

The Impact of Flexible Work Arrangements on Employee Engagement

by

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Abstract

A flexible work arrangement pilot program was implemented in the corporate office of a mid-size organization. To assess the impact of flexible work arrangements on employee engagement, surveys were administered prior to program implementation as well as following the pilot program. Results indicate no significant change in employee engagement based on flexible work arrangement use, but a trend that employees using flexible work arrangements demonstrated a slight decrease in work-life conflict, and those who did not use flexible work arrangements reported a slight increase. Additionally, role autonomy and supportive supervisor behaviors were found to be predictive of employee engagement at both timepoints. Post-pilot program, salaried employees and those with supervisory responsibilities reported more work-life conflict. Results suggest that the second-level supervisor may play a role in preventing work-life balance.

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“What lies behind us and what lies before us are tiny matters compared to what lies within us.” – Ralph Waldo Emerson

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The Impact of Flexible Work Arrangements on Employee Engagement

Offering flexibility for employee's work arrangements has become increasingly popular. In her summary of a recent study by the Society for Human Resources Management (SHRM), Gorman (2014) notes that 32% of responding organizations reported an increase in requests for flexibility. Offering flexibility in response to employee requests is what Perlow and Kelly (2014) term the Accommodation Model, where the nature of the work remains the same but the means for executing the work may vary based on employee need. (As a reference, Perlow and Kelly's contrasting view is the Work Redesign Model, which is based on the belief that the nature of the work itself is the heart of the issue and strives to reevaluate the standards for work outcomes.) Organizations that offer flexibility may be viewed as caring more about their employees than peer organizations who do not offer similar benefits, a perception which is thought to hold true regardless of actual use of such arrangements (Grover & Crooker, 1995). Companies may allow each employee and their manager to determine informally what arrangements work best. While informal practices may be useful at the work group level, they can create inconsistencies across the organization. To address these inconsistencies, organizations are increasingly choosing to implement clearly defined options for flexible work. Gorman (2014) reports that SHRM defined flexible work arrangements as "a dynamic partnership between employers and employees that defines how, when and where work gets done in ways that work for everyone involved (including families, clients and other stakeholders.)" A similar definition of flexible work arrangements comes from Galinsky, Bond and Sakai (2008), who define flexibility in work time and location as "various forms of flexibility that affect when and/or where employees do their job, such as flextime, telecommuting and compressed workweeks." Note that both of these definitions differentiate between flextime, the hours an

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employee works to complete their job, and flexplace, the location where an employee's work is completed (Allen, Johnson, Kiburz & Shockley, 2013). While there are many forms of flexibility in both categories, the three examples provided in Galinsky, Bond and Sakai's (2008) definition are among the most common (Allen & Shockley, 2009), and each is further defined below.

Flexible scheduling is the easiest manifestation of flextime, allowing employees to set their own working hours rather than prescribing to organizationally mandated scheduling (Baltes, Briggs, Huff, Wright & Neuman, 1999). Another manifestation of flextime is a compressed work week, which involves taking the forty hours of expected work from a standard five day work week and allocating those same forty hours over three or four days (Ronen & Primps, 1981). While compressed work weeks reduce employee commute time, they necessarily lengthen the workday. Working long shifts is a matter of public concern regarding safety. However, in a comparison of 8, 10 and 12 hour shifts for police officers, Amendola, Weisburd, Hamilton, Jones and Slipka (2011) did not find any significant safety or performance issues, despite increased sleepiness. In fact, Cunningham (1982) noted that employees found it easier to complete their work tasks when working longer shifts. While Cunningham notes that compressed work schedules may vary based on individual differences, including age, gender, marital status, number of children, education and training, and availability of family and community support mechanisms, it is easy to imagine that these individual differences are a consideration for all forms of flexible work arrangements.

The most common manifestation of flexplace is telecommuting. Also known as telework or virtual work, telecommuting refers to an employee who completes their normal job duties at a location other than the employer's main office (Morgeson, Major, Oborn, Verive & Heelan,

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2009). Depending on the nature of the role, telework may not be a viable option for all employees (e.g., a banker may not be able to take client information off site to work from an alternate location.) However, employers may still wish to include telework benefits as one of many work-life balance offerings to ensure that employees have options that suit their specific needs.

Goals of Flexible Work Arrangements

When implementing flexible work arrangements, the organization's goal is typically to improve employee engagement, job satisfaction, commitment, absenteeism and retention. This aim is based in social exchange theory (nicely summarized by Emerson, 1976), whereby an employee who feels that they are receiving benefit from their employer in the form of flexibility is likely to reciprocate with positive organizational outcomes (Allen & Shockley, 2009).

Flexible work programs can also make the company more attractive to potential candidates, allowing for the recruitment of "top talent" to fill open roles. The underlying premise is to create a "value proposition" for potential candidates by offering attractive services, products or values to differentiate itself from competitors. Some assert that flexible work arrangements can even reduce health care costs for employers, by allowing employees the flexibility to go to doctor's appointments and through reducing stress (e.g., a reduced commute, Galinsky et. al., 2008).

Flexible work arrangements may also reduce stress by alleviating restraints on resources needed to engage in multiple life roles. Role theory (Katz & Kahn, 1978) posits that each individual plays multiple roles in differing domains, often concurrently. Consider these differing roles in light of the finite resources (e.g., time, money, energy) needed to engage in the different aspects of their life. The resource-drain theory implies that the depletion of a resource due to focus in one role reduces the availability of that resource for use in other roles, creating conflict (Edwards

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& Rothbard, 2000; Evans & Bartolome, 1984; Zedeck & Mosier, 1990.) A salient example is that time spent working is time that one cannot engage in other endeavors, such as community service. To address such resource constraints, companies are increasingly offering employees more autonomy to balance their work and personal life through flexible work arrangements (Allen & Shockley, 2009).

Work-Life Balance in Organizations

Work-life balance has been defined as satisfaction and minimal conflict between work and non-work roles (Clark, 2001). Kossek, Valcour and Lirio (2014) recently noted that there is no ideal model for balance between work and non-work; it depends on each individual's values, priorities and motivations. Research on work-life balance has increased in recent years (Eby et al., 2005) largely grown from the related, but more specific, areas of work and family. To better understand work-life balance, it is helpful to define and summarize key research on work and family. Work-family conflict (WFC) refers to the experience of conflict between the work and family roles (Greenhaus & Beutell, 1985). This conflict can manifest itself in two directions (Netemeyer, Boles & McMurrian, 1996). In the first, aspects of a work role can interfere with aspects of a family role in a form of conflict that has been termed work interfering with family (WIF). Conversely, aspects of a family role can interfere with a work role, creating conflict referred to as family interfering with work (FIW). In either direction, WFC can manifest itself as time-based, strain-based or behavior-based conflict (Greenhaus & Beutell, 1985). Time-based conflict occurs when time taken in one role creates difficulty participating in another role; strain-based conflict is when strain experienced in one role interferes with participation in another role; and finally, behavior-based conflict occurs when behaviors performed in the service of one role interfere with the behavioral expectations of another role.

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In contrast to work-family conflict, which is where pressures from one domain impede the ability to be effective in the other domain, work-family facilitation (WFF) occurs when strategies from one domain enhance effectiveness in the other domain (Frone, Russell & Cooper, 1997a), and also has two directions: family outcomes facilitating work outcomes, and work outcomes facilitating family outcomes. Another conceptualization of the positive relationship between work and family roles is work-family enrichment (WFE). Greenhaus and Powell (2006) posit that in WFE, one domain improves the quality of life in the other in one of three ways: additive effects on well being, buffering stress so that it is isolated to one role, and transferring positive experiences from one role to the other. Like WFC and WFF, WFE is also posited to take two directions: work enriching family, and family enriching work. Work-family enrichment has also been related to increased job satisfaction and decreased turnover intentions (McNall, Masuda & Nicklin, 2010). Although WFE and WFF sound like similar constructs, Grzywacz, Carlson, Kacmar and Wayne (2007) note that enrichment should be used when describing positive effects at the individual level of analysis, whereas facilitation is more appropriate for positive effects at higher levels, such as the organization. Furthermore, WFF, WFE and WFC are researched as separate constructs with differing antecedents and consequences. It is true that the impacts of WFF and WFE on key organizational outcomes such as satisfaction and turnover intentions are similar to the results obtained from research on WFC, but it would be erroneous to assume that all WFC relationships hold true in the opposite direction for WFF or WFE. Research to confirm or refute such relationships is ongoing.

