables known to influence career benefits were used as covariates. These variables included gender (male = 0, female = 1; Bozionelos, 2004), and race/ethnicity (White = 0, Other = 1; Ng et al., 2005), as well as number of years as an academic (Busch, 1985; Eby et al., 2006). Lastly, academic discipline was included as a covariate (coded into four categories with social science as the reference group to humanities, natural sciences, formal sciences, and professional and applied sciences; Hagedorn, 2000; Sabharwal & Corley, 2009).

### **Results**

Data were analyzed with the statistical software R (version 3.5.2). The Lavaan package was utilized (Rosseel, 2012) to conduct the hybrid structural equation model (SEM). The hybrid SEM was conducted with full information maximum likelihood estimation (FIML) to account for incomplete data. Standard error estimates for the predictor variables were computed using a bootstrapping procedure with 1,000 resampling (Bollen & Stine, 1990). The adequacy of the model's fit was assessed with the following: comparative fit index (CFI) > .90, root mean square error of approximation (RMSEA) < .05, and standardized root mean square residual (SRMR) < .08 (e.g., Hu & Bentler, 1999; MacCallum et al., 1996).

The purpose of the SEM was to assess the associations between mentoring breadth and depth with objective and subjective career benefits. The model was specified such that the demographic covariates, and the mentoring specific predictors, including the number of mentees one had throughout their career (i.e., breadth) and the amount of mentoring provided to one's

mentees (i.e., depth), were regressed onto the four correlated indicators of career benefits (see Figure 1). The four endogenous variables were correlated based on the theoretical relationship between objective and subjective career benefits—allowing the researchers to assess the unique variance explained by the breadth and depth of mentoring behaviors. All constructs represented by more than two items were modeled as latent factors, while the rest were composited through averaging scores, resulting in a hybrid SEM. Overall, the hypothesized model adequately fit the observed data: CFI = .91, RMSEA = .06, 90% CI [.05, .07], and SRMR = .07.

### **Objective Career Benefits**

Objective career achievement was positively related to mentoring breadth ( $\beta = .19, p = .024$ ) and depth ( $\beta = .18, p = .027$ ), such that having more mentees and providing more mentoring was associated with an increase in objective career achievements. Objective career achievement was negatively related to gender ( $\beta = -.32, p < .001$ ), and positively associated with ethnicity ( $\beta = .17, p = .021$ ), meaning males and non-Whites had higher objective career benefits than females and White academics. Another representation of objective career benefits, career milestones, was also related to mentoring breadth ( $\beta = .17, p = .053$ ) and ethnicity ( $\beta = .14, p = .014$ ), such that having more mentees and not being White was associated with achieving career milestones faster than one's colleagues. However, providing mentoring depth was not related to the speed at which one reached career milestones (see Table 2).

### **Subjective Career Benefits**

Career satisfaction, one of two indicators of subjective career benefits, was not significantly predicted by any of the variables in the model. However, mentoring depth was related to higher subjective career achievements ( $\beta = .33, p < .001$ ). Additionally, non-Whites ( $\beta$



= .11,  $p = .026$ ) and those who taught in the humanities ( $\beta = .19$ ,  $p = .016$ ) had higher subjective career achievements than White faculty in social sciences (see Table 2).

### **Discussion**

Being mentored by a more experienced professional has substantial positive impacts on the career trajectories of early-career professionals (Anafarta & Apaydin, 2016; Bozionelos et al., 2016) and students in higher education (Crisp & Cruz, 2009; Hagler & Rhodes, 2018; Lund et al., 2019; McKinsey, 2016). However, the long-term benefits to the mentors who dedicate their time and energy to developing protégés have gone primarily understudied. The current study aimed to investigate the relationship between mentoring in an academic setting and markers of objective (e.g., rates of promotion) and subjective (e.g., feelings of achievements) career benefits downstream. Results from hybrid SEM demonstrate that having more mentees is linked to higher objective career benefits. Furthermore, the amount of mentoring behaviors exhibited throughout a career is positively associated with both objective and subjective career achievements, but not in equivalence to the speed at which one reached career milestones relative to their peers nor career satisfaction. These findings offer evidence that mentoring in the workplace may be beneficial to one's long-term career trajectory, extending the literature about the benefits mentors receive.

Modern employees are often pulled in multiple directions, with many competing demands on their time and resources. Faculty in higher education must balance time for their scholarship with the demands of teaching, service, and administrative duties. However, most retired faculty in our sample (over 80%) reported mentorship as a part of, or an addition to, these duties. While supervising students may be a mandatory part of the work of academia, just as supervising employees is part of the work of management in other fields, being “committed to

providing developmental career and personal support” for a student often means going beyond what is required of the job (Shanahan et al., 2015). Professionals must decide if mentoring is worth the commitment of time and resources. Research demonstrates some immediate benefits of being a mentor to one’s career success and satisfaction (Hall et al., 2018), however, our results suggest that the long-term benefits of being a mentor may be equally important considerations for early-career professionals looking to maximize their success over the course of a career.

