

INVESTIGATING THE RELATIONSHIP BETWEEN TELECOMMUTING AND  
CAREER HARM

by

Hayes McLeod

A Thesis Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Master of Arts in Psychology

Middle Tennessee State University  
December 2020

Thesis Committee:  
Dr. Patrick M. McCarthy, Chair  
Dr. Judith Van Hein

## ACKNOWLEDGEMENTS

First, I want to thank those faculty members who were instrumental in helping me complete my thesis. To my thesis advisor Dr. McCarthy, thank you for giving me guidance throughout the entire thesis process and helping me channel my curiosity and interest of so many topics. Dr. Oslund, thank you for helping me understand statistics and making that process an enjoyable experience. Dr. Van Hein, thank you for your valuable feedback and support during committee meetings and the impromptu office check-ins.

Second, I would like to thank my parents for their support throughout all of my educational endeavors. It is with your support that has allowed me to get to this point today. I would also like to thank my friends who have been supportive and encouraging throughout this graduate school experience. Lastly, I would like to thank my Lord and Savior, Jesus Christ, for giving me the persistence, strength, and abilities to accomplish all that I do. Let all of this work and future work to be done glorify only your name.

## **ABSTRACT**

Telecommuting is a work practice that continues to increase every year. As telecommuting continues to become more prevalent and part of a normal work experience, employees need to understand how their decision to telecommute can potentially impact their career. This study sampled from online participants and investigated the relationship between telecommuting frequency and pay (annual earnings and percentage increase in annual earnings). Results found there is no relationship between telecommuting frequency and pay. Additionally, this study examined two other variables: perceived manager support and career ambition. Results show there is a relationship between perceived manager support and telecommuting frequency. While career ambition was not found to moderate the relationship between telecommuting frequency and pay, this study adds to the growing literature of telecommuting and career harm, offering explanations for the inconsistency in findings between telecommuting frequency and pay. This study is also one of the first to identify perceived manager support of telecommuting in a mid-pandemic world.

## TABLE OF CONTENTS

LIST OF TABLES .....	vi
LIST OF APPENDICES .....	vii
CHAPTER 1: LITERATURE REVIEW .....	1
Prevalence of Telecommuting .....	1
Definition of Telecommuting .....	3
Advantages of Telecommuting .....	5
Disadvantages to Telecommuting .....	6
Organizations' and Managers' Hesitations to Telecommuting .....	7
Employees' Hesitations to Telecommuting .....	8
Career Harm and Flexible Work Arrangement (FWA) Usage .....	10
Moderating Role of Telecommuting Frequency .....	12
Mediating Role of Manager Support .....	15
Moderating Role of Career Ambition .....	16
Hypotheses of this Study .....	18
CHAPTER II: METHOD .....	19
Participants .....	19
Procedure .....	20
Measures Related to Hypotheses .....	21
Annual Earnings. ....	21
Percentage Increase in Annual Earnings. ....	21
Telecommuting Frequency. ....	21
Telecommuting Normativeness. ....	22
Perceived Manager Support. ....	22
Career Ambition. ....	23
Other Supporting Measures .....	23
Demographics .....	23
Attention Check Items .....	24
CHAPTER III: RESULTS .....	25
Preliminary Analysis .....	25
Primary Analyses .....	26

CHAPTER IV: DISCUSSION ..... 28  
    Limitations and Future Research..... 30  
REFERENCES ..... 32  
APPENDICES ..... 39

**LIST OF TABLES**

Table 1: Descriptive Statistics for All Variables .....	25
Table 2: Reliability Analyses for All Variables.....	25
Table 3: Correlation Matrix of All Scales.....	26

**LIST OF APPENDICES**

APPENDIX A: Screening Questions.....	40
APPENDIX B: Informed Consent Statement.....	41
APPENDIX C: Annual Earnings Questions.....	42
APPENDIX D: Instruction Statement .....	43
APPENDIX E: Telecommuting Frequency .....	44
APPENDIX F: Telecommuting Normativeness Scale .....	46
APPENDIX G: Manager Support Scale .....	47
APPENDIX H: Career Ambition Scale .....	48
APPENDIX I: Demographic Questions.....	50

## CHAPTER 1: LITERATURE REVIEW

### Prevalence of Telecommuting

As technology continues to change and innovate throughout the world, the workplace also becomes accustomed to change in order to keep up with technology and remain competitive within their respective industries. A major component to these technological advances has given many people the ability to work from home or outside the traditional office space, commonly referred to as telecommuting. Recent reports have shown over the last decade there has been over a 100% increase in people who work at least half of the time from home (Global Workplace Analytics & FlexJobs, 2017). In 2016, a report showed 43% of employees worked remotely in some capacity (away from their traditional office) and a nearly a third of those employees work off-site 4-5 days a week (Gallup, 2017). In 2016 the percentage of employees who work remotely 40% or more of the time increased to 55%, a nine percentage point increase from 2012 (Global Workplace Analytics, 2017). Thus, the prevalence of telecommuters continues to increase not only in the number of employees but also in the frequency to which they telecommute. It is important to note that the timing of this study comes during the COVID-19 crisis and the practice of telecommuting has inevitably increased due to organizations following government suggestions and guidelines. As of May 12<sup>th</sup> 2020, the percentage of telecommuters in North America has increased to nearly 70% (Canzanese, 2020). While the practice of telecommuting has spiked, it is still unknown how prevalent telecommuting will continue throughout and after the crisis. Now that organizations have been forced to make telecommuting possible for employees, one would think that the prevalence of telecommuting would continue to increase as past



research has shown and perhaps at an even higher rate (Global Workforce Analytics, 2017; Sawhill, 2020; Timberg, Bhattarai, Harwell, Reiley, 2020).

Telecommuting continues to surge in popularity and the work practice seems like it is here to stay. As more workers become interested in telecommuting, they will likely also become concerned with the impact telecommuting has on their career and relationship with other coworkers. In fact, research has shown many employees list career harm as a major component and reason which leads employees to choose not to telecommute (Cooper & Kurland, 2002; Green, 2019). However, much of the research is limited in that it has not addressed the extent to which telecommuting has harmed or impacted careers in relation to career earnings and promotions. A potential speculation or reasoning for the lack of research on telecommuting practices and their relationship with career earnings and promotion is because of how telecommuting practices are currently documented in organizations. While many organizations recognize the need to craft telecommuting policies, organizations vary on their ability to keep a formal tracking system of how often an employee telecommutes. Furthermore, the privilege of telecommuting seems to be often left to a manager's discretion. This adds another layer to tracking usage of telecommuting practices leaving organizations like the Society for Human Resource Management (SHRM) to produce guidelines on how to develop policies and procedures regarding telecommuting (Matos, 2015).

In addition to the lack of documentation on telecommuting practices from an employer, national databases like the Bureau of Labor Statistics are also limited with their data collection methods because of the difficulty to track individuals longitudinally. This additional limitation in data collection stems from the difficulty to monitor an

individual over a long period of time and track how often they telecommute, their annual earnings, any promotions received, and the level of support their organization and manager provides for telecommuting employees. Sources like the Bureau of Labor Statistics provide less than robust data on part-time telecommuters and the report details are usually hidden in hard-to-reach databases (Global Workplace Analytics & FlexJobs, 2017). For more detailed and advanced collections of research surrounding telecommuting practices, we are left to turn to Global Workplace Analytics and FlexJobs' reports which exist to help job seekers find flexible job listings and identify telecommuting trends in the workplace. These resources help answer more questions about the impact of telecommuting practices on employees and organizations.

The current study seeks to dive further into these questions and gather data that will help more directly determine the relationship between telecommuting practices on career earnings and promotions. The study seeks to approach the relationship between telecommuting and career harm through methodologies different than previous studies. Furthermore, the study will assess the potential moderating roles of manager support and employee career ambition.