Balance encompasses both reducing conflict and increasing facilitation, and has considered research stemming from both areas (e.g., Julien, Somerville & Culp, 2011; Lauzun, Morgeson, Major & Green, 2010). Many studies of work-life balance use work-family

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questionnaires and alter the language of the questions to address “home,” “personal life,” or “non-work” instead of “family” (Grzywacz & Marks, 2000; van Steenbergen, Ellemers & Mooijaart, 2007). It is important to note that such questionnaires measure self-reported constructs, and therefore are measures of employee perceptions rather than objective accounts of conflict, facilitation or balance. Understanding this nuance allows organizations to influence general employee perceptions without dealing in the idiosyncrasies related to specific instances of imbalance. Organizations often attempt to influence employee perceptions of balance by implementing policies or practices designed to decrease work-life conflict or increase work-life facilitation. Again, it is worth noting that work-life balance is not simply the opposite of conflict, though they are inversely related (Kossek et. al., 2014). More research is needed to examine if reduction of conflict does directly relate to balance, or if there is a spurious variable which links the two. Additionally, the focus on non-work rather than family encompasses many more domains, so antecedents, consequences, mediators and moderators may differ.

Benefits of Improving Work-Life Balance

Work-life balance has been related with many indicators of employee satisfaction and well-being. For example, organizationally facilitated opportunities to reduce stress and achieve wellness have been found to mediate the relationship between work-life balance and engagement (Parkes & Langford, 2008). This implies that organizations can proactively create situations which facilitate work-life balance and engagement simultaneously. Research has also identified outcomes related to employee perceptions of WFC and WFF which are relevant to a discussion of balance. Increased WFC has been related to higher stress (Kelloway, Gottlieb, & Barham, 1999; Parasuraman & Simmers, 2001), increases in depression and anxiety (Frone, 2000; Grzywacz & Bass, 2003), anxiety disorders, mood disorders, and substance abuse disorders

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(Frone, 2000), as well as physical health complaints and hypertension (Frone et. al., 1997a). Attitudinal consequences of an increase in WFC include lower life and job satisfaction (Kossek & Ozecki, 1998; Michel & Clark, 2009), lower marital satisfaction (Judge, Ilies, & Scott, 2006; Matthews, Conger, & Wickrama, 1996), and lower family satisfaction (Bedeian, Burke, & Moffett, 1988). Beyond satisfaction, increased WFC is also related to increased turnover intentions (Greenhaus, Parasuraman, & Collins, 2001; Kelloway et al., 1999) and employee burnout (Amstad, Meier, Fasel, Elfering, & Semmer, 2011; Peeters, Montgomery, Bakker, & Schaufeli, 2005.) Previous research has shown that WFF is positively related to organizational commitment, job satisfaction, organizational citizenship behaviors, and decreased turnover intentions (Aryee, Srinivas & Tan, 2005; Balmforth & Gardner, 2006). While research to show that these same relationships hold for perceptions of work-life balance is ongoing, it is reasonable to assume that reducing conflict is desirable for organizations and therefore a relevant consideration.

Do Flexible Work Arrangements Work?

Studies demonstrate some support for the use of flexible work arrangements to improve work-life balance. For example, research specific to the use of telework as a benefit to improve work-life balance show mixed results. Troup and Rose (2008) report that employees who used formal or informal telework arrangements reported higher job satisfaction than their peers who did not telework. Another study found that use of telework increased time-based interference but decreased strain-based interference, a result which is attributed to the lack of boundary between home and work for teleworking employees (Lapierre & Allen, 2006). Morgeson and colleagues (2009) also demonstrated mixed results when investigating workplace inclusion, work-life supports and job satisfaction in four work locations: the employer's main office, a satellite office,

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a client's office or a home office. The results indicate that employees teleworking outside of the main office reported reduced workplace inclusion. When controlling for this reduced inclusion, employees who worked from home reported increased job satisfaction. The variance across the results of many studies should not prevent employers from offering telework options; rather they show the importance of considering multiple variables when assessing the effectiveness of telework policies.

Studies on other forms of flexible arrangements generally point to positive outcomes. Use of compressed work weeks have been found to decrease work-life conflict (Julien et al., 2011), and increase job satisfaction, especially related to satisfaction with scheduling (Baltes, Briggs, Huff, Wright & Neuman, 1999). Offering flextime allows for greater employee autonomy, thus facilitating work-life balance (Thomas & Ganster, 1995) and has been related to increased productivity, increased job satisfaction, increased organization commitment, and decreased absenteeism (Baltes et al., 1999; Grover & Cooker, 1995). A recent meta-analysis indicates that flextime has a stronger relationship to work interfering with employees personal lives than does flexplace (Allen, Johnson, Kiburz, & Shockley, 2013). Perceived usability of flexible scheduling has been found to be significantly predictive of work-life balance (Hayman, 2009); however, perceptions of usability are subjective and may be highly influenced by organizational culture.

The Role of Organizational Culture

Despite a company's best intentions, the existence of formally stated or informally practiced organizational policies does not always translate to improved work-life balance. Allen and colleagues (2013) meta-analysis investigated the availability of flexible work arrangements compared to the actual use of such arrangements. Interestingly, they found that when

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considering flextime, availability had a more negative relationship with work interfering with family than did use, indicating that an actual change in employee schedule was more beneficial than the knowledge that such changes were an option. However, for flexplace the opposite held true such that use had a greater negative impact on work interfering with family than did availability, illustrating that just having a policy that allows for working remotely is more beneficial than the actual use of such an arrangement.

Galinsky and colleagues (2008) defined a culture of flexibility as “whether supervisors are knowledgeable about flexible practices and promote and communicate them effectively.” Note that this construct is defined separately from flexibility in work arrangements (time or place). The culture of a workplace may discourage the use of flexible scheduling policies or even render them a detriment to one’s career; accordingly, many researchers have noted the importance of cultural support to facilitation of work-life balance (e.g., Clark, 2001; Kossek, Baltes & Matthews, 2011). Budd and Mumford (2006) noted that a third of managers surveyed indicated that no one in their work group utilized family friendly policies, while half of the managers reported estimated usage at less than 10%. Some employees are hesitant to take advantage of flexible work arrangements because they fear negative consequences for their current or future roles (Cole, 2006). Organizations face the challenge of encouraging use of policies to improve work-life balance while curbing negative perceptions. Wells (2011) notes the importance of decreasing manager resistance to policy use as well as creating a culture of work-life balance, underscoring that supervisor support and organizational culture must work in concert with the available policies and resources to effectively increase employee perceptions of balance. Research supports the impact of culture on balance, noting that the effect of long hours

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on work-family balance was attenuated when the culture of the organization was perceived to be family-friendly (McNamara, Pitt-Catsouphes, Matz-Costa, Brown & Valcour, 2013).

Lauzun and colleagues (2010) further demonstrated the importance of culture in shaping perceptions of work-life balance. Employees at a Fortune 500 company were instructed to make requests that they felt would facilitate work-life balance, and supervisors were asked to track whether they could accommodate the request. Most requests were supported, including 58% of scheduling and time off requests that would fall into the realm of flextime. For those requests that could not be accommodated, organizational barriers such as lack of authority and resources to support a request were the most cited reasons for denial. However, some requests were viewed as violating the social norms of the organization and were therefore denied, demonstrating the role of organizational culture in response to employee attempts to balance work and personal life. While there is a paucity of empirical research regarding the creation of a culture which facilitates work-life balance, researchers do have a number of recommendations for future research and practice. McDonald, Brown and Bradley (2005) identify five key factors which prevent use of work-life policies that can be addressed by cultural changes. Each of these five factors are discussed below.

First, the organization should facilitate supportive supervisory behaviors. Supervisor support is demonstrated through behaviors which create an environment that allows for employee work-life balance (Thomas & Gastner, 1995). Generally, supportive supervisor behaviors include both emotional and instrumental support (Lauzun et al., 2010). Emotional support involves listening, empathizing and understanding unique employee situations, whereas instrumental support includes tangible resources or services offered to improve work-life balance. Family supportive supervisory behaviors have been found to be positively related to

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work life balance (Darcy, McCarthy, Hill & Grady, 2012; Greenhaus, Ziegert & Allen, 2012) and negatively related to work-family conflict, including role strain and role overload (Frone, Yardley & Markel, 1997b; Lapierre & Allen, 2006; Thomas & Ganster, 1995).

