

CALIFORNIA SCHOOL OF PROFESSIONAL PSYCHOLOGY
AT
ALLIANT INTERNATIONAL UNIVERSITY
LOS ANGELES

A Quasi-Experimental Study on Flexible Work Arrangements and Job Satisfaction: The
Moderational and Mediational Roles of Work Social Support, Work-Family Conflict and
Work-Life Balance

A dissertation proposal submitted in partial fulfillment
of the requirements for the degree Doctor of
Philosophy in Industrial-Organizational Psychology

by

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2012



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The dissertation of Melissa Hosboyar, directed and approved
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Faculty of the California School of Professional Psychology
in partial fulfillment of the requirement for the Degree of

DOCTOR OF PHILOSOPHY IN INDUSTRIAL-ORGANIZATIONAL PSYCHOLOGY

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DEDICATION

I dedicate this dissertation to my family: my mom, my dad, and my best friend and sister, Lisa, for their continuous love and support.



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ACKNOWLEDGMENTS

I would not have been able to complete this dissertation without the help and support of the following people. First, I would like to thank my committee members, Dr. Michael Orth and Dr. Denise Lopez, for their guidance in completing my dissertation. I would especially like to thank my committee chair, Dr. Nurcan Ensari, for her motivation, dedication and intellectual counsel. The countless number of hours she spent meeting, emailing, and editing was invaluable in helping me complete this dissertation.

I would also like to thank my colleagues at Southern California Edison for their continued support in completing my doctoral program. Especially, my manager for allowing me the flexibility I needed to work on my dissertation.

Last, I would like to acknowledge and thank my friends who have always been there for me through the good and the bad. Specifically, I owe thanks to a special friend who opened up his house and office doors for me to work on my dissertation in peace.

ABSTRACT OF THE DISSERTATION

Flexible work arrangements have become a popular concept in many companies and research endeavors because of their connection to positive employee and work outcomes. The present study examined the effect of flexible work arrangements (results only work environment [ROWE] and telecommuting) on job satisfaction. This study also examined the moderational role of work social support, and the mediational role of work-family conflict and work-life balance on this effect. A quasi-experimental design was used to collect data from 110 employees of a utility company. These employees were assigned to one of the three experimental conditions (ROWE, telecommuting, or control), and instructed to work in the assigned condition for 3 months. The participants completed a web-based survey including the key dependent measures (job satisfaction, work social support, work-family conflict, work-life balance) before and after the assignment. The results indicated that employees in the ROWE group experienced less work-family conflict and greater work-life balance, and reported greater job satisfaction. ROWE produced greater job satisfaction for the employees who had low work social support, as compared to those in the telecommuting group. Furthermore, work-life balance mediated the relationship between flexible work arrangements and work social support. These results suggest that flexibility at work, especially ROWE, can offer new opportunities for employees to reduce conflict between work and family, and find work-life balance.

Keywords: flexible work arrangements, work-life balance, work-family conflict, job satisfaction, work social support, results only work environment, telecommuting

CHAPTER I

Introduction

The importance of work-family balance has drastically increased over the last 40 years. Today's workforce contains more workers with extensive caregiving responsibilities for children and elderly relatives than ever before. Families are increasingly relying on more than one earner to make ends meet. At the same time, organizations are now demanding more time from employees, as jobs have become more hectic and are providing less in terms of job security, wage growth, and benefits (Families and Work Institute, 2007; Thomas & Ganster, 1995). Past studies found that 44% of employees felt overworked in the previous month, and about half of employed Americans reported some conflict between work life and personal or family life (Galinsky et al., 2005). Organizations are also challenged to encourage early-career employees to remain with the organization (Pitt-Catsouphes, Smyer, Matz-Costa, & Kane, 2007). As the number of dual-earner couples and single parent families grow, people are increasingly tasked with actively engaging in both work and family roles. Consequently, strain arises from conflicting roles within work and family (Byron, 2005; Gupta & Jenkins, 1985). Research has also shown that women experience more role conflict than men due to the necessity of balancing work and family demands (Thomas & Ganster, 1995).

In response to mass demand, workplace flexibility, which is defined as workers' ability to make choices influencing when, where, and for how long they engage in work-related tasks, has become a popular term in many companies and research endeavors (Hill, Grzywacz, et al., 2008). Flexibility can mean different things to different people,

but the basic concept of flexibility relates to an employee and an employer making changes about when, where, and how a person will work to better meet individual and business needs (Aequus Partners, 2010). The Emerging Workforce Study of 2009 claims that 86% of workers say work-life balance and fulfillment are top career priorities, while only 12% of employers believe these to be crucial to hiring and retention (Spherion, 2009). Interestingly, employees of all career stages, early to late, indicate that they want to have access to flexible work options (Pitt-Catsouphes et al., 2007).

Flexible work arrangements include flextime, reduced-hours schedules, and telecommuting (Galinsky et al., 2005). While the concept remains the same, it is the type of flexibility that makes a difference (Aequus Partners, 2010). Telecommuting is defined as using telecommunication equipment at home and transferring work between home and office (Bacon, 1989). Through telecommuting, work and life are being integrated as work is brought into the home office (Coates, Jarratt, & Mahaffie, 1990). In Boston College's Center of Aging and Work, 2007 National Study Report, when employees were asked about the extent to which their organizations had implemented flexible work options, 7.6% stated that they had not at all established options for employees to work in a flexible manner, 33.8% reported that these options had been established to a limited extent, 36.2% stated they were available to a moderate extent, and 22.4% indicated flexible work options were available to a great extent (Pitt-Catsouphes et al., 2007).

Given the challenges of work-family conflict, in an attempt to enhance employees' ability to meet their personal, family, occupational, and community needs, thereby increasing organizational efficiency, effectiveness, and productivity, organizations have started to turn their attention to work flexibility (Hill, Grzywacz, et

al., 2008). The absence of work flexibility leads to a lack of work-family integration and increases work-family conflict. Work-family conflict (WFC) is a form of inter-role conflict in which role pressures from the work and family domains are mutually incompatible in some respects (Greenhaus & Beutell, 1985). When individuals struggle to achieve balance, they make tradeoffs in order to minimize conflict and attain a balanced lifestyle (Aryee & Luk, 1996). Typically, people have juggled these tradeoffs by limiting involvement in work or family in order to achieve balance (Lambert, 1990). Existing research demonstrates that such conflicts and overloads related to improper work-life balance have consequences for health and well-being, family life, community engagement, and job performance (Frone, Russell, & Cooper, 1997). WFC negatively affects mental health, potentially causing depression, and is associated with lower job satisfaction and organizational commitment, higher turnover intentions, and higher burnout and job-related stress (Allen, Herst, Bruck & Sutton, 2000).

Work-family balance impacts many job outcomes, such as job satisfaction. Luthans (2005) defines job satisfaction as “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experience” (pp. 211-212). The Emerging Workforce Study of 2009 found that workers want and need work-life balance options, and providing such programs directly increases job satisfaction (Spherion, 2009). A national survey of employees found that those with access to flexible work options reported greater job satisfaction and engagement, better mental health, and less WFC. Their employers also benefited in that employees reported greater loyalty to their employers (Brown, Wong, & McNamara, 2009). In a random sample of 215 nurses and 430 civil engineers, it was found that in both groups WFC had a strong negative effect on

job satisfaction (Bacharach, Bamberger, & Conley, 1991). It is argued that the strain of balancing work and family leads to job dissatisfaction and eventually absenteeism (Goff, Mount, & Jamison, 1990). In another study, the organizational policies affecting 398 health professionals were examined in 45 acute-care facilities (Thomas & Ganster, 1995). The results suggested that supervisory support had a direct effect on job satisfaction; that is, the more support employees received from their leaders, the more positive their job experience was. In conclusion, family supportive work policies produce benefits to employees in terms of their well-being.

Social support has also been identified as a coping mechanism for WFC (Burke, 1988; Carlson & Perrewé, 1999). Especially among women, giving and receiving social support has been viewed as the main coping mechanism for WFC (Banyard & Graham-Bermann, 1993). Social support reduces one's perceived level of WFC (Carlson & Perrewé, 1999), and lack of social support is related to higher levels of WFC (Burke, 1988). There are two main types of social support: work and non-work. Work social support (WSS) refers to flexible work arrangements, management, and team support (Pitt-Catsouphes, Matz-Costa, & Besen, 2009), while non-work social support refers to sources outside the workplace. Having work social support greatly affects an employee's ability to balance work and family responsibilities (Pitt-Catsouphes et al., 2009). Having non-work social support from supportive others at home or from friends is another factor that can help reduce WFC (Greenhaus & Beutell, 1985). In a Sloan Center study of 2,200 employees, when compared to the other age or generational groups, younger employees were the least likely to indicate that their supervisors supported the use of flexible work options, making it difficult for the younger employees to balance their work and life

responsibilities (Pitt-Catsouphes et al., 2009). Taken together, job satisfaction and WFC may both be affected by the level of social support that employees receive.

The current study aims to make an important contribution to the literature by examining the effects of different types of flexible work arrangements on job satisfaction, as well as studying the moderational and mediational roles of work social support, work-life balance, and work-family conflict. Based on the outcomes of this study, organizations that are looking to attract, retain, and engage employees may expand their offerings in order to maintain a competitive advantage. In addition, this study aims to bring quantitative rigor to past case studies, survey studies, and qualitative reviews that lacked empirical evidence. The results of this study may reveal new ways to improve work-life balance, and expand the current literature by providing empirical data on the impact of different types of flexible work arrangements on work outcomes. Lastly, individuals and organizations can use these results in deciding which kinds of flexible work arrangements are most useful for their organization.

The following chapter presents a literature review on the key variables, namely flexible work arrangements (results only work environment [ROWE] and telecommuting), WFC, job satisfaction, and work social support. The literature review is followed by a chapter outlining the present study, its specific hypotheses, and the rationale of these hypotheses. This is followed by a chapter describing the methodology of the study, which includes participants, measures, and procedure.

The study utilizes archival data from a California-based company that implemented a flexible work arrangements program to assess the effects of different types of flexible work arrangements on job satisfaction. In this program, each department

was assigned to participate in one of the three treatment groups (ROWE, telecommuting, or control). The employees were then asked to complete a survey that included the dependent measures packet and demographics questionnaire. The details of the procedure can be found in Chapter IV.

Definition of Terms

- *Job Satisfaction* – A pleasurable or positive emotional state resulting from the appraisal of one's job or job experience (Luthans, 2005).
- *Results Only Work Environment (ROWE)* – A workplace environment subscribing to the philosophy that employees can do whatever they want, whenever they want, as long as the work gets done (Ressler & Thompson, 2008).
- *Telecommuting* – Using telecommunication equipment at home and transferring work between home and office (Bacon, 1989).
- *Work-Family Balance (WFB)* – The process of engaging in work and family roles simultaneously in order to produce psychological and physical health (Greenhaus, Collins, & Shaw, 2003).
- *Work-Family Conflict (WFC)* – A form of inter-role conflict in which role pressures from the work and family domains are mutually incompatible in some respect (Greenhaus & Beutell, 1985).
- *Work Social Support (WSS)* – An interpersonal transaction that involves emotional concern, instrumental aid, information, or appraisal (House, as cited in Carlson & Perrewé, 1999).

- *Workplace Flexibility* – Workers’ ability to make choices influencing when, where, and for how long they engage in work-related tasks (Hill, Grzywacz, et al., 2008).

Research Questions

This study focused on the following research questions:

1. Do flexible work arrangements (results only work environment vs. telecommuting vs. control group) result in greater improvement in job satisfaction?
2. Do flexible work arrangements (results only work environment vs. telecommuting vs. control group) result in less work-family conflict?
3. Does work social support moderate the relationship between flexible work arrangements and job satisfaction?
4. Does work-family conflict mediate the relationship between flexible work arrangements and job satisfaction?

CHAPTER II

Literature Review

The purpose of this chapter is to review the literature on flexible work arrangements including telecommuting and ROWE, job satisfaction, WFC, and work social support. The literature review begins with an overview of the definition of flexible work arrangements and presents existing research on topics related to workplace flexibility. Different types of workplace flexibility are introduced, focusing specifically on telecommuting and ROWE. The last part of the chapter focuses on literature related to job satisfaction, WFC, and work social support.

Flexible Work Arrangements

As long-hour cultures are increasing in the workforce, employees are experiencing increasing amounts of work life stress, endangering the achievement of long-term organizational goals. In addition, the negative impact of overwork and stress is also felt in the private lives of employees whose quality of life becomes eroded by the increasing demands of their organization. In debating these dilemmas for employees, workplace flexibility offers one way to move forward and address work-life balance issues (Musson & Tietze, 2004).

Workplace flexibility has become the buzzword of today's debates about globalization, economic competitiveness, and the 24 hour a day/7 day a week society. According to Hill, Grzywacz, et al. (2008), workplace flexibility allows workers to make choices about when, where, and for how long they engage in work-related tasks. Given this definition, employees are able to choose how to arrange core aspects of everyday work life, which promotes optimal outcomes in the individual's home and family,

workplace, and community. Workplace flexibility allows employees choices in the arrangement of their daily work hours as well as where work-related tasks are completed.

Initially, flexible work arrangements were designed to ameliorate mothers' stress and burnout in order to retain women in the workforce and reduce women's WFC, enabling them to be more effective on the job. Mothers consistently report that if they are less stressed, they are more likely to stay with their employer after giving birth, and will be more satisfied on the job if flexible work arrangements are available (Hill, Jackson, & Martinengo, 2006; Jacob, Bond, Galinsky, & Hill, 2008). However, since the 1980s, employers have recognized that all employees, not just mothers of young children, have lives outside of work. Actually, since the late 1970s, there has been a growing trend in the number of alternative work schedule programs being implemented in U.S. organizations (Olmsted & Smith, 1989). For example, in 1978, the Federal Employees' Flexible and Compressed Work Schedule Act established a government-wide 3-year experimental program that allowed federal agencies to implement alternative work schedules, which was made a public law in 1985 (U.S. Office of Personnel Management, 1992). In 1994, President Clinton directed government agencies to develop comprehensive work and family programs that utilize family-friendly work arrangements such as alternative work schedules, allowing employees to balance work and family responsibilities (U.S. Office of Personnel Management, 1995). It should be noted that most industrialized countries, especially those in Europe, offer significant legal protections for time and benefits related to taking care of family obligations, such as paid vacation, paid sick leave, paid maternity/paternity benefits, and paid health care. Western European countries, such as France, Germany, Belgium, Denmark, and others, have

extensive systems of government-provided or government mandated family-friendly policies, with generous parental leave and publicly financed childcare covering 70% of children from the age of three through the time they are able to attend public school (Blades & Rowe-Finkbeiner, 2006). Workplace flexibility is now seen as an integral work-life strategy to meet the changing personal needs of both men and women during all stages of life across the globe (Hill et al., 2006).

