Spring 2020

Work-Life Balance: Perceived Differences of Teleworkers and Non-Teleworkers

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WORK-LIFE BALANCE: PERCEIVED DIFFERENCES OF TELEWORKERS AND NON-TELEWORKERS

by

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A Dissertation
Submitted to the Graduate School,
the College of Arts and Sciences
and the School of Interdisciplinary Studies and Professional Development
at The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

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May 2020

Published by the Graduate School

ABSTRACT

As the growth in the number of dual-career couples continues, couples attempt to balance the demands of career and family (Berlato & Corrêa, 2017). A healthy work environment potentially supports a positive work-life balance for employees. Supportive work environments increase morale, job satisfaction, job retention, productivity, as well as a fulfilling family life (Molla, 2015). Failure to assist employees with finding work-life balance risk the loss of a positive work environment for a company's employees and the entire organization. Therefore, this human capital study seeks to build on the current research surrounding assisting organizations to find work-life balance for their telework employees.

This study surveyed teleworkers and non-teleworkers to compare perceived differences of work-family conflict, family-work conflict, and role overload. Supported by Emery and Trist's (1969) Sociotechnical Systems Theory, and DeSanctis and Poole's (1994) Adaptive Structuration theory, this study sought to determine differences between telework and work-life balance. Using an ANOVA to compare the teleworkers and non-teleworkers, the study analyzes the participants' (N = 68) answers of the Work-Family Interface Scale.

The study did not find a statistically significant difference between teleworkers and non-teleworkers' work-life balance. Recommendations include conducting this study with a larger population and using additional demographic data as independent variables.

ACKNOWLEDGMENTS

I thank Dr. Cyndi Gaudet for everything she has done to assist me throughout my journey as my dissertation chair and as a friend. My dissertation committee, Dr. Heather Annulis, Dr. Quincy Brown, and Dr. Dale Lunsford carried me over the finish line and through the final turnstile. I am forever grateful for your guidance in the classroom and with this study.

DEDICATION

The tumultuous journey to achieving a doctorate is not one for the faint of heart, and I know this all too well. Along the way, I began to realize I was not alone on this road and my support system was incredibly strong. Self-motivation, a sense of persistence, and tenacity can only go so far. Without the push and pull of my friends and family, I'm not sure I would have completed this dissertation you are reading now.

First, I must thank all my classmates for creating such a positive learning environment and peer-to-peer learning during the coursework. My cohort helped immensely through the lows of the dissertation process and celebrated during the highs. For those who came before me, thanks. For those behind me, I am there for you if you need help.

Second, my family blazed the trails for success in higher education and have encouraged me at each "turnstile" of this process.

Third, to my son Kaleb. We had less time to play basketball, went on less vacations, and lost time together that I wish we could have back. I am proud of you and hope that through my commitment to this process, you find something you are passionate about and dedicate your life toward accomplishing it.

My best friend and wife, Stacey, has watched me struggle throughout this journey, and was always there to pick me up. I hope you know I appreciate your support, pushed me to stay up writing when I didn't want to and allowed me to spend precious time away from you to complete this accomplishment. I love you.

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AST	Adaptive Structuration Theory
FWC	Family-Work Conflict
STS	Socio-technical Systems Theory
W-FIS	Work Family Interface Scale
WFC	Work-Family Conflict

CHAPTER I - INTRODUCTION

According to a 2016 Society for Human Resource Management (SHRM) benefits survey, 60% of companies offer their employees telecommuting opportunities – a threefold increase from 1996 (SHRM, 2016). Workplace flexibility is a mutually beneficial arrangement between employees and employers in which both parties agree on when, where, and how work gets done (Kossek, Hammer, Thompson, & Burke, 2014). This type of work flexibility has many different names: telecommuting, mobile officing, teleworking, working from home, working at home, alternate work location, or flexible work arrangement. The exact number of telecommuters is difficult to determine because of the many factors and types of workers, including self-employed, stay-at-home moms, and contractors, yielding the potential for more than 33 million teleworkers (Calvasina, Calvasina, & Calvasina, 2012). While evidence supports an increased focus by companies on adopting policies promoting a healthier work-life balance for employees, (Hoeven & Zoonen, 2015), the literature fails to validate the benefits of this trend. According to Greenhaus and Powell (2006), the importance of employees having a positive work-life balance potentially impacts not only the employee's workplace but also the employee's family and personal life.

Chapter 1 of this dissertation includes an introduction to and background of the study together with the definition and historical overview of telework, and explains the expansion of telework programs, which provides context for the basis of the study. The problem statement of the study explains the rationale for conducting the study. The research objectives guide the research methodology. Chapter 1 presents the problem of work-life balance in today's workforce, the purpose of the study, and the significance of

the study. Gaps in existing research, assumptions, delimitations, limitations, and a conceptual framework for the study are included in this chapter. A summary of the introduction and the organization of the remaining chapters are the final components of Chapter 1.

Background of the Study

As the number of dual-career couples continues to grow, they attempt to balance the demands of career and family (Berlato & Corrêa, 2017). According to the 2014 Global Workforce Insights Report, achieving a better work-life balance is ranked as a top-five priority among employees, resulting in the focus for some companies on human resource activities and benefits to increase employee work-life balance. Flexible work design, like telework, is a potential strategic solution enabling employers to be proactive in helping employees to find work-life balance (Torraco, 2005).

Flexible Work Design

Work-life balance is defined as "the degree to which an individual is able to simultaneously balance the temporal, emotional, and behavioral demands of both paid work and family responsibilities" (Hill, Hawkins, Ferris, & Weitzman, 2001, p. 52). In the past, executives assumed employees' work life and personal life were fully balanced and viewed work life versus personal life as a zero-sum game (Friedman, Christensen, & Degroot, 1998). Companies demonstrate their enlightened attitude to work-life balance by redefining the way work is done and how work is designed. Managers who strike a work-life balance with their employees, however, recognize that newer telecommunication tools – such as email, voicemail, teleconferencing, and computer networks – can create greater flexibility in how, when, where, and with whom work is

accomplished (Friedman, Christensen, & Degroot, 1998). According to Golden and Fromen (2011), many work practices are legacies of outdated industrial models in which employees had to be physically present during normal business hours. For managers who accept the use of technology for working remotely, line-of-sight-style management is no longer important to holding the employee accountable for getting the work done (Johns & Gratton, 2013). According to Raiborn and Butler (2009), "by facilitating remote communications, the enhanced technologies enable workers to be better able to balance work-life demands" (p. 31). In keeping with the flexibility of remote work, research has shown increased employee productivity because teleworkers have more opportunities to exercise control over scheduling work for peak productivity times and over their availability to colleagues, and to better manage interruptions to their work (Gajendran & Harrison, 2007). The type of flexible work design that enables remote working and increased use of technology is categorized as telework.

History of Telework

What is now termed telework, also known as telecommuting, has become a managerial and organizational tool that allows employees to work at home rather than a headquarters or office location (Sullivan, 2003). Human resource experts predict that more than 1.3 billion people will work virtually by 2020 (Johns & Gratton, 2013). The now rapidly growing trend of telework did not begin overnight, however. The term *telecommuting* was first used during Jack Nilles's 1975 research on organizational decentralization at the University of Southern California. Nilles (1975) explained, "A telecommuting network has computational and telecommunications components which enable employees of large organizations to work in offices close to their homes, rather

than commute long distances to a central office" (p. 1143). Nilles' 1975 definition evolved further in the 1980s as technology started to play a larger role in how we work. The passing of the High-Performance Computing and Communication Act of 1991 allowed technology like fiber-optic networks developed under the auspices of the U.S. Department of Defense (DoD) to become available for business and industry—just as, a decade earlier, scientists also working for the DoD laid the foundations for the Internet—and the rest is world-altering history (Clifton, 2011). Since that time, a cascade of advances in information and communication technology (ICT), including the World Wide Web, has vastly increased the opportunities for flexible work systems for employers and employees.

While the expansion of the Act made the technology available to the private sector, the public sector also took advantage of the new telework trend. The Telework Enhancement Act of 2010, signed into law on December 9, 2010, resulted from years of legislative activity to promote Federal telework (United States Congress, 1991). Even with new Federal legislation and enhanced technology, telework remains a challenge to implement and maintain in the workplace. The challenges could be mitigated if compelling research can demonstrate the positive impact of telework on the work-life balance of employees and the benefit telework brings to the workplace (Pitt-Catsouphes, Kossek, & Sweet, 2006).

Multi-Directional Conflicts

A recent study conducted by Timothy Golden, John Veiga, and Richard Dino (2006) at the Rensselaer Polytechnic Institute and the University of Connecticut assessed the impact of telecommuting on home and family life, separating the relationship into two

elements: (a) work-to-family conflict, that is, conflict created by the work interfering with performing personal-related responsibilities; and (b) family-to-work conflict, that is, conflict created by the family interfering with performing work-related responsibilities. When employees telework, work interferes less with family activities; however, the family creates more interference with work activities (Golden, Veiga, & Simsek, 2006). Moreover, with the availability of computers and mobile devices at home, the inability to disconnect from work is a challenge for employees (Heijstra & Gudbjorg, 2010).

In addition to work-family conflict and family-work conflict, a third factor, role overload, is another challenge (Duxbury & Halinski, 2014). Role overload is defined as "a time-based form of role conflict in which an individual perceives the collective demands imposed by multiple roles (e.g., parent, spouse, employee) are so great that time and energy resources are insufficient to adequately fulfill the requirements of the various roles to the self or others" (Korabik, Lero, & Whitehead, 2011, p. 130). As workdays extend longer, non-work times are extending later in the day. This leads to workers feeling exhausted and sapped of the energy to handle work and family responsibilities, which causes role overload (Gordon, Pruchno, Wilson-Genderson, Murphy, & Rose, 2012).

Throughout this study, the literature showed that these three conflicts lead to work-life imbalance and have negative impacts on both personal life and work performance. The well-being of employees in the workplace hinges on their ability to combine the roles of work and family (Barnett & Hyde, 2001). Work-family and family-work conflict are strong predictors of job dissatisfaction, which could cause absenteeism, tardiness, and poor job performance (Boles, Howard, & Donofrio, 2001; Frone, 2003).

Problem Statement

Ideally, organizations strive to create an optimal work environment (Goffee & Jones, 2013). Maintaining respect for an employee's non-work life is an important component of a family-supportive organization (Fiksenbaum, 2014); that is, a healthy work environment potentially supports a positive work-life balance for employees. Supportive work environments increase morale, job satisfaction, job retention, productivity, as well as a fulfilling family life (Molla, 2015).

With rising levels of work and non-work demands, employees struggle to maintain a healthy balance between work and life. Due to the work-life imbalance, employees face difficulties in balancing excessive family demands, which spill over from life to job (Qu & Zhao, 2012). The American Psychological Association (2007) estimated that 52% of employees experience work-to-family conflict and 43% experience family-to-work conflict. When work and family roles overlap, there can be damaging consequences to the individual's psychological and physiological health, behaviors, and overall performance at work and in the family (Amstad, Meier, Fasel, Elfering, & Semmer, 2011). Work-to-family and family-to-work conflicts can lead to negative work performance, causing employees to "waste time, lack concentration, rush through tasks, and realign schedules to handle opposing demands" (Schieman et al., 2003, p. 138).

If strategies to reduce work-life imbalance are identified and implemented by employers, the risk of negative impacts on work and family (e.g., job performance, job insecurity, marital conflict, unfairness in the division of duties between spouses, children's problems, depression, and role overload) can be mitigated (Voydanoff, 2008). Employees suffering from anxiety or depression are likely to experience symptoms (e.g.,

fatigue and poor concentration) that impair performance and spill over into the family home (Atkinson, Brown, & Haslam, 2005). Increased conflicts potentially cripple the employees' work and family life, hindering their ability to have success in either role, resulting in negative performance at work and at home. Issues like marital strife or divorce are potential negative outcomes in family conflict. In the workplace, corrective action or being fired are potential negative outcomes of work conflict for employees with work-life imbalance. Existing literature (Allen, Hurst, Bruck, & Sutton, 2000; Duxbury & Higgins, 2001; Janasz, Behson, Jonsen & Lankau, 2013; Noonan & Glass, 2012) concurs that without a solution for work-life imbalance, employers risk financial losses related to absenteeism, increased turnover, loss of productivity, lack of concentration at work, and loss of human capital for the organization, affecting the survival and competitiveness. In the business environment, organizations that proactively assist employees in overcoming work-life challenges can become more competitive and productive (Kelly, Kossek, Hammer, Durham, Bray, Chermack, & Kaskubar, 2008). Conversely, failure to assist employees with finding work-life balance risks the loss of a positive work environment for a company's employees and the entire organization.

Statement of Purpose

The purpose of this study is to compare differences between perceived work-family conflict, family-work conflict, and role overload for teleworkers and non-teleworkers. The research question guiding this study is: *Do perceptions of work-life balance differ for teleworkers and non-teleworkers?* The study is intended to establish whether differences exist between teleworkers and non-teleworkers in their perceptions of work-life balance. Specifically, the study seeks to determine overall work-life balance

by measuring the differences between teleworkers and non-teleworkers' perceptions of work-family conflict, family-work conflict, and role overload. This study compared perceived differences of work-life balance based on teleworking.

Research Objectives

The following research objectives were developed based on the literature:

RO1 - Describe the demographics of the study's participants: marital status, reported dependents, and hours worked per week via teleworking.

RO2 - Compare perceived differences of work-family conflict (work interfering with family) between teleworkers and non-teleworkers.

RO3 - Compare perceived differences of family-work conflict (family interfering with work) between teleworkers and non-teleworkers.

RO4 - Compare perceived differences of role overload (cannot complete tasks and responsibilities) between teleworkers and non-teleworkers.

The graphic representation of this study illustrates the three key variables: work-family conflict, family-work conflict, and role overload. Work demands (work activities both inside and outside the office) and non-work demands (children, elder care, social outings, etc.) cause work-family conflict, family-work conflict, and role overload. Work demands are defined as the direct time spent by a worker on the job, including travel to and from the office, regular work hours, and overtime. Non-work demands include household responsibilities, child or parental care, and leisure activities like exercise and social obligations. Employee stress can lead to work-family conflict, family-work conflict, and role overload. The study compared the perceptions of the non-teleworkers and teleworkers on work-family conflict, family-work conflict, and role overload

variables, which when combined comprise overall work-life balance. The flowchart below depicts the exploration of the differences in work-life balance between non-teleworkers and teleworkers, based on the three variables of work-family conflict, family-work conflict, and role overload.