Educating managers on organizational policy and supportive behaviors is one way to encourage supportive supervision. In a study by Hammer, Kossek, Anger, Bodner and Zimmerman (2010), researchers partnered with a grocery store chain who sought to reduce WFC through family friendly policies, training on family supportive supervisor behaviors, and a voluntary self-monitoring exercise. Voydanoff (2004) notes that supervisor responsiveness to discussing family obligations can facilitate use of family-friendly policies, and it is reasonable to expect that supervisory support of other non-work issues will encourage use of related policies as well. McCarthy, Darcy and Grady (2010) also suggest that managers who feel a sense of control over policy construction and implementation are more likely to demonstrate behaviors that are supportive of work-life balance. However, supportive supervisory behaviors alone may not be enough to impact perceptions of work-life balance. Clark (2001) found mixed results for the impact of supportive supervisor behaviors, noting that some employees (particularly those with more dependents) reported dissatisfaction with their home role regardless of supervisor support. This persistent dissatisfaction may be due to individual differences; for example, negative affectivity has been related to increased work-family conflict and decreased job and life satisfaction (Michel & Clark, 2009). Personality traits such as negative affectivity are considered fairly stable, so there may be little that organizations can do to increase satisfaction for negative affect employees. However, by creating a culture of work-life balance, organizations can attract and retain employees who value work-life balance to replace attrition from naturally dissatisfied employees.

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Second, negative perceptions associated with the use of work-life policies should be removed. A recent study by McDonald, Bradley and Brown (2008) notes that, despite support for flexible work arrangements, the “temporary invisibility” associated with using flextime, part-time or telework arrangements still has a negative impact on career outcomes, including performance assessments and assignment of major projects. Employees who utilize family-friendly policies are also viewed as less committed to the organization (Allen & Russell, 1999). Negative perceptions like these are discussed among co-workers (Kirby & Krone, 2002), which can deter those who are eligible for or interested in using organizational policies from doing so. Employees may fear that being seen as less committed or missing out on major projects will impede their career advancement opportunities. Organizational leadership must be sure to demonstrate work-life balance to perpetuate a culture where career success and balance can co-exist. Additionally, because supervisors are thought to be especially important in serving as a role model for work-life balance, including policy use (Thomas & Ganster, 1995), employees who see their managers demonstrating balance and taking advantage of work-life policies may be more likely to do so themselves.

Third, organizations may need to adjust their time expectations to allow for work-life balance. Many organizations do not operate according to a strict 40-hour per week schedule, and many professionals, such as teachers or lawyers, are expected to complete a great deal of work during non-working hours. Adjusting work-time commitment has been found to decrease reports of work-family conflict (Frone et al., 1997b). The use of alternate work schedules may be one step to addressing employee perceptions about organizational time expectations. Supervisors are directly involved in managing time expectations through assignment of tasks and deadlines, as well as approval of schedule changes or time off. Furthermore, supervisors are generally

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responsible for communicating information about work-life policies. This communication can set the tone for whether an employee feels that it is acceptable to alter their work-time commitment through use of organizational policy.

Fourth, organizations should ensure that policies are inclusive for all employees. McDonald and colleagues (2005) note this particularly in reference to differential rates of utilization by gender. Allen and Russell (1997) note that male employees who take parental leave receive fewer rewards than their female counterparts, and a qualitative analysis by Kirby and Krone (2002) illustrate multiple instances of males who wished to take paternity leave but felt that they could not, or were actively discouraged when they tried. Though studies on use of flexible work may demonstrate differential positive benefits to female employees (e.g., Troup & Rose, 2012), males should not be excluded. Additionally, there may be other individual differences beyond gender that discourage some employees from taking advantage of work-life benefits. For example, consider sexual orientation - a homosexual employee may not be comfortable including his or her partner on a health plan if the employee's sexual orientation has not been shared at work. Career phase, generation, and availability of social support are other examples of the countless individual differences that may impact use of work-life policies. Further, the idea of a formal "need" is not consistent with pursuits of balance – Kossek and colleagues (2014) note that some employees may wish to engage in community service, religion, exercise, education or other activities outside of work and may still benefit from flexibility to engage in such pursuits.

Fifth, organizations need to combat "backlash," where those who do not (or cannot) use flexible arrangements express jealousy or disdain for those who do. For example, while the educational intervention recommended by Hammer and colleagues (2010) proved successful for

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those employees who experienced high levels of work-family conflict, it was actually detrimental for those employees who experienced low levels of work-family conflict. The effect of this “work-family backlash” is that employees who do not experience work-family conflict felt that the intervention demonstrated favoritism toward those with families, causing an ingroup/outgroup bias. Other researchers have also discussed this phenomenon, noting that those without families often feel burdened with additional work to make up for colleagues who utilize work-life policies (Flynn, 1996; Kirby & Krone, 2002; Kossek, Baltes & Matthews, 2011). This backlash can damage team dynamics and impede the completion of work-related tasks. Ensuring that work-life policies are inclusive is one way to reduce backlash, as employees without traditional familial obligations will be availed of comparable benefits. Including work-life policies and benefits as part of an overall employee “wellness” initiative may also promote inclusion, offering physical and mental wellness benefits such as smoking cessation, gym memberships, stress reduction classes, or time management resources. Employees are more likely to find initiatives that are meaningful to their personal situations, decreasing backlash by ensuring that organizational resources are fairly allocated to increase the well being of all employees regardless of family status.

Increasing the Impact of Flexible Work Arrangements

When implementing formal flexible work arrangement programs, companies would do well to ensure that they are perceived as inclusive. To avoid the backlash associated with policies which create balance only for those with familial responsibilities, organizations may wish to focus on creating balance between work and personal life for all employees. It may be beneficial to take measures to help employees fully understand the flexible work arrangements offered and the criteria for eligibility. Trainings, reference guides and discussion points can help

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employees better select the appropriate arrangement for their individual situation. The presence of a dedicated human resources representative to answer questions and assist with benefit use is related to increase accessibility (Budd & Mumford, 2006). Ensure that employees know who to go to with questions, and prepare human resources professionals to address questions or issues related to the use of flexible arrangements.

Companies may also improve the impact of their flexible work arrangement programs by pairing these offerings with other policies that also promote work-life balance. Known as family support policies, organizations could consider expanding company-sponsored benefits to cover more employees, such as including paternity or adoptive leave in addition to existing maternity leave policies, or choosing a health care plan which covers fertility treatments. Organizations may also wish to extend coverage to be more inclusive of non-employee groups, such as offering health care to domestic partners. Due to the restraints of the Health Insurance Portability and Accountability Act (HIPAA), use of organizational benefits like health care is often more confidential than the use of alternate work arrangements, which can be highly visible to co-workers and management. The privacy associated with resource use may allow employees to utilize benefits such as adoption assistance with less fear of future career impairment; however, no study to date has investigated this difference. Other benefits may involve the creation of new services or resources, such as partnerships with local child care or elder care facilities. Such benefits can facilitate balance by reducing financial burden and easing the stress of locating resources (e.g., finding a trustworthy child care facility). Studies note the use of benefits such as child care have been related to reduced WFC (Payne, Cook & Diaz, 2012). Research indicates that employees with elder care responsibilities experience similar levels of WFC to those with child care responsibilities (Lee, Foos & Clow, 2010), and indicates that perceived organization

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support for elder care responsibilities can reduce strain and improve engagement (Zacher & Schulz, 2015). Broadly, the availability and subsequent use of work-family policies is associated with reduced work-family conflict for those who deem the policies to be important (Wang, Lawler & Shi, 2011).

Companies should note that formally stated policies alone are not enough to improve work-life balance for employees. Organizations should strive to create a culture of flexibility, including promoting supportive supervision, removing of resistance and reduction of negative perceptions, clarifying expectations of employee work-time commitments, fostering of an inclusive culture in which policies benefit all employees, and reducing backlash by coworkers (McDonald et al, 2005). To avoid backlash, organizations should consider offering a range of inclusive policies covering alternative work arrangements as well as organizational benefits, services and resources. Policies and practices should be distributed across all employees and not just focused on those with traditional family arrangements. While there are still many areas where work-life research is needed, the existing literature recommends this alignment of formal policy with organizational culture to ensure that organizations and employees receive maximal benefit from work-life initiatives.