### **Definition of Telecommuting**

An encyclopedia has recently defined telecommuting as a type of work arrangement that allows employees to work outside their traditional workplace (Wienclaw, 2019). This broad definition of a growing work practice makes it difficult to differentiate between other commonly used interchangeable terms: telework or virtual work. While these terms may seem interchangeable, they are different. While telework refers to a variety of alternative locations (coffee shops, satellite offices, home, hotels,

etc.) an employee can work from, telecommuting focuses on work done mostly from home (Allen, Golden, & Shockley, 2015). Other sources define telecommuting as a work practice that employees use to commute to work via technology (Narayanan, Menon, Plaisent, & Bernard, 2017). Two themes emerge when defining telecommuting: 1) working from an alternate location (outside the normal office) and 2) using technology (e.g. computers) to complete the work (Allen et al., 2015). Allen and colleagues attribute the previous inconsistency in telecommuting definitions (extent of telecommuting, worker relationship to organization, and location of work) to inconsistency within the telecommuting literature. Therefore, they propose a definition that will be used as a working definition for the purpose of this research, “a work practice that involves members of an organization substituting a portion of their typical work hours (ranging from a few hours a week to nearly full-time) to work away from a central workplace – typically principally from home – using technology to interact with others as needed to conduct work tasks” (Allen et al., 2015, p. 44).

Within this study we will refer to telecommuting as a type of flexible work arrangement. A quick search for flexible work arrangement reveals common types of flexible work arrangements other than telecommuting, this includes but is not limited to: compressed work weeks, flextime, flexible scheduling, job-sharing, customized work hours, and more. This list is not extensive and definitions of each vary much like the literature on telecommuting. However, it is important to note that these are simply just other types of flexible work arrangements organizations offer other than telecommuting. For the purposes of the current research we more narrowly focus on the practice of

telecommuting because of its relevance, growth, and need for further study within the literature.

### **Advantages of Telecommuting**

The option to telecommute has become an appealing benefit that organizations offer to attract and retain the best employees. A recent meta-analysis shows how the flexible work practice of telecommuting affect organizational attractiveness and decreases turnover intention, giving organizations more reason to strategically attract job candidates with their pro-telecommuting policies (Onken-Menke, Nüesch, & Kröll, 2018). An employee who telecommutes is met with a number of benefits. Employees who telecommute have the ability to maintain a healthy work-life balance, reducing any conflict that may exist between the two (Bailey & Kurland, 2002). Telecommuters also have been shown to be more satisfied with their job and have an increased schedule flexibility (Bailey & Kurland, 2002; Golden 2006). A major reason it is advantageous for employees to telecommute is because of the reduction in travel time many employees face in their morning and afternoon commute. Global Workplace Analytics (2017) report half-time telecommuters gain back 11 days a year that they would have spent commuting for work.

The benefits of using these flexible work arrangements have been shown to be advantageous not only for the employee but also for the employer. When employees engage in telecommuting they also tend to be more productive and have an increase in performance (Martin & MacDonnell, 2012). In addition to the increase in productivity, organization's voluntary turnover decreases when employees engage in telecommuting (Martin & MacDonnell, 2012). All of the collective benefits of telecommuting also have

a distinguishable impact on an organization's bottom line. Organizations save approximately \$11,000 a year per half-time telecommuter (Global Workplace Analytics, 2017). This number translates to over \$40 billion in savings across the country and if organizations allowed those employees who were able and willing to telecommute, the savings could rise to nearly \$700 billion a year (Global Workplace Analytics, 2017).

Furthermore, the COVID-19 crisis gives another incentive for employees to work from home. Some employees feel they may be able to avoid contact with coronavirus carriers if they are not obligated to go into work (Arnold, 2020). The option to work at home may potentially allow for a safer working environment opposed to the in-office work space where exposure to the coronavirus seems more likely but these risks are still unknown.

### **Disadvantages to Telecommuting**

It is important to note that despite an overwhelming amount of research identifying advantages to telecommuting, there is research suggesting telecommuting has its disadvantages too. Research shows that the solitude experienced from telecommuting can hinder an employee's commitment (Workman, Kahnweiler, & Bommer 2003).

Additionally, managers are reluctant to monitor telecommuters because of the additional oversight needed (DeSanctis, 1984). Therefore, some organizations may prefer to see an employee's productivity before they give the employee the opportunity to telecommute so additional oversight from the manager is not needed. Some organizations recognize that there are disadvantages to telecommuting and they have taken active measures to reduce working from outside the normal office at all costs. In recent years, Yahoo asked all remote workers to relocate back to a normal office (Miller & Rampell, 2013). While

this decision was widely unpopular and faced much criticism, other organizations followed this decision by either reducing or fully eliminating remote work programs, acknowledging that telecommuting doesn't work for everyone. Many of these organizations have since adjusted these policies.

### **Organizations' and Managers' Hesitations to Telecommuting**

Undeterred by the number of benefits documenting the positive impact telecommuting has on organizations and their employees, some organizations are still hesitant to allow employees to telecommute in their organizations. Depending on the report, up to 70% of employers offer flexible work arrangements to employees, giving them the ability to work outside of the traditional office (Global Workplace Analytics, 2017). These reports however can be misleading because these organizations rarely offer telecommuting to all of their employees. While it is a positive sign that organizations are beginning to adopt telecommuting into their workplace, Global Workplace Analytics (2017) note that more stringent reports from the Bureau of Labor Statistics (BLS) suggest only 7% of employers in the United States offered most of their employees the benefit of telecommuting. Seventy percent compared to 7% is a major difference and the discrepancy between the reports is likely due to the rigidity of the BLS compared to public surveys. A recent Society for Human Resource Management (SHRM) report identifying trends in telecommuting show 69% of organizations offer ad-hoc telecommuting (occasional or irregular telecommuting, usually based on a project) and 40% offer part-time telecommuting (Leave and Flexible Working SHRM Employee Benefits, 2019). This report shows a more realistic view of how organizations are offering telecommuting practices. While many organizations are beginning to offer

telecommuting as a flexible work arrangement, they aren't advertising the option. Less than a third of organizations actually communicate their telecommuting options in the orientation process and the majority of employers only communicate their telecommuting policies when an employee inquires with their manager (International Foundation of Employee Benefit Plans, 2017).

A major factor influencing organizations and their reluctance to implement telecommuting falls upon the manager. Managers may fear employees will slack off if they are working out of the office because employees are not under their watchful eye; and two-thirds of telecommuting programs are offered at the discretion of an employee's manager (Kurland & Cooper, 2002). These statistics should heighten the importance of educating managers on the numerous benefits associated with allowing employees to telecommute. Managers play an integral role for achieving organizational results and maintaining the satisfaction of employees. Managers are often responsible for monitoring the performance of employees and ultimately have an influence in an employee's annual raise or potential promotion.

### **Employees' Hesitations to Telecommuting**

Managers are not the only people who may be reluctant to the idea of telecommuting, employees can also be hesitant. While there are numerous benefits to the telecommuting employee, many people are afraid to telecommute because of the backlash it can have within the workplace. The fear of coworker resentment (commonly known as 'backlash') because one may engage in telecommuting practices may deter employees from utilizing any flexible work arrangement practices an organization may offer (Keen, 2005; Green, 2019). Non-telecommuters may resent the telecommuting employee

because they are jealous of their privilege and may feel like more work is casted upon them when an employee telecommutes (Keen, 2005). Other factors attributing to an employee's decision to not telecommute is the idea of social isolation and loss of face-to-face interactions (Marshall, Michaels, & Mulki, 2007; Golden, Veiga, & Dino, 2008).

Lastly, the perception of career harm is also a deterrent for employees to engage in telecommuting. Many employees feel that their lack of visibility hurts their career and ability to advance in organizations and a recent study shows the perception of career harm, social isolation, and professional isolation each have a negative relationship with willingness to telecommute (Green, 2019). This means that an employee will be less inclined to telecommute when they feel like it will hurt their career or cause them to be isolated. Additionally, past research shows managers have traditionally viewed and perceived an employee's presence to be an indicator of performance (Maruyama & Tietze, 2012). Because performance appraisals are positively related to career advancement (Igarria & Wormley, 1995), it would make sense for an employee wishing to advance in their organization to be hesitant to telecommute if they feared their perceived performance would decrease because of their decreased time in the physical office. These recent findings agree with past research which address telecommuters fear of being 'out of sight and out of mind' (Cooper & Kurland, 2002; McCloskey & Igarria, 2003). Lastly, the COVID-19 crisis likely acts as another incentive to telecommuting. Due to the recency of the crisis, some research shows more than half of employees experience loneliness while working from home, which could potentially decrease their willingness to telecommute in the future (Schrotenboer, 2020). However, one would



imagine employees would be more inclined to telecommute given the potential health risks involved with working in a public place (Arnold, 2020).