The goal of workplace flexibility from the worker's perspective is to enhance his/her ability to meet all of his/her personal, family, occupational, and community needs. Consequently, the organization will indirectly benefit from increased efficiency, enhanced effectiveness, and greater productivity. In this case, meeting employees' needs is considered an essential means by which organizational goals can be achieved (Hill, Grzywacz, et al., 2008). This interchange is consistent with social exchange theory, which is concerned with the obligations that are generated through a series of transactions between parties (Emerson, 1976). Put simply, an individual who receives some form of benefit is under an obligation to the supplier of that benefit. To discharge this obligation, he/she must in turn provide some form of benefit to the supplier of the original benefit (Kelliher & Anderson, 2010). In this case, an employee who is given the option of flexibility will feel obligated toward his/her employer, and in turn work harder. Attempts to balance conflicting aspects of one's life are expressed in the term *work-life balance*, which refers to organizational policies such as leave arrangements, variations of flextime, and modes of telework, including home-based telecommuting (Musson & Tietze, 2004).

Many companies are introducing workplace flexibility initiatives to attract, motivate, and retain key talent (Hill, Grzywacz, et al., 2008). Organizations that support

flexible work arrangements enhance employees' well-being and productivity through behavioral self-regulation, which refers to giving employees choice and freedom to engage in desired behaviors (Ryan & Deci, 2000). To elaborate, this means that when employees have choice and freedom, they will be more inclined to work harder. In a survey, 74% of respondents in the Washington, D.C. area perceived alternative work schedules as beneficial to themselves, their employers, or both (McC Campbell, 1996). Sixty-five percent of respondents indicated that alternative work schedules increased morale and productivity. Flexibility is one of the most powerful drivers of employee retention and engagement today (Lingle, 2005). Within a sample of respondents that were rated as "high performers," flexibility ranked second only to compensation among 16 factors in their decision to stay with their company (Rogers, 1992). Flexibility is empirically linked to higher levels of productivity, resilience, and shareholder value (Lingle, 2005). Most managers perceive the use of flexibility as a strategic business practice, as opposed to an employee benefit (Swanberg, James, & McKechnie, 2008).

Workplace flexibility is a vast, complex notion that is simple to grasp in principle, but not always as easy to implement as it could be (WorldatWork, 2008). Achieving workplace flexibility in an organization is potentially the most difficult task the work-life professional can undertake, and success often requires an organization to reinvent its culture (Lingle, 2005). A survey of 474 employees of an accounting division of a large multinational corporation provided empirical research and anecdotal evidence suggesting that workplace flexibility policies have positive effects on both the employee and the organization (Goodale & Aargard, 1975). Some of the data pointed to reduction in absenteeism as benefiting the employer, and positive job attitudes as benefiting the

employee. In a more recent study of 6,451 International Business Machines (IBM) employees, flexible work arrangements were reported to benefit both individuals and businesses. As a personal benefit, there was a decreased percentage of employees with work-family difficulty, and as an employer benefit, employees with perceived flexibility actually worked longer hours (Hill, Hawkins, Ferris, & Weitzman, 2001). Workplace flexibility is one initiative that requires no specific fiscal investment, while simultaneously creating higher levels of attraction, retention, engagement, productivity, and wellness (WorldatWork, 2008).

Types of Flexible Work Arrangements

Different types of flexible work arrangements are currently used in organizations. This study will focus on two main types: *telecommuting* and *ROWE*, both of which are widely used by organizations today.

Telecommuting. Many employees choose one particular workplace flexibility option, telework or telecommuting, in order to achieve a better work-home life balance (Hunton, 2005). The term *telecommuting* was coined by Jack Nilles, an aerospace engineer, more than a quarter of a century ago (Mokhtarian, Salomon, & Choo, 2005). Telework allows for work to be conducted remotely, including in the home of the teleworker for the entire workday (Musson & Tietze, 2004). Both employers and employees have given teleworking a fair amount of attention in recent years both domestically and internationally. The idea of distance working, away from the office or traditional working space, is made possible by new technologies such as the Internet (Vermaas & Bongers, 2007). The technology allows for work to be done anywhere, and at any time, rather than at a specific place or time. The number of telecommuters

engaging in telework from home, a satellite office, telework center, road location, or some combination thereof in the U.S. has increased in the past decade from 4 million to 45 million (The International Telework Association and Council, 2001; Nagurney, Dong & Mokhtarian, 2003; WorldatWork, 2006). From 2001-2003, the number of teleworkers rose by nearly 40% (Hunton, 2005). Companies that endorse telecommuting include AT&T, Hewlett-Packard Company, IBM, Sun Microsystems Computer Corporation, and Xerox Corporation.

Telecommuting appears to be very popular, offering potential benefits to employers, employees, and society at large (Mokhtarian et al., 2005). It permits the entire 8-hour workday to be conducted remotely, allowing employees to avoid commute time. It allows employees to achieve a more holistic life (Musson & Tietze, 2004), and enhances employees' quality of life by allowing work-home life balance, offering scheduling flexibility and reducing commuting time and stress. A study of 1,428 employees of the City of San Diego found that telecommuting reduces office stress (Mokhtarian, Bagley, & Salomon, 1998). This effect was more pronounced for women and for commuting employees perhaps because it decreases the need for mobility (Mokhtarian et al., 1998; Vermaas & Bongers, 2007). Consequently, telecommuting eases traffic congestion in highly populated cities as well as conserving gas and improving air pollution, thereby reducing environmental degradation (Hunton, 2005; Nagurney et al., 2003).

Telecommuting can also boost organizations' financial performance by increasing employee productivity, decreasing turnover rates, and ultimately lowering real estate costs given that some employees may not need office space since they telecommute (Hunton, 2005). In spite of managerial concerns about the performance of those who

work from home (Felstead, Jewson, & Walters, 2003), some studies have indicated that home-based teleworkers work increased hours. For example, among the 62 teleworkers interviewed, 48% reported increased work hours when working at home (Baruch & Nicholson, 1997). A number of past studies have showed that productivity increases when employees are allowed to telework (Geisler, 1985; Hunton, 2005; Vermaas & Bongers, 2007). For example, a study comparing the performance of teleworkers and traditional office-based workers reported that job satisfaction was positively associated with the opportunity to take care of family and personal responsibilities, and having control over scheduling one's own working hours. This study also reported a 29.9% performance improvement in the telework group when compared to the non-telework group (Dubrin, 1991). In an online study, researchers surveyed a sample of 1,102 respondents regarding broadband use in the Netherlands, and found that the ability to telecommute allows employees to operate independently and to combine work and private tasks, such as household tasks and taking care of children, which ultimately allows them to be more productive at work and home (Vermaas & Bongers, 2007). An extensive review of practitioner and academic literature on telecommuting found many advantages of the practice, including improved productivity, organizational loyalty and belonging, job satisfaction, and employee attraction and retention (Bailey & Kurland, 2002; Haddon & Lewis, 1994; Pinsonneault & Boisvert, 2001).

Despite its many positive aspects, however, there are some negative aspects of telecommuting. Progress has been made in understanding the consequences of telecommuting, however, little is known about how employees and organizations are adversely affected by this type of workplace flexibility. In order for telecommuters to

motivate and police themselves to accomplish their work, they must develop some type of internalized control mechanism, which could include workers' values, norms, and attitudes. These professionals are also expected to devote as much time as needed, often going above and beyond what is expected of them, in order to show their commitment and demonstrate that they can be trusted (Sirianni & Walsh, as cited in Musson & Tietze, 2004).

Some employers perceive telecommuting as an obstacle because some telecommuters give more priority to family and home needs, breaking down the notion that employees always consider their work to be a high priority (Musson & Tietze, 2004). Only about one fifth of workers telecommuting actually work their regularly scheduled hours when working from home (Bond, Galinsky, & Swanberg, 1998). Some employers believe telecommuting will adversely impact teamwork due to the lack of contact between colleagues, and some managers believe employees need face-to-face supervision to be successful (Hill et al., 2001). The lack of physical proximity limits opportunities for employee promotion and organizational rewards (Cooper & Kurland, 2002) and social contact with colleagues (Vermaas & Bongers, 2007). For some, telework means isolation, less sociability, and less knowledge sharing, taking away from professional consultation among employees.

Virtual organizations utilizing virtual teams also face similar obstacles. Virtual teams are defined as geographically distributed individuals with a common goal who communicate through the use of technology (Bell & Kozlowski, 2002; Cramton, 2001). Because they communicate through technology, it is difficult for people working in virtual teams to build trust and transfer knowledge (Bosch-Sijtsema, 2007). In a study

examining the social and psychological impact of the Internet on 169 people in 73 households, it was found that greater use of the Internet was associated with declines in participants' communication with family members in the household, declines in the size of their social circle, and increases in depression and loneliness (Kraut et al., 1998). Both telecommuting and virtual teams have the flexibility to work in different settings, allowing them geographical flexibility. However, geographical distance makes it difficult to develop a team culture and interpersonal relationships (Bosch-Sijtsema, 2007; Granovetter, as cited in Kraut, Steinfield, Chan, Butler, & Hoag, 1999). Lack of interpersonal relationships may create trust issues within the team, affecting the development of a team culture; meanwhile, people generally rely on personal relationships to resolve problems and deal with unusual situations that can arise in teams (Krackhardt, as cited in Kraut et al., 1999). Granovetter (as cited in Kraut et al., 1999) stated that personal relationships lead to trust, reducing the likelihood of opportunistic behavior that may be present otherwise. In virtual teams, relationships tend to be weak because of the lack of a prior relationship, and members may experience role ambiguity and conflict (Bosch-Sijtsema, 2007). Since coordination depends heavily on telecommunications and data networks rather than physical presence, it is difficult to develop relationships in virtual teams (Kraut et al., 1999).

In sum, past research indicates that telework presents both advantages and disadvantages for both the organization and the employee. The abundance of telework research shows it is a growing factor in employment decisions, and an important factor in industrial/organizational psychology research. The growing number of telecommuters forecasts an increase in virtual teams in the following decades.

Results only work environment. Another type of flexible work arrangement is called *results only work environment* (ROWE), a new, simple concept that is slowly changing the way society thinks about work. Basically, ROWE means that employees can do whatever they want whenever they want as long as the work gets done (Ressler & Thompson, 2008). Employees have the option to work remotely, as they do in telecommuting, and in addition, they have the option to choose their hours, which distinguishes ROWE from telecommuting. ROWE offers employees total flexibility and responsibility to produce the results that are expected of them.

ROWE is a radical experiment whose aim is to reshape the corporate workplace, achieve an unparalleled degree of work-life balance, and redefine the very nature of work itself. It also differs from telecommuting in that ROWE allows time flexibility as well as location flexibility. Employees are allowed to decide how, when, and where they do their work. Salaried employees are required to put in only as much time as it actually takes to produce expected results. Hourly employees in the program have to work a set number of hours to comply with federal labor regulations, however, they still get to choose their location (Kiger, 2006). For hourly employees, ROWE isn't much different than telecommuting. In a ROWE, employees can work at different times of the day at any location, as opposed to telecommuting, which only allows flexibility in the location worked, not the hours worked. Similar to telecommuting, physical attendance at meetings is usually optional in a ROWE.

In order to practice ROWE, managers have to ensure clear expectations are in place, since ROWE is an outcome-focused concept. Once supervisors and employees are clear about – and meet – expectations, the hours worked should not matter. Ressler and

Thompson (2008), the creators of ROWE, were once corporate employees at Best Buy. They believe ROWE is the polar opposite of the much more widespread workplace culture of *presenteeism*, where time plus physical presence is seen as equaling results. Presenteeism is focused on being in the office and being seen – it is input-focused (Ressler & Thompson, 2008). That is, if an employee finishes what is expected of him/her, he/she is still expected to complete his/her hours. ROWE allows for the absence of fixed schedules or mandatory meetings, and renders work no longer a place where one goes, but something one does. ROWE engages employees who prefer to work fairly traditional hours in the office as well as employees who want to work at different times and places (Kelly, Moen, & Tranby, 2011).

The implementation of ROWE started at the headquarters of Best Buy a few years ago, and now other companies are following in their footsteps. At IBM, 40% of the workforce has no official office; at AT&T, a third of managers are similarly untethered. Sun Microsystems, Inc. calculated that it is currently saving \$300 million a year in real estate costs by allowing nearly half of their employees to work anywhere they want. According to the Families and Work Institute's 2008 National Study of Employers, 79% of employers now allow at least some employees to periodically change their arrival and departure time, up from 68% in 1998. A recent Boston Consulting Group study found that 85% of executives expect a big rise in the number of ROWE workers over the next 5 years (Conlin, 2006). ROWE represents a culture shift that is not imposed from the top down, but instead spreads virally.

The implementation of ROWE has a number of advantages for both the employer as well as the employee. Since ROWE's implementation at Best Buy, productivity went

up an average of 35% (Conlin, 2006), whereas average worker turnover decreased drastically by 52-90% in three Best Buy divisions (WorldatWork, 2008). According to the Gallup Organization, Best Buy's employee engagement increased as a result of ROWE's implementation, and teamwork, morale, and engagement soared (Conlin, 2006; WorldatWork, 2008). Per-employee cost rate of turnover was \$102,000, and ROWE teams had 3.2% less voluntary turnover than non-ROWE teams. It is expected that once Best Buy headquarters converts to ROWE completely, they will save about \$13 million a year in replacement costs (Kiger, 2006). As for the advantages of ROWE for employees, one study examined the impact that ROWE had on 658 Best Buy employees over a 6-month period. Results showed that employees who participated in ROWE reported an increased sense of job security, less WFC, improvements in quality of sleep, and more job satisfaction compared to employees who did not (Moen & Kelly, 2007).

Although these workplace flexibility options offer many advantages, organizations often question the usability of these options. For example, there are strong indications that employees do not use the flexible work arrangements their companies offer due to a fear of losing their jobs or endangering career opportunities (Burke, 2006; Kinnunen, Mauno, Geurts, & Dikkers, 2005; Lewis & Smithson, 2001). For instance, in one study, engineers were reluctant to use flexibility options because they believed it would harm their career (Perlow, 1995). Fear of negative career consequences is one of the barriers that prevent employees from taking advantage of flexible work arrangements (Corporate Voices for Working Families, 2005). Judiesch and Lyness (1999) argue that employees should not be reluctant to use flexibility options for fear of harming their careers because taking advantage of flexible work arrangements does not affect

promotions and salary increases. In the past 10 years, employers have largely maintained or increased the support they provide to employees in managing their personal and family lives. Interestingly, as stated by Galinsky, Bond, and Hill (2008), nonprofit organizations and employers with more diverse leadership at the top provide the best support for making work easier for both the employer and the employees.

To summarize, ROWE has both positive and negative aspects. Although it may increase productivity and improve work-life balance, it can also negatively affect social relationships and increase reluctance among employees who fear that they will endanger their careers. ROWE is a new, different method of workplace flexibility with potential for broad adoption by organizations as younger generations are entering the workforce and older generations are retiring. This concept has been developed in an actual company, rather than by academics, giving it a certain applied legitimacy that may help organizations adopt it more willingly. ROWE can serve as an attraction mechanism for cutting-edge companies that are seeking competitive employees. Having such flexible work arrangements can powerfully impact WFC and job satisfaction, which are the two key dependent measures reviewed in the following sections.