The Present Study

Based on the results of exit interviews citing a lack of work-life balance, as well as known issues brought to the attention of management and Human Resources, senior leadership of a Fortune 500 wholesale distribution company proposed a formal work-life balance intervention. Prior to the intervention, some participants may have been using flexible work arrangements by request and at the discretion of their supervisor. However, the guidelines for use and execution of arrangements were inconsistent across teams, and the availability of flexible

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work arrangements was not widely publicized, so a more formal approach was deemed appropriate. Known as Flex, the effort was championed by the head of Human Resources and executed by a project team, including the author who was employed by the company and involved in the project as part of her role. The project team suggested surveying employees at baseline and after a pilot program to test the effectiveness of the intervention, and these archival data are the basis for the current study.

The intervention sought to improve employee engagement (as measured by turnover intentions, job satisfaction and work-life balance) through the formal implementation of a flexible work arrangement program which emphasized work-life balance for all employees (with emphasis on “non-work” rather than “family.”) Based on the outcomes of Hammer and colleagues (2010), the role of supportive supervisor behaviors was addressed through a formal training intervention for all people managers. Additionally, to ensure understanding of the program and answer employee questions, an optional training was available for interested employees. Baseline and follow-up surveys were used to gauge the state of work-life balance post-implementation.

The program was open to departments by invitation, but not all department leaders accepted the invitation. Within departments who did participate, not all employees chose to utilize flexible arrangements (that is, a traditional work schedule best suited their needs). Therefore, four groups of participants emerge: those who could participate in flexible arrangements and did so (referred to as Users), those who could participate in flexible arrangements and chose not to do so (referred to as Opt Out), and those who did not participate in the pilot program (referred to as Control Users or Control Non-Users).

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The organization's goal was to improve employee engagement through flexible work arrangements without preconceived ideas about how the relationship between the constructs manifests itself. Therefore, this study contributes to the literature by exploring a real-world dataset for interesting relationships rather than pursuing any a priori hypotheses. Research questions are focused on the relationship between the use of flexible work arrangements and employee engagement as assessed by job satisfaction, turnover intentions and work-life balance. Supportive supervisor behaviors and role autonomy are also considered as potentially related constructs.

RQ1: How did employee engagement change from baseline to post-pilot program measures?

RQ2: How is use of flexible work arrangements related to employee engagement?

RQ3: How is use of flexible work arrangements related to perceptions of supervisor supportiveness?

RQ4: How is use of flexible work arrangements related to perceived role autonomy?

Method

Participants

All employees working at the corporate office for a wholesale distribution company (at baseline, N = 835, with 87.8% salaried office workers and 12.2% hourly office workers) were invited to participate in two online surveys (see Appendices A and B for copies of the email communications inviting participants to respond.) There was some minor variance in participants over the course of the study (approximately 10 months) due to attrition and hiring. No large scale hiring efforts or reductions in force occurred during this timeframe, so it is

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reasonable to assume that comparisons of data pre-intervention and post-intervention represent the overall change in attitudes for the aggregate corporate workforce.

For participation in the Flex intervention, the leaders of business departments self-selected their corporate teams into a pilot program to test the enhanced offerings. Prior to deciding to participate, leaders were informed that the Flex program included training for managers to provide “best practices” to support flexible arrangements (the term “supportive supervisor behaviors” would not have resonated in the corporate environment). Thirteen department leaders representing approximately 67% of the corporate office chose to involve their teams in the pilot program. Five department leaders chose not to participate, representing 33% of the corporate office, and employees in these departments will serve as a “control” group – they were not able to participate in the Flex program and did not receive training, but were invited to participate in the surveys. More details on the characteristics of employees in each group are included in Table 1.

Procedure

A flexible work arrangement pilot program was proposed at a Fortune 500 wholesale distribution company in the suburbs of a large Midwestern city. Senior leadership appointed a project team to execute a pilot program, referred to as Flex. Prior to the Flex pilot program, some employees within the company were already using flexible work arrangements by request and based on the discretion of each individual manager. Previously, some salaried employees may have had the opportunity to telecommute one day each week, and a small number of hourly employees may have been approved for a compressed work week (4x10, or four 10-hour days.)

For the pilot program, telecommuting and compressed work weeks were expanded as an offering for all employees (salaried and hourly), and a new compressed work week offering was

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created – 4.5x9, where employees could work four full days and one half day each week. Additionally, flexible hours (the ability to set your own schedule) were defined as its own flexible work arrangement. Each option was reviewed carefully by the in-house legal counsel before being presented to associates. An online request and approval process was developed with assistance from Information Technology, allowing employees to submit a request which is automatically routed to the manager for approval. Finally, separate training programs for managers and employees were developed to help them better understand the benefits of working flexibly, information about the specific offerings, and how to work effectively with flexible arrangements (for managers, this included information on supportive supervisor behaviors).

While the pilot program components were being developed, a baseline survey was sent via email to all employees at the corporate office asking them to voluntarily assess their current job satisfaction, intention to turn over, role autonomy, supportive supervisor behavior and work life balance (see Appendix C for the baseline questionnaire) The survey questions from established scales were heavily amended (as described in the Measures section of this manuscript) to suit the needs of the organization. Decisions about item removal or alteration were based on input from organization senior leadership prior to baseline survey distribution. The survey was administered electronically using Qualtrics survey solution (refer back to Appendix A for a copy of the communication), and participants were given two weeks to respond. No identifying information was collected, but participants had the option to create a private codename that they could use across both surveys.

Upon finalizing the offerings, and preparing the online request form and training components, communications were sent to the leaders of each corporate department (e.g., Marketing, Finance, Transportation) inviting their teams to join the pilot program. Leaders

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voluntarily chose whether to include their corporate-based teams in the pilot program. Those agreeing to participate (13 leaders representing approximately 562 employees) received emails confirming the timing and structure of the pilot program components.

To begin the pilot program, managers of employees in participating departments were invited to a voluntary one-hour in-person training that explained the goals of the Flex pilot program, the different offerings available, the process for reviewing and approving requests for flexible arrangements, and the importance of supportive supervisor behaviors. After all manager training sessions were complete, employees in the pilot program were invited to similar one-hour, in-person voluntary trainings that explained the goals of the Flex pilot program, the different offerings available, the process for completing and submitting the request for flexible arrangements, and best practices for working a flexible schedule. Note that managers also function as employees, and were therefore invited to attend both training events.

For six months following the training sessions, employees and managers were able to apply for and use approved flexible work arrangements with support from their managers. At the end of six months, a follow up survey was sent to employees with the same questions as the baseline, as well as additional questions about the execution of the pilot program (see Appendix D for survey). This survey was also completed online using Qualtrics (refer back to Appendix B for communication). Again no identifying information was collected. After the second wave of data was complete, the author requested authorization to use the data toward the completion of a doctoral dissertation.

Measures

All of the below measures were used pre-intervention as well as post-intervention, with some additional questions post-pilot program asking about participant's experience with Flex.

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Demographic information was collected first, and then items from all five measures were randomly presented to reduce the effect of order on response. For ease of completion, all measures used a five-point rating scale ranging from 1 – Strongly Disagree to 5 – Strongly Agree. Refer back to Appendices C and D, respectively, for the full baseline and post-intervention questionnaires.

Demographics. Demographic information was requested to identify individual differences, including department (e.g., Pricing, Marketing) and pay status (salaried or hourly, per the Fair Labor Standards Act). At baseline and following the pilot program, participants had the opportunity to rank six elements – supervisor, organization policies, organization culture, amount of work, commute, or other – that enable work life-balance, as well as separately ranking those same elements on preventing work-life balance, such that a lower score meant more enabling or more preventing. For the “other” selection in both enabling and preventing ranks, participants could write in additional enablers or barriers. Questions about use of Flex work arrangements were also included at both baseline and post-intervention. Participants were asked if they were currently using any flexible work arrangements, and upon answering “no” they were asked if they were interested in flexible work arrangements. If participants answered “yes,” they were asked to indicate what kind of arrangement (flexible hours, telecommuting, and/or compressed work week). Note that even at baseline, some participants were using flexible work arrangements at manager discretion. The post-intervention questionnaire also included questions asking if the participant was able to participate in the Flex pilot program and, if so, an open ended question was included to capture any feedback regarding the program. The post-pilot program questionnaire also asked if respondents had supervisory responsibilities and, if so, whether the pilot program disrupted their team’s productivity, communication, or collaboration.