### **Career Harm and Flexible Work Arrangement (FWA) Usage**

It is important to note that telecommuting is not the only type of flexible work arrangement organizations offer. Many employers have policies that offer extended leave, compressed work weeks, flexible work hours, and many organizations are subject to offering parental leave for new mothers and fathers. The fear of career harm and inability to advance in an organization (for employees wishing to telecommute) is understood based on previous literature regarding other flexible work arrangement usage (e.g. extended leave of absence). Many studies show the negative effects of flexible work arrangements on career advancement and wage growth, particularly for women after childbirth (Glass, 2004; Brown, 2010; Coltrane, Miller, DeHaan, Stewart, 2013; Rudman & Mescher, 2013, Bear & Glick, 2016). A longitudinal study showing the use of work-family policies (flexible scheduling, permission to work from home, reduced hours, and child care assistance) revealed the use of work-family policies hindered wage growth of mothers (Glass, 2004). Another study identifying discrepancies among parents utilizing telecommuting practices, show fathers who utilize FMLA and request flexibility have also been shown to be perceived as weak and these fathers are at greater risk for being demoted (Rudman, 2013). Those fathers who utilized flexibility arrangements were also viewed as poor workers, suggesting there may be a flexibility stigma associated with fathers requesting time to work from home.

Noback and colleagues (2016) also find that even organizations with progressive human resources practices in European countries still pose a negative stigma on men who

choose to utilize flexible work arrangements. Men who worked a compressed work week (36 hours in four days) were penalized for not working five days a week and earn a substantially lower salary than their ‘full-time’ counterparts (Noback, Broersma, Dijik, 2016). Furthermore, this option to utilize flexible work arrangements hurts career advancement in males because they deviate from the male norm, while women who utilize flexible work arrangements actually see positive effects (Noback, 2016). This difference between career advancement between men and women can be attributed to the cultural norms in Danish countries where women typically do not work full-time. Because women typically take on the role of caretaker, those women who opt to take on a full-time position (even in a compressed work week) will reap more positive effects than men who also opt to take on a compressed work week.

Some studies have also shown gender neutral effects surrounding the flexibility stigma (Coltrane, 2013). Men and women who both opted for a “parent track” and took time off from work both faced a motherhood/fatherhood penalty. While this study was one of the first national longitudinal studies to determine the relationship between time off for family reasons and career earnings, it does not account for people who work full-time but utilize other flexible work arrangements (e.g. telecommuting). A more recent study shows evidence of a “breadwinner bonus” and “caregiver penalty” in relationship to salary offer, flextime offer, and leadership training. Participants were given information about job candidates and asked to give a salary offer and the time they would allow the candidate to telecommute. Results indicate that the way a candidate presents themselves (e.g. as a primary caregiver or family breadwinner) has an impact on the salary, leadership training offered to the individual, and telecommuting time offer (Bear

& Glick, 2016). This study indicates that as men and women who present themselves as more likely to use flexible work arrangements because of their primary caregiver status, subsequently receive a lower salary offer.

Conversely, some studies show that the use of flexible work arrangements have a positive impact on career success (Dijkers, Engen, Vinkenburg, 2010). Individuals who engaged in flexible work arrangement practices and increased work hours had a positive relationship with the job level in an organization. Additionally, working parents who use flexible work arrangements or worked more hours were also viewed as more successful compared to parents who worked at normal times, at the regular office, and fewer hours (Dijkers et al., 2010). In another study, telecommuting was shown not to hinder career advancement but this was likely due to a supportive organizational culture surrounding telecommuting practices (McCloskey & Igabria, 2003). Thus, more research should track and control for the support of telecommuting from an organizational perspective. Lastly, Global Analytics and Flexjobs (2017) also reports a telecommuter's average annual income is \$4,000 more than non-telecommuter which suggests the practice should become more frequent if an employee is wishing to earn more, but no justification is given as to what makes up this difference in earnings between telecommuters and non-telecommuters. Additionally, the increased use of telecommuting due to the COVID-19 crisis could potentially impact career advancement or career harm, but it is unclear in what way.

### **Moderating Role of Telecommuting Frequency**

While research has shown telecommuting allows employees to be more productive one has to consider to what frequency of telecommuting is needed to

maximize productivity (Martin & McDonnell, 2012). When organizations begin designing policies and programs surrounding telecommuting, the extent to which one can telecommute is often a major part of the discussion. In addition to how often an employee is allowed to telecommute, companies often will establish hours employees must be available during the workday. If an employee has the ability to telecommute, they must decide to what extent they'd like to telecommute. Many employees however hesitate to telecommute frequently because of the fear of career harm. This fear becomes a reality in one study when those mothers who spent months working from home or reducing the physical time spent at the office to less than 30 hours a week were heavily penalized (Glass, 2004). These negative effects on wage growth were typically more severe for managerial and professional workers. Furthermore, these mothers who worked 5 or more hours a week from home and stayed with one employer experienced on average 27% lower wage gain than mothers opting to work in the traditional office (Glass, 2004). While this finding controls for usage of reduced work hour policy, it does not control for number of hours worked. If one accounts for the continuous use of work-family policy over a long period of time, the compounded interest in salary could give reasoning for mothers earning lower salaries. However, the decision to change employers would often weaken the negative effect on wage growth for mothers choosing to utilize work-family policies (Glass, 2004). This finding suggests changing employers will reduce the negative effect on wage growth for using work-family policies. When mothers opted to engage in schedule flexibility practices (rearranging work times and days), they did not experience a decrease in wage growth. However, mothers who had a decrease in "face time" amongst employees experienced more serious wage penalties in managerial

and professional careers (Glass, 2004). This study shows two important findings: 1) facetime and job type influenced wage growth and 2) using some FWAs did not impact wage growth.

Another study highlights qualitative comments from working mothers and how mothers' pursuits of advancing in the organization are not supported by an organization's flexible work arrangements; ultimately the mothers felt like they had to choose work or family (Brown, 2010). However, Brown focused more on the flexible work arrangement as a reduction of hours rather than an alternative location. This is a meaningful distinction because fewer hours worked should translate to less pay.

Research shows telecommuters work more hours per week on average than non-telecommuters and this increase in work hours was positively related to job level in the organization (Dijkers et al., 2010). This study primarily focused on comparing ambitious vs. non-ambitious parents by work hours and utilization of those flexible work arrangements. This study did however have a major finding that the relationship between career ambition and job level in an organization is fully mediated by work hours and flexible arrangements. However, this study did not focus on the comparison of telecommuters vs. non telecommuters specifically, only the comparison of career ambition (low vs. high), work hours, and those who utilized flexible work arrangements.

Overall, a number of the studies that focus on the use of flexible work arrangements and their impact on career advancement fail to adjust for hours worked and primarily focus on extended leave. For those studies that do turn their attention away from extended leave and focus more on telecommuting, fail to appropriately compare non-telecommuters and telecommuters in relation to career advancement. The purpose of

this study is to further examine the relationship between telecommuting and career advancement in relation to wage growth and promotion. The results of the study should provide a clearer depiction of how the frequency of telecommuting impacts career advancement and salary, which should provide those wishing to telecommute a more accurate depiction of the consequences of working away from the office.

### **Mediating Role of Manager Support**

The role of the manager in the workplace can have a large impact on an employee's satisfaction because a manager can often determine the nature of work (e.g. task significance, variety, job enrichment). Additionally, managers may often provide developmental opportunities to employees or give guidance to employees seeking to enhance skills or their career. To exemplify the importance of the relationship between the manager and employee to the organization, one recent study shows there is a negative relationship with an employee's turnover intention and trust in their manager (Uriesi, 2019). This study is just one example of how important it is for managers to develop a trusting relationship with their employees, especially when an employee may ask for flexible work arrangement like working from home.