Work-Family Conflict

Recent years have witnessed an increase in the number of dual-career couples, single parent families, and workers with eldercare responsibility (Kossek, 2005). These trends have been linked to WFC, which is defined as a form of inter-role conflict in which role pressures from the work and family domains are mutually incompatible in some respects (Greenhaus & Beutell, 1985). Greenhaus and Beutell (1985) further defined WFC as a specific type of inter-role conflict that refers to the perceived

incompatibility of role pressures between work and family so that participation in one role makes participation in the other role more difficult. Consequently, employees who experience WFC receive lower performance ratings than those who do not, and women's work performance ratings are less negatively impacted by WFC than men's. These findings suggest that role conflict is a significant problem, causing stress that, in turn, may affect job performance (Butler & Skattebo, 2004). The focus on conflict provides a basis for understanding the necessity of balancing work and family demands. With respect to home life, employees must balance a variety of personal demands, such as taking care of children, handling personal matters, working on hobbies, participating in sports, attending important events in the lives of significant others, and dealing with day-to-day chores. Often, one's home life can conflict with one's work life, causing stress that can affect one's self-esteem and perceived quality of life (Hunton, 2005).

Researchers have categorized WFC into two types: *work interfering with family* and *family interfering with work*. *Work interfering with family* conflict occurs when work-related activities affect family responsibilities, whereas *family interfering with work* conflict occurs when family activities affect work responsibilities (Kopelman, Greenhaus, & Connelly, 1983; Thomas & Ganster, 1995). *Work interfering with family* is associated with work-related outcomes such as job dissatisfaction, job burnout, turnover, depression, life dissatisfaction, and marital dissatisfaction (Allen et al., 2000), whereas *family interfering with work* conflict is associated with psychological distress and poor physical health as a result of not being able to perform effectively at work (Frone et al., 1997). This study will focus on *work interfering with family*, as it is a wider issue for most employees.

Social Roles Theory (Eagly, 1987) plays an important role in understanding WFC. It suggests that the sexual division of labor and societal expectations based on stereotypes produces gender roles. According to traditional gender roles, White women in heterosexual couples remain at home and complete most of the domestic labor, while their male partners work outside the home to provide the family income (Eagly, 1987). In the late 1960s, the traditional roles began to change as large influx of women entered the labor force (WorldatWork, 2008). Since then, women have increasingly joined the workforce, but continue to do the majority of the household labor (Eagly & Wood, 1999). In 2008, only 20.7% of households met the traditional definition of a two-parent family with a wife/caregiver who stays home while her male partner works outside the home (Shriver, 2009). The beginnings of workplace flexibility came about the same time as employers were confronted with childcare issues of working women (WorldatWork, 2008). Having a dual role leads to increased WFC, especially for women who run the household, work, and raise children. Supporting this argument, Hall and Gordon (1973) found that married women who were employed part-time were more likely to experience home-related conflicts than women who were employed full-time. Women with part-time jobs experience social role conflict in conjunction with work overload due to their employment and full-time role as housewives. Female managers are less likely to be married than their male counterparts, and if they are married, they have few, if any, children (Gutek, Searle & Klepa, 1991). However, even as managers, females tend to spend more time on family activities than their male counterparts. Husbands of managerial/professional women experience more intense WFC than husbands of non-managerial/non-professional women (Greenhaus & Kopelman, 1981). With respect to

both men and women, married couples and parents, especially those with younger children who are more likely to demand their parents' time, experience more WFC than unmarried people and nonparents (Beutell & Greenhaus, 1980; Greenhaus & Kopelman, 1981; Herman & Gyllstrom, 1977). In a survey conducted among a representative sample of the United States workforce ($n = \text{approx. } 3,500$), the results revealed that at least 40% of employed parents feel that work interferes with their family life (Bond, Thompson, Galinsky, & Prottas, 2002). Similar results have been reported for Dutch and Canadian employees who reported higher rates of work interfering with their family life (Dikkers et al., 2007). Large families, which are likely to demand more time than small families, have also been associated with higher levels of WFC (Cartwright, 1978; Keith & Schafer, 1980).

To summarize, gender plays an important role in WFC. Although both male and female employees experience WFC to an extent, WFC tends to be more evident among women mainly because women tend to focus on both work and family more than men. That is, in addition to work responsibilities, women tend to spend more time on their family than males, and partake in most of the household activities. Moreover, married couples experience more role conflict than unmarried couples, and mothers experience more role conflict than non-mothers. The literature suggests a positive relationship between the number of social roles and role pressure experienced as well as stress and performance at work.

When given the option to use flexible work arrangements, employees will experience less WFC because of the opportunity to better balance work and non-work roles. The scarcity model assumes that individuals have a finite amount of energy and,

when involved in multiple roles, these roles tend to drain them and inevitably cause stress or inter-role conflict, resulting in an undesirable psychological state (Aryee, 1992). Thus, a negative relationship exists between work and family. Using this model, workplace flexibility could be seen as a way for employees to more effectively use their time and energy, thereby reducing the conflict between work and family (Hill, Grzywacz, et al., 2008). In a study of a large sample of employed and self-employed workers, those who had greater access to flexible work arrangements were significantly more likely to report low levels of WFC (Bond et al., 2002). The strongest reductions of WFC seemed to involve flexibility that allowed a reduction in the number of hours spent at work (Rau, 2006). Many U.S. workers experience WFC, and many organizations have adopted flexible work arrangements to promote better balance between work and personal life (Kelly et al., 2011). Flexible work arrangements have evolved to support the dual agenda of workers, and organizations' responsiveness to the needs of employees continues to be an important driver of recruitment, motivation, and retention (WorldatWork, 2008). The next section will examine the impact of flexibility on job satisfaction.

Job Satisfaction

The previous section examined the impact of flexible work arrangements on WFC. In this section, the impact of flexible work arrangements on job satisfaction will be explored.

Job satisfaction is defined as a pleasurable or positive emotional state resulting from the appraisal of one's job or job experience (Luthans, 2005). A number of factors affect job satisfaction, including: the work itself, pay, promotion, supervision, work group, and working conditions. However, among the variety of job characteristics,

autonomy is most highly correlated with satisfaction (Luthans, 2005; Mottaz, 1989). This is probably due to employees having more control over their schedules. Specifically, task autonomy, task significance, and job involvement also affect one's level of satisfaction (Mottaz, 1989). Skill variety, significance, autonomy, and feedback affect job worth, which in turn affects job satisfaction (Taber & Alliger, 1995). All these factors affect job satisfaction at some level and a few of them will be mentioned in the next section, but this study will mainly focus on how flexibility impacts job satisfaction.

Most managers and scholars in the field of organizational behavior believe job satisfaction is important to an organization because it impacts performance, turnover, and absenteeism (Badran & Kafafy, 2008). Expectancy theory (Porter & Lawler, 1968) identifies the sources of peoples' valence (value of a reward or outcome) and links them to effort. This is a motivational model in which employee behaviors are seen as the result of valued rewards. In this case, employees may see flexibility as a reward and therefore put in more effort, increasing performance and ultimately experiencing increased job satisfaction because of the autonomy given to them. The organization will experience less turnover and absenteeism as a result of increased job satisfaction.

Organizations are especially interested in exploring job satisfaction because it is considered an indicator of employee emotional and psychological well-being as well as a barometer of employee perceptions of organizational fairness (Brooke, Russell, & Price, 1998). Low job satisfaction can have negative effects on the organization such as employee burnout, absenteeism, and turnover (Luthans, 2005). In contrast, high job satisfaction will benefit the organization by increasing employees' effort, performance, and productivity. For example, Rucci, Kirin, and Quinn (1998) reported a study of job

satisfaction at the Sears Corporation in 1997 that documented a critical link between employee satisfaction and customer satisfaction. This study showed that if employee satisfaction were to improve by five points, there would be an improvement of two points in customer satisfaction, generating revenue growth of 1.6%. These results support the notion that in many instances increased employee job satisfaction can have positive effects on the organization (Rucci et al., 1998).

Another reason job satisfaction is important to an organization is demonstrated by a study that examined the job satisfaction of 35 nurses working in a correctional hospital (Gulotta, 1986). Gulotta (1986) explored how perceptions of the administration and the work environment affected the dimensions of job satisfaction, including: satisfaction with authority, company policies and practices, independence, opportunities for creativity, and recognition. Gulotta found that higher satisfaction on each dimension was associated with more favorable attitudes toward the nursing service and hospital administration, as well as more positive opinions about their role and the ability to influence and engage in nursing. The nurses' positive feelings toward the correctional administration were correlated only with higher satisfaction with authority, company policies and practices, and their independence. In a more recent study, JP Morgan Chase surveyed employees and found that those with access to flexibility are much more likely to report overall satisfaction than those who feel they do not have access to flexibility (Corporate Voices for Working Families, 2005). Similarly, Eli Lilly found a linear relationship between employees' degree of flexibility and level of job satisfaction (Corporate Voices for Working Families, 2005). These studies confirm why organizations value employee job satisfaction and its drivers.

Researchers have found a positive association between alternative work schedules, flextime policies, and job satisfaction (Christensen & Staines, 1990; Thomas & Ganster, 1995). The relationship between alternative work arrangements and job satisfaction is a heavily researched one, and one of the most commonly reported associations in the literature (Pinsonneault & Boisvert, 2001). Increased employee satisfaction and morale due to work flexibility improves productivity (Kugelmass, 1995). Galinsky et al. (2004) found that 66% of employees report high levels of job satisfaction in organizations with high levels of workplace flexibility, versus 23% in organizations with low levels of flexibility. When employees are able to exercise choice over their working patterns, it creates an increase in job satisfaction (Hill, Miller, Weiner, & Colihan, 1998). Prior meta-analysis research has shown a positive, albeit modest, relationship between flexible work arrangements and job satisfaction. Employees who have even a small measure of flexibility have significantly greater job satisfaction, stronger job commitment, and higher levels of engagement with the company, as well as lower stress levels (Corporate Voices for Working Families, 2005). Specifically, Gajendran and Harrison (2007) found a small relationship between telecommuting and job satisfaction ($p=.10$, $k=28$), while Baltes, Briggs, Huff, Wright, and Neuman (1999) found a moderate relationship between flextime and job satisfaction ($d=.15$, $k=16$). Other studies have found telecommuting to be correlated with higher levels of job satisfaction (Baruch, 2000) and increased autonomy (Kelliher & Anderson, 2008), while others have found telecommuting to be associated with feelings of isolation, which decreases job satisfaction. This is mostly because of the emotional drain produced by the reduction of social contact with colleagues, which in turn may cause low job satisfaction (Cooper &

Kurland, 2002). This can also be explained by Tajfel's (1981) Social Identity Theory, in which a person's sense of identity is based on his/her group membership. In this case, telecommuters may not feel like they are part of the group that attends work every day, and therefore feel like a member of the *out group*, thus causing more emotional strain. In one study, no significant difference in level of job satisfaction was found between teleworkers and non-teleworkers given the choice of telecommuting or non-telecommuting environment (Belanger, 1999). Although there are mixed results regarding telecommuters and their level of job satisfaction, research supports a positive interaction between these two variables.

Demographics play an important role in job satisfaction. For example, a decrease in job satisfaction was linked to inflexibility in work arrangements for women. When flexible work arrangements are available, they ameliorate women's stress and burnout by avoiding WFC, thus enabling them to be more effective on the job (Thoits, 1987). Studies among mothers consistently found that they are less stressed and more likely to stay with their employer, and thus be more satisfied with their jobs, if flexible work arrangements are available (Hill, Jacob, et al., 2008). Furthermore, the more satisfied both parents and non-parents are with their balance between work and family, the more satisfied they are likely to be with their jobs (Ezra & Deckman, 1996). Providing additional evidence that job satisfaction is related to flexible work arrangements, Allen (2001) found positive correlations between job flexibility, job satisfaction, and improved work-family balance.

In conclusion, job satisfaction is one of the key focus areas for organizations. When employee job satisfaction is low, organizations are adversely affected; in contrast, when employee job satisfaction is high, organizations tend to experience increased

productivity. Expectancy theory could explain why workplace flexibility is associated with job satisfaction; employees tend to see workplace flexibility as a reward, instead of a way to work, and therefore put more effort into their work in order to retain their flexibility. This is especially true for women who play dual roles. Women are more satisfied with their jobs if flexible work arrangements help them perform those roles. Job satisfaction is multidimensional; it varies with respect to the degree of influence of various factors, and various factors contribute to the perception of job satisfaction, including: social support, roles, expectations, and WFC (Locke, 1976). In one study, employees who had unsupportive supervisors regarding family issues reported higher levels of stress, greater absenteeism, and lower job satisfaction (Rodgers & Rodgers, 1984). Given this information, the following section will focus on work social support and how WFC and job satisfaction can be indirectly affected by work social support.

Work Social Support

The present study examined the moderational role of work social support on the relationship between flexible work arrangements and job satisfaction. Social support is an interpersonal transaction that involves four categories: emotional concern (love, empathy), instrumental aid (time, money), information (advice), and appraisal (affirmations; House, 1981). Social support has been identified as an important resource or coping mechanism that can reduce the negative effects of stressors such as WFC (Thomas & Ganster, 1995). There are two dimensions of social support sources that help reduce stress: work related support and non-work related support (House, 1981).

Social support in the work domain can come from a number of sources, such as flexible work arrangements, supervisor support, supportive workplace culture, positive

co-worker relations, absence of discrimination, respect in the workplace, and equal opportunity workplaces (Bond et al., 2002). Types of work-based social support programs include: alternative work schedules, telecommuting, childcare subsidies, elder-care subsidies, leaves of absence (e.g., maternity, paternity), job sharing, employee assistance programs, in house store/services, gym subsidies, and vacations. A supportive work culture is related to positive work outcomes, such as higher job satisfaction and commitment, because social support reduces the likelihood that situations will be perceived as stressful, thus indirectly affecting one's satisfaction level and organizational commitment (Bond et al., 2002; Dikkers et al., 2007). In the example of the catastrophic Hurricane Katrina that hit New Orleans and forced the shutdown of Procter and Gamble's Folgers coffee plant, the company decided to establish workplace flexibility in order to support employees affected by the disaster and to get the plant running again. To accomplish this, the company created schedules with 7 days on and 7 days off, enabling employees to have the blocks of time they needed to take care of personal issues (Corporate Voices for Working Families, 2005). Supervisor support was found to moderate the influence of perceived WFC on job satisfaction and organizational commitment (Stephens & Sommer, 1993). This means if employees have the support of their supervisors when WFCs arise, they are more likely to be satisfied with their jobs and stay with the organization.

Perceived managerial support has been identified as an important predictor of employee job satisfaction, productivity, and organizational loyalty (Bond et al., 1998; Thomas & Ganster, 1995). Supportive supervisors have been found to facilitate employee job satisfaction (Parasuraman, Greenhaus, & Granrose, 1992), especially if the

supervisor/employee exchange is gratifying. JP Morgan Chase found that 95% of employees working in an environment where the manager is sensitive to personal life demands feel motivated to exceed expectations, compared to 80% of employees in environments where the manager is not sensitive to needs for personal life demands (Corporate Voices for Working Families, 2005). The degree of social support an individual has in one situation may affect the entire stress process. For example, if an individual experiences conflict on the job but receives a fair amount of social support from work peers, the individual may not experience strain as a result of role conflict (Carlson & Perrewé, 1999). Social support from co-workers may help to legitimize negative feelings about the workplace, which, in turn, can decrease job dissatisfaction and strain (Fernandez, 1991). A study of working fathers found that a lack of social support from their peers negatively affected their use of flexible work options, including parental leave (Haas, Allard, & Hwang, 2002).