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Job Satisfaction. Two items from Cammann, Fichman, Jenkins, and Klesh (1983) were used to measure job satisfaction. Item 2, which reads “In general, I don’t like my job” (reverse coded), was eliminated as it was deemed redundant with item 1, which reads “All in all, I am satisfied with my job.”

Turnover Intentions. All three items from Colarelli (1984)’s Intention to Turnover scale were used without modification to measure employee intention to leave the organization.

Supportive Supervisor Behaviors. All four items from the Family Supportive Supervisor Behavior Questionnaire – Short Form (Hammer, Kossek, Bodner & Crain, 2013) were reworded to assess the balance of work and non-work (rather than work and family, as originally written). Additional language was also added to clarify that any conversation about non-work topics was at the employee’s discretion (e.g., item 1, “Your supervisor makes you feel comfortable talking to him/her about your conflicts between work and family” was changed to read, “If you choose to discuss, you feel comfortable talking to your supervisor about any conflicts between work and non-work.”) These four items measured the perception that supervisors were supportive of the employee’s non-work responsibilities.

Work-Life Conflict. Item 1 and 2 from the Work Interfering with Family direction of Netemeyer, Boles and McMurrin’s (1996) Work Family Conflict scale were reworded to assess work-life conflict, which is used as an inverse measure of work-life balance. Item 3 (“Things I want to do at home do not get done because of the demands my job puts on me”) and item 5 (“Due to work-related duties, I have to make changes to my plans for family activities”) were deleted, as they were deemed to be covered by item 2 (“The amount of time my job takes up makes it difficult to fulfill family responsibilities.”) Unfortunately, Netemeyer and colleagues did not include item loadings in their study, therefore the researcher was unable to determine if

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the items retained were the highest loading items on the Work Interfering with Life (Family) scale. However, the authors did note that all items retained achieved item loadings of .60 or higher on their intended factor, and that items were removed beyond that based on author judgment of similarity of wording – a similar judgment was utilized by the project sponsor of this study.

Additional changes include the deletion of item 4 (“My job produces strain that makes it difficult to fulfill family duties”), as the intervention did not directly address stress management or other techniques to reduce strain-based conflict. Furthermore, Life (Family) Interfering with Work was not assessed in this study, as the project sponsors felt that this intervention was not able to improve conflicts when non-work interferes with work. The scale was altered from the seven-point format recommended by Netemeyer and colleagues (1996) to the same five-point scale as the other measures included in the present study.

Work-Role Ambiguity. Two of six questions from the Work Role Ambiguity scale (Rizzo, House, & Lirtzman, 1970) were used to measure the clarity of expectations for each person’s role. Item 2, “I know that I have divided my time properly at work” was removed as the way work is structured may not allow employees to allocate time at their own discretion. Likewise, item 5 “I feel certain about how much authority I have at work” was not used as the company was not in a position to grant more autonomy based on the results of the study (e.g., due to corporate governance, associates may still be limited in role autonomy even with the use of Flex.) Item 3 (“I know exactly what is expected of me at work”) and item 4 (“I know what my responsibilities are at work”) were deemed redundant with item 1 (“Explanation is clear of what has to be done at work”) which was retained. Rizzo et al (1970) included the factor loadings in their original study; and one of the retained items was the second highest loading on

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the Ambiguity factor. The second retained item was the second lowest loading item of the six that were included on the final scale, but was the one that best resonated with the organizational context. Both items utilized were assessed using a five point scale, rather than the seven point scale recommended by Rizzo and colleagues (1970) to be consistent with other measures used in the present study.

Results

Based on the research questions at hand, data analysis primarily focused on identifying changes in employee engagement based on the use of flexible work arrangements. Due to the exploratory nature of these analyses, trends within the baseline and post-pilot program data were also considered separately for each research question to better understand relationships among the variables. See Table 2 for descriptive statistics for job satisfaction, turnover intentions, work-life balance, role autonomy and supportive supervisor behaviors.

Change in Employee Engagement from baseline to post-pilot program

Despite the invitation to create a confidential code name allowing the researcher to match individual responses from baseline to post-pilot program surveys, most survey respondents did not provide codenames that matched across both timepoints. With the limited ability to identify individual level change, analyses considered group-level use of flexible arrangements and the resulting changes to group-level employee engagement (measured by work-life conflict, job satisfaction, and turnover intentions) over time. A series of independent samples t-tests were used to compare baseline and post-pilot program responses for job satisfaction, turnover intentions and work-life conflict; however the results were not statistically significant. See Table 3 for results related to changes in employee engagement over time.

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Use of Flexible Work Arrangements and Employee Engagement

Relationships at baseline. Starting with the premise that supportive supervisor behavior and role autonomy may be predictive of employee engagement, a series of multiple regressions were conducted. Results indicate that role autonomy and supportive supervisor behavior are significantly predictive of work-life conflict, job satisfaction and turnover intentions. For all analyses, use of flexible arrangements was entered into the first step, with supportive supervisor behaviors and role autonomy simultaneously entered into the second step, using work-life conflict, job satisfaction and turnover intentions separately analyzed as the dependent variable. See Table 4 for correlations and Table 5 for regression statistics.

For job satisfaction, the step one effect of use was non-significant, and this model explains none of the variance. With addition of supportive supervisor behaviors and role autonomy in step two the model was statistically significant, ($F(3, 417) = 107.305, p < .001$). The final model explains 43.6% of the variance in job satisfaction. For turnover intentions, the step one effect of use was again non-significant, but the addition of supportive supervisor behaviors and role autonomy resulted in a statistically significant model, ($F(3, 417) = 77.286, p < .001$). The final model explains 35.7% of the variance in turnover intentions. For work-life conflict, the step one effect of use was not significant, but the addition of role autonomy and supportive supervisor behaviors in step two was statistically significant ($F(3, 277) = 34.096, p < .001$), and the final model explained 19.7% of the variance.

Employee engagement and flexible work arrangement use. A series of independent samples t-tests were used to further compare mean differences in job satisfaction, turnover intentions, and work-life conflict based on flex use (use or non-use only, as this was before the pilot program). All comparisons for flex use were non-significant.

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Employee engagement and pay status. When comparing differences in employee engagement based on pay status (salaried or hourly) salaried associates perceived more reported work-life conflict ($M=3.052$, $N=373$) than their peers paid hourly ($M=2.415$, $N=47$; $t(418) = 4.200$, $p = .000$).

Employee engagement and age. Lastly, comparisons of means by age group were conducted using one-way ANOVA. Job satisfaction did not show any difference by age group. Turnover intentions indicated a statistically significant difference by age group ($F(5, 400) = 2.981$, $p = .012$), with younger employees being more likely to turnover than their older counterparts. When considering work-life conflict, a statistically significant result was found ($F(5, 399) = 2.583$, $p = .026$) such that work-life conflict increases with through younger ages, remains somewhat stable through middle age and then declines sharply for the over 66 group. See Table 6 for results of analyses comparing means by age group.

Relationships post-pilot program. As in the baseline data, hierarchical multiple regression was used to investigate how role autonomy and supportive supervisor behaviors predict work-life conflict, job satisfaction, and turnover intentions, when controlling for use of flexible work arrangements. Again, flexible work arrangement use was entered into the first block, with supportive supervisor behaviors and role autonomy simultaneously entered into the second block, with job satisfaction, turnover intentions and work-life conflict separately analyzed as the dependent variable. See Table 4 for correlations and Table 7 for regression statistics. For job satisfaction, the step one effect of use was non-significant. However, the addition of supportive supervisor behaviors and role autonomy to use in step two resulted in a statistically significant model, ($F(3, 277) = 73.306$, $p < .001$). The resulting model explains 44.3% of the variance in job satisfaction. For turnover intentions, the step one effect of use was again

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non-significant. Adding supportive supervisor behaviors and role autonomy to step two resulted in statistically significant model, ($F(3, 277) = 60.158, p < .001$). The final model explains 39.4% of the variance in turnover intentions. For work-life conflict, the step one effect of use was not significant, but the addition of role autonomy and supportive supervisor behaviors in step two were statistically significant ($F(3, 277) = 19.637, p < .001$), and the final model explained 17.5% of the variance.