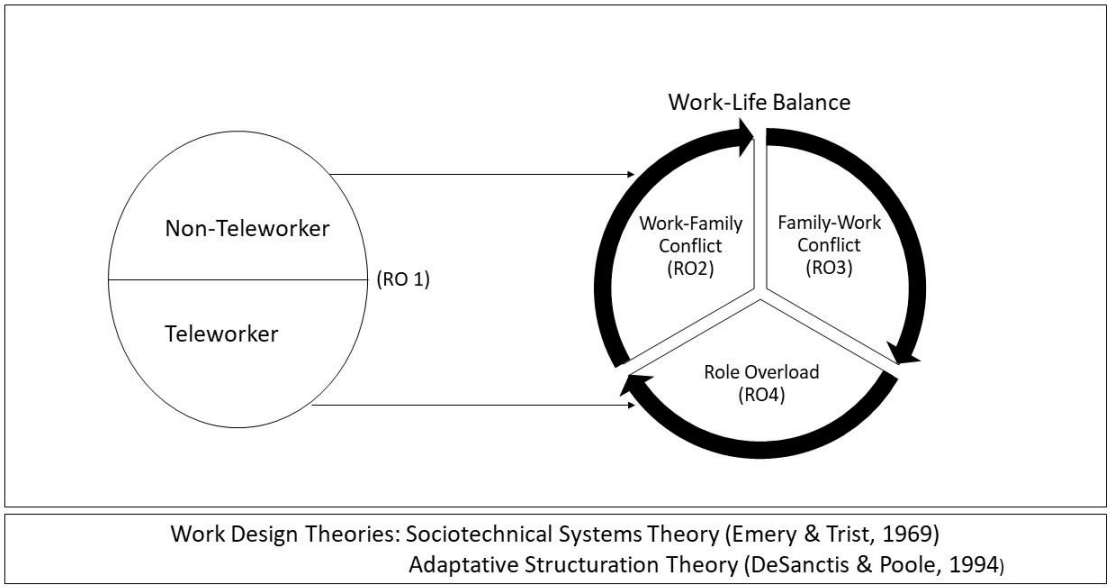

Figure 1. *Conceptual Framework*

Significance of the Study

Telework is a growing trend with the potential to become a standard option for workers globally (Johns & Gratton, 2013). The research literature is conflicted on whether telework is an impactful flexible work design structure that could help employees improve their work-life balance (Noonan & Glass, 2012). Therefore, this study seeks to assess telework's potential positives in achieving work-life balance for employees as well as its potential negatives that can cause or worsen work-life imbalance. This study could assist organizations implementing telework in developing a strategy to positively impact employee work-life balance. The analysis of data discovered

in the study may facilitate a detailed understanding of the work and family conflicts that employees encounter and form a basis for creating work environments that improve and support work-life balance. The implications of this study could affect the decision-making process for public and private organizations in how they offer telework arrangements, affect the lives of employees and their families, and influence public policy on the continuation of the promotion of this trend. Human Resource departments and recruiters may use the results of this research to embed telework into benefit packages for recruitment and to widen their national or global talent reach. The results of the study may assist the non-profit sector with human-capital decisions regarding telework as an employee option. Workers participating in the study and their families can be educated on how the stressors of work and family affect their lives. The study will add to the body of literature supporting future human-capital development research of telework and flexible work systems. In these ways, this human-capital study seeks to build on the current research around assisting organizations to find work-life balance for their telework employees.

Delimitations

The delimitations of the study are acknowledged in order to understand the constraints of the research. Creswell (2012) stated that delimitations confine a study and are imposed by the researcher. Four delimitations exist in this study. First, the study surveyed one organization in an urban city. The study did not seek additional organizations in rural, metro, or other urban areas. The second delimitation is that the researcher only surveyed current employees of the selected organization, thereby omitting input from past employees. Third, before the implementation of the study, the

organization had recently redesigned its telework policy. The fourth and final delimitation is the potential for the organization's employees to be uncomfortable responding to electronic surveys.

Assumptions

Several assumptions are identified in this study. First, all employees will answer the questions truthfully: trust in the candor and transparency in how the employees treat the survey is vital to its accuracy. Second, the expected productivity levels of the employees are assumed to be the same for teleworkers and non-teleworkers. All employees are measured equally, and there are common performance reviews for both populations. Third, telework arrangements are available to all employees in the organization. Employees in all departments—IT, Sales, and Operations—have the ability to telework. Finally, the organization's culture and management support the use of telework. Managerial buy-in and workflows are accepted equally from the executive level and supervisors.

Operationalized Definitions

Throughout this study, a variety of terminology explains the details of the research. Operational definitions are as follows:

1. *Adaptive structuration theory* - a framework for analyzing the organizational changes that occur as a result of the implementation and exercise of innovative technologies (DeSantis & Poole, 1994).
2. *Family-Work Conflict* - "a form of inter-role conflict in which the general demands of time devoted to, and strain created by the family interfere with

performing work-related responsibilities" (Netemeyer, Boles, & McMurrian, 1996, p. 401).

3. *Information and Communication Technology (ICT)* - "technologies used by people and organizations for their information processing and communication purposes" (Zhang, Aikman, & Sun, 2008, p. 628).
4. *Role Overload* - situations in which employees feel that there are too many responsibilities or activities expected of them given the time available, their abilities, and other constraints (Rizzo, House, & Lirtzman, 1970).
5. *Sociotechnical System Theory* - STS theory seeks to enhance job satisfaction and improve productivity through a design process that focuses on the interdependencies between and among people, technology, and the work environment (Emery & Trist, 1969)
6. *Telework/Telecommuting* - an employee-employer work arrangement that enables employees to perform paid work at home or at other locations away from the traditional brick-and-mortar establishment (Sullivan, 2003).
7. *Work Exhaustion* - the depletion of energy needed to fulfill work performance expectations that occurs when employees feel unable to meet the demands placed upon them (Moore, 2000).
8. *Work-Family Conflict* - "a form of inter-role conflict in which the general demands of, time devoted to, and strain created by the job interfere with performing family-related responsibilities" (Netemeyer, Boles, & McMurrian, 1996, p. 401).

9. *Work-Life Balance* - defined as *time balance*, i.e., equal time devoted to work and family, *involvement balance,* i.e., equal involvement in work and family, and *satisfaction balance,* i.e., equal satisfaction with work and family (Greenhaus, Collins, Shaw, 2003).

Summary

The focus of this study is to compare differences between perceived work-family conflict, family-work conflict, and role overload for teleworkers and non-teleworkers. Chapter 1 includes a background to the study, the statement of the problem, the purpose of the study, the conceptual framework, research hypotheses, delimitations, and operationalized definitions. Chapter 2 includes a comprehensive literature review with relevant research and theories that relate to the telework and work-life balance. Chapter 3 explains the research methodology, including data collection procedures, survey instrumentation, and data analysis processes that were used in the study. The background section highlights theories and previous studies regarding telework and telecommuting. The problem and purpose statements explain the focus of the study by showcasing the current situation of stressors in the workplace and describing the rationale for the study. Research objectives in this study explored the perceptions of work-life balance on the surveyed population. Assumptions, delimitations, and operationalized definitions are listed in the introduction to help the understanding of the elements of the study. The research methods and instrumentation for the study are described in Chapter 3.

CHAPTER II – LITERATURE REVIEW

The purpose of this study is to compare differences between perceived work-family conflict, family-work conflict, and role overload for teleworkers and non-teleworkers. The contents of this chapter are a review of the current literature related to telework, work design theories, and work-life balance. To fill in the gaps in the current literature, the last section of the chapter discusses the literature for each factor of work-family conflict, family-work conflict, and role overload.

The Changing Nature of Work

In 2013, Marissa Mayer, the newly appointed CEO of Yahoo, instituted a new policy that Yahoo employees could no longer work from home. In an internal HR memo to employees from Marissa Mayer (as cited in Goudreau, 2013), she states, "To become the absolute best place to work, communication and collaboration will be important, so we need to be working side-by-side. That is why it is critical that we are all present in our offices". This decision sent shockwaves not only through Yahoo but also through other technology companies in Silicon Valley. Conversations began to swirl around the negatives of telework and telecommuting practices. Best Buy's CEO, Hubert Joly, followed right behind Yahoo to end his company's groundbreaking Results Only Work Environment (ROWE). Under ROWE, corporate (non-store) employees had the freedom to work when and where they wanted as long as they got their work done (Valcour, 2013).

However, within these past five years, new trends are continuing to shape the changing nature of work. According to the 2017 ManpowerGroup Global Report titled *Millennial Careers: 2020 Vision*, millennials are expected to make up over 35% of the

entire workforce by the year 2020. This new workforce will bring new attitudes, expectations, and approaches concerning how and where work gets done. Millennials bring another disruptive element to the workplace: technology and their clear understanding of how to use it (Deal & Rogelberg, 2010). Today's technology allows increased mobility whereby employees stay connected and working from anywhere, anytime, on any device. Another element of the changing nature of work is the attitudes and expectations of millennials pertaining to work-life balance. A 2011 report from Price Waterhouse titled *Millennials at Work: Reshaping the Workplace*, reported that millennials think that work-life balance is more important than financial rewards and that flexible working environments, such as telework, are a benefit they want from their employer.

Telework has evolved dramatically since its origins in the 1970s. As Jones and Gratton (2013) stated, "Untethered work on a large scale began in the early 1980s when a freelance nation of virtual workers using nascent e-mail network emerged. Viewed as a pool of independent contractors, these virtual freelancers worked remotely for companies who needed the flexibility to hire talent without the pain of layoffs and limited physical infrastructure" (p. 68).

During the 1990s, explosive growth in technology caused another wave of telework opportunities for employees. According to Jones and Gratton (2013), "Interoffice communication shifted from face to face conversations to voicemail then to email; it did not matter whether the colleagues were in the same office building or even the same continent" (p. 69). The 1990s version of telecommuting, known by names such as e-commuting, e-work, telework, work from home, or working at home, was strongly

shaped by the further development of ICT. The Internet, which had become generally available late in the previous decade enormously enhanced the capabilities of teleworkers by making vast quantities of information available. Telecommuting employees do not commute to the office; rather, they use digital telecommunication links to receive, process, and submit work, and often enjoy flexibility in their work schedules. However, in the 1990s, the literature demonstrates, defining telework was easier said than done. While technology has supported the development of telework and has helped to accelerate its rate of adoption, advances in ICT do not directly correlate with the growth in teleworking (Jackson & Van der Wielen, 1998). From the 2000s to the present, another trend has arisen to create even more confusion about telework: virtual workers. Whereas teleworkers typically maintain a desk in a centralized office, virtual workers often do not. Virtual work and telework have different definitions and different methods of working away from the office. Torraco (2005) explains, "Unlike most telecommuters who have a fixed alternative worksite at home, virtual work and the virtual office refer to situations in which workers have the flexibility to work from a variety of locations" (p. 98).

The private sector is not the only sector taking advantage of the new trends in telework. The Telework Enhancement Act of 2010 was signed into law on December 9, 2010, the culmination of years of legislative activity to advance federal telework. Three key objectives from the Act are:

1. Improve Continuity of Operations (COOP) – using telework as a strategy to keep government operational during inclement weather or other emergencies.

2. Promote Management Effectiveness – using telework to target reductions in management costs related to employee turnover and absenteeism, and to reduce real-estate costs and environmental impact and transit costs.
3. Enhance Work-Life Balance – using telework to allow employees to better manage their work and family obligations, retaining a more resilient Federal workforce able to better meet agency goals.

Work Design Theories

As the nature of work is changing due to changes in the structure and function of organizations, changes in work design too are accelerating. Work design is defined as "the systemic organization, design, and articulation of work activities at one or more levels of the organization: system-wide, process, group, job, and task" (Torraco, 2005, p. 87). Current work-design theories analyze how human-capital development researchers address the domains, the human and technical elements, and the organization and design of work. Sociotechnical systems theory (Trist & Bamforth, 1951) and adaptive structuration theory (DeSanctis & Poole, 1994) are valuable theories for Human Capital Development (HCD) practitioners and researchers.

Sociotechnical systems theory

Sociotechnical systems theory (STS) focuses on the connectivity between people, technology, and the workplace environment to identify ways to increase job satisfaction and productivity (Emery & Trist, 1969). STS incorporates four elements critical to work systems: technical, personnel, organizational structure, and environmental subsystems (Belanger, Watson-Manheim, & Swan, 2013). As described by Belanger et al. (2013), the subsystems are as follows: the *technical subsystem,* which includes factors

representing technology, policies, and practices that describe the type of information and communication technology (ICT) employees will use to perform work tasks; the *personnel subsystem*, which includes demographic characteristics of the workforce, motivation and attitude toward work, and the level of professionalism required to perform work tasks; the *organizational structure subsystem*, characterized by the formal decision-making process, the degree of standardization, and the complexity of the work system; and the *environmental subsystem*, which delineates the relevant characteristics of the context within which the work system operates, both internal and external to the organization. Also relevant to teleworking are the sociotechnical systems that assist with the redesign of work driven by technical subsystems, the types of ICT used when teleworking, the office space or co-working space available to telework from, and the task/work design when teleworking. Personnel subsystems can include workers' personal reasons to telework, attitudes toward the work while teleworking, personality preferences for working independently or in collaboration with others, and work-life balance issues. The complexity of the organization, the location and degree of decision making in the organization, and the degree to which work tasks are standardized all describe the *organizational structure* subsystem. The environment subsystem can impact the organization positively or negatively according to the internal environment in which telework is occurring: that is, the political climate of the area, regional opinions concerning face-to-face vs. virtual work, and protecting secure information via the ICT platforms while teleworking. Sociotechnical systems theory can be used to theorize and analyze how telework results in multi-level outcomes and how it impacts individual-level and organizational-level factors (Belanger et al., 2013). A study in 2007 that included two

Fortune 100 firms sought to investigate how telework impacted the sociotechnical systems at each firm. The results of the study concluded that the teleworking environment and its employees needed increased communication between the teleworkers and the on-site staff to mitigate sociotechnical system challenges (Watson & Belanger, 2007).

Adaptive structuration theory

Adaptive structuration theory (AST) is a work design theory associated with work situations where technology has produced an organizational change—that is, the change of a traditional work environment to include a telework arrangement. Proposed by DeSanctis and Poole in 1994, AST provides a model that describes the interplay between advanced information technologies, social structure, and human interactions. AST proposes four major elements of structure: technology, task, environment, and the work group's internal system, which all affect social communication. Because AST reflects the way humans interact with and adapt to technology, it can offer a new perspective on the relationship between traditional work design and how new work-design structure is evolving (Torreco, 2005). Adaptive structuration theory has received minimal consideration in the Human Capital Development literature, regardless of its ability to explain adaptations to technology as key factors in organizational change (DeSanctis & Poole, 1994). Telework's rapid expansion, however, could be viewed as a validation of AST because of technology's impact on the workplace. Companies that have adopted the new communication technologies gain an advantage over their competition (Strohmeier, 2013). From the viewpoint of AST, the teleworker's organization may or may not be structured to meet the changing work practices as fast as the changes in technology are happening (Harmer & Pauleen, 2012).

AST, which provides a framework for understanding and accommodating the organizational changes brought about by telecommuting, was used in a 2016 study to assess the effectiveness of a telework model designed for small and medium enterprises (Consolata, Mwangi, & George, 2016). The study showcased technology, e.g., cloud computing technology, virtual private networks, and the proliferation of portable devices, as impacting the information technology infrastructure and personnel decisions as to whether to allow remote work. The study found that the adoption of the AST-derived telework model led to increased productivity, efficiency, and quality of work.

AST provides insight into the changes resulting from virtual work to an organization's traditional work structure, which necessitates the formation of new rules, policies, and procedures. AST and STS both address connectivity by showing how enhanced mobile technology has shaped the socio-technical system for organizations, both for teleworkers and non-teleworkers. Employees' ability to adapt to emerging technology in the workplace could strongly affect any structural change to new or existing work designs.

Telework Benefits

Improving employee productivity, cutting overhead costs, reducing commute time and traffic, and helping employee work-life balance are a few of the benefits that many advocates of telework often share. As the number of companies and employees that telework continue to increase, the benefits are beginning to show on the companies' bottom line and in the employees' personal lives.

Employee productivity

Take British Telecommunications as an example. Jones and Gratton (2013) explain:

> In a pilot program, the company enabled a group of engineers to start working flexible hours at home and carefully tracked their engagement and productivity, along with those of their peers working in the traditional model. After a few months, the untethered team seemed to hit its stride, and ultimately it achieved significantly greater productivity and lower turnover than the traditional teams. (p. 69)

Back in the U.S, large companies have also adopted aggressive telework policies, such as IBM allowing more than 45% of its 400,000 contractors and employees to work remotely (Jones & Gratton, 2013). In 2012, a study was conducted at Florida State University to investigate how working outside the office affects productivity. The study participants increased productivity in creative tasks by 11-20 percent (Dutcher, 2012). Employees even said that they were less productive when in the office due to "presenteeism," meaning showing up there when they could be more productive elsewhere. The term gained traction when people felt obliged to come into the office even when they were sick. Presenteeism—the problem of workers being on the job but, because of illness or other medical conditions, not fully functioning—appears to be a much costlier problem than its productivity-reducing counterpart, absenteeism (Hemp, 2004).