Leader-Member Exchange (LMX) theory (Dansereau, Graen, & Haga, 1975) has important implications for WSS. A central characteristic of LMX theory is its focus on the working relationship between a leader and the various members of a work unit, team, department, or organization: more specifically, the quality of the exchange relationship between a leader and a particular member (Van Breukelen, Schyns, & Le Blanc, 2006). If the relationship is solid and based on trust, then it is likely to lead to satisfying outcomes. In contrast, if the relationship is unpleasant, then the outcomes for the employee may not be satisfying. In a trusting relationship, a supportive supervisor may make work situations less stressful by discussing family-related problems and being flexible when emergencies arise (Roskies & Lazarus, 1980). This type of social support has been found to moderate

the effects of situational stressors on WFC (Carlson & Perrewé, 1999), resulting in lower levels of WFC among employees with supportive supervisors (Goff et al., 1990).

Furthermore, researchers have suggested that the work stress/burnout relationship is moderated by supportive relationships with coworkers and supervisors in the work environment, especially for men (Etzion, 1984). Social support in the work domain is an important consideration in the overall evaluation of WFC and job satisfaction.

Past research examined the level of social support in non-work environments and its impact on WFC. Non-work related social support is an informal network of support from sources outside of the workplace such as family, friends, and in-home childcare. Non-work social support can reduce the impact of stress that originates in the workplace (House, 1981). Research has found that social support from supportive others, including spouses, partners, and siblings, can directly reduce the stress that workers experience from WFC (Thomas & Ganster, 1995). Specifically, family support has been found to play an important role in reducing both work and non-work conflict (Holohan & Gilbert, 1979). More specifically, spousal support is a source of non-work support that has received a great deal of attention in the literature. Spousal social support may attenuate the impact of strain even for those who may have a high level of family time demands (Carlson & Perrewé, 1999). For example, a good and open relationship with one's spouse has been argued to result in less marital stress (Roskies & Lazarus, 1980). Low support from spouses regarding their mates' work has been found to be associated with high levels of WFC in dual career couples (Holohan & Gilbert, 1979). Several researchers have argued that in order for the wife to feel less WFC, the husband's support is critical (Arnott, 1972; Berkowitz & Perkins, 1984; Beutell & Greenhaus, 1982; Kundsinn, 1974).

Paralleling this finding, husbands have also been found to derive more satisfaction from their jobs when they receive support from their wives (Rosin, 1990). Past research suggested that women are more likely than men to seek social support from both within and outside the family (Rudd & McKenry, 1986).

In sum, social support has a great deal of impact on WFC and job satisfaction. Researchers have conceptualized the impact of social support on WFC and job satisfaction in many different ways. For example, some researchers view social support as an antecedent to sources of stress, others view it as an intervening variable between stressors and strain, while others perceive social support as a moderating or buffering effect within the stressor-strain relationship (Carlson & Perrewé, 1999). To reiterate the importance of both work and non-work social support, the receipt of social support, regardless of its source, is associated with higher levels of job satisfaction and lower levels of mental strain (Fusilier, Ganster & Mayes, 1986). Both social support from work and non-work sources can have a main or moderating effect in the work-family domain (Greenhaus & Parasuraman, 1987). In an examination of 211 traffic enforcement agents, including 92 men and 119 women, it was determined that social support from different sources, including family, coworkers, and supervisors, was positively associated with job satisfaction and productivity (Baruch-Feldman, Brondolo, Ben-Dayana, & Schwartz, 2002).

Conclusion

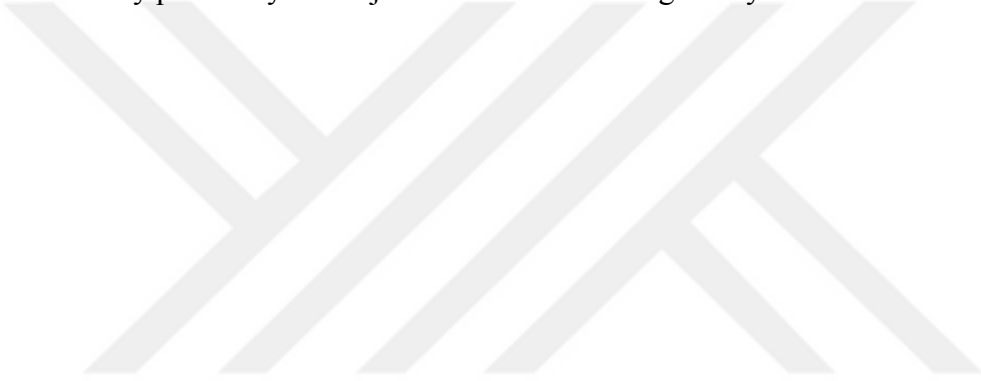
Flexible work arrangements have become a progressively more popular topic in the workforce as the need for a more balanced work-family life has drastically increased over the last few decades. Many studies have shown the benefits of flexible work

arrangements for both employees and the organization. Workplace flexibility has become a popular term in companies and research endeavors because of its connection to WFC and job satisfaction. Despite extensive research on workplace flexibility, WFC, and job satisfaction in academia, few studies have been conducted in the professional world. Only a small percentage of studies have examined the relationships among these three variables: flexible work arrangements, WFC, and job satisfaction.

The few studies that examined these variables found that higher levels of perceived work flexibility are related to lower levels of WFC and increased job satisfaction (Marshall & Barnett, 1994). In another study, having flextime resulted in positive changes in job satisfaction and morale, as it decreased tardiness and absenteeism (Christensen & Staines, 1990; Council of Economic Advisors, 2010; Ronen, 1984). An employee attitude survey found one of the most important reasons for turnover to be the lack of flexibility to create a balance between work and family (Zimmerman, 2004). Interestingly, demographics play an important role in balancing work and family. Women who have dual roles tend to focus equally on both aspects of work and family compared to their male counterparts, and therefore are more likely to experience role overload. In sum, having work flexibility gives all employees a chance to balance their lives in a more satisfying way.

Past research identified a positive relationship between social support and job satisfaction, as well as a negative relationship between social support and WFC. The research provides evidence for the effect of social support on work/family relationships (Thomas & Ganster, 1995), and shows that when people experience interpersonal transactions from work or family and friends, they experience less conflict and more

satisfaction. Social support is seen as a promising coping mechanism that reduces the likelihood of situations to be perceived as stressful, thus indirectly affecting WFC (Carlson & Perrewé, 1999). Research suggests that the perceived quality of WSS, especially supervisor support, is associated with a number of important work-related variables, including job satisfaction (Baruch-Feldman et al., 2002; Corporate Voices for Working Families, 2005). Taken as a whole, these findings suggest that the availability of WSS may positively affect job satisfaction and negatively affect WFC.



CHAPTER III

The Present Study

Given the importance of work-family balance, the present research focuses on the impact of flexible work arrangements on employees' job satisfaction and WFC. More specifically, the purpose of this study is to examine the effect of the types of flexible work arrangements on job satisfaction, the moderating role of work social support, and the mediating role of WFC on this effect. Thus, the independent variable is the type of flexible work arrangements: (a) ROWE (i.e., employees who work anywhere they choose at any time, as long as the work gets done), (b) telecommuting (i.e., employees who work from home using telecommunication equipment within regular work hours), and (c) a control group (employees who have no work flexibility – they work at their office within regular work hours). The dependent variable is job satisfaction. The moderating variable is WSS and the mediating variable is WFC.

Significance of Research

As noted earlier, flexibility of work arrangements is an important variable of interest to organizations because of its profound linkage to job satisfaction and WFC. Surprisingly, most employees do not have access to flexible work arrangements because their employers do not offer this option (Golden, 2001). Although past research has demonstrated that some type of flexibility reduces the conflict between work and family responsibilities (Hill, Grzywacz, et al., 2008), no prior research has simultaneously examined the impact of different types of flexible work arrangements on job satisfaction and WFC. Therefore, the present study makes an important contribution to the current literature by: (a) expanding the definition of flexible work arrangements; (b) introducing

a new concept, ROWE, an extreme form of work flexibility; (c) differentiating between ROWE and telecommuting; (d) comparing the effects of flexible work arrangements to a non-flexible work environment; (e) exploring the interface between WFC and job satisfaction; (f) gaining a better understanding of the moderating effect of WSS; (g) gaining a better understanding of the mediating effect of WFC; and (h) guiding organizations that are looking to attract, retain, and engage employees to expand their offerings based on the research and maintain a competitive advantage in the workforce. This is a quasi-experimental study. Compared to other studies that are mostly correlational in this area, this study has greater social ecological validity and has the potential to have a significant impact on organizations that are looking to move toward a more flexible work environment.

Hypotheses and Rationale

Hypothesis 1. A ROWE results in greater improvement in job satisfaction than the telecommuting and control groups.

With ROWE, it is believed that when employees have flexibility in their jobs, they feel less overworked and stressed (Musson & Tietze, 2004). Thus, they have pleasurable or positive emotions about their job, which is the definition of job satisfaction (Luthans, 2005). A ROWE was predicted to result in greater job satisfaction than the telecommuting and control groups because it allows for more flexibility in time and place worked than telecommuting, which only allows for flexibility in place, and the control group, which has no flexibility. Having flexibility in the hours worked allows for employees to switch their schedules to attend to family responsibilities during the day. In today's workforce, many companies that want to retain their employees accept and

promote this practice, in spite of the fact that some employees believe taking advantage of the flexibility will adversely impact their jobs. Employees who are provided with total flexibility and responsibility to produce the results that are expected of them feel less conflict in their lives, which results in increased job satisfaction.

Hypothesis 2. A ROWE results in less WFC than the telecommuting and control groups.

WFC is defined as a form of inter-role conflict in which role pressure from the work and family domains are mutually incompatible in some respects (Greenhaus & Beutell, 1985). When employees have the work flexibility that a ROWE offers, inter-role conflict pressures decrease (Hill et al., 2008). This is largely because ROWE offers flexibility in time and place worked, while telecommuting only allows flexibility in the place worked, and the control group offers no flexibility. When employees practice ROWE they have less WFC because they are able to shift their work hours and location according to personal demands.

Hypothesis 3. WSS moderates the relationship between flexible work arrangements and improvement in job satisfaction such that when there is low WSS, a ROWE leads to greater improvement in job satisfaction than telecommuting. However, when there is high WSS, no such difference exists.

In this study, WSS is defined as an interpersonal transaction that involves emotional concern, instrumental aid, information, or appraisal (House, as cited in Carlson & Perrewé, 1999). In the absence of emotional concern and support from work, ROWE provides greater advantages to employees, such as a less stressful work environment (e.g., home), and more pleasurable emotions attached to their job. Thus, when WSS is

low, ROWE leads to higher job satisfaction than telecommuting. However, when employees receive the necessary emotional and psychological support from work (i.e., high WSS), job satisfaction is high regardless of the type of flexible work arrangement.

Hypothesis 4. WFC mediates the relationship between flexible work arrangements and job satisfaction, such that ROWE leads to higher job satisfaction because of less WFC in comparison to telecommuting.

The greatest decrease in WFC results from flexibility that allows a reduction of hours spent at the office (Rau, 2006). When employees have the flexibility to work from home they can simultaneously take care of a variety of tasks. Thus, they are more satisfied with their jobs due to their decreased inter-role conflict pressures. Therefore, it is expected that in the absence of WFC, ROWE leads to higher job satisfaction than telecommuting.

CHAPTER IV

Methods

This chapter begins by describing the research participants, design, and instrumentation. The chapter concludes by describing the procedures and data analysis methods that were used.

Participants

Every participant had to meet certain criteria in order to be eligible to participate in the study. First, participants had to be employed in the organization under investigation, and there were limitations on which departments could participate. Second, they had to have full-time employee status (e.g., 40 hours per week).

This particular organization was chosen because it was contemplating flexible work arrangement options for its employees in order to create better work-life balance. The three departments within a business unit in the organization (technical services, engineering, and tariff programs and services) were chosen by the vice presidents of that business unit. The main goal of these three departments is to maintain customer satisfaction. Although department tasks differ, workload levels are likely to remain the same across the departments. Technical services department provides customers with the technical support they need, engineering department provides engineering services, and tariff programs and services execute programs to manage customer rates. Flexible work arrangements were utilized in other business units in this organization, therefore these vice presidents volunteered for the opportunity to try flexible work arrangements in their own departments. The tariff programs and services department was assigned to the telecommuting condition, the technical services department was assigned to the ROWE

condition, and the engineering department was assigned to be the control group. The directors of each of these departments volunteered to be assigned to the respective condition, therefore the assignment to the conditions was a self-selection.

The participants were contacted by e-mail through department listings. Every effort was made to solicit a large group of participants from the chosen departments. Because this was an organizational study, all participants who met the criteria and completed the questionnaire were included. A total of 116 exempt and non-exempt men and women over the age of 18 from various backgrounds and ethnicities participated in the pre-study ($N=116$), and a total of 110 participated in the post-study ($N=110$).

Instrumentation

Three established measures were used to create a measure containing 28 items (Appendix A). To measure the impact of work on family life, the Work Family Conflict scale was utilized (eight items). To measure the amount of support of the participants' supervisors, peers, and subordinates, the Work Social Support scale (10 items) was utilized. To measure job satisfaction, the Job Satisfaction Relative to Expectations scale was used (five items). Four open-ended questions in the survey measured perceived performance, discretionary effort, communication, quality of life and work-life balance. Question 39 and the last question of work-life balance were only included in the post-survey and were meant for ROWE and telecommuting groups. Twelve questions derived from non-established instruments were utilized to assess demographic, position-level, and personal information. Therefore, the entire pre-survey consisted of 38 questions, and the post-survey consisted of 40 questions.

Demographics. To obtain information about the demographic characteristics of the sample, part 1 featured 12 demographic questions pertaining to gender, position in the organization, tenure, hours worked, daily hours of sleep received, and commute time. The questions were structured as self-report items in an open-ended format.

Work-family conflict. The Work Family Conflict (WFC) scale is an eight-item measure developed by Gutek et al. (1991) that measures two dimensions of work-family interference: work to family and family to work (Kopelman et al., 1983). Participants rated items such as “After work, I come home too tired to do some of the things I’d like to do,” and “My personal demands are so great that it takes away from my work,” on a 5-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree). The WFC scale evaluates the degree of conflict at work and in the family, as well as the inter-role conflict between the requirements and obligations of both work and family spheres. The first two items assess the amount of interference from family to work, and the last two items measure the amount of interference from work to family. For both dimensions, higher scores indicate greater interference. This scale was selected because it is one of the most widely used scales of work to family conflict (Gutek et al., 1991). Gutek et al. reported a coefficient alpha of .81 for the WFC scale in their study of 534 psychologists and .83 in their study of 209 senior managers.