Employee engagement and flexible work arrangement use. Additionally, one-way ANOVAs were used to compare group means based on use of flexible work arrangements (user, opt out, control user, and control non-user.) Group mean differences for work-life conflict approached significance ($F(3, 277) = 1.963, p = .123$) indicating that those who opted out of flexible work arrangements had higher work life conflict than other groups. Means for job satisfaction and turnover intentions were not significantly different for each group. See Table 8 for a comparison of post-pilot program means by use of flexible work arrangements.

Employee engagement and pay status. Comparisons by pay status were also conducted post-pilot. When considering job satisfaction and turnover intentions, there were no significant mean differences between salaried and hourly employees. For work-life conflict, the means were statistically significantly different ($t(279) = 2.567, p = .011$) such that salaried employees reported higher work-life conflict ($M=2.903, N=263$) than did their hourly peers ($M=2.278, N=18$).

Employee engagement and age. Comparisons of means by age group were also conducted. Job satisfaction and turnover intentions did not show any difference by age group. When considering work-life conflict, results approached significance ($F(5, 256) = 1.961, p =$

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.085) such that work-life conflict increases with through younger ages, peaking for those in the 46-55 age group, and then declines past age 55. Refer again to Table 6 for means by age group.

Employee engagement and status as supervisor. Finally, means for those who supervise others were compared to the means for those without supervisory duties. Means for job satisfaction and turnover intentions were not significantly different; however work-life conflict showed that those who manage others report higher work-life conflict ($M=3.133$, $N=79$) than do their peers who do not have supervisory duties, ($M=2.764$, $N=182$; $t(259) = 2.731$, $p = .007$).

Changes from baseline to post-pilot program. A 2 (baseline or post-pilot program) x 2 (use of flexible work arrangements or not) ANOVA was conducted to uncover any interactive effects, as reducing work-life conflict was the primary reason for pursuing a flexible work arrangement intervention. The results indicate no significant change to work-life conflict over time. The main effect of use showed results approaching significance, such that who used flexible work arrangements reported less work-life conflict ($M=2.880$, $N=460$) than did their counterparts who did not use such arrangements ($N=3.041$, $N=243$; $F(1, 699) = 3.548$, $p = .060$). The interaction of flexible work arrangement use and time of survey was not significant, though a graph showed a slight interactive effect such that those using flexible work arrangements demonstrated a slight decrease in work-life conflict (baseline $M=2.936$, $N=227$; post-pilot program $M=2.826$, $N=233$), whereas those who did not use flexible work arrangements reported a slight increase in work-life conflict from baseline ($M=3.031$, $N=194$) to post-pilot program ($M=3.082$, $N=49$; see Figure 1.)

Use of Flexible Work Arrangements and Supportive Supervisor Behaviors

Relationships at baseline. A series of independent samples t-tests were used to further compare mean differences in supportive supervisor behavior based on flex use (use or non-use

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only, as this was pre-pilot program) as well as pay status (salaried or hourly); however, all comparisons were non-significant. Comparisons of means by age group were conducted using a one-way ANOVA. For supportive supervisor behaviors, the results approached significance ($F(5, 400) = 2.040, p = .072$, see Table 6 for means), with average ratings generally decreasing by age, with a spike from the few employees over 66 years old.

Relationships post-pilot program. A number of ANOVAs were used to compare group means based on use of flexible work arrangements (user, opt out, control user, and control non-user.) A comparison of group means for supportive supervisor behaviors was statistically significant, ($F(3, 279) = 2.745, p = .008$) such that users of flexible work arrangements in both the pilot program and in the control group rate their supervisor behaviors as more supportive than their peers who do not use flexible work arrangements, whether they opted out or were in the control group. Refer to Table 8 for group means. Mean comparisons by pay status and age group did not find any significant results. Additionally, means for those who supervise others were compared to the means for those without supervisory duties, and did not find any significant differences.

Changes from baseline to post-pilot program. An independent samples t-test was used to investigate changes in supportive supervisor behaviors over time. Results show that perceptions of supervisor supportiveness increased from baseline to post-pilot program, ($t(704) = 2.266, p = .024$). Refer again to Table 3 for group means at each timepoint. To better understand these results, a 2 (baseline or post-pilot program) x 2 (use of flexible work arrangements or not) ANOVAs were completed with supportive supervisor behaviors as the dependent variable. While main effect of time was not statistically significant, the main effect of use showed that flexible work arrangement users reported more supportive supervisors behaviors

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than did non-users, ($F(1, 702) = 11.350, p = .001$). Additionally, use of flexible work arrangements was found to moderate the change in supportive supervisor behaviors over time, ($F(1, 702) = 5.079, p = .025$), such that those who used flexible work arrangements reported an increase in supportive supervisor behaviors, and those who did not use flexible work arrangements actually reported a decrease in supportive supervisor behaviors. See Table 9 and Figure 2 for results.

Use of Flexible Work Arrangements and Role Autonomy

Relationships at baseline. A series of independent samples t-tests were used to compare mean differences in role autonomy based on flex use (use or non-use only, as this was pre-pilot program) as well as pay status (salaried or hourly). All comparisons for flex use were non-significant; however comparisons for pay status indicated that salaried associates perceived significantly higher role autonomy ($M=3.989, N=373$) than did their hourly counterparts ($M=3.725, N=49; t(420) = 2.152, p = .032$). A one-way ANOVA was conducted to compare means by age group were conducted, but no significant differences emerged.

Relationships post-pilot program. As at baseline, mean differences in role autonomy were compared based on flex use and pay status using independent samples t-tests, as well as a one-way ANOVA to investigate mean differences by age group. None of these comparisons yielded significant differences in role autonomy. Additionally, independent samples t-tests were used to investigate role autonomy for those who supervise others were compared to the those without supervisory duties, but the means were not significantly different.

Changes from baseline to post-pilot program. An independent samples t-test was used to detect changes in role autonomy, revealing that role autonomy increased ($t(702) = 2.266, p = .006$) from baseline to post-pilot program. To detect any interactive effect of role autonomy and

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flexible work arrangement use, a 2 (baseline or post-pilot) x 2 (use of flexible work arrangements or non-use) ANOVA was conducted. Beyond the increase in role autonomy noted above (which resulted in a significant main effect, $F(1, 700) = 3.808, p = .051$), the results indicate no significant main effect of use of flexible work arrangements, and no significant interaction between use and time of survey.

Discussion

Each of four research questions was assessed with consideration for group-level change from baseline to post-pilot. Additionally, the use of flexible work arrangements as they relate to employee engagement (measured by job satisfaction, turnover intentions and work-life conflict), supervisor supportiveness and role autonomy considered relationships at baseline and post-pilot program separately. Results for each research question are described below.

Change in Employee Engagement from baseline to post-pilot program

At the group level, results indicated no statistically significant differences in job satisfaction, turnover intentions or work-life conflict when comparing users of flexible work arrangements to non-users, implying that the intervention was ineffective. Paired samples data would have allowed for a more interesting investigation into individual change over time. A small subset ($N=25$) of individual baseline and post-pilot program responses were complete and able to be matched using an optional, anonymous codename that participants created. Dependent samples t-tests indicate no statistically significant change in supportive supervisor behaviors ($t(24) = -1.082, p = .290$), role autonomy ($t(24) = .094, p = .926$), job satisfaction ($t(24) = .548, p = .589$), turnover intentions ($t(24) = .171, p = .866$), or work-life conflict ($t(24) = .299, p = .768$) between the baseline and post-pilot program surveys. All who provided paired data

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participated in the pilot program, and only three opted out of participation in flexible work arrangements, so no individual comparisons based on participation in the Flex program were able to be completed.

The lack of significant individual change could be due to the fact that 88% of respondents who provided matching codenames were salaried employees, which may allow employees more balance as they do not record their hours and may therefore have more natural flexibility in their schedules. Additionally, 76% of respondents were already using flexible work arrangements at baseline, so perhaps they were already content with their work arrangement. Finally, mean scores on job satisfaction, supportive supervisor behaviors, and role autonomy were already quite high at baseline, and scores on turnover intentions were quite low, so perhaps there was a ceiling or floor effect such that employees were already content with their current arrangement and not in need of an organizational intervention related to flexible work arrangements.