The Massachusetts-based aerospace firm Raytheon participated in a Disability Management Employer Coalition (DMEC) along with numerous other U.S.-based organizations in 2011. According to the DMEC website, DMEC is committed to

providing focused education to provide absence-management professionals with the tools and references to help reduce cost, minimize lost work time, and increase staff productivity (DMEC, 2019). During the 201l conference, Raytheon shared its policy regarding telecommuting: the company claimed that it not only curbs absenteeism, but also keeps the employee productive, since Raytheon employees who are injured, sick, or recovering from medical procedures have the option to telecommute if they are well enough to work but not quite ready to return to the office full time (Brodsky, 2011). The perk allows employees to ease back into work after an extended absence, and as a result, gets them working sooner. Although not all jobs at the company are suitable for telecommuting, Raytheon is exploring greater use of remote work, particularly, as noted, as an accommodation for employees who are recuperating and cannot return full-time to the workplace.

Cost-cutting

In uncertain economic times, companies look to cut costs in every way possible. Inevitably, layoffs soon follow in most cost-cutting measures. However, one way to balance the need to cut costs while retaining talented employees is through teleworking (Raiborn & Butler, 2009). Rather than releasing employees, a company can save money by lowering the overhead cost of office space, utilities, and real estate. According to Raiborn and Butler, "If a property is owned, the freed-up space can possibly be sold (potentially providing a gain on sale, positive cash flow, and lowered property taxes) or rented (providing a new periodic revenue)" (p. 34). An example of cost-cutting is how Capital One was able to cut 20 % of the company's real-estate cost after implementing telework (Conlin, 2009). In a five-year study conducted for the Kentucky American

Water Company, the net benefit was over $5,000 in cost savings per telecommuter (Butler, Aasheim, & Williams, 2007). Management should be encouraged to cultivate a culture of telework adoption to keep costs and expenses as lean as possible.

Commute and traffic reduction

Green is the new black. A 2007 survey conducted by the Consumer Electronics Association estimated that telecommuting one day per week saved approximately 840 million gallons of gasoline that year (Matlin, 2008) and the reduced carbon dioxide emissions were equivalent to taking two million cars off the road annually (Kolman, 2008). Compounding the environmental benefits, the opportunity cost of the commute must be factored into the equation as well. The average commute to work in the United States is 25.4 minutes, and over 10.8 million people travel more than an hour each way to work (McKenzie & Rapino, 2011). Add to the time cost of a commute gasoline cost, oil changes, and wear and tear on automobiles as additional negatives. The most recent Gallup Well-Being Index, which surveyed Americans about daily commutes and their effects, found that the longer the commute, the higher the levels of obesity, bad cholesterol, pain, fatigue, and anxiety.

Telework Challenges

Despite these benefits of telework, the flexible work system offers a unique set of challenges. The literature identifies challenges to telework issues like employees unknowingly working longer hours, the gaps in employees' digital literacy, managerial struggles with directing remote workers, and employee knowledge escaping the walls of the office.

Longer working hours

A telecommuting study by Mary Noonan and Jennifer Glass in 2012 set out to answer two questions: "Is telecommuting an effective strategy that lowers employees' average hours worked on-site or is telecommuting associated with longer average weekly work hours?" (p. 39). The study included over 67,000 workers between the ages of 22 and 47, pulled from the National Longitudinal Survey of Youth (NLSY) and the U.S. Census Current Population Survey (CPS) for three separate years: 1997, 2002, and 2004. An interesting point about the selection chosen was that the researchers made sure to include a younger cohort of workers who might be more technologically savvy and open to telecommuting. The control variables included occupation, education, gender, race/ethnicity, marital status, parental status, and age. The answers to the original questions produced several surprising findings:

- Telecommuting increased by 17% in the early 2000s; rates are not significantly different between younger and older workers; college-educated workers in managerial and professional positions are more likely to telecommute; parents are only slightly more likely to telecommute; telecommuters are likely to be white and less likely to be married.
- Telecommuting does not meet the work-life balance needs of workers because it leads to longer work hours during the evenings and weekends, which in turn negatively affects the telecommuter.
- Telecommuters were significantly less likely to work a regular work schedule (40 hours) and were more likely to work overtime.

Telework divide

According to the Lisher and Harnish (2011), "The average telecommuter is a 49-year-old, college-educated, salaried, non-union employee in a management or professional role, earning $58,000 a year at a company with more than 100 employees" (pg. 4). The relatively narrow window of those types of professional positions and companies implies a debate about which kinds of companies are suited to teleworkers. Even with the passage of the Telework Enhancement Act of 2010 and the new Office of Personnel Management (OPM) guidelines, federal government agencies have uncovered a "telework divide" (Mahler, 2012, p. 407) among employees. Telework divide, according to Mahler (2012), occurs when public-sector employees are "left behind," meaning they choose voluntarily or are compelled not to telework.

The Office of Personnel Management (OPM) and the Merit Systems Protection Board (MSPB) published a report (MSPB, 2011; OPM, 2011) including over 250,000 federal employee survey answers regarding employee perceptions of how well the federal government is running its human resources management system; the survey included questions about telework. In the report, vast disparities between teleworker and non-teleworker answers included widely varying levels of dissatisfaction, personal productivity and performance, stress levels related to work, and the desire to stay in the organization. For those whose jobs might be suited to telework but are not allowed to telework, inequitable treatment and disaffection have become the consequence (Mahler, 2012). This issue points to cultural barriers inside an organization or company. Those who are not permitted to telework, along with those who choose not to participate in teleworking, may feel excluded from the benefits and view working conditions as less

favorable. This inequitable treatment increases the challenge for managers, since the Telework Enhancement Act and OPM guidelines allow supervisors to deny a telework request if they feel the employee is not suited for telework, has been disciplined for absences, has violated computer rules, or has had work effectiveness problems in the past (OPM, 2011).

With telework already straining communication, teamwork, and work relationships, the telework divide only increases the complexity of workplace dynamics. To make matters worse, a vertically divided workforce is beginning to emerge. Mahler (2012) stated, "If more agencies permit their best, most autonomous and self-directed employees to become teleworkers, agencies may experience a kind of two-tiered workforce" (p. 416). For a company or organization trying to create a culture of acceptance of teleworking, which includes trust and accountability, the segregation of employees will work against them. The possibility of the two-tier workforce may exacerbate the telework divide and hinder any expansion of telework into other federal and private-sector offices. Mahler's (2012) view is that telework is not simply a new way of assigning work; it creates a new organizational form with different ways of defining tasks, more complex integration problems, and different management responsibilities. Personal productivity, job satisfaction, and retention will suffer if the telework divide becomes wider.

Managerial conundrums

Managing and supervising versus being managed and supervised in a telework arrangement are two very different experiences. In traditional office settings, subordinates can "pop in" on their manager for information or direction for their work.

Those exchanges allow immediate feedback that is missing in a telework arrangement. Since face-to ace interaction is mainly replaced by email communication, the clarity of the instructions and expectations suffer and can be prone to misinterpretation. Empowerment is reduced since the manager is at a distance and a subordinate must wait to gain approval on decisions. Lack of mentoring and professional development can develop because of physical distance and the absence of casual "water-cooler" interaction. Unclear workload and inappropriate assignment of job tasks can occur due to lack of communication, which may lead to either burnout or boredom. A lack of bonding opportunities hinders quality relationships between managers and subordinates, leading to decreased job satisfaction, higher turnover, and a less positive work climate.

A recent study using a large-scale sample of 11,059 employees in a Fortune 500 company validated the above claims. Golden and Fromen (2011) state,

> Results suggest that in comparison to subordinates with managers in a traditional work mode, work experience and outcomes are generally less positive for subordinates with teleworking managers who spend a portion of the week away from the office, and they are lower as well for subordinates with virtual managers who are away from the office full time. (p. 1468)

Working remotely weighs on the manager because managers who telework become focused on their own traditional-versus-remote work balance and are less coordinated with the needs of their employees (Golden & Fromen, 2011). Loss of control is a top concern for managers. Micromanagers have the most difficulty accepting teleworking since they ascended to their position with that type of management style (Raiborn & Butler, 2009). In general. managing from a distance without physical

visibility is hard for managers. Measuring achievement also remains difficult, as managers complain about not being able to observe people at their desks. For micromanagers who feel they must know that their subordinates are working, some employees have remote surveillance technology (e.g., ActivTrak or Spector 360) installed on their laptops to count keystrokes and real-time activity, which can be demeaning to the employee. The obvious adverse effect of the lack of trust makes for poor management and a failed teleworking arrangement.

Knowledge escape

Like the managerial challenges, telework could have a negative effect on knowledge transfer. Knowledge is an asset. More specifically, the knowledge of an employee is an asset to the knowledge base of the entire company. According to Taskin (2010), knowledge transfer can be explained as the transfer of technical knowledge of the individual and the organizational social knowledge which resides in the organization as a whole. As telework has gained in popularity as an employer-friendly work method, companies may find themselves losing control of knowledge management assets and competitive advantage due to the lack of the knowledge transfer from employee to employee.

Taskin and Bridoux (2010) explained that three elements of a teleworker's arrangement negatively impact knowledge transfer: "frequency, location, and the perception of the telework" (p. 2509). A high telework frequency decreases the sharing of technical knowledge and organizational goals and the development of workplace relationships. When working from remote locations, teleworkers are dependent on ICTs and lack both formal face-to-face communications (meetings) and informal interactions

(water cooler and hallway conversations). Those interactions are where knowledge transfer happens. For example, employees who spend most of their time teleworking are rarely able to share a cup of coffee with their non-teleworking colleagues. The last element identified, the perception of telework, could be viewed as a benefit or as a constraint by employees. If telework lacks social legitimacy and formalization, this negative perception reinforces the negative relationship between the other elements of knowledge transfer.

According to Taskin and Bridoux (2010), "In a teleworking environment, human resource management needs to develop organizational socialization through physical interactions to avoid knowledge depletion" (p. 1513). A recent case study of a medium-sized company set out to compare the changes caused by a shift from a traditional way of working to teleworking. The study measured changes in work behavior due to the new telework arrangement, including increased variation in work location, work times, and a shift toward telework management styles. The overarching research question was "What are the effects of new ways of working in a task-facilitating office on work behavior, and does this positively affect collaboration, employee satisfaction, and knowledge transfer?" (Blok, Groenesteijn, Schelivis, & Vink, 2012, p. 2606). The physical workspace options for the test employees were the office, home, traveling/teleworking, or a client's office, along with the choice for flexible work hours. ICT was introduced to allow the employees to be connected and available to collaborate at any time. Management provided the employees with more autonomy and focused on their output since they were not visible at the office. The change to a more "open" culture occurred with emphasis on information sharing and collaboration. Surveys were completed by test employees twice:

once while implementing the new ways of working, and six months later in the new office environment. The results were mixed: physical workspace and ICT were implemented successfully, but management and culture deteriorated over time. Surprisingly, employee satisfaction, collaboration with colleagues, and suitability of the work environment showed no change. One specific negative study result was a significant decrease in knowledge sharing. As summarized by Taskin and Bridoux (2010): "If managers do not recognize the threat of teleworking for the cognitive and relational factors facilitating knowledge transfer, the potential short-term gains from teleworking could be undermined by insidious longer-term negative impacts on the firm's knowledge base" (p. 2515).

Social consequences of telework

Another pitfall of being dislocated by working away from the office can be loneliness and isolation. Pasi (2011) found that "one problem that stands above all others: social relations in the workplace are considered more important than the flexibility afforded by telecommuting. Separation and alienation for the workplace community may also be considered a threat to career advancement" (p. 391).

Work Family Conflict

The concept of work-family conflict was first defined in 1964 by Kahn, Wolfe, Quinn, Snoek, and Rosenthal, using the term *interrole conflict*. The grounded theories of role stress and interrole conflict apply when pressures in one role become incompatible with pressures from another role (Kahn et al., 1964). Today, work-family conflict is typically defined as "a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect. That is,

participation in the work (family) role is made more difficult by virtue of participation in the family (work) role" (Greenhaus & Beutell, 1985, p. 77). Work-family conflict occurs when work responsibilities negatively affect one's ability to complete family responsibilities, (e.g., an overnight business trip prevents a parent from being able to attend their child's school play or sporting event).

An excellent explanation of work-life conflict is provided by Duxbury and Higgins (2001):

> In this sense, then, work-life conflict can be seen to have two major components: the practical aspects associated with time crunches and scheduling conflicts (i.e., an employee cannot be in two different places at the same time), and the perceptual aspect of feeling overwhelmed, overloaded or stressed by the pressures of multiple roles. (p. 3)

Work-family conflict's impacts on work and family

Research indicated that the direction of the conflict matters. Work-family conflict, and family-work conflict discussed later in this chapter, each possess unique antecedences and consequences. According to Michel et al. (2005), work-family conflict antecedents include role stressors (job stressors and time demands), work role involvement (job involvement and work interest), work social support (organizational, supervisor, and co-worker support), work characteristics (job autonomy and task variety), and personality (internal locus of control and negative affect).

Previous research indicates that both work-family conflict and family-work conflict result in several negative consequences for individuals. work-family conflict has dysfunctional and socially costly effects on individual work life, home life and general

well-being and health (Allen, Herst, Bruck, & Sutton, 2001). According to Allen et al. (2001), employees with work-family conflict have increased levels of psychological strain, anxiety, irritability, and hostility as well as poor appetite, high blood pressure, fatigue, and overall poor physical health. High work-life conflict leads to marital problems, reduced family and life satisfaction, and an incidence of perceived stress, burnout, depression, and stress-related illnesses (Duxbury & Higgins, 2001). Good et al. (1988) found that work-family conflict among retail managers was related to lower job satisfaction and that is increased the propensity to leave the job. In a study of front-line service employees in the restaurant industry, Boles and Babin (1996) found work-family conflict mediated the relationship between role stress and job satisfaction. However, most research examining the relationship between role stress and job satisfaction has not included work-family conflict as a possible predictor of job satisfaction (Fisher & Gitelson, 1983). Bacharach et al., (1991) reported that work-family conflict led to emotional exhaustion (burnout) which, in turn, resulted in lower levels of job satisfaction. From the employer's perspective, the inability to balance work and family demands has been linked to diminished work performance, increased absenteeism, lower commitment, and poorer morale. For a financial example of how work-life conflict impacts employers, a study found the estimated direct cost of absenteeism in Canadian firms to be just under $3 billion per year (Duxbury & Higgins, 2001). A study conducted by Health Canada noted that high levels of role overload cost the Canadian healthcare system $1.8 billion per year in doctor visits, $3.8 billion per year in hospital stays, and $250 million per year in visits to hospital emergency rooms (Higgins, Duxbury, Higgins, & Johnson, 2004).

Individual-level methods for satisfying the needs of both employer and family have yet to receive much critical attention (Hirschi, 2019). Hirschi suggested action regulation theory and multiple-goals theory as ways to establish a middle ground between the needs of the employer and the needs of one's family. This method involves a malleable style of resource management and a logical sequence of goals. One must essentially be able to review and revise both short- and long-term goals, as well as one's path towards the achievement of these goals (Hirschi, 2019).