The manager's perception of flexible work arrangement usage could potentially influence an employee's decision to take advantage of telecommuting-friendly policies. A study by Leslie and colleagues (2012) introduced a theory and model regarding employee salary and use of flexible work arrangements, "The relationship between Flexible Work Practices (FWP) and career success is contingent on managers' FWP attributions" (p. 1418). While previous research has shown managers' perceptions of flexible work arrangements has a positive impact on employee usage, the manager's

perception of flexible work arrangements also has an impact on how they view an employee's organizational commitment (Leslie, Manchester, Park, & Mehng, 2012). A positive relationship was found between perceived commitment and career success, additionally perceived commitment mediated the effects of flexible work arrangements use and productivity attributions on career success (Leslie et al., 2012). This study's results indicate that managers' perceptions have a greater influence on an employee's intention to use flexible work arrangements instead of the employee's job performance and behavior.

Some managers view participation in telecommuting practices as valuing family over work, however when managers viewed the use of flexible work arrangement as way to be productive, managers viewed employees as more committed to the organization (Leslie et al., 2012). Furthermore, when employees chose to use flexible work arrangements to simply accommodate lifestyle, flexible work arrangement users were viewed as less committed than non-flexible work arrangement users (Leslie et al., 2012).

### **Moderating Role of Career Ambition**

A recent construct, career ambition, is used to evaluate the motivation to further one's career. However, it is important to understand the development of career ambition and its distinction from career motivation. Career motivation is viewed as a multidimensional construct consisting of three main components: career identity, career insight, and career resilience (London, 1983). Career resilience, defined as a person's resistance to career disruption in a less than optimal environment, is comprised of three subdomains: self-efficacy, risk taking, and dependency (London, 1983). Each of these subdomains contain other constructs within them which further illustrates the

multidimensional construct of career motivation (e.g. self-esteem, need autonomy, fear of failure, ambiguity tolerance, and need for supervisor approval). Unique situations of an individual's career along with organizational characteristics will often dictate or change how these individual characteristics are used to make decisions about their career. For example, an employee may take advantage of a promotional opportunity within their own organization but hesitate or deny a career opportunity of equal or greater value when approached by a recruiter from another organization. These situations along with many others make the career motivation construct difficult to define.

Since London's construct of career motivation was introduced, a more recent construct has been developed, career ambition. Career ambition provides a much more meaningful and direct definition of an employee's motivation to further a career; "the motivation in our mind to actively further one's career by having a strong focus on one's work life and career and high motivation to excel" (Otto, Roe, Sobiraj, Baluku, Vasquez, 2016, p. 24). Salary and promotion are thought of as extrinsic motivators and it should be noted that intrinsic motivators can also be responsible for aspects of career ambition. As long as career success is measured with the criterion of salary and position, the definition of career ambition provided by Otto and colleagues (2016) should predict the development of one's career according to Deci and Ryan's Self-Determination Theory (Deci & Ryan, 1985). Furthermore, career ambition has been shown to positively relate to occupation prestige (i.e., position) and income (Ashby & Schoon, 2010; Judge & Kammeyer-Mueller, 2012).



**Hypotheses of this Study**

Hypothesis 1a: Telecommuting frequency will be negatively associated with annual earnings.

Hypothesis 1b: Telecommuting frequency will be negatively associated with percentage increase in annual earnings.

Hypothesis 2a: Career ambition will be positively associated with annual earnings.

Hypothesis 2b: Career Ambition will be positively associated with percentage increase in annual earnings.

Hypothesis 3a: The relationship between telecommuting frequency and annual earnings is moderated by career ambition.

Hypothesis 3b: The relationship between telecommuting frequency and percentage increase in annual earnings is moderated by career ambition.

Hypothesis 4: The perception of manager's support for telecommuting is positively associated with telecommuting frequency.

Hypothesis 5a: The relationship between telecommuting frequency and annual earnings is mediated by perceived manager support of telecommuting.

Hypothesis 5b: The relationship between telecommuting frequency and percentage increase in annual earnings is mediated by perceived manager support of telecommuting.

## CHAPTER II: METHOD

### Participants

The population of interest for the current study was full-time workers in the United States. A total of 300 participants were recruited who meet the eligibility requirements of full-time worker (minimum of 30 hours a week), length of full-time employment (minimum of two years), age (minimum of 25 years-old), and a current United States resident who currently works in the United States. Additionally, the participants must have answered that telecommuting was possible in their occupation and that their primary workplace was an office setting when they were not telecommuting. The restriction of full-time employment for a minimum of two years was chosen to reduce any impact of part-time work on annual earnings. Twenty-five years old was identified as a reasonable age where a participant would have enough time to progress in their career with the additional restriction of consecutive years of full-time employment. The final sample consisted of 125 participants. A total of 300 participants completed the survey, but 175 respondents were removed. Ninety-three participants were removed because of suspicion of multiple attempts at taking the survey. These participants had duplicate IP addresses or MTurk IDs which disqualified them from the analysis. Fifty-six participants were removed because they did not meet the requirement of full-time worker (30 hours a week). Twenty-two participants were removed because salaries reported were considered outliers or inaccurate information (i.e. \$5 or \$600,000 in annual earnings). Lastly, four participants were removed for incorrectly answering attention-check items. Any additional removal of participants are outlined in the results section.

## **Procedure**

An online survey hosted by Amazon's Mechanical Turk (an online platform used to facilitate research) was used to recruit participants for the survey. Participants who completed the survey were compensated \$1 for completion of the survey. The participants were directed to a page with screening questions (Appendix A) and were asked their age and how long they had been working full-time (30 hours or more a week). If participants did not meet the eligibility requirements, they were taken to the end of the survey and told they did not meet the eligibility requirements for the current study. The participants who did meet the eligibility requirements were directed to the informed consent statement (Appendix B) with the purpose of the study, risks and benefits, requirements for eligibility, and primary investigator's contact information. The participants who did not consent to the study received a message thanking them for their time and were be redirected to the end of the survey.

The participants who did consent to the study were directed to the beginning of the survey, starting with annual earnings information (Appendix C). The instruction statement (Appendix D) followed and informed the participants that some questions within the survey ask about working conditions prior to COVID-19's impact on telecommuting and some questions will ask about working conditions after COVID-19's impact on telecommuting. After reading the instruction statement, participants continued by answering the remaining survey items. Additionally, instructions were given at the beginning of each section to remind participants to answer the questions about working conditions prior to COVID-19's impact. These instructions are listed at the beginning of each appendix. Additionally, the instructions indicating "prior to COVID-19" or "after

COVID-19” were highlighted in different colors to indicate the slight change in question. Three sections (telecommuting frequency, telecommuting normativeness, and perceived manager support) asked participants questions about working conditions prior to and after COVID-19’s impact on working conditions. In each of these sections, participants were asked the questions in regards to normal working conditions before COVID-19 first, followed by the same questions in regards to normal working conditions after any work from home mandates caused by COVID-19. These post COVID-19 questions were asked for potential post-hoc analyses and were not essential to the study’s hypotheses. At the end of the survey, participants completed a set of demographic questions.

### **Measures Related to Hypotheses**

**Annual Earnings.** Annual earnings were measured by asking participants, “*What was your annual earnings (including salary raises and bonuses) from the 2019 fiscal year?*” A copy of the measure can be found in Appendix D, Item One.

**Percentage Increase in Annual Earnings.** Percentage increase in annual earnings were measured by asking participants, “*How much did your annual earnings increase (including salary raises and bonuses) from the previous year? (e.g., an increase from \$50,000 to \$52,000 would be an increase of \$2,000).*” Two additional questions regarding types of annual earnings increases (bonuses and salary raises) were also asked but not used in any post hoc analyses. A copy of these items can be found in Appendix C.