Use of Flexible Work Arrangements and Employee Engagement

Relationships at baseline. Role autonomy and supportive supervisor behaviors were found to be significantly predictive of employee engagement when controlling for use of flexible work arrangements. While there are other factors that may explain the variance in relationship, efforts to increase role autonomy and to improve supervisor supportiveness should lead to a noticeable improvement in job satisfaction, as well as a decrease in turnover intentions and work-life conflict. Other sources of variance may include type of job, hours worked, physical or emotional labor required, or tenure, among many other possibilities.

Employee engagement and flexible work arrangements. No differences in engagement were observed based on use of flexible work arrangements. This may be because the availability

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of such arrangements was not widely known or understood, or because those who desired such arrangements sought them out proactively.

Employee engagement and pay status. When considering differences based on pay status, salaried employees reported higher work-life conflict. Due to the lack of set scheduling, salaried employees may have a less predictable way to effectively manage their work and life responsibilities. A lack of consistent scheduling may mean that when work runs over expected hours, other aspects of the employee's personal life are compromised. Further, when unexpected issues arise in the personal realm, work responsibilities may be delayed, thus causing a domino effect whereby the employee continually adjusts to complete his or her work while balancing the increased personal commitment to address the issue.

Employee engagement and age. A comparison of mean responses for turnover intentions indicates that older employees are less likely to consider leaving, which makes sense as retirement nears. Additionally, the results indicate that work-life conflict peaks in middle age; a conclusion which makes sense as younger employees are likely to have less work and personal responsibilities. At middle age, employees are likely advancing in their work role, in addition to their personal responsibilities for children, elder care, or home ownership, all of which allow for many different kinds of conflict between the work and personal roles. As retirement nears, these responsibilities may diminish as the career stabilizes and children become independent, thus reducing the potential opportunities for conflict.

Relationships post pilot program. Following the flexible work arrangement pilot program, role autonomy and supportive supervisor behaviors were found to be explain a sizable portion of the variance for both job satisfaction and turnover intentions, after controlling for use of flexible work arrangements. As at baseline, there are numerous other factors that may

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contribute to this predictive relationship. However, increasing role autonomy and supportive supervisor behaviors should generally lead to increased job satisfaction and reduced turnover intentions.

Work-life conflict and use of flexible work arrangements. The post-pilot program data also reveal mean differences in work-life conflict based on flexible work arrangement use. Interestingly, the most work-life conflict was reported by those who were included in the pilot program and had the opportunity to use flexible arrangements but chose not to do so. Based on rankings of factors that prevent or enable work-life balance, this result may be attributable to lack of support from the second level supervisor. More details are included in the discussion of supportive supervisor behaviors, but in short it seems that some employees felt that though their team was included in the pilot program they could not participate based on negative comments made by the second level supervisor. Therefore the decision to opt out was not entirely their own. Those in the control group who did not use flexible work arrangements actually reported the lowest work-life conflict. This is consistent with the logic that some employees are already satisfied with their work-life balance and therefore do not find benefit in flexible work arrangement offerings (Koh, Allen & Zafar, 2013); however the pattern of results in the present study do not uphold the results of Koh and colleagues' 2013 study, which found that those who opt out of telecommuting arrangements reported similar levels of work-life balance to users. However, the Koh et al. (2013) study investigated perceptions of organizational justice through specific reasons for opting out in a Singapore-based sample, while the present study uses a US based sample, additional flexible work arrangements beyond telecommuting, and did not consider the impact of organizational justice.

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Work-life conflict based on pay status. Considerations of differences for salaried and hourly employees reveal that, as at baseline, those with salaried positions report more work-life conflict. Again, this is likely due to the reduced structure in such positions, allowing different life roles to interfere. Results for post-pilot program differences in work-life conflict by age group were also similar to baseline in that middle-age employees report more conflict than do their younger or older counterparts. As noted above, this result is likely related to the differing expectations and obligations of employees in these different age groups, with the most disparate obligations expected at middle age.

Work-life conflict based on role as supervisor. Status as a supervisor was measured post-pilot program only, in an attempt to report any disruptions caused by pilot program participation. Responses to the question about disruption were anecdotal and not explored within this narrative, as supervisor approval was more relevant to the organization than an investigation of the effects of flexible work arrangements on employee engagement. However, it is interesting to note that supervisors report more work-life conflict than do their peers without supervisory responsibilities. Supervisors often have dual responsibility in that they are accountable for their own work, as well as the work of their team. Therefore supervisors may have multiple work roles, whereas an individual contributor may have only one work-related role. More roles, whether in the work or personal life domain, create more opportunities for conflict.

Relationships with Supportive Supervisor Behaviors

Relationships at baseline. Supportive supervisor behaviors generally decreased across most ages, with a spike in the over 66 age group – this may also be related to impending retirement. As employees age, they may take on additional work and life responsibilities which gives them more opportunities to approach their supervisors for support. If the supervisor is not

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consistent in their support, or doesn't support every request, this will reduce perceptions of supportiveness. Additionally, older employees are more likely to have worked for a number of different supervisors, each with their own style of support.

Relationships post-pilot program. Supportive supervisor behaviors also differed based on use of flexible work arrangements, such that those who use such arrangements report that their supervisors are more supportive than those who do not use flexible arrangements, regardless of whether users participated in the pilot program or not. This indicates that there may be little additional impact on supervisor perceptions when using formally offered programs like the Flex pilot program over an informal schedule agreed upon between an employee and their direct manager. Additionally, higher responses from users indicate that it is actual use of flexible arrangements – not just availability – that leads to improved perceptions of supervisors.

Changes from baseline to post-pilot program. When investigating the group-level baseline results to the group-level post-pilot program results, it was found that supportive supervisor behaviors increased for those who use flexible work arrangements, but actually decreased for those who did not use flexible work arrangements. This result may be attributable to feelings of jealousy among those who did not use such arrangements, perhaps because their supervisor does not allow them to work as they wish. An informal investigation into the mean ranks of how much a supervisor enables or prevents work-life balance was conducted to provide additional insight, with a rank of 1 indicating that the supervisor was the biggest barrier, and a rank of 6 indicating that the supervisor was the least barrier. As expected, non-users ranked supervisors as more of a barrier to work-balance post-pilot program ($M=3.735$) than they did at baseline ($M=4.097$), though it is worth noting that the sample size changed considerably ($N=134$ at baseline, and $N=34$ post-pilot program). Wells-Lepley, Thelen and Swanberg (2015) recently

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explored whether supervisors within a university setting offered flexible work arrangements, and found that the attitude of the indirect supervisor was a significant predictor. It seems that a similar effect may be present in the current dataset as well. At baseline, 17.4% of those who provided an “other” barrier to work-life balance indicated that a higher-level supervisor (e.g. a vice-president or department head) prevented them from using flexible work arrangements in pursuit of work-life balance, rather than their direct supervisor; post-pilot program, 25% of those who provided an “other” barrier indicated that indirect supervisors were preventing work-life balance. Non-users ranked their supervisors as more enabling of work-life balance at baseline ($M=1.812$) than they did post-pilot program ($N=2.231$), where 1 indicates that the supervisor is the most enabling element of work-life balance, and 6 indicating that they are the least enabling. Users of flexible work arrangements ranked their supervisors as enabling work-life balance nearly equally at both baseline ($M=1.681$) and post-pilot program ($M=1.669$), and rank their supervisors as barriers very similarly at both baseline ($M=4.158$) and post-pilot program ($M=4.130$) as well.

The change in average rank for a supervisor as one who prevents or enables work-life balance makes the non-significant interaction between flexible work arrangement use and time as they relate to work-life balance more intriguing. It may be that questions asking for ranks of barriers and enablers of work-life balance are actually tapping into a different measurement of work-life balance than the reworded and inversed work-family conflict scale. An alternate explanation for the change for non-users is that at baseline, those who did not use flexible work arrangements were unaware that such options were available, so their perceptions of supervisor support appear reduced because the standard for a supportive supervisor has changed.

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Relationships with Role Autonomy

When considering differences based on pay status at baseline, salaried employees reported higher role autonomy. The nature of a salaried role is generally less structured, with a schedule that may vary based on workload. The result is increased autonomy to work on tasks at various timeframes. No notable relationships were found post-pilot program, including no significant difference based on pay status. A potential explanation for this result is that the implementation of the Flex pilot revealed that there was more potential for role autonomy than originally thought, thus increasing expectations and decreasing perceived role autonomy. Though one may expect role autonomy to increase with age (as ostensibly, employees move into high level roles with less oversight), this result did not hold true at baseline or post-pilot program. Perhaps the additional responsibilities that come with higher level roles attenuated this effect. Finally, there were no significant changes in role autonomy over the course of the study, which makes sense as employee roles and tasks did not change. Regardless of the hours or location where work is completed, the amount of oversight and decision authority is the same.