Family-work conflict in the area of employee roles leads to dissatisfaction, employee burnout, and was labeled the *destructive flow* in Lu's 2019 study. Enrichment was found to lead to satisfaction and was not correlated with burnout. Both the work and family spheres contain resources and demands that ought to be considered in balancing roles (Lu, 2019). Yi-Lieo's 2019 study used conservation-of-resources theory to examine three pairs of antecedents. First, demand and control, then autonomy and allocation of time-based priorities, and finally, role overload and flexibility were examined in relation to possible work-family conflict relationships (Yi-Lieo, 2019). Yi-Lieo's study identified seven relationships:

1. Work and family demands were positively related to work-family conflict;
2. Control at work or with family were negatively related to work-family conflict;
3. Perception of autonomy at work were negatively related to work-family conflict;
4. Hours spent working have a positive relation with work-family conflict;

5. Role overload in both work and family were associated with work-family conflict.;
6. Flexibility from work schedule was negatively related to work-family conflict.

Work-family conflict was negatively related to employee career-development outcomes (Yi-lieo, 2019).

Family-Work Conflict

Gutek et al (1991) contended that family-work conflict is a construct separate and distinct from work-family conflict, though stating the divergent validity between the two constructs is high and that they each have the potential to affect the other. Family-work conflict occurs when family responsibilities negatively impact one's ability to fulfill work duties; for example, when a parent is unable to attend a dinner meeting with a client because daycare closes at 6:00 P.M. with no alternative care available. Family role stressors (family stressors, parental demands, number of children/dependents), family social support (family support and spousal support), family characteristics (family climate), personality (internal locus of control and negative affect) are FWC antecedents and very different from the work-family conflict antecedents (Michel et al, 2005).

Like work-family conflict challenges, family-work conflict leads to feelings of frustration when multitasking becomes difficult, which can cause negative personal outcomes. For example, extreme family-work conflict has been associated with low levels of life satisfaction and poor family functioning (Bernas and Major, 2000). Additionally, research has shown family-work conflict to be responsible for higher levels of stress, poor mental health, bad physical health, and substance dependence disorders such as alcohol/drug abuse and alcohol/drug dependence (Frone, Russell, and Barnes,

1996; Frone, 2000). According to Duxbury et al. (2001), employees with families miss career opportunities when they need to put their family responsibilities ahead of work.

The difficulty of detaching from work when one works at home affects the family as well. Ruth (2011) explains, “Several work-life studies have shown that the other extreme of being dislocated from work is being unable to cease at the appropriate time and return to other life activities” (p. 4). In a three-year study, the National Study on Balancing Work, Family, and Caregiving in Canada raised awareness of the challenges of negative work-related outcomes as well as family consequences (Duxbury & Higgins, 2012).

The identification of these bidirectional conflicts, work-family and family-work, has become the framework for the current study. The University of Canberra and University of Connecticut studies exposed a new way of exploring work-life balance by developing a deeper process for measuring the true positive and negative impacts on employees.

Role Overload

Role overload is an individual’s perception that the demands imposed by single or multiple roles are so great that their time and energy resources are not sufficient to fulfill the requirements of the role(s) to their own satisfaction or that of others (Duxbury, Lyons, & Higgins, 2008). In this study, the focus is on the roles of worker (e.g., job-specific and/or organization member roles) and family member (e.g., spouse, son/daughter, parent).

Welbourne, Johnson, and Erez (1998) proposed that individuals in organizations hold two key work roles: jobholder and organizational member. Job-holder roles

represent direct employee performance in their job duties, whereas the organization-member roles are activities focused on being an organizational citizen. Employees that attempt to fulfill their organizational-member roles sometimes go beyond their job-holder responsibilities. Consequently, good organizational citizens are likely to be conflicted by their obligation to be a good spouse or parent and consequently sacrifice family time or leisure (Bolino & Turnley, 2005). This interwork conflict adds to the total role overload.

A meta-analysis of recent studies on burnout yielded three categories of factors capable of impacting the level of work effort exhibited by employees:

1. Non-financial workplace factors – work-role requirements, social-interpersonal factors, and employer/workspace factors.
2. Employee characteristics – attitudes, emotions, and abilities that vary between employees.
3. Financial workplace factors – bonuses, raises, and other financially based rewards for employee performance (Erim, 2019).

New systems of measurement and assessment are still being developed and tested for feasibility in the area of employee burnout. The purpose of Grant's 2019 study was the validation of the E-Work Life (EWL) Scale. This new measure examined work-life balance, employee effectiveness, employee well-being, and the employer-employee relationship (Grant, 2019). The employee, management, and organizational factors are all considered in this theoretical model. Work-life interference, productivity, organizational trust, and organizational flexibility were the four main factors assessed. The general health, mental health, vitality, and well-being of the employee all had significant correlations against these factors (Grant, 2019).

Kirouac (2019) argued that burnout is a transient mental illness induced by the social, cultural, and normalizing transitions in society experiences. Kirouac further noted that burnout in the workspace has increased throughout the last three decades. However, in hope of a solution, Mitev's 2019 study examined third spaces, incubators, maker spaces, fab-labs, digital labs, and accelerators in the light of *new work practices* which embody aspects of collaboration in urban communal workspaces (Mitev, 2019).

The study found,

1. Waged employment and entrepreneurship can, at times, overlap.
2. Stress and boredom affect employees in the traditional work setting.
3. *New work practices* involve a reexamination of abilities and goals.
4. Co-working communities support those involved through establishing a communal feel and experience that can be supportive of these workers.
5. Practice, professional identity, and emotional support can be bolstered to address loneliness in the workspace.
6. Public discourses about entrepreneurial innovation and policies are not linked to *new work practices* in collaborative spaces.

Employee burnout may be combatted through a hybridized version of telework and co-working communal workspaces if employees are able to be at once both independent and collaborative (Mitev, 2019).

Work-Life Balance

Work-life balance is not getting any easier, and in fact the balancing act is becoming more complicated. As this current "sandwich generation" encounters trends in caring for children and aging parents, employees are at risk for problems related to

balancing work and family responsibilities (O'Sullivan, 2015). Work trends like the phenomenon of "the new night shift," the expectation for employees to read and answer emails and texts after work hours, is causing a work-life imbalance for employees (Boswell, Olson-Buchanan, Butts, & Becker, 2016). Internally, employees feel the challenge of the push and pull between work and life. Externally, employees are dealing with the current environment of baby-boomers retiring and the increased use of mobile technology, which is causing additional stress on the potential for work-life balance.

In today's highly competitive environment, organizations are under constant pressure to improve the performance of their workers and managers (Ben-Ner & Lluis, 2011). A committed workforce is a valuable asset that contributes to a competitive edge for the organization (Ansari, 2011). Therefore, understanding how to foster the appropriate work environment so that employees are productive, committed, less stressed, and experiencing more job satisfaction is important to an organization (Ansari, 2011).

Because employees spend most of their waking hours at work, time with their families is limited, which increases work-life imbalance. From the viewpoint of the family, work is a problem; and in the eyes of the employer, family demands negatively impact productivity (Treiber & Davis, 2012). Work-life imbalance can have damaging effects on employee health. When prioritizing work over other activities, employees have poorer physical and mental health because they do not spend time on leisure and exercise (Andreassen, Hetland, & Pallesen, 2010).

IBM's Global Work and Life Issues survey

In 1996, International Business Machines (IBM) administered a survey on work and life issues to 6,451 employees (Hill, 2006). The survey's purpose was to study how flexible timing and alternative locations of work influences work-family balance. According to an article from Hill et al. (2001), "the results indicated several positive results: Perceived job flexibility, given a reasonable workweek, enables more employees to have work-family balance (personal and family benefits) and enables employees to work longer hours before impacting work-family balance (business benefit)" (p. 56). The findings of the IBM study showed a work-life imbalance for many employees and indicated that telework was a potential human-capital strategy for increasing positive work-life balance for its workforce.

The dark side of teleworking

Touted as a significant benefit by a majority of telework advocates, a better work-life balance is by far the first goal on these advocates' minds (Sullivan & Lewis, 2001). However, Boell, Keating, and Cecez-Kecmanovic (2013) revealed that "researchers have argued that telework blurs the lines between work and private life thus creating a work-family conflict instead of balance" (p. 1). A revealing problem with telework as a work-life solution is its strong correlation to long work hours and the 'work devotion schema.' potentially increasing the penetration of work tasks into home time (Noonan & Glass, 2012). In a study conducted by the University of Canberra in Australia, the results "underscore that telework can have negative consequences for organizations by contributing to increased work-family conflict among employees" (Campbell, Boell, Keating, & Cecez-Kecmanovic, 2013, p. 6).

The differential impact of telecommunting on work-life balance

Another study conducted in 2006 in the United States, aimed at determining the impact of telecommuting on home and family life, divided the relationship into two elements: work-to-family and family-to-work. The researchers concluded, “We found that the more extensively individuals telecommute, the less work interferes with family and the more the family interferes with work” (Golden, Veiga, & Simsek, 2006, p.1342). The difficulty in detaching from work when you work at home affects the family as well.

Summary

In the last five to ten years, the nature of work has been drastically changing, and organizations are struggling to keep up. As work design continues to shift, so do the expectations of employees. Employees are challenged with work-life imbalance; however, past research and work design theory hold the key to the solution. Flexible work designs, such as telework, could be one of the solutions for employers to offer as a benefit to their employees. Understanding the potential of telework may inform positive changes in organizations and have a correspondingly positive impact on an employee’s work-life balance. Following this literature review, Chapter 3 explains the design, methodology, data collection, and data analysis of the study.

CHAPTER III - METHODOLOGY

This chapter discusses the research design and methodology employed to compare differences between the perceptions of teleworkers and non-teleworkers concerning work-family conflict, family-work conflict, and role overload. The rationale for the chosen methodology and methods as well as the population and census are explained. The selected instrumentation, data collection plan, and data analysis methods are included in this chapter.

The purpose of this nonexperimental, causal-comparative study was to compare differences between perceived work-family conflict, family-work conflict, and role overload for teleworkers and non-teleworkers. The overarching research question was: *Do perceptions of work-life balance differ for teleworkers and non-teleworkers?* The study compared perceived differences exist between teleworkers and non-teleworkers regarding work-life balance. Specifically, the study sought to determine overall work-life balance by measuring differences of perception between teleworkers and non-teleworkers regarding work-family conflict, family-work conflict, and role overload

Research Objectives

The following research objectives were developed based on the literature:

RO1 - Describe the demographics of the study's participants: marital status, reported dependents, and hours worked per week via teleworking.

RO2 - Compare perceived differences of work-family conflict (work interfering with family) between teleworkers and non-teleworkers.

RO3 - Compare perceived differences of family-work conflict (family interfering with work) between teleworkers and non-teleworkers.

RO4 - Compare perceived differences of role overload (cannot complete tasks and responsibilities) between teleworkers and non-teleworkers.

Research Design

This study used a nonexperimental, causal-comparative research design. The post-positivist worldview, which argues that causes determine effects and outcomes (Creswell, 2007), directed the philosophical stance in this study. A causal-comparative research design, also known as ex post facto, was selected, and the researcher analyzed quantitative data using an analysis of variance (ANOVA) to compare the perceived differences of work-life conflict, family-work conflict, and role overload on teleworker and non-teleworkers.

Causal-comparative research design

According to Gay (1987), causal-comparative research attempts to identify a cause-effect relationship between two or more groups. Causal-comparative research design procedures, defined as an ex post facto viewpoint, look retrospectively to examine any potential differences and/or conditions that occur (Salkind, 2010). Ex post facto study, or after-the-fact research, is a research design in which investigation starts after the event has occurred without interference from the researcher. According to Salkind (2010), ex post facto is often applied as a substitute for true experimental research to test hypotheses about cause-and-effect relationships or in situations where it is not practical to apply the full protocol of true experimental design.

Characteristics of causal-comparative research align with this study's research questions. First, causal-comparative research is used to determine the cause or consequences of differences that already exist between or among the two groups (Gay,

1987). The organization chosen for this study has allowed teleworking for years. This study seeks to determine differences for an after-the-fact, non-experimental intervention (telework). Second, the independent variable, telework, cannot be manipulated because the telework occurrence for study participants preceded the study. Causal-comparative design allows comparison of groups. Two separate groups, teleworkers and non-teleworkers, are compared in this study. The selected organization classifies employees as teleworkers or non-teleworkers through a teleworking agreement in accordance with their overall telework policy. Since employees are classified by their organization as teleworking or not teleworking, a causal-comparative design was selected to compare differences between telework and work-family conflict, family-work conflict, and role overload, retrospectively.

Population

The target population for this study consisted of employees working for a global educational non-profit organization in a Southeastern United States city. The organization is based in the Southeastern region of the United States with employees scattered throughout the nation from California to New York and includes teleworkers and non-teleworkers.

In addition to meeting the criteria for employing teleworkers and non-teleworkers, the non-profit organization for this research study was selected based on size and flexible work design culture. The average U.S. non-profit organization employs 43 employees, according to the 2012 U.S. Bureau of Labor Statistics National NAICS Industry Data. Seventy-five employees work at the selected non-profit organization. To ensure sufficient numbers for the population of the study, an organization employing more than the

average number of employees was desired. An additional consideration when determining a population for this study was an organization with a specific, formally stated telework policy. This Southeastern U.S. organization recently redeveloped their existing telework policy. The new telework policy included unique elements for teleworkers, such as job description and employee expectations, budget for travel to headquarters, and on-site partner during staff meetings and events. Therefore, because of its size and a culture and employee policy that allows telework, the organization met the criteria for the study. The CEO confirmed interest in the study's focus and approved the researcher's request to conduct the study. Based on a total population of 75, the minimum recommended sample to achieve a 95% confidence level and a 5% margin of error is 63, and a minimum recommended sample size of 59 is required for a 90% confidence level and 5% margin of error (Raosoft, 2004).

Census

This study utilized the census method. Census method is a sampling technique in which the researchers examine the entire population of an organization (Singleton & Straits, 2005). The advantages of using the census method are that it helps eliminate sampling bias and gives every employee the opportunity to participate (Singleton & Straits, 2005). Due to the time and effort required to sample all members of a study's population, feasibility is a challenge for studies using the census method (Wiersma & Jurs, 2005). However, due to a small sample size, accessibility, and support from the organization, the census method was selected and applied as the sampling technique.

Institutional Review Board

This study was approved by The University of Southern Mississippi Institutional Review Board (IRB) for research on human subjects. The purpose of IRB approval is to protect the rights and welfare of the human subjects. The researcher's IRB Approval Letter can be found in Appendix A. An exempt review was granted since the research activities present minimal risk to human subjects and adhere to all IRB requirements and recommendations.

Instrumentation

When selecting an instrument, the researcher uncovered several similar studies, such as the Work-Family Conflict and Family-Work Conflict scale, developed and validated by Netemeyer, Boles, and McMurrian in 1996 and the Job Content Questionnaire from Karasek in 1985, intended to measure work-life balance. Since the researcher also sought to explore role overload, a survey including work-life conflict, family-work conflict, and role overload was needed. The survey instrument, the Work-Family Interface Scale (W-FIS) in Appendix B, was selected because of its fit with the needs of the study and its demonstrated research results at the Johns Hopkins Bloomberg School of Public Health by Barbara Curbow, Karen McDonnell, Kai Spratt, Joan Griffin, and Jacqueline Agnew (Curbow et al., 2003). The designers of the W-FIS used data from three qualitative studies of childcare workers and a review of extant work-family interface instruments (e.g. Bohen & Viveros-Long, 1981; Frone, Russell, & Cooper, 1992; Gutek, Searle, & Klepa, 1991; Klitzman, House, Israel, & Mero, 1990; Kopelman, Greenhaus, & Connoloy, 1983; Sekaran, 1986; Wiley, 1987). The qualitative studies included intensive face-to-face interviews and focus groups of childcare workers as well

as a statewide mail survey. The rationale for the instrument was to distinguish between work-family conflict and family-work conflict in investigating the experience of generally feeling overburdened by the two roles (Curbow et al., 2003). This rationale is consistent with the goals of this study, and the instrument has demonstrated validity and reliability. Permission was granted via official letter (Appendix C) by the author, Dr. Barbara Curbow, currently Professor and Chair of the University of Maryland Department of Behavioral and Community Health in the School of Public Health.