**Telecommuting Frequency.** Participants were asked a series of questions concerning their typical work week, including average number of hours worked and how long they have been telecommuting. Telecommuting frequency was measured by asking participants one item from Golden (2006b), “*On average, how many hours a week do you*

*spend away from the office working as a telecommuter?”* Two additional items were used to measure telecommuting frequency as potential exploratory analyses. These items ask participants the average percentage of time they spend telecommuting per week and the average number of days they spend telecommuting per week. These items were not used in any post hoc analyses. A full copy of the telecommuting frequency items can be found in Appendix E.

**Telecommuting Normativeness.** Telecommuting normativeness were assessed to determine how common a participant’s department and immediate coworkers telecommute. Four items from Appendix F were used to assess telecommuting normativeness at the department level from Green (2019). Items one assessed normativeness at the department level by asking participants to estimate the percentage of workers in their department who telecommute on a 5-point scale (i.e. 0-20% = 1, 21-40% = 2, 41-60% =3, 61-80% =4, and 81-100% =5). Item two asked participants on average how many days per week their immediate coworkers spend telecommuting using a 5-point Likert scale from 1 (less than 1 day per week) to 5 (4 or more days per week). Items three and four in Appendix F were assessed using a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). These four items were combined together to create an overall score for telecommuting normativeness at the department level (Green, 2019). These items were not used for any analyses.

**Perceived Manager Support.** Perceived manager support for telecommuting was measured by asking participants four questions on a 5-point Likert type scale with options ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). These four items were combined to determine an overall score for perceived manager support for

telecommuting. These four items have been adopted from different scales or were created by the researcher. Item One, “*My manager supports my decision to telecommute*” was adapted from the Green (2019) original item, “My supervisor supports my decision to telecommute.” Item Two, “*My manager usually grants my request to telecommute*” was adapted from the Doerr (2015) original item, “My supervisor always grants my requests for a change in my schedule.” The last two items were developed by the researcher, “*My manager is supportive of telecommuting working arrangements and practices*” and “*Overall, my manager has a positive view of telecommuting practices.*” A copy of the perceived manager support scale can be found in Appendix G.

**Career Ambition.** Career ambition was measured by asking participants nine questions from a career ambition scale (Dikkers et al., 2010). The scale includes a 5-point Likert type scale with options ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The scale was adjusted from Dikkers et al. (2010) which gave the options from 1 (I do not agree) to 5 (I very much agree). These items were combined to determine an overall score for career ambition. A copy of the measure can be found in Appendix H.

### **Other Supporting Measures**

**Demographics.** Participants were asked to indicate their gender, age, education, marital status, primary provider status, tenure, job level, state of residence, employer’s state location, industry type, salaried or hourly status, employment relationship (contract employee or organizational member), union affiliation, and the number of employees in the organization, local office, and immediate workgroup. A copy of the entire demographic questions can be found in Appendix I.

**Attention Check Items.** There were also four attention check items dispersed throughout the survey: Appendix D (Item 5), Appendix E (Items 7), Appendix G (Item 4), and Appendix H (Item 15). Item 7 in Appendix E was removed as an attention check item because the majority of participants failed to answer this question correctly. After further review of the item, the question was deemed potentially confusing to the participant, giving the researcher reason to remove it from the analysis. Therefore, for a participant's information to be considered for analyses, participants must have correctly answer two of the three remaining attention check items.

## CHAPTER III: RESULTS

### Preliminary Analysis

Descriptive statistics were calculated on all variables for the survey. See Table 1 for a summary of all descriptive statistics. Additionally, internally reliability analyses were conducted on all scales to determine if the scales were reliable. Reliabilities from the scales ranged from .74 to .85. See Table 2 for the reliability analysis for each scale and Table 3 for a correlation matrix of all scales.

Table 1  
Descriptive Statistics for All Variables

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
Annual Earnings	121	\$60,921	\$24,648	\$20,000	\$150,000
Percentage Increase in Earnings	125	6.89	5.21	-5.00	20.00
Average Hours Pre C19	125	42.37	8.62	30.00	85.00
Average Hours Post C19	125	39.10	10.78	5.00	85.00
Telecommuting Frequency Pre C19	125	25.38	21.47	0.00	180.00
Telecommuting Frequency Post C19	125	28.84	16.14	1.00	90.00
Telecommuting Normative Pre C19	125	13.54	3.45	4.00	20.00
Telecommuting Normative Post C19	125	15.09	2.97	6.00	20.00
Perceived Manager Support	122	15.60	3.25	4.00	20.00
Perceived Manager Support Post	125	16.35	2.80	4.00	20.00
Career Ambition	116	34.30	4.95	24.00	40.00

\*C19 = Covid-19

Table 2  
Reliability Analyses for All Variables

Variable	Number of Items	Cronbach's Alpha
Telecommuting Normative Pre C19	4	.79
Telecommuting Normative Post C19	4	.74
Perceived Manager Support Pre C19	4	.85
Perceived Manager Support Post C19	4	.82
Career Ambition	9	.77

\*C19 = COVID 19



Table 3  
Correlation Matrix of All Scales

Variable	1	2	3	4	5
Telecommuting Normative Pre C19	-				
Telecommuting Normative Post C19	.09	-			
Perceived Manager Support Pre C19	.58*	.12	-		
Perceived Manager Support Post C19	.08	.48*	.41*	-	
Career Ambition	.02	.26*	.16	.47*	-

\* $p < .01$

### Primary Analyses

Pearson's correlations ( $\alpha = .05$ ) were conducted for Hypotheses 1a, 1b, 2a, and 2b and no support was found for any of these hypotheses. The initial analysis of the annual earnings variable identified a large skewness and kurtosis which identified a non-normal distribution of annual earnings. After removing the four outliers who were above \$150,000 in annual earnings, the analysis showed a reduced skewness and kurtosis and a normal distribution of annual earnings. This removal of outliers changed the correlation strength and p value for each hypothesis with the annual earnings variable. However, none of these changes resulted in a statistically significant change. All analyses reported which include the annual earnings variable were done with the removal of the four outliers. Additionally, the post COVID-19 scale was not used for any analyses related to hypotheses. The pre COVID-19 scale was used for all hypotheses containing the variable telecommuting frequency.

Hypothesis 1a examined whether telecommuting frequency is associated with annual earnings ( $r = -.12, p = .20$ ); Hypothesis 1b examined whether telecommuting frequency is associated with percent increase in salary ( $r = .10, p = .26$ ); Hypothesis 2a examined whether career ambition was associated with annual earnings ( $r = .15, p = .11$ );

Hypothesis 2b examined whether career ambition was associated with percent increase in salary ( $r = .08, p = .37$ ).

Hypothesis 3a predicted the relationship between telecommuting frequency and annual earnings is moderated by career ambition. The relationship between telecommuting frequency and annual earnings was not moderated by career ambition  $F(3, 108) = 0.47$  ( $B = -.11, p = .16$ ). Hypothesis 3b predicted the relationship between telecommuting frequency and percent increase in salary. The relationship between telecommuting frequency and percent increase in salary was not moderated by career ambition  $F(3, 112) = 1.39$  ( $B = .18, p = .25$ ).

Hypothesis 4 also used Pearson's correlation and determined a significantly positive relationship between perceived manager support and telecommuting frequency ( $r = .21, p < .05$ ). Hypothesis 5a predicted the relationship between telecommuting frequency and annual earnings is mediated by perceived manager support of telecommuting and Hypothesis 5b predicted the relationship between telecommuting frequency and percentage increase in salary is mediated by perceived manager support. However, these mediation analyses could not be performed because of the lack of statistically significant relationships between the independent and dependent variables that are required to conduct a mediation analysis. In other words, there was no effect to be mediated.