Like start-up expenses, an investment in mentorship has potential benefits that may not be realized until the career cycle is over (Miranda-Chan & Nakamura, 2016). During the years that one is serving as a mentor, the cost to productivity may be quite high. For instance, people who mentor in the workplace report higher burnout levels due to time and effort burdens of mentoring (Hall et al., 2018). This pressure may even lead to some workplace mentors refusing to take on new mentees due to the time-consuming nature of concurrent mentoring demands (Barrett et al., 2017; Hall et al., 2018). However, long-term investment in a protégé may lead to increased visibility through the protégé’s ensuing success (Ortega, 2018; Tram et al., 2020) and may even lead to increased productivity should the protégé have the capacity to share their social capital with a previous mentor (Nahapiet & Ghoshal, 1998). Our success in capturing retrospective career benefits in retirement enabled us to elucidate these longer-term, objective career benefits. Thus demonstrating that mentors with higher levels of commitment to their protégés, and those who develop more mentoring relationships, do see the fruits of their labor by the end of their careers. Our finding that the depth and breadth of mentoring provided were predictive of objective career benefits by the end of one’s career demonstrates the potentially long-accrued benefits of mentoring on one’s success in the workplace.

Conversely, these mentoring characteristics did not predict career milestone pace. Given that mentors are often perceived as more promotable (Gentry & Sosik, 2010; Voytko et al., 2018) and experience more success (Ghosh & Reio, 2013), the lack of effect may be an artifact of our academic sample. While some institutions consider mentoring as a part of tenure and promotion decisions (Ciccomascolo & Seitsinger, 2016; Franko, 2016; Hsieh & Nguyen, 2020; Irby, 2014), others may disincentivize mentoring by devaluing low-impact research conducted with undergraduate researchers or excluding mentoring from their definitions of teaching excellence. Therefore, in certain institutions, mentoring may explicitly benefit promotions, while in others it makes them more difficult to achieve. Furthermore, due to the set time clock of tenure decisions, there is less variability in promotion within the academic context (e.g., tenure process) compared to other work domains, restricting differences in career timing.

Somewhat contrasting to past findings in which mentoring predicts job satisfaction and work-related well-being (Ghosh et al., 2019; Gill et al., 2018; Lunsford et al., 2018), our results indicated that neither the breadth nor depth of mentoring behaviors were associated with career satisfaction. At the time of the relationship, mentoring a less experienced colleague may make a professional feel more generative and engaged with their work (Miranda-Chan & Nakamura, 2016), so these relationships may cause immediate or shorter-term experiences of positive emotion and work satisfaction. However, these changes in emotion may not necessarily translate into overall career satisfaction in retirement. It is suggested that mentoring is only one of many contributors to an enjoyable career. Especially for those who have already reached emeritus status, there are likely a variety of factors that contribute to their career reflections.

### **Implications and Applied Considerations**

The clear implication of this work is finding that, for academics, the upfront investment in mentoring emerging scholars does appear to have longer-term career benefits by the end of an academic career. As educators recognize the value of mentoring in training junior scholars, the positive impact of mentoring on a career trajectory will likely only grow. To date, institutions have prioritized mentoring to benefit the professional development of their students; however, these findings suggest that mentoring may genuinely be a mutually beneficial endeavor for students and faculty.

With the benefits of mentoring easily muddled by the costs, educating faculty on the long-term benefits of mentoring behaviors may be critical to fostering these relationships. College educators have often been protégés themselves, having been mentored on the “hard” skills needed to flourish in academic settings— although these skills are important, direct knowledge on the benefits of mentoring may be lost in the fold. The variability in the breadth and depth of mentoring provided by academics in our sample indicates that faculty have many opportunities to opt in, or out of, mentoring. Therefore, recognizing the benefit of mentoring to their careers, not just their students' careers, may encourage faculty to be more proactive in taking on protégés. Increased communication about these benefits may encourage time-constrained academics in their early- and mid-careers to reap the benefits of being a mentor while simultaneously improving student retention and outcomes (Crisp & Cruz, 2009).

### **Limitations and Future Research**

While our use of a targeted sample of academics does allow us to consider the unique considerations of the totality mentoring behaviors have on a career—our sample may not generalize to different workplaces. More research is needed to understand the cumulative

downstream impact of career mentoring in other fields. Future researchers may extend this work to examine retirees from multiple work domains from a variety of blue- and white-collar professions. Additionally, in this study we targeted academics due to the objective titling “emeritus,” which refers to distinguished retirement from one’s scholastic workplace, which allowed us to sample retired individuals from a specific field. Therefore, it is likely that these faculty were somewhat more successful than the general population of university faculty (Irby, 2014). This sampling procedure allowed us to consider the cumulative career benefits of mentoring, which can arguably be assessed only when individuals are no longer formally engaged in the mentoring role (Miranda-Chan & Nakamura, 2016), however, it does make these findings less generalizable.