The survey consisted of 4 researcher-developed demographic questions and the W-FIS's 20 questions. The first section collected demographic data from the participants. Four demographic questions included marital status (single or married), reported dependents (yes or no), and organizational classification of teleworkers (yes or no). If a respondent identified as a teleworker, a smart-logic question asked how many hours they teleworked in ranges of 10-hour blocks – 0-10, 11-20, 21-30, 31-40, and 40+. The classifications of teleworker or non-teleworker, the independent variables, divided respondents into the two groups for data analysis.

The second section of the survey included 20 questions from the W-FIS regarding employee perceptions of work-family conflict, family-work conflict, and role-overload: 5 work-family conflict questions (RO2), 5 family-work conflict questions (RO3), and 10 role overload questions (RO4). An example of a Work-Family Conflict question is "My work keeps me from doing my best for my family". Participants responded on a Likert Scale (*1 = none of the time, 2 = a little of the time, 3 = some of the time, 4 = most of the time, 5 = all of the time*). The W-FIS Permission Letter can be found in Appendix C. Table 1 presents the survey map aligned questions to the research objectives.

Table 1

Survey Map

Research Objective	Instrument Questions
RO 1 - Describe the demographics of the study's participants: marital status, reported dependents, and hours worked per week via teleworking.	Researcher created demographic questions
RO 2 - Compare perceived differences in work-family conflict (work interfering with family) between teleworkers and non-teleworkers.	W-FIS #1, 2 ,3, 4, 17
RO 3 – Compare perceived differences in family-work conflict (family interfering with work) between teleworkers and non-teleworkers.	W-FIS #11, 12, 15, 18, 20
RO 4 – Compare perceived differences in role overload (cannot complete tasks and responsibilities) between teleworkers and non-teleworkers.	W-FIS #5,6,7,8,9,10,13, 14, 16, 19

An online survey tool captured the answers from the study's participants. Online survey tools yield multiple benefits. First, the online survey tool allowed participants to answer questions on a computer or mobile device in order to achieve a higher response rate since the survey is then accessible and convenient. In this study, because the participants were not centrally located in one office, the ability to email the entire population across the nation helped ensure access. Second, the online survey tool provided immediate results and the ability to track the participants who responded to the survey. The final benefit of the online survey tool was the ability to import data directly

into the IBM Statistical Package for the Social Science (SPSS) for accurate and efficient data analysis.

Instrumentation Reliability and Validity

For a data collection instrument to be effective, the instrument should provide reliability, consistent results over time, and validity, and measure what it is intended to measure (Phillips, Phillips, & Aaron, 2013). The Work-Family Interface Scale (W-FIS) is a reliable and valid instrument designed to measure work-family conflict, family-work conflict, and role overload.

Reliability

The reliability of the research instrument allows for accurate data collection and analysis (Trochim & Donnelly, 2008). Ensuring consistency of measurement is the intent of reliability. The most commonly used internal reliability measure is the Cronbach Alpha coefficient, which is viewed as the most appropriate measure of reliability when making use of Likert scales (Taherdoost, 2016). The average inter-item correlation uses all items on the instrument designed to measure the same construct (Trochim, 2006). The designers of the scale conducted the Cronbach's alpha test on the scale items. The overall scale for the of 20 items on the W-FIS demonstrated psychometrically strong internal reliability with the Cronbach's alpha = .90 and mean inter-item correlations (MIC) = .31, construct validity, and known groups validity (Curbow et al., 2003). All mean inter-item correlations (MIC) exceeded .30 and ranged from .43 to .59. The W-FIS designers' data suggests strong internal reliability and construct validity.

Validity

The validity of an instrument basically means that it will "measure what is intended to be measured" (Field, 2005). In their study on childcare workers, the instrument developers explored the aspects of validity through confirmatory factor analysis (CFA), known group differences, and convergent and discriminant validity. CFA is used when there is an a priori hypothesized grouping of variables (factors) within a set of items (Robinson, Shaver, & Wrightsman, 1991). CFA was conducted using the Analysis of Moment Structures (AMOS) software package version 4.0 (Arbuckle & Wothke, 1999). The AMOS software generates several statistical tests that assess the quality of the fit between the hypothesized groupings and the actual structure of the data; however, selection of the best statistical indices is controversial (Byrne, 2001). The results from CFA demonstrated that all MICs exceeded .30 and ranged from .43 to .59. Additional results included a comparative fit index (CFI) of .92, a root mean square error of estimation (RMSEA) of .147, and a closeness of fit (Pclose) of .00. Curbow et al. (2003) states,

> We reported indices suggested by Byrne (2001) as being appropriate tests of fit: (1) the comparative fit index (CFI), (2) the root mean square error of estimation (RMSEA), and (3) the closeness of fit (Pclose). The CFI ranges from 0 to 1 and values of .95 to 1.0 are indicators of a good fit. For the RMSEA, values less than .05 = good fit, .05–.08 = reasonable fit, .08–.10 = mediocre fit, and greater than .10 = poor fit. Finally, the closeness of fit (Pclose) should be greater than .50 (p. 319).

The results of the CFI, the RMSEA, and Pclose confirm the validation of the scale to accurately measure work-family conflict, family-work conflict, and role overload.

Internal and External Validity

Researchers must recognize and mitigate any threats to validity for their study. Two categories of validity for research are internal and external validity. Addressing validity strengthens the study, validates the research design method, and ensures that the study is measuring what it claims to measure (Shaddish, Cook, & Campbell, 2002).

Internal validity is the extent to which the researcher can conclude that the findings of the study are true (Creswell & Clark, 2011). As defined by Trochim (2006), internal validity is the approximate truth about inferences regarding cause-effect or causal relationships. Trochim (2006) explained that the key question in internal validity is whether observed changes can be attributed to an intervention, to the cause or independent variable, and not to other possible causes or alternative explanations. If a study has a high degree of internal validity, then the researcher can conclude strong evidence of causality; however, there is the possibility of a plausible alternative factor causing the outcome (Trochim, 2006). Shadish (2002) stated, "Correlation does not cause causation" (p. 7). Specific to this study, threats to internal validity in causal-comparative research design include the lack of ability to control the ex post facto or pre-existing independent variable (Schenker & Rumrill, 2005).

To help mitigate the internal-validity threat from instrumentation, the study included a single instrument and did not change during the study. The threat of design contamination was minimized because the entire population was made aware of the study at the same time and the two groups were separated in the analysis; this lessened

communication between the two groups during the two-week survey period. No events happened to change the conditions of the study, thus minimizing the threat of history. Maturation was mitigated due to the short window of time the participants had to complete the survey. The study's research design further mitigated selection bias by utilizing the census method to include all participants in the organization.

External validity is related to generalization of results to a larger population (Trochim, 2006). External validity refers to the extent to which the results may be applied to others outside the participants with the study's population (Phillips, Phillips, & Aaron, 2013). The design of this study does not allow the researcher to generalize results beyond the study population; therefore, there is no threat to external validity.

Data Collection Procedures

The data collection procedures explain the steps the researcher took to collect data from the participants. In this section, the researcher explains the data collection plan, survey map, dissemination plan for the survey, and participant incentives. The confidentiality statement is discussed in this section.

The first step in the data collection procedure was to gain permission for the population for the study. The researcher obtained permission from the Chief Executive Officer of the selected organization to contact participants for the study. The approval letter was included in the IRB application package and appears in Appendix D.

Informed Consent

To ensure ethical practices, individuals participating in the survey were required to give informed consent to take the survey. Informed consent is the process of informing potential research participants about the elements of a study, their voluntary

participation, reasonable risks or discomforts, reasonable or expected benefits, and confidentiality procedures. The informed consent information was embedded in the online survey and was required for the participant to continue with the survey. The informed consent section explained the project purpose, procedures followed in the research, and use of research results (see Appendix E). Additionally, the informed consent information disclosed the nature and use of participants' data and assured confidentiality for their responses.

Survey Distribution

A suggested response-rate strategy to ensure maximum response and engagement from the population is an executive-sent company-wide email encouraging participants to respond to the survey (Philips, Phillips, & Aaron, 2013). Accordingly, the CEO of the organization notified employees about the upcoming survey in a company-wide email encouraging survey participation. Once the date and time to disseminate the survey were determined by the organization, the researcher distributed via email the informed consent and survey to participants (Appendix F). Participants were asked to respond to the survey within two weeks, and a reminder email was sent one week following the date of the initial email (Appendix G). The survey closed at the end of the third week.

The initial email from the researcher described the study and provided a link to the survey. Embedded in the online survey, the informed consent form explained participants' rights, confidentiality and anonymity statements, and use of data collected. The online survey tool provided participants with the opportunity to opt out of the survey. At the conclusion of the survey, an automated response thanked participants and disclosed the researcher's contact information for concerns or questions about the study.

Incentives

Survey practice often includes incentives to increase participation in the study. Recommendations for increasing response rates include follow-up communication or monetary or gift incentives (Fink, 2007). Since online surveys average 23% lower response rate than do paper-based surveys, incentives often help raise response rates (Nulty, 2008). For this study, respondents were given the opportunity to enter a drawing for four $25 Amazon gift cards. Respondents voluntarily shared their email addresses at the end of their fully completed survey in order to enter the drawing. Winners were selected using an online random number generator in the presence of a witness. Gift cards were emailed to the winners within one week of the closing of the survey. Participants' personal information for the gift-card drawing was kept password-protected and secured in the researcher's data files.

Data Storage

Survey data was imported into an Excel spreadsheet and SPSS to prepare for data analysis. The online survey tool allowed for easy storage and manipulation of the data, which was stored in a password-protected digital format. Hard copies will be maintained in a locked file cabinet at the researcher's home three years beyond the completion of the study. Table 2 details the data collection plan used for the study.

Table 2

Data Collection Plan

Week	Task
0	• Submitted the University of Southern Mississippi's IRB form • Coordinated ideal dates for distribution of the survey with the organization

Table 2 (continued).

1	• CEO sent informative email company-wide about the upcoming survey • Participants received the informed consent and survey link via email
2	• Reminder emailed to all participants to increase survey participation
3	• Closed survey. Data saved and secured. Gift card winners identified by lottery. Gift cards sent.

Confidentiality Statement

Participants were notified of the privacy and confidentiality statement, located in the introductory email, stating that their personal information and their individual answers to the survey would be kept confidential and only used in data analysis in the researcher's dissertation. Prior to starting the online survey, each participant completed the Standard Online Informed Consent form embedded in the online survey. The online survey platform provided secure Transport Layer Security (TSL), which encrypted the survey data. The survey was administered confidentially, no responses were provided individually to the organization, and data was only released in aggregate format.

Data Analysis

In this quantitative study, the researcher compared differences between teleworkers and non-teleworkers regarding perceptions of work-life balance. Descriptive statistics were calculated for the demographic data. A one-way ANOVA calculated three dependent variables (work-family conflict, family-work conflict, and role overload) and two nominal independent variables (teleworker or non-teleworker). No post-hoc testing was required since the study only has two levels (telework and non-telework). Data for

work-family conflict, family-work conflict, and role overload were scored on a 5-point Likert Scale and analyzed as interval, or continuous. Likert-scale data is an ordinal data category because the distances between responses are not measurable, and therefore one cannot assume the difference between responses is equidistant even though the numbers assigned to those responses are (Sullivan & Artino, 2013).Although the study collected ordinal data, the literature explains how to analyze ordinal data using intervals. In keeping with Boone and Boone's (2012) research, the researcher combined the W-FIS survey questions (5 for work-family conflict, 5 for family-work conflict, and 10 for role overload) into three single composite scores for each variable and analyzed at the interval measurement scale.

Data collected for Research Objective One were used to describe the demographics of the study's population. The data included marital status, reported dependents, classification of teleworker or non-teleworker and, for teleworkers, typical weekly hours worked via teleworking. Descriptive statistics describes the participants.

Data collected for Research Objective Two compared perceived differences in work-family conflict between teleworkers and non-teleworkers. Participants answered five questions based on the W-FIS focused on work-family conflict, e.g., "My job keeps me from spending as much time with my family as I would like." An ANOVA was used to test the mean differences in the work-family conflict (dependent variable) scores for teleworkers and non-teleworkers (independent variable) and to determine statistical significance for the work-family conflict as perceived by the two groups.

Data collected for Research Objective Three compared perceived differences in family-work conflict between teleworkers and non-teleworkers. Participants answered

five questions based on the W-FIS and focused on family-work conflict, e.g., “My work suffers because I need to take care of my family.” An ANOVA was used to test the mean differences in the family-work conflict (dependent variable) scores for teleworkers and non-teleworkers (independent variable) and to determine whether mean differences between the two groups were statistically significant.

Data collected for Research Objective Four compared differences in perceived role overload between teleworkers and non-teleworkers. Participants answered 10 questions based on the W-FIS focused on role overload, e.g., “There is too much for me to do in the time I have to do it.” An ANOVA was used to test the mean differences in the role overload (dependent variable) scores for teleworkers and non-teleworkers (independent variable) and to determine the statistical significance of the two groups. A summary of the research objectives and the data analysis plan is listed in Table 3.

Table 3

Data Analysis Plan

Research Objective	**Data Collected**	**Data Category**	**Data Analysis**
RO 1 - Describe the demographics of the study’s participants	Marital status	Nominal	Descriptive Statistics
	Reported dependents	Nominal	
	Classification of teleworker or non-teleworker	Nominal	Descriptive Statistics
	Typical weekly hours worked via teleworking	Ordinal	Descriptive Statistics

Table 3 (continued).

RO 2 - Compare perceived differences in work-family conflict (work interfering with family) between teleworkers and non-teleworkers.	(DV) Work-Family Interface Scale's work-family conflict composite scores	Interval	ANOVA
	(IV) Teleworkers and non-teleworkers	Nominal	ANOVA
RO 3 - Compare perceived differences in family-work conflict (family interfering with work) between teleworkers and non-teleworkers.	(DV) Work-Family Interface Scale's family-work conflict composite scores	Interval	ANOVA
	(IV) Teleworkers and non-teleworkers	Nominal	ANOVA
RO 4 - Compare perceived differences of role overload (cannot complete tasks and responsibilities) between teleworkers and non-teleworkers.	(DV) Work-Family Interface Scale's role overload conflict composite scores	Interval	ANOVA
	(IV) Teleworkers and non-teleworkers	Nominal	ANOVA

Summary

Chapter 3 explained and described the research methodology chosen for the quantitative causal-comparative study. The Work-Family Interface Survey (W-FIS), a validated survey instrument, was selected for the study. The W-FIS collected data to compare the differences in perception of work-life balance between teleworks and non-teleworkers. The entire staff of a non-profit organization in Mississippi was the population for the study. A one-way ANOVA was the statistical test used to analyze the

two groups to find statistical significance. Chapter 4 will present the results of the statistical analysis.

CHAPTER IV – RESULTS

The purpose of this study was to compare differences between perceived work-family conflict, family-work conflict, and role overload for teleworkers and non-teleworkers. The main research question guiding this study was: *Do perceptions of work-life balance differ for teleworkers and non-teleworkers?* Specifically, the study sought to determine overall work-life balance by comparing the differences between teleworkers and non-teleworkers' perceptions of work-family conflict, family-work conflict, and role overload. This study used a quantitative, nonexperimental, causal-comparative research design. The following research objectives guided the study:

Research Objectives

RO1 - Describe the demographics of the study's participants: marital status, reported dependents, classification and hours worked per week via teleworking.