Work social support. Etzion (1984) developed the Work Social Support (WSS) scale, a 10-item scale measuring WSS. Seven of the items correspond to the degree of support features present at work and three of the items correspond to the quality of the relationship of subjects have with their supervisors, coworkers, and subordinates. The

items are rated on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The Cronbach's alpha of this scale was found to be .84.

Job satisfaction. Bacharach et al. (1991) developed the Job Satisfaction Relative to Expectations scale. This five-item survey assesses the degree of agreement between employee expectations and the various aspects of his/her job. The published reliability estimate for this scale is .88. A sample item from this scale is "Your present job when you compare it to others in the organization." Responses are rated on a 4-point Likert-type scale from 1 (very dissatisfied) to 4 (very satisfied). A high score would indicate that the respondent was very satisfied with his/her perception of job satisfaction.

Work-life balance. This is a single item developed by the researcher. The item is "I have a reasonable balance between my work and personal life." The item is rated on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). A high score would indicate that the respondent has a good balance between his/her work life and family/personal life.

Procedure

The department directors and the researcher agreed on a 3-month period for the two flexible work arrangement groups: telecommuting and ROWE. All three groups took the survey before the flexible work arrangement started and after a 3-month period. The control group took the survey after the 3-month period although their work conditions did not change.

Prior to starting flexible work arrangements, the ROWE participants went through a series of workshops to understand the practice of ROWE. They were given explanations and guidelines as to how ROWE works. Managers and employees agreed that some

meetings were optional to attend and established a 2-hour return time on all emails and phone calls that needed response. The ROWE participants could work from anywhere, anytime, as long as they met the expectations set by the manager. Managers instructed the telecommuting participants that they could work remotely during core work hours. The three departments exist within one business unit doing similar work, with the same senior executive. The messages given to the employees of each group were consistent, which helped control for potential artifacts.

For both the pre and post-survey, participants in each group were contacted by an e-mail invitation that included information about the topic of research, the researcher's name, the questionnaire to be taken, and a link connected to the online survey, hosted by Vovici Survey Tools. Once the participants received the invitation and clicked on the link, the survey packet appeared, which included instructions and the survey questions. The participants' identity remained anonymous. Participation in the study took approximately 15-20 minutes. Once participants read the instructions, they provided their demographic information, and then completed the main body of the questionnaire. The survey also consisted of self-report questions pertaining to their perceived performance, discretionary effort, communication, quality of life, and work-life balance. All participants were given the same survey except for question 39, which was only meant for ROWE and telecommuting groups. Additionally, the last question of work-life balance was only included in the post-survey because the researcher wanted to find out how ROWE vs. telecommuting as compared to no flexible work arrangements affected employees' level of work-life balance.

The questions related to WFC (i.e., personal demands and family time) were presented first. Then the questions regarding WSS (i.e., support levels, recognition) were presented. Lastly, the questions related to job satisfaction (i.e., progress and expectations) were presented. The order in which the measures were presented remained the same throughout the process. The entire pre-survey consisted of 38 questions and the post-survey consisted of 40 questions in three different questionnaires, self-report questions, and demographics questions. Once participants completed the body of the survey, they received a brief message thanking them for participation. The researcher's contact information was provided at that time. Necessary approvals for the participants were obtained after the data collection (Appendix B).

CHAPTER V

Results

This chapter presents the results of the data analysis. First, descriptive statistics were calculated. Second, reliability tests were performed, and assumptions were checked. Third, One-way ANOVAs using Tukey's and Dunnett's post-hoc comparisons, linear contrast analysis, hierarchical regression, and bootstrapping were conducted to test the hypotheses. Finally, a number of post hoc analyses were conducted to further analyze the data.

Demographics, Descriptives, Assumption Testing

A total of 116 individuals attempted to participate in the pre-study and a total of 110 individuals attempted to participate in the post-study. These numbers are not equal due to turnover and transfers that took place within the 3 months of the study. Of this total, 7 cases in the post-study were deleted because the respondents did not fully complete the survey questions. This resulted in a final sample size of 116 for the pre-study and 103 for the post-study. The pre-study included 25 managers and 86 individual contributors, whereas the post-study included 18 managers and 84 individual contributors. There were 81 males and 34 females in the pre-study, and 73 males and 29 females in the post-study. This unequal gender distribution is mostly attributed to the nature of the work of engineering, which is predominantly a male-dominated field. Most of the participants were in the age groups of 41 to 50 years old (28.4%) and 51 to 60 years old (27.2%). Most of the participants had been with the company for 0-5 years (36.2% for pre-study and 41.7% for post study) working as individual contributors (74.1% for pre-study and 81.6% for post-study) or managers (21.6% for pre-study and

17.5% for post-study; see Table 1). Most participants in the post study (52%) had zero dependents to care for, including children or elderly, and some (35%) had 1-2 dependents. Since the majority of the participants had no dependents, this variable was not analyzed.

Before conducting the hypotheses tests, descriptive statistics including mean, median, skewness, and kurtosis were calculated for each measure. Skewness and kurtosis scores fell within the acceptable -1 and +1 range (see Table 2). In the pre-study, the distributions of job satisfaction and WFC were negatively skewed, which indicated that most employees had higher job satisfaction and WFC. In contrast, the distribution of WSS was positively skewed, indicating that most employees reported low WSS in the pre-study. In the post-study, the distribution of job satisfaction was negatively skewed, which indicated that most employees had higher job satisfaction. In contrast, the distributions of WFC and WSS were positively skewed, which indicated that most employees experienced less conflict and low WSS in the post-study. Normality tests were also calculated using the Kolmogorov-Smirnov statistic. The normality tests indicated that WSS was distributed normally (pre-study: $D(116)=.05$, $p>.05$, and post-study: $D(103)=.08$, $p>.05$), however WFC (pre-study: $D(116)=.09$, $p<.05$ and post-study: $D(103)=.08$, $p>.05$) and job satisfaction, (pre-study: $D(116)=.14$, $p<.05$ and post-study: $D(103)=.14$, $p<.05$) were not distributed normally. Consequently, several steps were taken in attempt to normalize them. Logarithm, square root, and inverse transformation were applied to both job satisfaction and WFC (see Tables 3 & 4). None of these transformations improved the normality of job satisfaction and WFC, except square root transformation normalized post-WFC. Next, the researcher looked at the outliers to see if

Table 1

Demographic Description of the Participants

Demographic Variables	<u>Pre-study</u>		<u>Post-study</u>	
	%	N	%	N
Age Range				
19-30	14.7	17	21.4	22
31-40	12.9	15	15.5	16
41-50	28.4	33	20.4	21
51-60	26.7	31	27.2	28
61 or over	6.9	8	4.9	5
Did Not Respond	10.3	12	10.7	11
Total		116		103
Sex				
Male	69.8	81	70.9	73
Female	29.3	34	28.2	29
Did Not Respond	.9	1	1	1
Position				
Individual Contributor	74.1	86	81.6	84
Manager	21.6	25	17.5	18
Did Not Respond	4.3	5	1	1
Tenure in Years				
0-5	36.2	42	41.7	43
6-10	15.5	18	16.5	17
11-15	14.7	17	8.9	9
16-20	11.2	13	7.8	8
21-25	7.9	8	4.9	5
26-30	6.0	7	7.8	8
31 or more	5.2	6	5.8	6
Did Not Respond	4.3	5	6.8	7

Table 2

Descriptive Statistics and Normality Tests

Pre- or post- study		Mean	SD	Skewness	Kurtosis	Range	Kolmogorov- Smirnov Statistic	Kolmogorov- Smirnov Significance
<i>Pre- Study (n=116)</i>	Scale							
	WFC	23.06	5.40	-.06	-.65	26	.09	.03
	WSS	28.49	6.22	.06	.33	36	.05	.20
	JS	13.92	3.44	-.41	.25	15	.14	.00
<i>Post- Study (n=103)</i>	WFC	22.35	5.24	.30	-.13	28	.10	.01
	WSS	29.08	6.38	.29	.25	33	.08	.09
	JS	14.55	3.24	-.39	.15	15	.14	.00

Note. WFC=work-family conflict, WSS=work social support, JS=job satisfaction.

Table 3

*Descriptive Statistics and Normality Tests with Transformations by Measure: Job**Satisfaction*

Pre- or post-study	Mean	Median	Skewness	Kurtosis	Kolmogorov-Smirnov Statistic	Kolmogorov-Smirnov Significance
<i>Pre-Study</i>						
Square Root	3.69	3.74	-.89	.10	.17	.00
Log	1.13	1.15	-1.38	2.23	.21	.00
Inverse	.08	.07	2.45	6.94	.27	.00
<i>Post-Study</i>						
Square Root	3.79	3.07	-.80	.98	.15	.00
Log	1.15	1.18	-1.28	2.59	.17	.00
Inverse	.07	.07	2.61	10.17	.22	.00

Table 4

Descriptive Statistics and Normality Tests with Transformations by Measure: WFC

Pre- or post-study	Mean	Median	Skewness	Kurtosis	Kolmogorov-Smirnov Statistic	Kolmogorov-Smirnov Significance
<i>Pre-Study</i>						
Square Root	4.77	4.80	-.36	-.12	.09	.03
Log	4.77	4.80	-.36	-.12	.09	.03
Inverse	.05	.04	2.20	9.87	.13	.00
<i>Post-Study</i>						
Square Root	4.69	4.69	-.00	-.27	.08	.08
Log	1.33	1.34	-.32	.01	.09	.05
Inverse	.05	.05	1.12	2.49	.12	.00

any data points were significantly skewing the distributions. To test the influence of outliers on the scales that were not normally distributed (i.e., Job Satisfaction and WFC), the researcher removed the outliers that fell in the 10% range of the minimum and maximum values and conducted the normality tests again. The results did not improve the normality of job satisfaction and WFC (see Table 5). The failure of finding normal distribution, despite the acceptable range of skewness and kurtosis, could be partially due to sensitivity of the Kolmogorov-Smirnov test of normality to large sample sizes (Pallant, 2011). Additionally, the trimmed means of the key variables were very close to, if not the same as, the means. Thus, the researcher concluded that the relatively large sample size of this study makes deviations from normality less of an issue (Tabachnick & Fidell, 2007).

Furthermore, Levene's Test of Homogeneity indicated that variances were homogeneous with respect to flexible work arrangements for both WFC pre-study ($F(2,106)=1.11, p=.33$), post-study ($F(2,99)=.96, p=.39$) and job satisfaction pre-study ($F(2,106)=2.46, p=.09$) and post-study ($F(2,99)=1.28, p=.28$), whereas variances were not homogeneous for WSS pre-study ($F(2,106)=4.21, p=.02$), post-study ($F(2,99)=5.33, p=.01$).

Reliability and Factor Analysis

Reliability refers to the consistency of a measure (Carmines & Zeller, 1979). The Cronbach alpha coefficient, the most commonly used measure of reliability, looks at internal reliability and was calculated in this study. All of the scales exceeded the traditional value of .70, and the stringent value of .80, which is now considered a

Table 5

Descriptive Statistics and Normality Tests Excluding Outliers

Pre- or post- study	Scale	Mean	SD	Skewness	Kurtosis	Range	Kolmogorov- Smirnov Statistic	Kolmogorov- Smirnov Significance
<i>Pre- Study</i>	WFC (N=106)	22.41	4.68	-.05	-1.06	18	.10	.01
	JS (N=96)	13.20	2.51	-1.02	.39	11	.19	.00
<i>Post- Study</i>	WFC (N=100)	22.08	4.73	.09	-1.02	18	.11	.01
	JS (N=82)	13.56	2.41	-9.63	.275	10	.20	.00

Note. WFC=work-family conflict, JS=job satisfaction.

universal standard (Henson, 2001). The reliability coefficients are presented in Table 6, demonstrating that the scales have acceptable reliability scores.

Principal Components Analysis was conducted on each of the three main measures to examine the component loadings on one factor. The WFC scale developed by Gutek et al. (1991) was used to measure work-family interface. When analyzed, the component loadings ranged from .34 to .89, indicating that items on this scale correlated moderately to highly with the principal component, WFC. The one factor accounted for 47% of the variance. Therefore, all items in this scale were retained for hypotheses testing. The WSS scale developed by Etzion (1984) was used to measure WSS. The researcher omitted one survey item from the data because it referred to social support from sub-ordinates, which most of the population did not have. The component loadings ranged from .59 to .86, indicating that items on this scale correlated highly with the principal component, WSS. The one factor accounted for 59% of the variance. Thus, all items in this scale were retained for hypotheses testing. Finally, the Job Satisfaction Relative to Expectations scale developed by Bacharach et al. (1991) was used to measure the degree of agreement between employee expectations and the various aspects of his/her job. When analyzed, it was found that the component loadings ranged from .69 to .83, indicating that items on this scale correlated highly with the principal component, job satisfaction. The one factor accounted for 75% of the variance. Therefore, all items in this scale were retained for hypotheses testing.

Correlational Analysis

A correlational analysis was conducted to examine the relationship among WFC, job satisfaction, WSS, work-life balance and age (see Table 7). All of the variables in the

Table 6

Reliability Coefficients

Instrument	Cronbach's Alpha
<i>Pre-Study Variables</i>	
WFC	.84
WSS	.89
JS	.91
<i>Post-Study Variables</i>	
WFC	.83
WSS	.91
JS	.92

Note. WFC=work-family conflict, WSS=work social support, JS=job satisfaction.

Table 7

Correlation Matrix with Means and Standard Deviations

Instrument	Mean	Standard Deviation	1	2	3	4	5
<i>Pre-Study Variables</i>							
WFC	2.88	.68	-				
WSS	3.17	.69	-.33**	-			
JS	2.78	.70	-.31**	.60**	-		
Age	45.34	11.57	-.01	.02	.06	-	
<i>Post-Study Variables</i>							
WFC	2.79	.65	-				
WSS	3.23	.71	-.40**	-			
JS	2.91	.67	-.47**	.69**	-		
WLB	3.15	1.47	-.42**	.34**	.38**	-	
Age	43.34	12.33	.10	.06	.00	-.05	-

Note. WFC=work-family conflict, WSS=work social support, JS=job satisfaction, WLB=work-life balance.

**Correlation is significant at the .01 level (two-tailed).

current study, except for age, were significantly related to each other ($p < .01$), revealing that they share variance with one another. However, none of the correlation coefficients exceeded .90, revealing that these variables are unique and, thus, should be examined as distinct constructs.

Hypotheses Testing

Prior to conducting main analyses, the researcher averaged the items of each measure to create a composite score for each dependent variable. A high score on the WFC scale meant that the participant had high WFC (1=Strongly Disagree, 5=Strongly Agree). A high score on the Job Satisfaction scale meant that the participant was very satisfied with his/her job (1=Very Dissatisfied, 4=Very Satisfied). A high score on the WSS scale indicated that the participant had high social support (1=Never, 5=Very Often). No reverse coding of items was necessary in any of the measures.

Prior to performing statistical analyses, the data were screened for partial missing data. If a participant did not answer a few questions, the missing data were inputted using mean substitution because less than 5% of the data were missing. In the WSS measure, the last item “subordinates” was left off the analysis due to majority of the participants being individual contributors, meaning they had no subordinates.