Although we surveyed retired academics from a variety of disciplines, the range in which academic mentors differ in the number of mentees (i.e., breadth) and providing mentoring behaviors (i.e., depth) may vary across disciplines (e.g., social sciences, humanities). Subsequently, our results may be capturing in part variation in mentoring expectations and norms between disciplines. Additionally, the sample was predominately White and male, reflective of the nature of academia— further studies with more diverse academics from Historically Black Universities and Colleges, may offer insights into the diverse experiences of mentoring (Golden et al., 2017; Irby, 2014; Moore et al., 2017). Similarly, the variability of workplaces may impact the capacity for breadth and depth of mentoring that a faculty member can provide. For instance, faculty at large doctoral-granting institutions may have more close, formalized mentoring relationships than at smaller, mid-level, teaching colleges where mentoring relationships may be shorter in duration and less close.

One final limitation of the present study is that although the current study was careful to minimize ordering effects, the association between career benefits and mentoring may have influenced the amount of mentoring recall. For instance, if someone recalled their career to be highly successful, they may have induced bias in the breadth and depth of mentoring they reported providing. Future investigators may remedy this potential recall bias by conducting longitudinal studies that objectively track the number of mentees one has during a career.

### **Conclusions**

The current study supports prior findings that workplace mentoring is positively linked to career benefits. Overall, results showed more support for the objective career benefits of mentoring than the subjective and did not demonstrate a meaningful relationship between mentoring and career satisfaction. Taken together with the rest of the body of literature on this topic, these findings suggest that mentoring others in the workplace has downstream positive career development implications that may compound across one's career; additionally, suggesting that being a mentor may provide short-term satisfaction as well as more objective benefits over time. This study contributes to the empirical evidence for the links between the breadth and depth of mentoring and the distal outcomes for mentors, while also providing practical guidance for both would-be and experienced mentors.

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**Table 1**

*Participant Characteristics (N = 277)*

<u>Demographics</u>	Mean/Percentage (SD)
Age	73.57 (6.19)
Gender (Male)	83.7%
Ethnicity (Caucasian)	95.3%
Marital Status (Married)	81.2%
Education (Doctorate)	92.0%
Number of Years Retired	7.73 (5.88)
<u>Academics</u>	
Number of Years as Academic	34.89 (7.97)
Humanities	12.0%
Social Sciences	30.8%
Natural Sciences	25.4%
Formal Sciences	8.7%
Professional and Applied	23.2%
<u>Past Mentoring Behaviors</u>	
Breadth of Mentoring	5.70 (1.78)
Depth of Mentoring	5.48 (1.15)
<u>Objective Career Benefits</u>	
Objective Career Achievements	4.49 (1.05)
Career Milestone Pace	4.63 (1.23)
<u>Subjective Career Benefits</u>	
Subjective Career Achievements	5.69 (0.91)
Career Satisfaction	5.97 (1.03)



**Table 2***Coefficients and Standard Error for Structural Equation Model (N = 277)*

	Objective Career Achievements	Career Milestone Pace	Subjective Career Achievements	Career Satisfaction
	Standardized Beta Coefficient (Standard Error)			
<u>Demographics</u>				
Age	-.08 (.01)	.11 (.02)	-.02 (.01)	.02 (.01)
Gender (0=Male, 1=Female)	-.32 (.26)***	-.14 (.28)	-.06 (.14)	.10 (.15)
Ethnicity (0=White, 1=All other)	.17 (.38)*	.14 (.33)*	.11 (.18)*	-.13 (.26)
<u>Academics</u>				
Years as Professor	.16 (.01)	.06 (.02)	-.02 (.01)	-.01 (.01)
Humanities	-.00 (.24)	-.02 (.27)	.19 (.18)*	-.05 (.19)
Natural Sciences	-.13 (.24)	-.01 (.24)	-.02 (.15)	.14 (.15)
Formal Sciences	.02 (.31)	-.04 (.35)	.02 (.26)	-.04 (.27)
Professional and Applied	.07 (.24)	-.05 (.25)	.14 (.16)	.19 (.16)
<u>Mentoring</u>				
Breadth of Mentoring	.19 (.05)*	.17 (.06) <sup>†</sup>	.07 (.04)	.20 (.04)
Depth of Mentoring	.18 (.10)*	.07 (.10)	.33 (.08)***	.15 (.05)

Note. <sup>†</sup>=.053; \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

**Figure 1**

*Hybrid structural equation model. All covariates were set to covary in the model. Squares and circles represent non-latent and latent constructs, respectively (N = 277).*