RO2 - Compare differences in perceived work-family conflict (work interfering with family) between teleworkers and non-teleworkers.

RO3 - Compare differences in perceived family-work conflict (family interfering with work) between teleworkers and non-teleworkers.

RO4 - Compare differences in perceived role overload (cannot complete tasks and responsibilities) between teleworkers and non-teleworkers.

This chapter includes a description of the data collection process. Baseline descriptive and demographic characteristics of the census are provided. Additionally, results of the statistical analysis for each research question are presented and testing of statistical assumptions. The chapter concludes with a summary of the results.

Research Objective One

Data collected for Research Objective One was demographic data from each participant on four specific elements: marital status, reported dependents, classification of teleworker or non-teleworker, and hours worked per week via telecommuting. This research objective provides a context for the demographics of the study population. Out of the entire staff of 75 members who worked for the organization, 63 responded to the demographic questions of the survey, yielding an 84% response rate.

Three out of four respondents (n = 47, 75.8%) were married, and 44 (71%) reported dependents. Two out of three (n = 43, 70.5) of respondents indicated their organization classified them as non-teleworkers, and the remaining third, (n = 18, 29.5%) were classified as teleworkers. Respondents classified as teleworkers reported the number of hours teleworked in a typical work week. Almost all of the 18 teleworkers (n = 17, 94.4%) responding to the survey worked at least 31 hours in a typical workweek. One (5.6%) individual reported they teleworked 11-20 hours per week. Table 4 below displays the subtotals and percentage of the census.

Table 4

Participant Demographics

Demographic Variable	*n*	%
Marital Status		
Married	47	75.8
Single	15	24.2
Total	62	
Reported Dependents		
Dependents	44	71
No Dependents	18	29
Total	62	

Table 4 (continued).

Does your organization classify you as a teleworker?		
No	43	68.3
Yes	18	31.7
Total	61	
If yes: In a typical work week, how many hours do you telework?		
1-10	0	0.0
11-20	1	5.6
21-30	0	0.0
31-40	5	27.7
40+	12	66.7
Total	18	

ANOVA Assumptions

To determine statistically significant differences between two or more independent groups, a one-way analysis of variance (ANOVA) can be used (Field, 2013). For this study, an ANOVA compared perceived differences of work-family conflict, family-work conflict, and role overload between teleworkers and non-teleworkers. Prior to conducting the analysis of variance, six assumptions were tested and analyzed. The first three assumptions inform researchers on the use of an ANOVA for data analysis. If any one of the first three ANOVA assumptions is not met, researchers must choose another type of statistical test, e.g. regression or correlation (Laerd, 2019). The discussion of the first three assumptions for using an ANOVA applies to all of the remaining research objectives. Assumptions four through six establish how data fits into the ANOVA model. Results of these ANOVA assumptions are explained for each research objective. If the assumptions are not met, the results may be misleading and may

be the difference between detecting a true difference among the population means or not; however, it is not uncommon for the data collected to violate (i.e., fail) one or more of these assumptions (Laerd, 2019).

The first assumption required for an ANOVA is to have one dependent variable measured at a continuous level (Laerd, 2019). Three dependent variables were measured on a continuous level: work-family conflict, family-work conflict, and role overload. The second assumption required for an ANOVA is the study must have one independent variable consisting of two or more independent groups (Laerd, 2019). In this study, the independent variable, telework, consists of two independent groups, teleworkers and non-teleworkers, which meets the two-independent-group requirement for the second assumption. The third assumption, independence of observations, states a study should have no relationship between the observations in each group of the independent variables or between the groups (Laerd, 2019). Respondents identified with one of two distinct and independent groups, teleworker and non-teleworker, based on the telework classification by their organization. Each participant was assigned to a single group, which meets the independence of observations requirement for the third assumption.

The remaining three assumptions for an ANOVA, homogeneity of variance, normality, and outlier detection will be explained with the analysis for each research objective. The fourth assumption, homogeneity of variance, requires that the population variance for each group of independent variables is the same (Laerd, 2019). For this study, the two independent groups are teleworkers (n = 18) and non-teleworkers (n = 43). Homogeneity of variance seeks to test if whether the variance between the two groups is equal and/or have any deviation. If group sizes are vastly unequal, then the homogeneity

of variance is violated, which would mean the level of significance will be inaccurate (Statistic Solutions, 2019). Levene's test of homogeneity of variances is calculated in order to assess the equality of variance assumption and that the population variance for each group of the independent variable (Laerd, 2019).

The fifth ANOVA assumption, normality, is necessary for statistical significance testing using a one-way ANOVA (Laerd, 2019.) Normality tests determine normal distribution and/or the central distribution of the data set. Violations of normality could lead to an increase in the risk of errors, causing false positives (Type I) or false negatives (Type II) in data results (Statistics Solutions, 2019). These Type I, observing a difference when there is none, and Type II errors, failing to observe a difference when there is one, could impact the results and findings of a study.

The sixth and final assumption tested for appropriateness for ANOVA is outlier detection. Outliers can have a negative effect on results because outliers can exert influence on the mean and standard deviation for that group, affecting statistical results (Laerd, 2019). Outlier detection for the ANOVA was tested prior to analysis. Outliers were assessed by standardizing the data values.

Research Objective Two

Research Objective Two compared differences in perceived work-family conflict (work interfering with family) between teleworkers and non-teleworkers. Participants were asked five questions from the W-FIS to measure perceptions on work-family conflict using a 5-point Likert Scale: 1, "none of the time" to 2, "a little of the time", 3 "some of the time, 4 "most of the time" and 5, "all of the time."

Responses for the five questions measuring perceived work-family conflict were analyzed using descriptive statistics. Examples of the work-conflict questions are "My work keeps me from doing my best for my family" and "I miss out on important family events because I have to work." A mean, or average, score was calculated from the Likert scale scores for the five work-conflict questions. Since work-family conflict scores were recorded for each question separately, the researcher calculated the mean score using the data from all 5 questions. Work-family conflict was analyzed for teleworkers and non-teleworkers. For the 18 teleworkers, the mean composite score was 2.11 with a standard deviation of .97. The mean composite score for the 43 non-teleworkers was 2.04 with a standard deviation of .87. Mean scores were higher for teleworkers, indicating perceptions of work-family conflict (work interfering with family) are different for teleworkers. Low standard deviations describe that the data points are close to the mean, which indicates a close variation of the respondents' answers. Table 5 below depicts descriptive statistics for work-family conflict by teleworker versus non-workers.

Table 5

Work-Family Conflict

Participants	*N*	*M*	*SD*
Non-Teleworker	43	2.04	.87
Teleworker	18	2.11	.97

Homogeneity of Variance

Before the ANOVA was performed, the homogeneity of variance was tested for Research Objective Two. Levene's test of homogeneity of variances was calculated to assess if the population variance for each group of the independent variables, teleworker

and non-teleworker, were equal. The test indicated no violation of the homogeneity of variance assumption (p = .700), which indicated the population variance for the two groups are considered equal. The fourth assumption requirement for RO2, homogeneity of variance, is satisfied.

Test of Normality

Normality test are used to determine if a variable is normally distributed, which can be assessed using numerical or graphical methods (Laerd, 2019). For this study, normality was assessed by visual inspection of histograms. In Figure 2, the histogram for work-family conflict depicted a positive skew in the distribution, with a mean of 2.06 as most respondents reported lower levels of work-family conflict. Skewness is a measure of the extent to which the distribution of a variable leans on any side of the mean of the variable. In this case, the data is skewed to the left or positively skewed. This suggests that the data for the work-family conflict variable is not normally distributed and violates the assumption of normality. Non-normality is common in small samples and as sample sizes increase, normal distribution will likely occur due to the central limit theorem (Field, 2013). This study's small sample size impacted the test for normality and resulted in the violation of the assumption of normality. However, distribution can be non-normal and the one-way ANOVA can still provide valid results (Laerd, 2019).

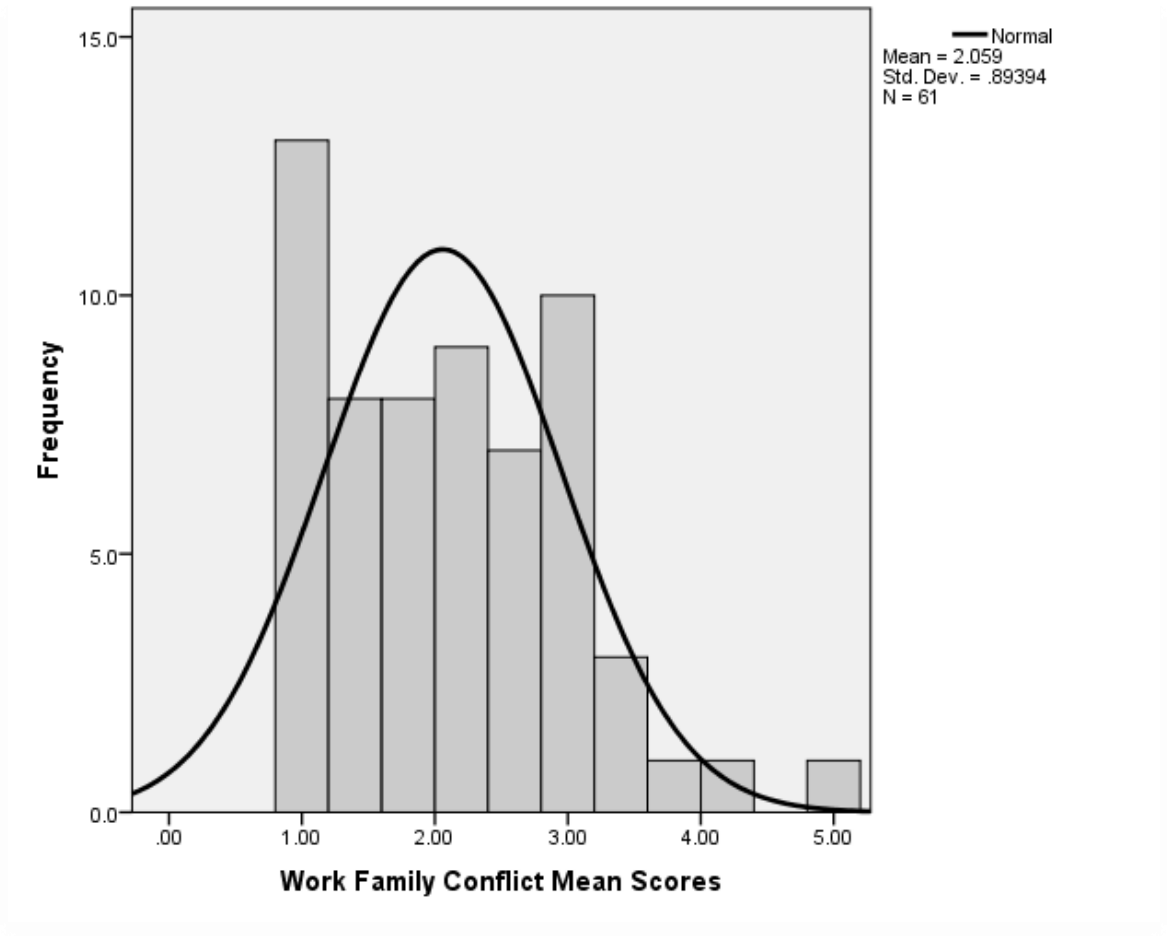

Figure 2. *Histogram depicting the distribution of work-family conflict data*

Outlier Detection

Outliers can exert influence on the mean and standard deviation for that group, which results in a negative effect on statistical results (Laerd, 2019). To test for outliers, standardized values or z-scores were calculated. A z-score measures the distance of each data value from the mean in standard deviation and any z-score (standardized value) greater than 3 or less than -3 is considered to be an outlier (Field, 2016). Work-family conflict standardized values ranged from -1.18 to 3.29, presenting a range of the participants' responses 1.18 below the mean composite score and 3.29 above the mean composite score. Cases outside 3 standard deviations were kept in the analysis. There is

no good reason to reject cases outside the standard deviation as invalid since they are most likely an unusual data point (Laerd, 2019).

Work-Family Conflict Analysis of Variance

To compare the perceptions of work-family conflict between teleworkers and non-teleworkers, an ANOVA was calculated. The ANOVA analysis determined statistically significant differences in the work-family conflict scores for teleworkers and non-teleworkers. The ANOVA yielded no statistically significant results, $F(1, 59) = 0.085$, $p = .771$. No significant mean difference in work-family conflict was indicated between teleworkers ($M = 2.11$, $SD = 0.97$) and non-teleworkers ($M = 2.04$, $SD = 0.97$). Teleworkers are just as likely as non-teleworkers to have similar work-family conflict perceptions. Table 6 below depicts the results of the work-family conflict ANOVA.

Table 6

Work-Family Conflict Analysis of Variance

Test	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.069	1	.069	.085	.771
Within Groups	47.878	59	.811		
Total	47.948	60			

Research Objective Three

Research Objective Three compared differences in perceived family-work conflict (family interfering with work) between teleworkers and non-teleworkers. Participants were asked five questions from the W-FIS to measure perceptions of work-family conflict using a 5-point Likert Scale: 1, “none of the time” to 2, “a little of the time,” 3

"some of the time,' 4 "most of the time," and 5, "all of the time." An example of one of the five questions from the W-FIS measuring perceptions on family-work conflict is "My family duties keep me from spending as much time at work as I would like."

Two mean, or average, composite scores were calculated based on the respondents' scores from the five W-FIS family-work questions for teleworkers and non-teleworkers. For the 18 teleworkers, the mean composite score was 1.78 with a standard deviation of 1.15. The mean composite score for the 43 non-teleworkers was 1.52 with a standard deviation of .69. Mean scores were higher for teleworkers, indicating perceptions of family-work conflict (family interfering with work) are different for teleworkers. Low standard deviations describe that the data points are close to the mean, which indicates a close variation of the respondents' answers. Table 7 below depicts descriptive statistics of family-work conflict by teleworker versus non-workers.

Table 7

Family-Work Conflict

Participants	N	M	SD
Non-Teleworker	43	1.52	.69
Teleworker	18	1.78	1.15

Homogeneity of Variance

To test the ANOVA assumption four for homogeneity of variance, a Levene's test of homogeneity of variances was computed between the two independent groups, teleworkers and non-teleworkers. No violation of the assumption of homogeneity of variance (p = .058) was found, which indicated the population variance for the two

groups are considered equal. The RO3 requirement for assumption four, homogeneity of variance, is met.

Test of Normality

To determine if a variable is normally distributed, a test of normality is assessed either numerically or graphically (Laerd, 2019). Histograms were chosen to assess normality for this study. The assumption of normality, the fifth ANOVA assumption, was tested and represented in a visual format. In Figure 2, the histogram for family-work conflict depicted a positive skew in the distribution, with a mean of 1.59. This suggests that the data for this variable is not normally distributed and violates the assumption of normality. If you have a small population, this statistic of normality could be unstable and the results should be interpreted with caution (Statistic Solutions, 2013). This would apply to this study with a small population (N=61).