It should be noted that, although data from the pre-test and post-test were gathered, it was not possible to match them due to the participating company’s confidentiality and security concerns. Thus the researcher was unable to examine and analyze dependent measures before and after the implementation of flexible work arrangements, and make conclusions about the benefits of flexible work arrangements.

Before proceeding with hypothesis testing, the researcher wanted to ensure that results would not differ by respondents' sex. An analysis was performed to look at the interaction of sex and flexible work arrangements in predicting WFC and job satisfaction. A 2 (1=male, 2=female) x 3 (3 levels; 0=ROWE, 1=control, 2=telecommuting) ANOVA was used to look at the interaction of sex and flexible work arrangement. No significant results were found for WFC, $F(2,96) = .35, p = .71$, or job satisfaction, $F(2,96) = .65, p = .53$. Thus, sex was dropped from all subsequent analyses. However, some of the results were in the expected direction. In all three conditions, females felt they had more WSS than males, and work-life balance was lowest among females in the control condition (see Table 9).

To test hypotheses 1 and 2, a One-way ANOVA was conducted, followed by Tukey's and Dunett's post hoc comparisons. To test hypothesis 3, a moderational analysis was conducted using hierarchical regression. To test hypothesis 4, mediational analysis was conducted using bootstrapping as suggested by Preacher and Hayes (2008).

Hypothesis 1. Hypothesis 1 proposed that a ROWE results in greater job satisfaction than telecommuting and the control group. In order to test hypothesis 1, mean job satisfaction was subjected to a One-way ANOVA. Overall, the effect of flexible work arrangements was not statistically significant, $F(2,96) = 2.14, p > .05$. Flexible work arrangements predicted 4% ($R^2 = 4.3$) of the total variance in mean job satisfaction. Even though the overall effect of work arrangement was not significant, the researcher examined the differences between conditions because a difference was only predicted between ROWE and the other two conditions. This may have been masked in the test of the overall effect. In order to test differences in mean job satisfaction between the flexible

work arrangements, Tukey's post-hoc tests were conducted. Mean differences were trending in the expected direction; however, the differences were not significant. In the ROWE condition, mean job satisfaction did not differ ($M = 3.12$, $SE = .10$) from the control condition ($M = 2.84$, $SE = .12$), 95% CI = $-.10 - .67$, $p > .05$ and from the telecommuting condition ($M = 2.79$, $SE = .12$), 95% CI = $-.09 - .73$, $p > .05$ (see Table 8). While trends were in the expected direction, Hypothesis 1 was not supported at an alpha level of .05.

Hypothesis 2. Hypothesis 2 proposed that ROWE results in less WFC than the telecommuting and control groups. In order to test hypothesis 2, mean WFC was subjected to a One-way ANOVA (3 levels; 0=ROWE, 1=control, 2=telecommuting). Overall, the effect of flexible work arrangements was marginally significant, $F(2,99) = 2.89$, $p = .06$. Flexible work arrangements predicted 6% ($R^2 = 5.5$) of the total variance in mean WFC. In order to test differences in mean WFC between the work conditions, Dunnett's post-hoc tests were conducted. Dunnett's tests were used for this analysis because they do not assume equal variance. Mean WFC in the ROWE condition did not differ ($M = 2.55$, $SE = .10$) from the control condition ($M = 2.86$, $SE = .11$) 95% CI = $-.68 - .06$, $p > .05$, or the telecommuting condition ($M = 2.92$, $SE = .12$) 95% CI = $-.76 - .03$, $p = .07$. The results from the analysis partially supported the prediction. Mean differences were trending in the expected direction; however, the differences were not significant.

Hypothesis 3. Hypothesis 3 proposed that WSS moderates the relationship between flexible work arrangements and job satisfaction such that ROWE results in greater job satisfaction relative to the control group and telecommuting only for those with low WSS. Hierarchical regression was used to test this moderation. In order to test

Table 8

Mean and Standard Deviation Scores by Instrument

Instrument	<u>ROWE</u>		<u>Tele</u>		<u>Control</u>	
	Mean	SD	Mean	SD	Mean	SD
<i>Pre-Study Variables</i>						
WFC	2.95	.62	2.87	.70	2.75	.69
WSS	3.26	.54	2.97	.64	3.46	.85
JS	2.73	.48	2.75	.76	2.98	.67
<i>Post-Study Variables</i>						
WFC	2.55	.57	2.92	.64	2.86	.69
WSS	3.39	.88	3.16	.50	3.16	.70
JS	3.12	.52	2.79	.65	2.84	.75
WLB	4.03	1.12	3.20	1.19	2.45	1.57

Note. WFC=work-family conflict, WSS=work social support, JS=job satisfaction,

WLB=work-life balance.

Table 9

Mean and Standard Deviation Scores by Gender

	<u>ROWE</u>				<u>Tele</u>				<u>Control</u>			
	Male n=16		Female n=14		Male n=44		Female n=9		Male n=16		Female n=10	
Instrument	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
WFC	2.86	.59	3.07	.65	2.90	.70	2.74	.72	2.86	.67	2.58	.72
WSS	3.42	.43	3.08	.61	2.99	.67	2.90	.46	3.28	.77	3.75	.94
JS	2.80	.53	2.66	.42	2.82	.77	2.37	.62	2.79	.66	3.28	.61
	<u>Post-Study Variables</u>											
	Male n=16		Female n=13		Male n=17		Female n=13		Male n=37		Female n=3	
Instrument	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
WFC	2.50	.53	2.62	.65	2.98	.58	2.83	.72	2.87	.70	2.79	.75
WSS	3.27	.81	3.54	.98	3.07	.48	3.29	.53	3.15	.72	3.26	.53
JS	3.16	.47	3.06	.60	2.75	.72	2.85	.57	2.87	.77	2.47	.50
WLB	4.12	.96	3.92	1.32	3.00	.94	3.46	1.45	2.57	1.52	1.00	1.73

the significance of the interaction, two vectors coding the interaction were entered separately and examined for the significance of the R^2 change (or the amount of additional variance in the outcome explained by the interaction). The statistical model tested was as follows: $Y(\text{job satisfaction}) = B_0 + B_1D_1(\text{coding flexible work arrangement}) + B_2D_2(\text{coding flexible work arrangement}) + B_3WSS(\text{effect of work social support}) + B_4WSS*D_1(\text{interaction of WSS and flexible work arrangement}) + B_5WSS*D_2(\text{interaction of WSS and flexible work arrangement}) + e$. The R^2 change for the interaction was .03, $F(2,93) = 2.44$, $p = .09$.

Because a priori theory (Rosenthal & Rosnow, 2008) suggests to further look at comparisons of high versus low levels of WSS, the differences between work conditions at 1 standard deviation (SD) below the mean of WSS, at the mean of WSS, and 1 SD above the mean of WSS were examined. At 1 SD above the mean on WSS (people high in WSS), there were no differences between ROWE ($M=3.34$, $SE=.11$), control ($M=3.40$, $SE=.11$), or telecommuting ($M=3.45$, $SE=.16$), all $t_s < .78$, all $p_s > .54$. At the mean of WSS, there were no differences between ROWE ($M=3.01$, $SE=.09$), control ($M=2.86$, $SE=.08$), or telecommuting ($M=2.85$, $SE=.09$), all $t_s < 1.28$, all $p_s > .20$. However, at 1 SD below the mean on WSS (people low in WSS), there were significant differences between work conditions such that ROWE ($M=2.77$, $SE=.12$) was higher in mean job satisfaction than both control ($M=2.47$, $SE=.09$), $t(93) = -1.97$, $p = .05$, and telecommuting ($M=2.42$, $SE=.12$), $t(93) = -2.09$, $p < .05$. While the interaction was not significant and therefore these effects should be interpreted cautiously, these are consistent with the hypothesis. With employees that have low WSS and ROWE, job

satisfaction is higher compared to those employees that have low WSS and telecommuting.

Hypothesis 4. Hypothesis 4 proposed that WFC mediates the relationship between flexible work arrangements and job satisfaction such that flexible work arrangements lead to less WFC, which leads to greater job satisfaction. Preacher and Hayes' (2008) bootstrapping technique and the Sobel test (Sobel, 1982) were used to test this hypothesis. Bootstrapping, a nonparametric resampling procedure, is an additional method advocated for testing mediation that does not impose the assumption of normality of the sampling distribution (Preacher & Hayes, 2008). The Sobel test provides a more direct test of an indirect effect and controls for Type 1 error (Sobel, 1982). Baron and Kenny's mediational method was also used to test mediation however because it has been critiqued for a variety of reasons, this researcher decided to report a more contemporary method by Preacher and Hayes (Hayes, 2009). According to Hayes (2009) Baron and Kenny's method suffers from low statistical power among the other methods testing indirect effects. A significant direct effect of the independent variable on the dependent variable is not necessary for mediation to occur (Preachers & Hayes, 2008). Moreover, it is possible to observe a change from a significant path from the independent variable to the dependent variable upon the addition of a mediator with a very small change in the absolute size of the coefficient (Preachers & Hayes, 2004). The variable of flexible work arrangements was recoded for mediation testing (ROWE = 1, telecommuting = 2, control = 3). The bootstrapped estimate of the indirect effect fell between -.17 and -.01 with a 95% confidence interval, but the results of the Sobel test was not significant ($z = -1.82$, $p = .07$), (see Figure 1). Therefore, Hypothesis 4 was not supported. The researcher

conducted mediation even though there was no direct effect because it is possible to find that an indirect effect is significant even when there is no evidence for a significant total effect (Preachers & Hayes, 2004).

Additional Analyses

Additional analyses were conducted to explore unpredicted relationships among the existing variables. Mean WSS was subjected to a One-way ANOVA (3 levels; 0=ROWE, 1=control, 2=telecommuting). Overall, the effect of flexible work arrangements was not significant, $F(2,99)=1.06, p>.05$. In order to test differences in mean WSS between the flexible work arrangements, Tukey's post-hoc tests were conducted. Mean WSS in the ROWE condition differed ($M = 3.39, SE = .16$) from the control condition ($M = 3.16, SE = .11$), 95% CI=-.18 - .63, $p>.05$, and from the telecommuting condition ($M = 3.16, SE = .09$), 95% CI=-.21 - .66, $p>.05$. The employees in the ROWE condition experienced more WSS than those in the telecommuting condition.

Work-life balance was also subjected to a One-way ANOVA (3 levels; 0=ROWE, 1=control, 2=telecommuting). Overall the effect of flexible work arrangements was significant, $F(2,96)=11.84, p<.05$. In order to test differences in mean work-life balance between the flexible work arrangements, Tukey's post-hoc tests were conducted. Mean work-life balance in the ROWE condition differed ($M = 4.03, SE = .21$) from the control condition ($M = 2.45, SE = .25$), 95% CI=.81 - 2.36, $p<.05$ and from the telecommuting condition ($M = 3.20, SE = .22$), 95% CI=.01 - 1.66, $p<.05$. The employees in the ROWE condition experienced more work-life balance than those in the telecommuting condition.

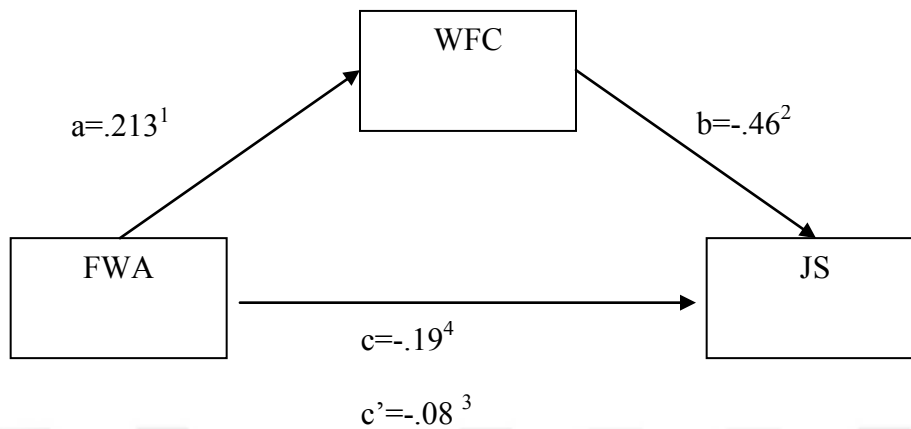


Figure 1. Work-family conflict as a mediator between flexible work arrangements and job satisfaction. *Note.* WFC=work-family conflict, JS=job satisfaction, FWA=flexible work arrangements. a, b, c, and c' are standardized path coefficients.

¹ $p < .05$, ² $p < .00$, ³ $p < .50$, ⁴ $p < .10$.

Hierarchical regression was applied to look at WSS as a moderator between flexible work arrangements and WFC. First, two vectors coding the interaction were entered separately, and then examined for the significance of the R^2 change (or the amount of additional variance in the outcome explained by the interaction). The R^2 change for the interaction was .05, $F(2,96)=3.49$, $p<.05$. The differences between work conditions at 1 SD below the mean of WSS, at the mean of WSS, and 1 SD above the mean of WSS were examined. At 1 SD above the mean on WSS (people high in WSS), there were no differences between ROWE ($M=2.49$, $SE=.13$), control ($M=2.44$, $SE=.14$), or telecommuting ($M=2.48$, $SE=.20$), all t s $< .25$, all p s $> .15$. At the mean of WSS, there were no differences between ROWE ($M=2.57$, $SE=.11$), control ($M=2.83$, $SE=.09$), or telecommuting ($M=2.57$, $SE=.11$), all t s < 1.9 , all p s $> .60$. However, at 1 SD below the mean on WSS (people low in WSS), there were significant differences between work conditions such that ROWE ($M=2.63$, $SE=.13$) was lower in mean WFC than both control ($M=3.10$, $SE=.11$), $t(93) = -1.97$, $p = .05$, and telecommuting ($M=2.88$, $SE=.11$), $t(93) = -2.09$, $p < .05$. It can be concluded that WSS moderates the relationship between flexible work arrangements and WFC. Specifically, ROWE will lead to less WFC when WSS is low.

An additional mediational analysis was performed using work-life balance as a mediator between flexible work arrangements and job satisfaction. The results from the Sobel test confirmed that this mediated effect was statistically significant, ($z = -2.92$, $p=.00$) and the bootstrapped estimate of the indirect effect had a 95% confidence interval of $-.26$ to $-.05$. Specifically, flexible work arrangements were associated with increased job satisfaction due to greater work-life balance (see Figure 2). Another mediational

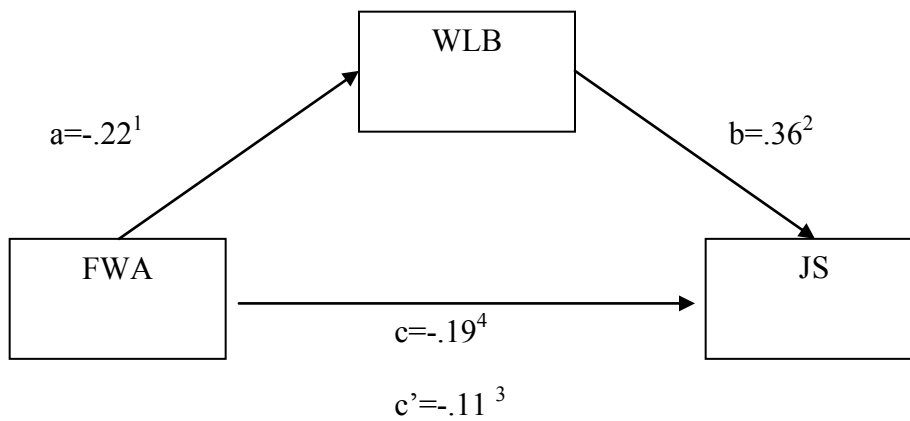


Figure 2. Work-life balance as a mediator between job satisfaction and flexible work arrangements. *Note.* WLB=work-life balance, JS=job satisfaction, FWA=flexible work arrangements. a, b, c, and c' are standardized path coefficients.