## CHAPTER IV: DISCUSSION

The primary purpose of this study was to help determine if telecommuting frequency impacts career harm in terms of annual earnings and percentage increase in earnings. Previous studies show that people can be reluctant to telecommute when they fear potential career harm (Green, 2019). Therefore, it was important to identify if reluctance to work from home because of potential for career harm was with good reason or if individuals were actually fearing a relationship that did not exist. The results from Hypothesis 1a and 1b show that there is not a statistically significant relationship between telecommuting and annual earnings or percentage increase in earnings. Perhaps this non-significant relationship between telecommuting frequency and career earnings found in our study is nonexistent because there truly is no relationship between the two variables. There is however conflicting research on telecommuting's impact on pay which may have contributed to our null findings in Hypothesis 1a and 1b. Flexible work arrangements like telecommuting have shown to have a negative impact on one's pay (Glass, 2004; Noback, Broersma, Dijik, 2016). Additionally, studies have shown the use of flexible work arrangements like telecommuting had a positive impact on career success, and in a recent report telecommuters averaged \$4,000 more annually than non-telecommuters (Dikkers, Engen, Vinkenburg, 2010; Global Analytics and Flexjobs, 2017). Altogether, much more research is needed to identify other variables which may impact the relationship between telecommuting and earnings. This need for tracking other variables inspired the secondary and tertiary purposes of this study.

The secondary purpose of this study was to identify the role of the manager in an employee's decision to telecommute. Managers play a large role in the opportunity for an

employee to telecommute, often having discretion over their telecommuting privileges (Kurland & Cooper, 2002). Therefore, this study sought to identify the relationship between how often an individual telecommutes and their perceived support of their manager. Hypothesis 4 tested this relationship between telecommuting frequency and perceived manager support and found support for the relationship. This finding also aligns with research that has shown employees are more likely to choose to engage in telecommuting when their managers have positive perceptions of telecommuting (Leslie et al., 2012).

Lastly, this study examined whether there is a relationship between career ambition and annual earnings because career ambition has previously shown to impact how much a person earns over their career (Ashby & Schoon, 2010; Judge & Kammeyer-Mueller, 2012). The relationship between career ambition and annual earnings and the relationship between career ambition and percentage increase in earnings were assessed in Hypothesis 2a and 2b. Career ambition was shown to not have a statistically significant relationship with annual earnings or percentage increase in earnings. Additionally, in Hypothesis 3a and 3b, career ambition was found not to moderate the relationship between telecommuting frequency and annual earnings or the relationship between telecommuting frequency and percentage increase in earnings. These non-significant findings in the moderation analyses were likely due to the non-significant relationships in Hypothesis 1a, 1b, 2a, and 2b. These findings suggest that if there is a variable that impacts the relationship between telecommuting frequency and annual earnings or percentage increase in earnings, career ambition does not appear to be as significant as previously thought. Therefore, there is reason to further explore this relationship between

career ambition and annual earnings to determine if this relationship exists across other populations as it has in previous research (Ashby & Schoon, 2010; Judge & Kammeyer-Mueller, 2012).

### **Limitations and Future Research**

Telecommuting continues to become more popular among workers and surge in popularity as more and more people choose to work from home (Global Workplace Analytics & FlexJobs, 2017). Additionally, the impact of COVID-19 has forced many to engage in telecommuting, giving those new to working from home a taste of what this experience is like. Thus, the future of working from somewhere other than the home office will likely become more common now that people have experienced this firsthand. Consequently, the increase in telecommuting amidst a global pandemic became a major methodological consideration during this study. Data was collected roughly five months after work-from-home provisions began and it is unclear as to how participants were responding to life and work situations because of COVID-19. Although careful consideration was taken to prompt and instruct participants to think about their working environment in regards to telecommuting prior to COVID-19, the participants may have had trouble identifying differences in work prior to and after COVID-19. Because this is one of the earliest studies examining COVID-19's impact, our findings may be a result of a worker's new reality. Future research however, will have to track these variables to determine if they are uniquely related to COVID-19 or if they are new realities.

A second major limitation to this study involved the dependent variables of annual earnings and percentage increase in salary. There are numerous variables which contribute to how much someone may earn or why they might see an increase in salary.

Location, experience, gender, salary negotiation, performance appraisals, job responsibilities, and organization size are all examples of how different factors contribute to how much someone earns (Bear & Glick, 2016). As a result, many seasoned professionals in the compensation and benefits field seek to identify and track these variables to ensure equitable pay for employees. This study tested the relationship between telecommuting frequency and career earnings and then the relationship between career ambition and career earnings. These two relationships were tested without controlling for any variables that influence pay (i.e., location or experience). This was done purposefully to first test for a relationship between variables before considering controls in the event that a significant relationship was found. This web of nested data and interconnected variables will continue to be a difficult problem to navigate as researchers study pay in general.

Future research investigating the relationship between telecommuting frequency and annual earnings should continue to identify potential main effects and other moderating and mediating variables. Because telecommuting is becoming a more popular form of work among employees, more research is needed to determine its lasting impact on employees in terms of career harm. This need for research on the factors that potentially contribute to the relationship between telecommuting frequency and annual earnings is needed to 1) ease an employee's fear of career harm because they choose to telecommute or 2) inform employees that their career is jeopardized because they choose to telecommute. Until future research is conducted and other variables are studied, this paradox between telecommuting frequency and career harm is still far from being uncovered.

## REFERENCES

- Allen, T. D., Golden, T. D., & Shockley, K. M. (2015). How effective is telecommuting? Assessing the status of our scientific findings. *Psychological Science in the Public Interest : A Journal of the American Psychological Society*, 16(2), 40–68.  
<https://doi.org/10.1177/1529100615593273>
- Arnold, C. (2020). Scared to return to work or can't with kids at home? Here's what you need to know. Retrieved from  
<https://www.npr.org/2020/05/19/855936820/scared-to-return-to-work-or-cant-with-kids-at-home-here-s-what-you-need-to-know>
- Ashby, J., & Schoon, L. (2010). Career success: The role of teenage career aspirations, ambition value and gender in predicting adult social status and earnings. *Journal of Vocational Behavior*, 77(3), 350-360.
- Bailey, D. E., & Kurland, N. (2002). A review of telework research: Findings, new directions, and lessons for the study of modern work. *Journal of Organizational Behavior*, 23, 383–400. Retrieved from  
[http://www.csun.edu/~nkurland/PDFs/JOB\\_Bailey\\_Kur\\_tcg\\_2002.pdf](http://www.csun.edu/~nkurland/PDFs/JOB_Bailey_Kur_tcg_2002.pdf)
- Baron, R. M. & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Bear, J. B., & Glick, P. (2016). Gendered Rewards: Breadwinner Versus Caregiver Status Affects Workplace Rewards for Men and Women. *Academy of Management Annual Meeting Proceedings*, 2016(1), 354–358.  
<https://doi.org/10.5465/AMBPP.2016.182>

- Brown, L. M. (2010). The relationship between motherhood and professional advancement: Perceptions versus reality. *Employee Relations*, 32(5), 470–494. <https://doi.org/10.1108/01425451011061649>
- Canzanese, R. (2020, March). Remote work increasing exponentially due to COVID-19. *Netskope*. Retrieved from <https://www.netskope.com/blog/remote-work-increasing-exponentially-due-to-covid-19>
- Coltrane, S., Miller, E. C., DeHaan, T., & Stewart, L. (2013). Fathers and the Flexibility Stigma. *Journal of Social Issues*, 69(2), 279–302. <https://doi.org/10.1111/josi.12015>
- Cooper, C. D., & Kurland, N. B. (2002). Telecommuting, professional isolation, and employee development in public and private organizations. *Journal of Organizational Behavior*, 23, 511–532. <https://doi.org/10.1002/job>.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- DeSanctis, G. (1984). Attitudes toward telecommuting: Implications for work-at-home programs. *Information & Management* 7(3), 133-139.
- Dijkers, J., Engen, M. van, & Vinkenbug, C. (2010). Flexible work: Ambitious parents' recipe for career success in The Netherlands. *Career Development International*, 15(6), 562–582. <https://doi.org/10.1108/13620431011084411>
- Doerr, K. (2015). *Supervisor and coworker barriers to employees' use of flexible work arrangements and extended leaves of absence in consulting firms* (Master's Thesis). Retrieved from ProQuest Dissertations and Theses database at Middle Tennessee State University, Murfreesboro, TN. (1718550126).