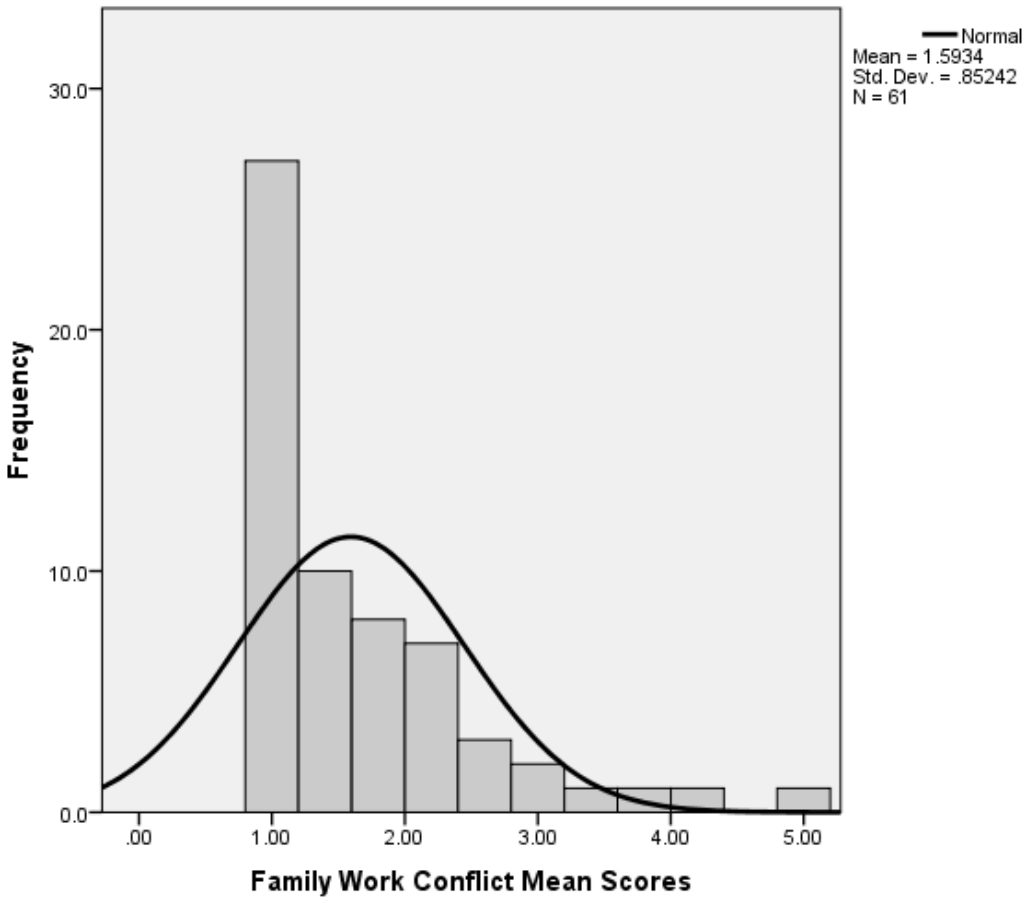

Figure 3. *Histogram depicting the distribution of family-work conflict data*

Outlier Detection

To address the sixth ANOVA assumption, outlier detection for the ANOVA was tested prior to analysis. If data contains outliers, this can affect the means and statistical test results (Laerd, 2019). Family-work conflict standardized values ranged from -.69 to 3.99, presenting range of the participants' responses are -.69 below the mean composite score and 3.99 above the mean composite score. If the standard value (z-score) is 0, it would indicate the data point's score is identical to the mean scores. Cases outside 3 standard deviations and kept in the analysis.

Family-Work Analysis of Variance

An ANOVA was calculated to compare the perceptions of family-work conflict between the two groups, teleworkers and non-teleworkers. The ANOVA tested the mean differences in the family-work conflict scores for teleworkers and non-teleworkers to determine statistical significance. The results of the ANOVA were not significant, $F(1, 59) = 1.198$, $p = .278$. No significant mean differences were indicated for family-work conflict between teleworkers ($M = 1.78$, $SD = 1.15$) and non-teleworkers ($M = 1.52$, $SD = 0.69$). Thus, no statistically significant difference in the perceptions of family-work conflict (family interfering with work) exists between teleworkers and non-teleworkers, indicating teleworkers are just as likely as non-teleworkers to have similar family-work conflict perceptions. Table 9 below depicts the results of the ANOVA.

Table 8

Family-Work Conflict Analysis of Variance

Test	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.868	1	.868	1.198	.278
Within Groups	42.730	59	.724		
Total	43.597	60			

Research Objective Four

Research Objective Four compared perceived differences of role overload (cannot complete tasks and responsibilities) between teleworkers and non-teleworkers. Using the Work-Family Interface Scale (W-FIS), respondents answered ten role-overload questions identifying general overload and spillover affecting work and family. Examples of

questions were “There is too much for me to do in the time I have to do it” and “I can get everything done and still have time for myself.”

Teleworker and non-teleworker mean, or average, composite scores were calculated based on the respondents’ scores from the ten W-FIS role overload questions. The mean composite score for the 43 non-teleworkers was 2.24 with a standard deviation of .43. For the 18 teleworkers, the mean composite score was 2.54 with a standard deviation of 0.92. Mean scores were higher for teleworkers, indicating perceptions of role overload (cannot complete tasks and responsibilities) are different for teleworkers. Low standard deviations describe that the data points are close to the mean, which indicates a close variation of the respondents’ answers. Table 10 below depicts descriptive statistics by teleworker versus non-workers.

Table 9

Role Overload

Participants	N	M	SD
Non-Teleworker	43	2.24	.49
Teleworker	18	2.54	.92

Homogeneity of Variance

The assumption of homogeneity of variance, the fourth ANOVA assumption, was tested with a Levene’s test of homogeneity of variances between the two independent groups, teleworkers and non-teleworkers. The test indicated no violation of this assumption (p = .092), indicating the population variance for the two groups are considered equal. The requirement for assumption four, homogeneity of variance, was met for Research Objective Four.

Test for Normality

The fifth ANOVA assumption, the assumption of normality, was tested. With small samples, normality could be unpredictable, and the results should be interpreted with caution (Statistic Solutions, 2013). Since non-normality is common in small samples, increasing the sample size may result in the data reaching normal distribution (Field, 2013). Even with non-normal distributions, the one-way ANOVA can still provide valid results (Laerd, 2019). In Figure 4, the histogram for role overload depicted a positive skew in the distribution, with a mean of 2.29. This suggests that the data for role overload is not normally distributed and violates the assumption of normality. As with Research Objective Two and Three, the study's small sample size could have been a factor in violating the assumption of normality.

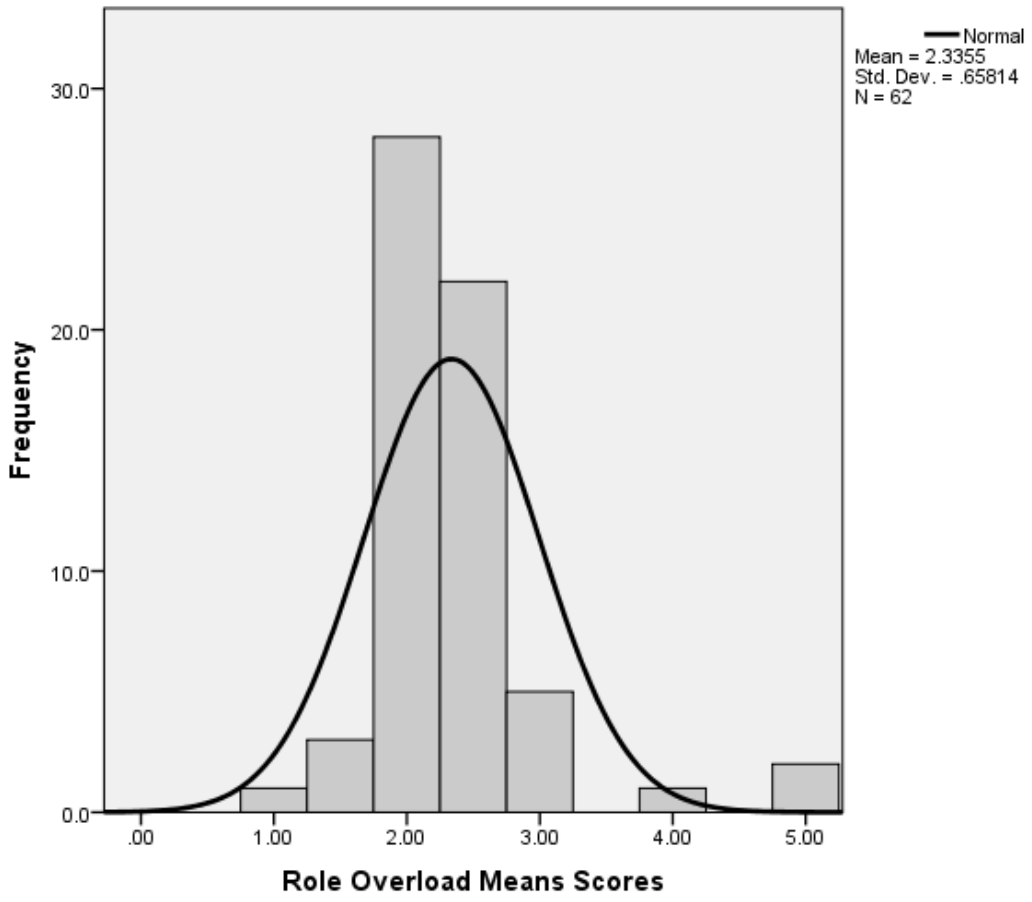

Figure 4. *Histogram depicting the distribution of role overload data*

Outlier Detection

Outliers can distort statistical analyses (Laerd, 2019). Outlier detection for the role overload variable for the ANOVA was tested prior to analysis. Role conflict standardized values ranged from -2.03 to 3.99, presenting range of the participants' responses are -2.03 below the mean and 3.99 above the mean. Similar to RO2 and RO3, cases were outside 3 standard deviations and kept in the analysis since there is no good reason to reject cases outside the standard deviation as invalid (Laerd, 2019).

Role Overload Analysis of Variance

Research Objective Four compared perceived differences of role overload between teleworkers and non-teleworkers. The ANOVA analysis determined statistically significant differences in the work-family conflict scores for teleworkers and non-teleworkers. The researcher compared the dependent variable, role overload, with the independent variables, teleworkers and non-teleworkers, using the ANOVA. The results of the ANOVA were not significant, $F(1, 60) = 2.779$, $p = .101$. No significant mean differences were indicated for role overload between teleworkers ($M = 2.54$, $SD = 0.92$) and non-teleworkers ($M = 2.24$, $SD = 0.49$). No statistically significant difference in the perceptions of role overload exists between teleworkers and non-teleworkers. Teleworkers are just as likely as non-teleworkers to have similar role overload perceptions. Table 10 below depicts the results of the ANOVA.

Table 10

Role Overload Analysis of Variance

Test	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.170	1	1.170	2.779	.101
Within Groups	25.252	60	.421		
Total	26.422	61			

Summary

This quantitative, nonexperimental, causal-comparative research study compared the differences between teleworkers and non-teleworkers' perceptions on work-family conflict, family-work conflict, and role overload. Sixty-one participants volunteered to

participate in an online survey based on a 20-question instrument, the Work-Family Interface Scale, used to measure their perceptions.

The first research objective was addressed by conducting descriptive statistics of the demographic data provided earlier. The remaining three research objectives were addressed by conducting a one-way analysis of variance (ANOVA). Although the teleworker group, when compared with the non-teleworker group, demonstrated higher mean, or average, scores for work-family conflict, family-work conflict, and role overload, these differences were not statistically significant at the 5% level of significance. Therefore, the study's results indicated the perceptions of work-family conflict, family-work conflict, and role overload does not differ between teleworkers and non-teleworkers.

Following this chapter, Chapter 5 is a discussion of this study's findings and how it relates to similar studies detailed in the literature review. A discussion of the study's limitations and recommendations for further research will be provided.

CHAPTER V – FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The four preceding chapters of this research study discussed the need for understanding the influence of telework on work-life balance. Chapter V provides a summary of the results as well as findings, conclusion, and recommendations.

Summary of the Study

The purpose of this quantitative, nonexperimental, causal-comparative study was to compare differences between perceived work-family conflict, family-work conflict, and role overload for teleworkers and non-teleworkers. The online survey instrument collected the perceived variables of work-family conflict, family-work conflict, and role overload. The population for this study consisted of employees working in a global educational non-profit organization in a Southeastern United States city. The study achieved its purpose through four research objectives:

RO1 - Describe the demographics of the study's participants: marital status, caring for dependents, and hours worked per week via teleworking.

RO2 - Compare perceived differences of work-family conflict (work interfering with family) between teleworkers and non-teleworkers.

RO3 - Compare perceived differences of family-work conflict (family interfering with work) between teleworkers and non-teleworkers.

RO4 - Compare perceived differences of role overload (cannot complete tasks and responsibilities) between teleworkers and non-teleworkers.

The following section includes findings based on the results presented in Chapter IV. The conclusions are based on the researcher's interpretation of participant responses from the collected survey data, descriptive statistics, and results from the ANOVA analyses.

Subsequently, recommendations are made based on those conclusions. Limitations, implications of the study, and recommendations for future research are presented.

Findings

The results reported in Chapter IV yielded the findings, conclusions, and recommendations presented below.

Finding 1

Perceptions of work-family conflict, family-work-conflict, or role overload does not differ for teleworkers and non-teleworkers.

Conclusion. Evidence supported by the literature (Hoeven et at., 2015; Raiborn et al., 2009; Torraco, 2005) found teleworkers to have significantly lower work-life balance challenges, but this was not a result of this current study. The outcome of this study contradicts the literature on telework's influence on work-life balance. As discussed by Sullivan and Lewis (2001), a significant benefit of telework is better work-life balance. Respondents were almost identical in terms of perceptions of work-family conflict, family-work conflict, and role overload. Telework did not cause differences in work-life balance for this study's population.

Recommendation. Employees' perceptions of conflict and overload did not differ for teleworkers and non-teleworkers. The outcome does not mean organizations shouldn't still consider offering telework arrangements for employees. Based on the literature, teleworkers are more able to enjoy life and pursue career goals with less conflict between work and life (Hill, 2006; Golden et al, 2006; Raiborn & Butler, 2009). Organizations with telework policies allow for employees to work in a flexible environment adjusting schedules to meet demands of work and life. Research suggests the importance of

valuing an employee's non-work life exemplifies a family-supportive organization (Fiksenbaum, 2014). Additionally, organizations that implement work-life benefits such as telework often find employees have higher job satisfaction, lower turnover rates, and increased productivity (Stout et al., 2013). Even though participants' perceptions of work-family conflict, family-work conflict, and role overload were similar for teleworkers and non-teleworkers, other benefits of telework (e.g., job satisfaction, retention, and efficiency) go beyond the scope of this study.

Finding 2

Work-family conflict occurs more frequently than family-work conflict for all employees in the current study.

Conclusion. Research supports this finding as several studies (e.g. Eagle, Miles and Icenogle, 1997; Frone, 2000; Grandey and Cropazano, 1999) established work-family conflict is more common to take place than family-work conflict. Participant responses illustrated higher work-family conflict scores versus family-work conflict scores. Greenhaus and Parasuraman (1999) argue that due to the essential role work plays in our lives and the most people are financially dependent on their employers as their sole source of income, it makes sense that work-family conflict is likely to be the dominant form of conflict. With the negative impacts of work-family conflict, e.g. marital strife, family difficulties, and depression, this finding should be a concern for employees.

Recommendation. Since work in more likely to conflict with family, setting work boundaries to make time for family commitments and defining roles more clearly within the family unit could assist with the conflicts. In this way, individuals could more effectively meet familial expectations, which has been shown to reduce stress, anxiety,

and depression that accompanies feelings of failure (Allen et al. 2001; Duxbury and Higgins, 2012; Ruth, 2011). Similarly, employees could find ways to alleviate family stressors prior to manifestations within an organizational role in order to work more effectively while operating as an employee. Relative to the research studies on work-family conflict, fewer studies have focused on family-work conflict. Additional research is needed to examine family-work conflict.

Finding 3

Role overload was experienced by the majority of study participants, both teleworkers and non-teleworkers, in the current study.