¹ $p < .05$, ² $p < .00$, ³ $p < .50$, ⁴ $p < .10$.

analysis was performed with work-life balance as the mediator between flexible work arrangements and WFC. The Sobel test revealed significance, ($z = 3.15, p = .00$) and the bootstrapped estimate of the indirect effect had a 95% confidence interval of .06 to .26 (see Figure 3). This means when employees are on flexible work arrangements, they will experience less WFC as a result of greater work-life balance in their lives. Finally, work-life balance was tested as a mediator of the relationship between flexible work arrangements and WSS. The Sobel test revealed significance, ($z = -1.95, p < .05$) and the bootstrapped estimate of the indirect effect had a 95% confidence interval of -.18 to -.02 further confirming that this mediated effect was statistically significant (see Figure 4). In conclusion, the Sobel test and bootstrapping suggested that flexible work arrangements allowed employees to experience increased WSS because they have greater work-life balance in their lives.

Lastly, the researcher coded the qualitative data in question 39 “How did alternative work arrangements impact your work and personal life? Please explain.” This question was added to the post survey for the ROWE and telecommuting groups to provide written feedback about their experience with the flexible work arrangements. Two different raters coded this question in order to control for inter-rater reliability. The raters coded each comment as positive, neutral, or negative for both ROWE and telecommuting. The raters’ agreement rate was above 90%. No comments were coded as negative for either of the flexible work arrangements. For the ROWE group, rater 1 had 73% positive and 27% neutral comments. Rater 2 coded 77% positive and 23% neutral comments. For the telecommuting group, rater 1 coded 83% positive and 17% neutral comments, whereas rater 2 coded 79% positive and 21% neutral comments. The high

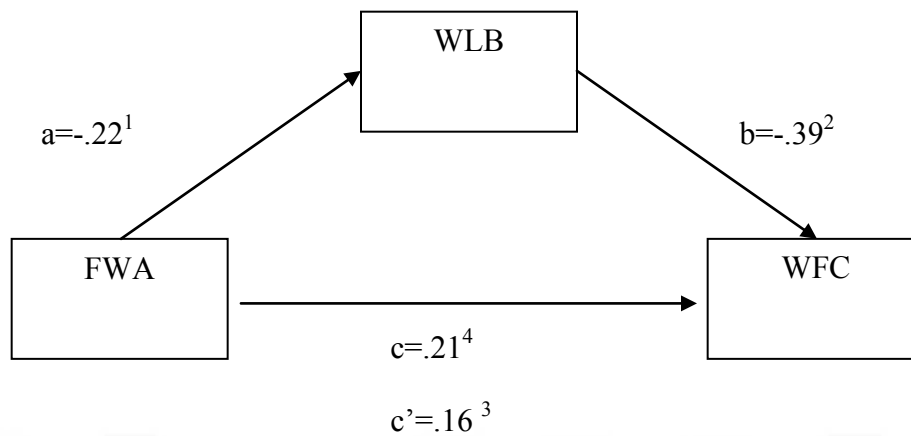


Figure 3. Work-life balance as a mediator between work-family conflict and flexible work arrangements. Note. WLB=work-life balance, WFC=work-family conflict, FWA=flexible work arrangements. a, b, c, and c' are standardized path coefficients.

¹ $p < .05$, ² $p < .00$, ³ $p < .10$, ⁴ $p < .05$.

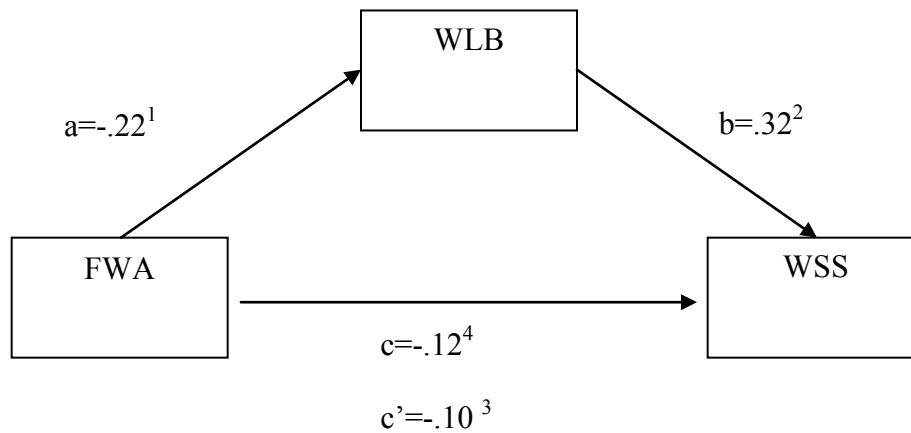


Figure 4. Work-life balance as a mediator between work social support and flexible work arrangements. *Note.* WLB=work-life balance, WSS-work social support, FWA=flexible work arrangements. a, b, c, and c' are standardized path coefficients.

¹ $p < .05$, ² $p < .00$, ³ $p < .50$, ⁴ $p < .10$.

percentages of positive comments further explain the positive impact of flexible work arrangements on work-life balance. Some of the themes that arise from the qualitative analysis include less stress, decreased commute time, increased productivity, freedom, ability to attend to personal life, more time spent with family, and the ability to exercise and eat healthier. One telecommuter wrote, “Telecommuting enables me to exercise on my lunch breaks and significantly improves my quality of life because I don't arrive home tired after an hour commute.” A ROWE employee wrote, “It gave me better control of my time and the additional flexibility allowed me to get more accomplished during a 24-hour period.”

The results of the study demonstrate the value of examining a range of variables, including moderating and mediating variables, and qualitative data to help explain the complex relationship between flexible work arrangements, work-family conflict, job satisfaction, work social support, and work-life balance. The following chapter discusses the key findings and the implications for organizations, as well as limitations of the present study and directions for future research.

CHAPTER VI

Discussion

Workplace flexibility is an emerging term in today's workforce. The present study examined whether different types of flexible work arrangements (ROWE vs. telecommuting) have beneficial outcomes (such as job satisfaction) for employees and organizations as compared to a non-flexible work environment. The current study explored how different types of flexible work arrangements affect WFC and job satisfaction, and whether work social support moderates this effect. This was an important study for several reasons. First, the results of this study may guide organizations that are looking to attract, retain, and engage employees toward expanding their flexible work offerings to maintain a competitive advantage. Secondly, this study brings quantitative rigor to case studies, survey studies, and qualitative reviews in an area that previously lacked empirical evidence. Furthermore, the results of this study may reveal new ways to improve work-life balance for employees. Individuals and organizations can use these results in support of flexible work arrangement initiatives, and decide which kinds of options are most useful for their organization.

Interpretation of the Findings

The present research sought to investigate whether flexible work arrangements were associated with more positive outcomes for employees, such as reduced work-family conflict and increased work social support, work-life balance and job satisfaction. While some of the differences were non-significant trends and should be interpreted with caution, overall the results suggest that flexible work arrangements have some impact on employee outcomes. Between the two flexible work arrangements studied, ROWE

produced more desirable outcomes, such as lower work-family conflict and greater work-life balance, than telecommuting. This can be explained by the fact that ROWE allows employees to work wherever they want, in the office, at home, or elsewhere, as well as whenever they want, during normal work hours or outside of normal work hours. In contrast, telecommuting restricts employees to work outside of the office, whether at home or a different location, during normal business hours. Giving employees the autonomy to work whenever and wherever they want, as ROWE does, allows for more time for family obligations, ultimately decreasing the strains of family demands, and providing greater work-life balance. It is plausible that the employees in the telecommuting condition felt isolated because they were not in the same physical location as their colleagues, and had difficulty separating work and family responsibilities because they were mostly working from home. The telecommuting group may have also felt resentful knowing that another department in their business unit was on ROWE and had the ultimate flexibility in time and place worked. Consequently, more desirable outcomes were obtained under the ROWE condition than the telecommuting condition.

The results suggest that flexible work arrangements benefit organizations in many ways. It is reasonable to assume that employees who have flexible work arrangements work longer hours because they experience less commute time, fewer distractions, better technology, and a more comfortable work environment. Organizations also benefit by retaining their high-potential employees who are more likely to stay with the company if work-life policies are offered. Flexible work arrangements enhance organizational competitive advantage and employee effectiveness. Having flexible work arrangements reduces operational expenses for organizations because having a work location for every

employee is not necessary, thus facility costs are decreased. ROWE is likely to increase employee engagement and commitment because it is attractive to employees who prefer to work traditional hours in the office as well as those who want to work at different times and places. Consequently, flexibility at work should be seen as a strategic business practice, as opposed to a program solely benefiting employees.

The results also suggest that ROWE decreased work-family conflict and increased work-life balance more than telecommuting. Although the results were not significant, they were in the predicted direction and therefore it is safe to interpret them cautiously. Families of the employees in the ROWE condition might have benefited since having flexibility enhances the employee's ability to meet family needs, especially for those taking care of young children or elderly parents. This is in line with Social Role Theory, which argues that work-family conflict tends to be more prevalent among women mainly because women typically focus on both work and family to a greater degree than men (Eagly, 1987). It is much harder for employees who hold multiple social roles to balance their work and life because they have to comply with the stereotyped roles society has placed on them. For example, employees who are managers at work and parents at home may experience difficulty balancing work and family obligations. For those people, an opportunity to work in flexible hours and locations, such as ROWE, increases the balance between work and non-work roles, and therefore decreases work-family conflict. In this study, almost 70% of the participants were males. Had the sample included more female employees, the effects of ROWE may have been more significant. In general, work-life balance produced more significant results than work-family conflict. This could be explained by the fact that employees are more likely to share positive experiences rather

than negative experiences. Positive experiences are easier to recall and when employees experience a positive outcome, they are motivated to share their perceptions and feelings with other employees. Achieving work-life balance is a positive experience, and employees most likely shared information about their satisfaction, whereas work-family conflict consists of negative experiences they may not have recalled experiencing within the 3-month period.

The results of the moderational analysis suggest that flexible work arrangements were particularly beneficial for those who had low work social support. This result can be explained by the fact that in a ROWE, employees have the ultimate flexibility in time and place worked, and therefore have higher job satisfaction than telecommuting even if they have low work social support; they do not necessarily need the support. However, in the telecommuting group, even though they have some flexibility, they still need support from their peers, supervisors, and others. This can be attributed to the fact that these employees feel a sense of isolation due to the lack of face-to-face time, and need to be emotionally supported by their work group because they are not physically near them. Organizations who are considering flexible work arrangements should look into creating social networks for those out of the office in order to minimize isolation and create a supportive environment.

Finally, the mediational analysis suggests that flexible work arrangements led to a reduction in work-family conflict, which in turn led to greater job satisfaction. This is consistent with past research that found that work-family conflict contributes to the perception of job satisfaction (Locke, 1976; Thoits, 1987). Thus, when employees are unable to balance their home and work lives, they will not be satisfied at work.

Organizations today widely recognize the demands that work and family place on employees. This finding should drive organizations that are actively trying to increase their employees' job satisfaction to first focus on decreasing employee work-family conflict by adopting flexible work arrangements.

Additional analysis examined work social support as a moderator of the relationship between flexible work arrangements and work-family conflict. The results showed that flexible work arrangements are particularly beneficial for those who had low work social support. The findings revealed that when employees lack the support of their colleagues, supervisors, or others, their work-family conflict is lower in a ROWE situation compared to those employees who telecommute. This could be explained by the fact that employees in the ROWE condition did not need the support of their colleagues, supervisors, and others because they can be in and out of the office at any time, and utilize social support from individuals outside of work, whereas telecommuters need social support because they are more isolated working outside of their regular workplace. These results emphasize the importance of providing more flexible work arrangement options for employees, and specifically investigating the possibility of implementing ROWE. Organizations should also look into internal social networks as a means of providing WSS for employees who are not in the same physical location on a daily basis.

Another analysis was conducted looking at work-life balance as a mediator of the relationship between flexible work arrangements and job satisfaction, work-family conflict, and work social support. The results revealed that being on flexible work arrangements increased job satisfaction and work social support, and decreased work-family conflict, because employees had work-life balance. These findings indicated that

having work-life balance is a key consequence of ROWE, which then led to positive outcomes for employees. Therefore, organizations should acknowledge that employees have responsibilities and lives outside of work and thus help individuals better manage these multiple demands by providing flexible work options.

In addition to the 1-item survey on work-life balance, the researcher further analyzed the qualitative data to provide additional support for this variable. The qualitative data consisted of a 1-item question. Two different raters coded the responses in order to control for inter-rater reliability. The emphasis on work-life balance was supported by the numerous positive comments written by employees on ROWE and telecommuting. The themes that emerged from the qualitative analysis include increased productivity, ability to spend more time with family, less stress due to decreased commute time, ability to exercise and eat healthier, and more time for personal needs. Employees on flexible work arrangements are better able to manage their responsibilities outside of work. They benefit from being able to juggle aspects of both work and life. As mentioned in the qualitative analysis, this allows for less stress in employees' personal lives. With regard to employer benefits, they gain a greater competitive edge to retain their high potential employees and to attract new ones.

Far too often, organizations launch flexible work arrangements without adequate preparation. Flexible work arrangements are more than a statement in the policy manual. Rather, they require new methods of managing employees, and every organization's needs and operating environment is different. Organizational Development (OD) professionals can find the best ways to implement flexible work arrangements successfully in organizations. Some executives often have preconceived notions about

allowing employees to have workplace flexibility. OD consultants can help executives understand the benefits of flexible work arrangements to the organization and its employees. It is also important to understand that flexible work arrangements are not always appropriate for all employees, jobs, or industries. Engaging executives in the return of investment they would receive from the formation of flexible work arrangements can increase their buy-in. Once executives have bought in to the benefits, OD professionals should work with them to communicate the benefits, and the process to begin flexible work arrangements to middle management. In most cases, managers will need training to be able to manage a mobile workforce. This new way of working requires managers to set clear expectations with their employees and learn to manage them virtually. An effective training can help managers set clear goals and design expectations for their employees. It is important to maintain communication and establish suitable ways to keep communication flow for those on flexible work arrangements. OD consultants can engage managers to expand their management skills, establish communication tools, and help align the organization's mission and vision to their expectations of employees. OD consultants can work with managers to communicate about the flexible work arrangements to employees. Telecommuting will most likely not require training, but OD professionals should create frequently asked questions (FAQs) to minimize confusion. ROWE, in contrast, will require training because it represents a culture shift, rather than a program or policy. Managers and employees will need to understand the specifications of ROWE in terms of attending required meetings and working from various locations at any time. Building FAQs for ROWE will also help minimize confusion. When creating flexible work arrangements, organizations should

have a clear strategy in terms of whether or not they will provide mobile worker equipment to employees, such as laptops, printers, etc. If a decision is made to provide this kind of equipment, organizations may incur costs up front. Organizations and employees may not experience the benefits of flexible work arrangements right away because it may take a while to transform the existing culture. Therefore, organizations should evaluate the job satisfaction and work-family conflict of employees on a regular basis after the transition to flexible work arrangements. With the help of OD professionals, organizations can eventually transform their culture to that of a mobile workforce, ultimately reducing facility costs and increasing job satisfaction and decreasing work-family conflict among employees. Eventually, the flexibility and independence will allow organizations to engage and retain their workforce and allow employees to focus on both their work and family responsibilities.