- Gallup. (2017). *State of the American workplace*. Retrieved from <https://www.gallup.com/workplace/238085/state-american-workplace-report-2017.aspx>
- Glass, J. (2004). Blessing or Curse?: Work-Family Policies and Mother's Wage Growth Over Time. *Work & Occupations*, 31(3), 367–394.  
<https://doi.org/10.1177/0730888404266364>
- Global Workplace Analytics. (2017). Latest Telecommuting Statistics. Retrieved from <http://globalworkplaceanalytics.com/telecommuting-statistics>
- Global Workplace Analytics, & FlexJobs. (2017). 2017 state of telecommuting in the U.S. employee workforce. Retrieved from <https://www.flexjobs.com/2017-State-of-Telecommuting-US/>
- Golden, T. D. (2006). The role of relationships in understanding telecommuter satisfaction. *Journal of Organizational Behavior*, 27(3), 319–340.  
<https://doi.org/10.1002/job.369>
- Golden, T. D., Veiga, J. F., & Dino, R. N. (2008). The impact of professional isolation on teleworker job performance and turnover intentions: Does time spent teleworking, interacting face-to-face, or having access to communication-enhancing technology matter? *Journal of Applied Psychology*, 93(6), 1412–1421.  
<https://doi.org/10.1037/a0012722>
- Green, C. R. (2019). *Examining the effects of negative work outcomes on telecommuting* (Master's Thesis). Retrieved from ProQuest Dissertations and Theses database at Middle Tennessee State University, Murfreesboro, TN. (2228924111).

- Igbaria, M., & Wormley, W. M. (1995). Race differences in job performance and career success. *Communications of the ACM*, 38(3), 82–92.
- International Foundation of Employee Benefits. (2017). *Flexible Work Arrangement: 2017 Survey Results*. Retrieved from <https://www.ifebp.org/bookstore/flexible-work-arrangements/Pages/flexible-work-arrangements-2017.aspx>
- Judge, T.A., & Kammeyer-Mueller, J.D. (2012), On the value of aiming high: the causes and consequences of ambition. *Journal of Applied Psychology*, 97(4), 758-775.
- Keen, M. M. (2005). *Factors creating or preventing backlash by coworkers' use of work-family options*. (Master's Thesis). Retrieved from ProQuest Dissertations and Theses database at Middle Tennessee State University, Murfreesboro, TN.
- Kurland, N. B., & Cooper, C. D. (2002). Manager control and employee isolation in telecommuting environments. *The Journal of High Technology Management Research*, 13, 107–126.
- Leave and Flexible Working SHRM Employee Benefits 2019. (2019). Retrieved from <https://www.shrm.org/hr-today/trends-and-forecasting>
- Leslie, L. M., Manchester, C. F., Park, T. Y., & Mehng, S. A. (2012). Flexible work practices: A source of career premiums or penalties? *Academy of Management Journal*, 55(6), 1407–1428. <https://doi.org/10.5465/amj.2010.0651>
- London, M. (1983). Toward a Theory of Career Motivation. *Academy of Management Review*, 8(4), 620–630. <https://doi.org/10.5465/AMR.1983.4284664>
- Marshall, G. W., Michaels, C. E., & Mulki, J. P. (2007). Workplace isolation: Exploring the construct and its measurements. *Psychology & Marketing*, 24(3), 195–223. <https://doi.org/10.1002/mar>

- Martin, B. H., & MacDonnell, R. (2012). Is telework effective for organizations? *Management Research Review*, 35(7), 602–616.  
<https://doi.org/10.1108/01409171211238820>
- Matos, K. (2015). Workflex and telework guide: Everyone's guide to working anywhere. Retrieved from <https://www.shrm.org/hr-today/public-policy/hr-public-policy-issues/documents/workflex-and-telework-guide.pdf>
- Maruyama, T., & Tietze, S. (2012). From anxiety to assurance: Concerns and outcomes of telework. *Personnel Review*, 41(4), 450–469.  
<https://doi.org/10.1108/00483481211229375>
- McCloskey, D. W., & Igarria, M. (2003). Does “out of sight” mean “out of mind”? An empirical investigation of the career advancement prospects of telecommuters. *Information Resources Management Journal*, 16(2), 19–34.
- Miller, C. C., & Rampell, C. (2013, February 26). Yahoo orders home workers back to the office. *The New York Times*, 1. Retrieved from <http://www.nytimes.com>
- Narayanan, L., Menon, S., Plaisent, M., & Bernard, P. (2017). Telecommuting: The work anywhere, anyplace, anytime organization in the 21st century. *Journal of Marketing & Management*, 8(2), 47–54.
- Noback, I., Broersma, L., & Dijk, J. (2016). Climbing the Ladder: Gender-Specific Career Advancement in Financial Services and the Influence of Flexible Work-Time Arrangements. *British Journal of Industrial Relations*, 54(1), 114–135.  
<https://doi.org/10.1111/bjir.12048>

- Onken-Menke, G., Nuesch, S., & Kroll, C. (2018). Are you attracted? Do you remain? Meta-analytic evidence on flexible work practices. *Business Research, 11*, 239-277. <https://doi.org/10.1007/s40685-017-0059-6>
- Otto, K., Roe, R., Sobiraj, S., Baluku, M. M., & Vasquez, M. E. G. (2017). The impact of career ambition on psychologists' extrinsic and intrinsic career success The less they want, the more they get. *Career Development International, 22*(1), 23–36. <https://doi.org/10.1108/CDI-06-2016-0093>
- Rudman, L. A., & Mescher, K. (2013). Penalizing men who request a family leave: Is flexibility stigma a femininity stigma? *Journal of Social Issues, 69*(2), 322–340. <https://doi.org/10.1111/josi.12017>
- Sawhill, K. (2020). Telecommuting will likely continue long after the pandemic. Retrieved from <https://www.brookings.edu/blog/up-front/2020/04/06/telecommuting-will-likely-continue-long-after-the-pandemic/>
- Schrotenboer, B. (2020, May 4). Working at home had a positive effect on productivity during the pandemic, survey says. *USA Today*. Retrieved from <https://www.usatoday.com/story/money/2020/05/04/coronavirus-pandemic-might-game-changer-working-home/3061862001/>
- Timberg, C., Bhattarai, A., Harwell, D., & Reiley, L. (2020, March 21). The new coronavirus economy: A gigantic experiment reshaping how we work and live. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/business/2020/03/21/economy-change-lifestyle-coronavirus/>

Uriesi, S. (2019). The effects of work stress and trust in managers on employee turnover intentions. *CES Working Papers*, 11(3), 211–221.

Wienclaw, R. A. (2019). Telecommuting. *Salem Press Encyclopedia*. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=ers&AN=89185784&site=eds-live&scope=site>

Workman, M., Kahnweiler, W., & Bommer, W. (2003). The effects of cognitive style and media richness on commitment to telework and virtual teams. *Journal of Vocational Behavior*, 63(2), 199-219.

## **APPENDICES**

## APPENDIX A

### Screening Questions

1. Are you 25 years old or older?
  - Yes
  - No
  
2. Are you currently a U.S. citizen or legal U.S. resident and work in the U.S.?
  - Yes
  - No
  
3. Have you been working 30 or more hours per week (on average) over the last two years (prior to March 1<sup>st</sup> 2020)?
  - Yes
  - No

*Telecommuting is defined as a work arrangement in which the employee substitutes a portion of their typical work hours to work at an offsite location (e.g., home, coffee shop, etc.) using technology to interact with others as needed to conduct work tasks. In some jobs, work is done mostly from the computer, which allows employees to work from multiple locations. However, many careers do not allow people to work from home (e.g. police officers, construction workers, landscapers, assembly-line manufacturer workers, etc.).*

4. Based on definition above, is telecommuting possible in your occupation?
  - Yes
  - No
  
5. When not telecommuting, is your primary workplace an office setting?
  - Yes
  - No

## APPENDIX B

### Informed Consent Statement

#### Telecommuting and Career Development

Principal Investigator: Hayes McLeod

Hello! Thank you for taking the time to complete this survey. Please read over the following information before continuing.