Conclusion. The researcher concluded that overall participants scores for role overload were higher than the two other study variables. The outcome of this result in the study was not expected based on the literature. This finding is incongruent with similar research, e.g., previous research completed by both Gordon et al. (2012) and Karabik et al. (2011). Both studies featured results indicating role overload was likely to increase among teleworkers when compared to non-teleworker peers. Additionally, results of this study are inconsistent with findings of an earlier study completed by Yi-Lieo (2019) who found role overload was associated with job and family stressors as a precursor to work-life imbalance.

Recommendation. Employees could set boundaries with both space and more time allotted for completing tasks related to specific roles. For example, persons who participate in telework should establish space or time dedicated only for work, with separate spaces for time spent with family. In this way, individuals can become adept at psychologically associating work stressors with that defined space or period of time.

Likewise, space and time set aside for family are associated with familial stressors free from the interoperation of work stressors.

Organizations could be more intentional in helping employees define their respective roles both within the family group and respective organization. Examples could be to allow access to telework arrangements for those in the greatest need (e.g. parents of young children or someone taking care of their aging parents) or to focus on their employee's productivity instead of on the number of hours an employee is at their desk at work, thus having more time for their family. Both teleworkers and non-teleworkers could possibly avoid complications facilitated by assuming too much responsibility within either role. Additionally, employees could instill boundaries within their workdays to help define work and family time. In this way, employees are more likely to reduce stressors from work or family. With a reduction in stressors from each sphere, work and family stressors are less likely to interoperate and create increases in work-life imbalance.

Additional recommendations include increased training for employees who participate in telework to learn how to set boundaries and reinforce the dual roles of organizational employee and family member. Through training, employees may be able to learn helpful strategies to overcome burnout and increase productivity while simultaneously becoming more involved family members and experiencing less stress due to familial duties. In this way, individuals can more effectively meet familial and organizational expectations which have been shown to reduce stress, anxiety, and depression that accompany feelings of failure (Allen et al. 2001).

Limitations

Limitations are matters that influence the study but cannot be controlled by the researcher. One limitation is the use of self-response tools within data collection. When self-report tools are utilized, many times participants become susceptible to a phenomenon known as social desirability bias (Grimm, 2010). When social desirability occurs, respondents are more likely to answer in such a way that is socially acceptable instead of truthfully, which may bias results (Grimm, 2010).

The current study is limited due to the sampling of teleworkers and non-teleworkers in a single organization based in the Southeastern region of the United States. The researcher chose this organization due to physical proximity and firsthand knowledge of the staff, faculty, and students. However, as all participants were from a single locality, results may not be generalizable outside of this population.

Finally, this study is limited by a small sample size. Only 68 persons adequately completed the data collection surveys. Data collected from surveys may not adequately represent the views of other teleworkers or non-teleworkers. Census data collection cannot be generalized to other populations.

Recommendations for Future Research

Based on the results of this study, multiple opportunities for future research exist. First, future research could continue to find ways to measure work-family conflict, family-work conflict, and role-overload for teleworkers and non-teleworkers. In this way, future research may be able to better understand the interoperation of work-family conflict, family-work conflict, and role-overload.

To provide a greater generalization of results of this study, future research could replicate this study at other organizations or within larger organizations that utilize both teleworkers and non-teleworkers. Moreover, future researchers could expand a replicated version of this study to include persons who participate in both telework and non-teleworker in the private and public sectors for purposes of comparison.

Another avenue for future research includes the need to better understand opinions regarding the efficacy of telework practices on reducing work-family conflict, family-work conflict, and role-overload. Thus, future research should replicate this study using a mixed-methods approach. Through the utilization of a mixed-methods approach, a more robust understanding of the relationship between telework and work-family conflict, family-work conflict, and role-overload can be ascertained.

A follow-up study could explore additional variances to analyze other factors that may influence their work-life balance. Future researchers could consider participant gender and job type as potential factors in perceived work-family, family-work conflict, and role overload. For example, would females report higher/less conflict than males, and would managers perceive higher/less conflict than non-managers?

One final recommendation is that future researchers utilize a larger sample size when replicating this study. Through the use of a larger sample, it would be possible to gather data that might reflect a broader composition of opinion, which would aid in the understanding of telework and work-family conflict, family-work conflict, and role-overload. Moreover, when this study is completed with a larger sample size, generalization of results may improve.

Summary

The purpose of this quantitative, nonexperimental, causal-comparative research study was to compare differences between perceived work-family conflict, family-work conflict, and role overload for teleworkers and non-teleworkers. Descriptive statistics were used to ascertain demographic information about participants, while ANOVA was utilized to examine the relationship between work-family conflict, family-work conflict, and role overload for teleworkers and non-teleworkers. Results of ANOVA indicated no statistical significance between the perception of work-family conflict, family-work conflict, and role-overload and teleworkers and non-teleworkers.

Recommendations from this data are based on recommendations found in earlier research studies that are still pertinent to reducing the prevalence of work-family conflict, family-work conflict, and role overload. Recommendations include setting boundaries regarding space and more time allotted for completing tasks related to specific roles. For example, persons who participate in telework should establish space or time used for work only, separate spaces used for time spent with family. In this way, individuals become adept at psychologically associating work stressors with that defined space or period of time (Allen et al., 2001).

To address limitations with generalizability and validity which were present within this study, future research should focus on the development of more precise measurement tools in order to better determine nuanced opinion regarding work-family conflict, family-work conflict, and role overload. Future researchers may also benefit from replicating this study with a larger sample size and a more inclusive sample to better understand the perceptions of employees outside this population of interest. With the

development of these ideas, results of future studies may aid in a more comprehensive understanding of how work-family conflict, family-work conflict, and role overload affect both telework and non-telework personnel.

If organizations want to create a healthy work environment for its employees in the frenzied world of juggling work and life, proactive human capital strategies need to be explored. This study highlights the overwhelming situation workers face with work-life imbalance. Employers implementing telework, flexible work design, and other work-life balance programs to assist employees to find a balance of work and life can benefit from having a less stressed and more productive member of their organization. The findings of this study are a "call to action" for organizations to understand the conflicts their employers are dealing with on a daily basis, to improve their professional human capital practices and policies, and to foster a positive workplace culture by helping their employees achieve work-life balance.

APPENDIX A – IRB Approval

Office *of*
Research Integrity

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

118 COLLEGE DRIVE #5125 • HATTIESBURG, MS | 601.266.6576 | USM.EDU/ORI

NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident template on Cayuse IRB.
- The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.

PROTOCOL NUMBER: IRB-19-262
PROJECT TITLE: Influence of Telework on Work-Like Balance
SCHOOL/PROGRAM: School of IAPD
RESEARCHER(S): Christian Lagarde, Cynthia Gaudet

IRB COMMITTEE ACTION: Exempt
CATEGORY: Exempt

Category 2.(ii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording).
Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation.

APPROVED STARTING: May 17, 2019

Donald Sacco Jr.

Donald Sacco, Ph.D.

Institutional Review Board Chairperson

APPENDIX B – W-FIS Scale and Survey

Demographic Questionnaire

Marital Status:

__ Single

__ Married

Identification of Dependents:

__ Dependents

__ No Dependents

Does your organization classify you as a teleworker?

__ Yes

__ No

If yes:

In a typical work week, how many hours do you telework?

__ 0

__ 1-10

__ 11-20

__ 21-30

__ 31-40

__ 40+

Work-Family Interface Scale

Directions:

Please indicate the extent you agree or disagree for each statement below using the 1-5 rating scale.

1 = none of the time

2 = a little of the time

3 = some of the time

4 = most of the time

5 = all of the time

1. __ My work keeps me from doing my best for my family.
2. __ Because of my work, I feel that I am letting my family down.
3. __ My family suffers because of my work.
4. __ My job keeps me from spending as much time with my family as I would like.
5. __ I can get everything done and still have time for myself.
6. __ There is too much for me to do in the time I have to do it.
7. __ Problems at work make it hard for me to relax at home.
8. __ I have time to relax and unwind.
9. __ It's hard for me to have fun with my family because I worry about problems at work.
10. __ Problems at home make it hard for me to work.
11. __ My work suffers because I need to take care of my family.
12. __ If it weren't for my family duties, I could do a better job at work.
13. __ I have the time to take on new activities.
14. __ Family problems make it difficult for me to concentrate on my work.
15. __ Problems at home keep me from doing a good job at work If things go wrong at work.
16. __ I am hard to get along with at home.
17. __ I miss out on important family events because I have to work.
18. __ My family duties keep me from spending as much time at work as I would like.
19. __ I find that I am in a bad mood at work because of things happening at home.
20. __ If it weren't for my family, I would be able to spend more time at work.

APPENDIX C – Permission Letter for W-FIS

UNIVERSITY OF MARYLAND

2387 School of Public Health Bldg

College Park, Maryland 20742-2611

301.405.2463 TEL 301.314.9167 FAX

SCHOOL OF PUBLIC HEALTH

Department of Behavioral and Community Health

October 26, 2018

RE: Work-Family Interface Scale

Dear Mr. Lagarde,

I am writing to give you my full permission to use the Work-Family Interface Scale in your research. There is no fee associated with the use of this instrument. Also, because the instrument is aging, if some words seem to not be current, you have my permission to update the language.

I wish you the very best in your work. Should you have any questions, please contact me at bcurbow@umd.edu.

Sincerely,

Barbara A. Curbow

Barbara A. Curbow, PhD

Professor and Chair, Behavioral and Community Health

APPENDIX D – Permission for Access to Selected Population

Center for Excellence
1625 Eastover Drive
Jackson, MS 39211
www.ptk.org

PHI THETA KAPPA
HONOR SOCIETY

Office of the President & CEO
p 601.987.5498
f 601.987.5511
lynn.tincher-ladner@ptk.org

November 30, 2016

Christian Lagarde
1 Dupont Circle, Suite 410
Washington, DC 20036

Dear Christian:

After our interview and reviewing your proposed study on Telework and its Impact on Work-Life Balance, I am pleased on behalf of the Society to grant you permission to conduct research with Phi Theta Kappa Honor Society.

As we discussed, you will not have access to any proprietary personnel information on our employees. My understanding is that you will make all efforts to minimize confidentiality risks of our employees.

Thank you for your interest in Phi Theta Kappa, and we look forward to assisting you with your dissertation study.

Sincerely,

Lynn Tincher-Ladner, Ph.D.
President & CEO

APPENDIX E – Informed Consent

Institutional Review Board

STANDARD (ONLINE) INFORMED CONSENT

STANDARD (ONLINE) INFORMED CONSENT PROCEDURES
The Project Information and Research Description sections of this form should be completed by the Principal Investigator before submitting this form for IRB approval. Use what is given in the research description and consent sections below when constructing research instrument online. Last Edited March 5th, 2019

Today's date: 4/21/2019		
Project Information		
Project Title: DETERMINING WORK-LIFE BALANCE		
Principal Investigator: Christian Lagarde	Phone: 985-502-7714	Email: clagarde@usm.edu
College: University of Southern Mississippi	School and Program: School of Interdisplinary Studies, Human Capital Development	
RESEARCH DESCRIPTION		
1. **Purpose**: You are invited to participate in a study is to determine work-life balance identifying perceptions of work-family conflict, family-work conflict, and role overload. We ask that you read this form before agreeing to be in the study. The researcher conducting this study is Christian Lagarde, Doctoral student in Human Capital Development, who is being		

supervised by Dr. Cyndi Gaudet, Department Chair of Human Capital Development for the University of Southern Mississippi.

2. **Description of Study:**

The purpose of this study is to determine work-life balance identifying perceptions of work-family conflict, family-work conflict, and role overload. You will receive a $10 Amazon gift card in compensation for your participation, as well as be entered into a drawing for a $25 Amazon gift card. Participants are asking to answer each question honesly, thoughfully, and carefully. The survey should take less than 20 minutes to complete.

3. **Benefits:**

The benefit of the study is that you will receive $10 Amazon gift card and entered into a drawing for $25 Amazon gift card for your time completing the survey. You may also find that responding to questions about your perceptions may increase you self-awareness.

4. **Risks:**

No known risks are associated in the participation of this study.

5. **Confidentiality:**

Your name and survey answers will remain completely confidential. Information obtained during this survey will that could identify you as a participant in the study will not be divulged, published, or otherwise made known to the public. Survey responses will be reported in aggregate.

6. **Alternative Procedures:**

Participation in this study is voluntary.

7. **Participant's Assurance:**

This project has been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations.

Any questions or concerns about rights as a research participant should be directed to the Chair of the IRB at 601-266-5997. Participation in this project is completely voluntary, and participants may withdraw from this study at any time without penalty, prejudice, or loss of benefits.

Any questions about the research should be directed to the Principal Investigator using the contact information provided in Project Information Section above.

CONSENT TO PARTICIPATE IN RESEARCH

Consent is hereby given to participate in this research project. All procedures and/or investigations to be followed and their purpose, including any experimental procedures, were explained to me. Information was given about all benefits, risks, inconveniences, or discomforts that might be expected.

The opportunity to ask questions regarding the research and procedures was given. Participation in the project is completely voluntary, and participants may withdraw at any time without penalty, prejudice, or loss of benefits. Unless described above and agreed to by the participant, all personal information is strictly confidential, and no names will be disclosed. Any new information that develops during the project will be provided if that information may affect the willingness to continue participation in the project.

Questions concerning the research, at any time during or after the project, should be directed to the Principal Investigator with the contact information provided above. This project and this consent form have been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5125, Hattiesburg, MS 39406-0001, 601-266-5997.

Include the following information only if applicable. Otherwise delete this entire paragraph before submitting for IRB approval: The University of Southern Mississippi has no mechanism to provide compensation for participants who may incur injuries as a result of participation in research projects. However, efforts will be made to make available the facilities and professional skills at the University. Participants may incur charges as a result of treatment related to research injuries. Information regarding treatment or the absence of treatment has been given above.

CONSENT TO PARTICIPATE IN RESEARCH

By clicking the box below, consent is hereby given to participate in this research project. All procedures and/or investigations to be followed and their purposes, including any experimental procedures, were explained to me. Information was given about all benefits, risks, inconveniences, or discomforts that might be expected.

☐ Check this box if you consent to this study, and then click “Continue.” (Clicking “Continue” will not allow you to advance to the study, unless you have checked the box indicating your consent.)

If you do not wish to consent to this study, please close your browser window at this time.

APPENDIX F – Survey Email to Participants

Good morning. My name is Christian Lagarde, a Ph.D. candidate in the Department of Human Capital Development at the University of Southern Mississippi. I am conducting research on work-life balance. Your participation in this study is crucial and greatly appreciated for understanding work-life balance issues in the workplace. The survey should take about ten minutes of your time.

For your participation in the survey, you can voluntarily enter a drawing for one of four $25 Visa gift cards. At the end of the survey, please enter your preferred email address at the end of the survey. Entering the drawing is optional and the selection of winners will be made in the presence of a witness.

Before you begin the survey, please review and complete the Informed Consent form. To open the survey, please click this link: www.qualtrics.com/xxxx

The confidentiality of your survey data is of the utmost importance to me. No personally identifiable information or individual survey answers will be shared with anyone other than me, the researcher. This study is collecting data for the purpose of studying two groups, rather than individually, therefore the results will be merged and analyzed as a group. All survey answers will be stored in a password protected electronic format.

Feel free to contact me via email at Christian.Lagarde@usm.edu if you have any questions or concerns regarding this study.

Sincerely,

Christian Lagarde

Christian.Lagarde@usm.edu

APPENDIX G – Follow Up Email (Reminder after one week)

Dear XXX,

If you have not completed the survey, please complete the survey this week. As a reference, here is the link to the survey: www.qualtrics.com/xxxx. Thank you again for participating in the research study.

Additionally, if you are entering the drawing for the four $25 Visa gift cards, please remember to enter your chosen email in the drawing section at the end of the survey.

Sincerely,

Christian Lagarde

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