In conclusion, for employees who play dual roles and need to focus equally on both aspects of work and family, organizations should offer flexible work arrangement options to meet their needs. Facebook, Colgate-Palmolive, MTV Networks, and General Mills are some examples of organizations that demonstrate their value of work-life balance by maintaining a strong commitment to work-life balance, focusing on employee satisfaction and offering sabbaticals, flexible hours, work schedule flexibility, and flexible work arrangements (Glassdoor, 2011). Other organizations should follow their lead by becoming more sensitive to employees' lives, allowing them to choose when and where to work and giving them ample time-off throughout the year. It can be assumed that having this latitude through flexible work options would allow for a better balance of

work and non-work domains for employees, and allow organizations to attract, retain, and engage their key talent.

Limitations and Future Research

This study was limited to the departments that were chosen by the institution under investigation, which may create a bias and limit the study's external validity. However, because the departments consisted of various jobs and included both non-exempt and exempt employees, no serious threat to external validity was detected and the results can be generalized to the larger population. Ideally, future studies should look at larger sample sizes from various institutions and industries. In this way, the population will be more diverse and the results can be more generalized to the larger population.

Another limitation was that executives of the organization in this study assigned the departments to the three experimental conditions in this study (ROWE vs. telecommuting vs. control). Unfortunately, the data were archival, and as a result the researcher did not have control over the assignment procedure. Although lack of random assignment raises threats to the internal validity of the study, the executives were not familiar with employees' personal lives or their needs, due to the size of the organization, so they could not have chosen the flexible work arrangements according to the characteristics of their employees, or the department's culture. Consequently, bias is expected to be minimal. Future studies should look into randomly assigning flexible work arrangements to work groups in order to better control for internal validity.

A possible limitation is that the employees who were assigned to different experimental groups held varied expectations or perceptions about their job positions and responsibilities. That is, employees in the ROWE, telecommuting, and control groups

may have developed perceptions about their workload and set expectations in line with the work flexibility offered to them. For instance, it is feasible that employees in the ROWE group could have anticipated higher workload because ROWE allowed for the greatest flexibility. The amount of actual workload, as well as expected workload, could be considered a potential confound, and should be examined in future studies of this sort.

Some of the departments under investigation were engineering departments, which tends to be a predominantly male-dominated field. Not having equal male and female participants is another limitation of this study. Future studies should have equal participation from both genders. Also, as a cautionary note, these results may apply more to white-collar workers than to blue-collar workers. Future studies could try to explore blue-collar workers in flexible work arrangements; however, as stated before, flexible work arrangements are not always appropriate for all employees, jobs, or industries, so this may not be a significant limitation. Flexible work arrangements are most appropriate for employees who have clear job expectations set by their managers. If their job requires them to be in the office – for example administrative assistants who support others – their work may not be suitable for flexible work arrangements. However, both non-exempt and exempt employees can utilize flexible work arrangements. An example of non-exempt employees in flexible work arrangements includes call center employees who operate from their homes.

This study explored work-family conflict, job satisfaction, work-life balance, and work social support. The results from this study lay the groundwork for future research. Additional factors influencing job satisfaction and work-family conflict should be explored based on these results. First, the quality of the relationship between leaders and

followers should be examined as a moderator of the relationship between ROWE and job satisfaction, because, according to Leader-Member Exchange (LMX) Theory (Graen & Uhl-Bien, 1995), the quality of the leader-member exchange can affect job satisfaction. Personality could also be the focus of a future study, with potential moderators including the need for autonomy and/or affiliation. For example, high affiliation can be characterized by enjoying the company of others, which can lead to more constructive social relationships with a given flexible work arrangement. Isolation and feelings of loneliness, especially for telecommuters, should also be examined. If isolation is found to be associated with telecommuting, organizations may reconsider providing this option or may offer an alternative and only offer telecommuting two to three times a week. Work-life balance is another variable that should be looked at more closely. A pre-established measure of work-life balance should be used instead of a single-item measure. The effects of mobile technology use and its benefits or consequences regarding work-life balance should also be studied. Employees who are quick adopters of technology may find themselves having more work-life balance as opposed to those who are not quick adopters of technology. Work-family conflict, job satisfaction, work social support, and work-life balance should be explored in various flexible work arrangements, virtual teams, and virtual organizations to see if similar results are obtained. Future analysis should look at qualitative data including the open-ended questions explored in the study.

Another limitation of this study was the lack of pre-test and post-test comparison. Although the same measures (e.g., job satisfaction, work-family conflict etc.) were collected before and after implementation of flexible work arrangements, it was not possible to match pre-treatment and post-treatment data due to concerns about anonymity

and lack of proper data coding. Unfortunately, the decisions regarding data coding were made by the executives of the organization, not by the researcher. Thus the researcher was unable to examine and analyze matched data, and make conclusions about the benefits of flexible work arrangements based on before and after treatment scores. Future researchers should make attempts to code properly to match the pre and post data.

The time frame of this study could also be considered a limitation, as employees were surveyed after only a 3-month period of having flexible work arrangements. In such a short period of time, it is unknown whether employees in the ROWE group perceived work as *something to do* rather than *someplace to go*. Because ROWE represents a culture shift that takes time, future researchers should examine flexible work arrangements longitudinally (i.e., over a 6-month period or longer). A longitudinal study could provide more accurate results as to the stability of employee job satisfaction and work-family conflict since switching to a flexible work arrangement can be a huge culture shift that requires adjustment time for employees, their managers, as well as the organizations.

An additional limitation of this study is that it only looked at social support at work; future studies should consider looking into social support outside of work, including family and friends. Culture is an important factor because collectivistic and individualistic cultures define and value social support differently. In collectivistic cultures, people believe in interdependence, and the self is made meaningful through relationships, whereas individualistic cultures emphasize the independence of self from others (Hofstede, 1980; Triandis, 1990). Collectivistic societies value family as the main source of social support, as opposed to individualistic cultures, which value the partner or

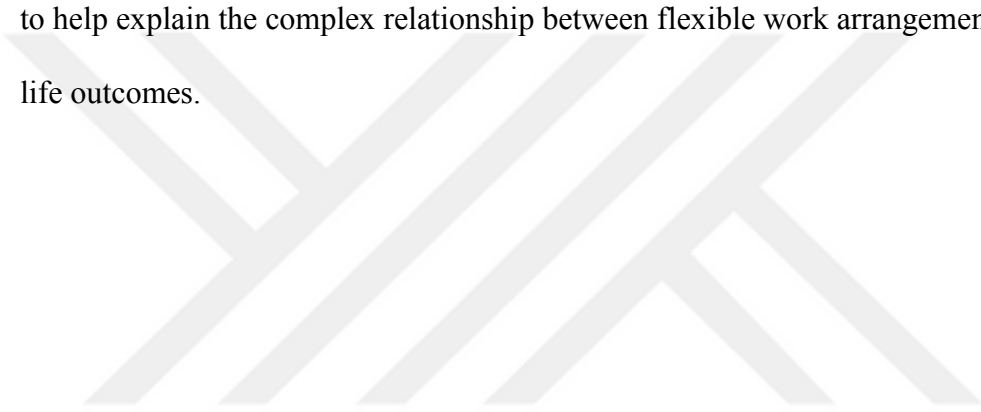
significant other as the main source of social support (Azaiza, 2008). Given how these two types of cultures define and value social support, future research should study both work and non-work social support and examine their consequences for employee and work outcomes in collectivistic and individualistic cultures.

In summary, the current results have implications for both organizations and academia. One of the most important revelations from this study for individuals and organizations is how valuable flexible work arrangements can be. Allowing employees flexibility in the workforce generates a positive return for organizations that value employee job satisfaction. In addition, employees who experience less work-family conflict are more inclined to be satisfied with their job and organization. Empirical research has been limited in this area and this research added to the literature in the areas of telecommuting, ROWE, job satisfaction, work-family conflict, work social support, and work-life balance. By examining additional variables, organizations will have a better understanding of flexibility in the workforce and its implications for employees. This study gives a perspective to Human Resource departments and OD professionals contemplating use of flexible work arrangements. Moreover, international organizations and virtual organizations already using some of these options can be assured that this new way of working can help achieve organizational outcomes.

Conclusion

The objective of the present study was to examine the effects of flexible work arrangements on job satisfaction and work-family conflict. The present study not only challenged the way work is traditionally done (i.e., in the office within given times), but also attempted to offer new suggestions as to how work can be done in a way that

satisfies both the organization and employees. This study will contribute to the growing acceptance among researchers and employers that flexibility at work can offer new opportunities for individuals to balance the scales between work and non-work life. Any employer that implements flexibility effectively, with the help of OD professionals, can be confident about achieving these effects to at least some degree. As discussions about flexibility in the workforce continue to advance, continued research is greatly warranted to help explain the complex relationship between flexible work arrangements and work-life outcomes.



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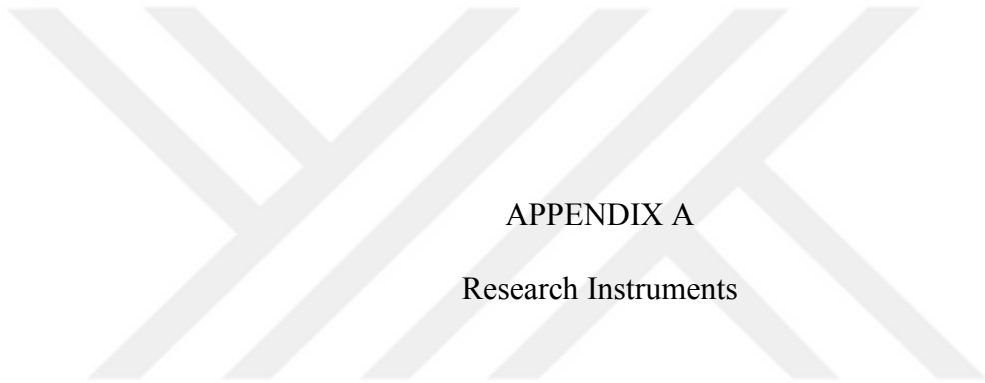
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APPENDIX A
Research Instruments

Demographics

1. Female / Male
2. Age _____
3. Department _____
4. How many years have you worked for Edison? _____
5. Indicate: Manager / Individual Contributor
6. Indicate your employment status:
Exempt / Non Exempt
7. On average, how many hours do you work per day during the work week? _____
8. On average, how many hours do you sleep per day during the work week? _____
9. Number of dependents being cared for (dependents include children and elderly)

10. Number of hours spent on household/dependents per day _____
11. Number of hours spent on exercise per day during the work week _____
12. Number of hours spent commuting to and from work per day _____

Work Family Conflict

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1	2	3	4	5

Please use the scale above to circle the corresponding number for items 1-8.

13. After work, I come home too tired to do some of the things I'd like to do.
14. On the job I have so much work to do that it takes away from my personal interests.
15. My family/friends dislike how often I am preoccupied with my work while I'm at home.
16. My work takes up time that I'd like to spend with family/friends.
17. My work often interferes with my family responsibilities
18. I'm often too tired at work because of the things I have to do at my home.
19. My personal demands are so great that it takes away from my work.
20. My supervisor and peers dislike how often I am preoccupied with my personal life while at work.

Work Social Support

Never	Rarely	Sometimes	Often	Very Often
1	2	3	4	5

Please indicate the degree to which each of the following is present at your work

- 21. Feedback from others
- 22. Appreciation
- 23. Recognition
- 24. Opportunity to take time off when in need
- 25. Sharing of duties
- 26. Sharing of responsibilities
- 27. Emotional support

Please indicate the consistency of the support received from the following person or group of persons using the scale above.

- 28. Supervisors
- 29. Co-workers
- 30. Sub-ordinates

Job Satisfaction

Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied
1	2	3	4

Please indicate which of the following most represents your experience or feelings. Please select the appropriate number for each statement or questions.

31. Your present job when you compare it to others in the organization?
32. The progress you are making toward the goals you set for yourself in your present position?
33. The chance your job gives you to do what you are best at?
34. Your present job when you consider the expectations you had when you took the job?
35. Your present job in light of your career expectations.

Open Ended:

Never	Rarely	Some of the time	Most of the time	All of the time
1	2	3	4	5

Please indicate using the scale above and further explain your answer.

36. Do you put more effort into your work than is required? Please explain.

37. Do your results exceed your individual work goals? Please explain.

38. Does communication in your department flow well? Please explain.

39. Please only answer if you have participated in the telecommuting/ROWE pilots:

How did alternative work arrangements impact your work and personal life?

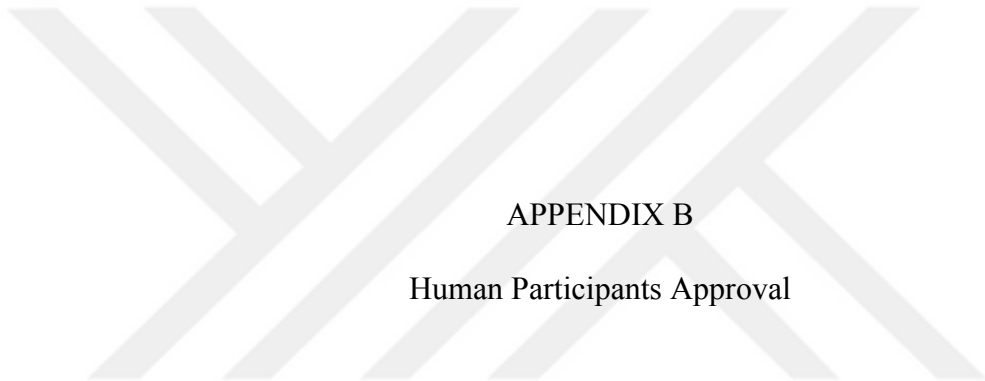
Please explain.

Work-life Balance

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1	2	3	4	5

Please indicate using the scale above and further explain your answer.

40. I have a reasonable balance between my work and personal life.



APPENDIX B

Human Participants Approval



ALLIANT
INTERNATIONAL UNIVERSITY

Sent Via Email

▼ *December 6, 2011*

Dear Melissa Hosboyar,

Your Human Participants application "The Role of Flexible Work Arrangements on Employee Job Satisfaction and Work-Family Conflict" has been evaluated by a Los Angeles HPPC committee member and was found to be exempt research, which does not require further HPPC review.

Sincerely,
Natalie Dey

Natalie Dey
HPPC Member
Alliant International University, Los Angeles