The purpose of this study is to investigate the extent to which telecommuting impacts career development. Additionally, information regarding telecommuting perceptions concerning the COVID-19 crisis will also be gathered. By understanding these questions, the study will guide employees and employers on how their telecommuting practices might impact one's career.

Requirements for taking the survey:

1. You must be 25 years old or older.
2. You must have been working (on average) 30 or more hours per week over the last two years as of March 1, 2020.
3. Telecommuting must be possible in your job occupation.
4. You must be a citizen of the United States.

Types of questions asked

1. Salary Information
2. Telecommuting Frequency and Norms
3. Perceived Manager Support of Telecommuting
4. Career Ambition
5. Demographic Information

The following survey will ask you a series of questions about the topics above. Participation in the survey is completely voluntary. You may stop your participation at any point for any reason without consequence. The survey should take approximately 15-20 minutes. You will be compensated at the completion of the survey through M-Turk. There are no foreseeable risks for taking this survey beyond what you would experience in a typical day. All answers will remain anonymous.

Should you have any questions, please email Hayes McLeod at [chm2v@mtmail.mtsu.edu](mailto:chm2v@mtmail.mtsu.edu).



## APPENDIX C

### Annual Earnings Questions

*Instructions: Please answer the following questions regarding your annual earnings for the 2019 fiscal year. Please be as accurate as possible rounding to the nearest thousand.*

1. What was your annual earnings (including salary and bonuses) from the 2019 fiscal year?
2. How much did your annual earnings increase (including salary raises and bonuses) from the previous year? (e.g. an increase from \$50,000 to \$52,000 would be an increase of \$2,000)
3. What was your percentage increase in salary from 2018 to 2019? (one decimal start at zero percent)
4. Did you receive an annual bonus based on your work performance in 2019? If so, how much?
5. The current year is 2010.
  - True
  - False

## APPENDIX D

### Instruction Statement

*COVID-19 has greatly influenced the prevalence of telecommuting, forcing many employees to work from home. Please read the instructions before each section to answer the questions accordingly in regards to normal working conditions (i.e. telecommuting frequency, telecommuting normativeness, and manager support). Instructions will prompt you to answer questions either prior to or after any “work from home mandates” caused by COVID-19.*

## APPENDIX E

### Telecommuting Frequency

*Instructions: COVID-19 has greatly influenced the prevalence of telecommuting, forcing many employees to work from home. Please answer the following questions in regards to normal working conditions prior to any “work from home mandates” caused by COVID-19.*

1. On average, how many hours a week do you work?
2. On average, how many hours a week do you spend away from the office working as a telecommuter?
3. What percentage of the average work week do you spend telecommuting?
  - 0-20%
  - 21%-40%
  - 41%-60%
  - 61%-80%
  - 81%-100%
4. On average, how many days a week do you spend the majority of your time working in the traditional office setting?
  - Less than one day per week
  - One day
  - Two days
  - Three days
  - Four or more days
5. On average, how many days a week do you spend the majority of your time working away from the office as a telecommuter?
  - Less than one day per week
  - One Day
  - Two Days
  - Three Days
  - Four or more days per week
6. How long have you been telecommuting in your current position?
  - Less than one year
  - 1-2 years
  - 3-4 years
  - 5+ years
  - I do not telecommute

7. Please select the answer that best describes how you answered the questions on this page.
- I answered the previous questions on this page about my **current working conditions** (i.e., after any work from home mandates caused by COVID-19).
  - I answered the previous questions on this page about my **previous working conditions** (i.e., prior to any work from home mandates caused by COVID-19).

## APPENDIX F

### Telecommuting Normativeness (scale of 1-Strongly Disagree to 5-Strongly Agree)

*Instructions: COVID-19 has greatly influenced the prevalence of telecommuting, forcing many employees to work from home. Please answer the following questions in regards to normal working conditions prior to any “work from home mandates” caused by COVID-19.*

Items	0-20%	21-40%	41-60%	61-80%	81-100%
1. What percentage of your department telecommutes?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Items	Less than 1 day per week	1 day per week	2 days per week	3 days per week	4 or more days per week
2. On average, how many days per week do your immediate coworkers spend telecommuting?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Please indicate the agreement with each of the following statements by using the following scale: Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree.*

Items	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
3. Telecommuting is common in my department.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Telecommuting is an option for everyone in my department.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## APPENDIX G

### Manager Support Scale

*Instructions: COVID-19 has greatly influenced the prevalence of telecommuting, forcing many employees to work from home. Please answer the following questions in regards to normal working conditions **prior to** any “work from home mandates” caused by COVID-19.*

Items	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
1. My manger supports my decision to telecommute.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. My manager usually grants my request to telecommute.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. My manger is supportive of telecommuting working arrangements and practices.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Overall, my manager has a positive view of telecommuting practices.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Please select Agree (4) for this question.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## APPENDIX H

### Career Ambition (Scale of 1-Strongly Disagree to 5-Strongly Agree)

*Instructions: Please indicate the agreement with each of the following statements by using the following scale: Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree.*

Items	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
1. I want to achieve the highest possible level in my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I have the ambition to reach a higher position.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I like to be challenged in my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I am ambitious.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I am not really interested in achieving the highest possible levels at work (reversed).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. A career is important for my self-actualization and self-development.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I would like to fulfill a top position.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. I have set high goals for my career.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. A career does not have priority in my life (reversed).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Please select Disagree (2) for this question.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



## APPENDIX I

### Demographic Questions

*Instructions: Please answer the following questions.*

What is your gender?

- Male
- Female
- Prefer not to specify

What is the race you most identify with?

- American Indian
- Asian
- Black/African American
- Pacific Islander
- White
- Other (please specify) \_\_\_\_\_

Please indicate your age in years.

- \_\_\_\_\_

Highest level of completed education?

- Less than high school
- High school degree or equivalent (e.g., GED)
- Some college but no degree
- Associates degree
- Bachelor's degree
- Graduate degree

What is your current marital status?

- Single, never married
- Married
- Widowed
- Divorced
- Separated
- Prefer not to specify

Number of children/dependents you are a primary caretaker for under the age of 18.

- 0
- 1
- 2
- 3
- 4+

Please indicate your state of residency?

- \_\_\_\_\_

Please indicate the state your employer is located.

- \_\_\_\_\_

What is your affiliation with unions?

- I am a union employee (I am affiliated with a union)
- I am not affiliated with a union

Are you considered a “primary earner/provider” within your household?

- Yes
- No
- Not sure

How long have you been employed full-time (30 hours or more a week)?

- Less than 1 year
- 1-2 years
- 3-4 years
- 5-9 years
- 10+ years

How long have you been working for your current organization?

- Less than 1 year
- 1-2 years
- 3-4 years
- 5-9 years
- 10+ years

How long have you been working in your current role/position for your organization?

- Less than 1 year
- 1-2 years
- 3-4 years
- 5-9 years
- 10+ years

Which do you consider your primary place of work?

- Traditional office
- Neighborhood work center or coworking location
- Satellite office
- Client office
- Home office
- Mobile “on-the-go” (e.g., hotel, airport, coffee shop)

What is your average commute time when you go to the office?

- \_\_\_\_\_

Are you a salaried or hourly employee?

- Salaried
- Hourly

Are you considered a contract employee or an employee of your organization?

- Contract employee
- Employee of my organization

Which of the following best describes your current job level?

- Entry-level
- Intermediate
- Middle management
- Owner/Executive/C-suite

What type of industry is your employer considered to a part of?

- Banking/Financial Services
- Education
- Government & Non-Profit
- Healthcare
- Media & Entertainment
- Software & IT Services
- Other (please specify) \_\_\_\_\_

How many employees work on your team/immediate work group (e.g., the Auditing team in the Accounting department)?

- 0
- 1-5
- 6-10
- 11+

How many employees work for your office (i.e., the onsite location including those who telecommute)?

- Less than 100
- 100-500
- More than 500

Approximately, how many employees work for your organization (i.e., employees nationwide/global)?

- Less than 100

- 100-500
- More than 500