Limitations

The present study was subject to some limitations as a result of using an archival dataset gathered within a dynamic and complex organization, rather than in a more controlled laboratory setting. First, the study aimed to improve employee engagement by offering flexible work arrangements based on reports of success in other organizations without regard to peer-reviewed literature as a basis for the purported relationship between the constructs. Based on prior knowledge of the literature, the author was able to suggest some potential variables that may impact the effectiveness of the flexible work intervention; however these suggestions allow for only exploratory analyses rather than targeted hypotheses. Second, while some of the author's

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suggestions for related constructs were included in the intervention, the organization requested alterations to almost all established scales. In addition to rewording questions to suit the organizational context and removing questions deemed redundant as explained in the Measures section of this document, two scales – Work-life conflict and Role Autonomy – were rescaled to 5-point rather than 7-point scales as recommended in their original articles. Though more scale points is generally considered desirable as it allows for more variance in response, there is generally not much psychometric difference between a five- and seven-point scale (Colman, Norris & Preston, 1997; Dawes, 2008). Other variables, such as gender, were excluded entirely because the organization was not prepared to take actions to address any gender differences that may have resulted. Fortunately, many other studies have examined the role of gender on the use of flexible work arrangements and the perceived differences in employee outcomes (e.g., Barrah, Schultz, Baltes & Stolz, 2004; Brescoll, Glass & Sedlovskaya, 2013; Grzywacz, Carlson & Shulkin, 2008; Vandello, Hettinger, Bosson & Siddiqi, 2013). Perceived fairness of flexible work arrangement offerings would be another interesting angle for future studies (Parker & Allen, 2001); but would be better suited to an organization with a more established flexible work arrangement program.

Third, the pilot program initially was designed to last 3 months, and department leads who accepted the invitation to participate in the pilot program did so with this timeframe in mind. However, mid-way through the pilot program there was a change in organizational leadership, and the new leader decided to extend the pilot program an additional 3 months (for a total 6 month pilot program). Perhaps participating departments that planned for a 3 month pilot program were not well-equipped for the longer timeframe. Additionally, the new leader made the somewhat controversial decision to remove one schedule available to salaried employees

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partway through the pilot program, and anecdotally the author received a number of emails expressing frustration about the change. A final organizational constraint is that changes in workload or organization structure may have impacted attitudes generally, and these attitude changes were reflected in measuring employee engagement. While no large scale hiring efforts or reductions in force took place, some organization redesign and integration of formerly independent departments did occur and could certainly have attenuated the outcomes. Further, those who did not participate in the pilot were certainly aware that others had the opportunity to use flexible work arrangements. Subgroups can lead to social threats to internal validity, such as competitiveness, resentment, or perceptions of unfairness. As no compensatory actions were taken in the present study, social validity may have reduced the impact of the intervention.

Additionally, there are limitations based on the use of a self-report instrument. Some users may not have felt comfortable responding to an organizational survey despite assurances of confidentiality. Those who did respond may have altered their responses to reflect perceived social desires, and the final survey did not include any measures of socially desirable responding that would provide more insight. Either a lack of response or a socially desirable response may indicate a fear of negative implications from survey participation itself, or from the responses provided therein, that could skew the data. Future research would benefit from measuring objective use of flexible schedules, or tracking more objective outcomes (e.g. attendance).

Finally, the inability to match data across waves limits within-individual analyses that would provide much more robust outcomes with more interesting follow up opportunities. A more controlled study where participants agree to tracked participation over multiple time-points would no doubt yield many interesting relationships. Timms, Brough, O'Driscoll, Kalliath, Siu, Sit, and Lo (2015) recently investigated the impact of flexible work arrangements over twelve

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months, and found a negative relationship with engagement. Future longitudinal studies can investigate longer timeframes, additional variables or other populations to see if this result holds true. Beyond work arrangements, a longitudinal investigation into family support policies will also contribute to our understanding of how flexibility impacts employee outcomes. Butts, Casper, and Yang (2013) recently conducted a meta-analysis focused specifically on family support policies rather than flexible arrangement policies that would serve as a robust starting point for any investigator who wishes to pursue this line of research. If researchers are looking to conduct studies within an organizational context, the relationship is best established when the investigators are not employed by the research organization, thus removing any question of job security.

Practical Implications

Some general practices for implementing effective work-life balance programs within an organization are given in the literature review under the heading “Increasing the Impact of Flexible Work Arrangements.” However, the present study has informed some additional considerations. For example, results will be stronger if organizations establish clear goals with measurable outcomes, utilize psychometrically sound measures, and work closely with leadership to control communications and decisions very tightly. A more controlled pilot may also be useful so that jealousy among the control group is reduced, thus lowering social threats to validity. Finally, it is important to provide training for managers about how to support flexible work arrangements, including actionable tools that they can use to effectively implement such arrangements on their teams. If managers are not prepared to answer questions or navigate difficult issues (such as denying a request for flexible work arrangements based on performance,

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or addressing decreased communication or collaboration on a newly-flexible team) the benefits of implementing flexible arrangements will be diminished.

Organizations can and should measure the outcomes of flexible work arrangement use by identifying organizationally-relevant outcomes and tracking them over time. Companies can investigate many interesting longitudinal questions beyond the impact of flexible work arrangement use on employee engagement. For example, where is the point of diminishing returns where flexible work schedules become the norm, and no longer impact engagement? Would a sustained flexible work arrangement program improve recruitment of future talent, or reduce the burden of health care costs for the employer and employee? Could an employee's use of flexible schedules positively or negatively impact the ability to receive a promotion or be named as a successor for a senior level role? These and many other questions require a longer-term study that follows the same employees over multiple years.

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Appendix 1

Pre-intervention Communication

From: Brown, Victoria
Sent: Wednesday, December 11, 2013 4:31 PM
To: Brown, Victoria
Subject: Your Feedback Requested by 12/20

Dear [REDACTED] associate,

You may be aware that we are working to enhance our culture and redefine our approach. One characteristic which assists us in making this change is how you conduct your business. To support this journey, we are seeking some feedback from you about our current work practices at [REDACTED]. The survey will be available for completion until **Friday, December 20, 2013**.

The below survey will take 3- 5 minutes to complete, and is intended for [Corporate] located associates only. Separate feedback will be gathered from the field organization at a later date.

[Click here to take the survey](#)

To track our progress, we will be re- surveying the [Corporate location] in mid- 2014. We are requesting that you create an anonymous code which will allow us to see the impact over the course of many surveys without identifying you as an individual. Instructions for doing so are included as the first page in the survey.

If you have any questions, please contact Victoria Brown. Thank you sincerely for your support!

Appendix 2

Post-intervention Communication

From: Brown, Victoria
Sent: Monday, September 08, 2014 4:42 PM
To: Brown, Victoria
Subject: Flex Pilot Update - ACTION REQUESTED

Hello Associates,

You are receiving this message because [although] your functional/department leader chose [not] to include your team in the Flexible Work Arrangement Pilot.

We hope that you have enjoyed participating in the Flexible Work Arrangement Pilot. We'd like to your feedback about the effectiveness of our Flex program, and invite you to complete the survey below. Please don't forward this survey to others – if you feel someone did not receive the survey who should have, contact Victoria Brown and I will address. The survey will take 3- 5 minutes to complete and will be available until **Friday, September 19, 2014.**

[Click here to take the survey](#)

You may recall a similar survey which requested that you create an anonymous code which will allow us to see the impact of Flex over time without identifying you as an individual. Please don't worry if you don't remember your code – you can skip the question entirely.

As long as your manager is supportive, you can continue working flexibly as we gather your feedback. We will share the results of the survey with you in early Q4.

If you have further questions, please reach out to your manager or HR Partner. Thank you!

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Appendix 3
Flexible Work Arrangement Pilot Baseline Questionnaire

Question	
1	OPTIONAL: We request that you create a unique but anonymous code below by combining the name of the street you grew up on with your high school mascot (e.g., main tigers). This information will allow us to see the impact of our transformation over the course of multiple surveys without identifying you as an individual. <u>This is an optional step</u> , but would be appreciated.
Question	
Response	
2	Department: (use dropdown)
3	Location: (use dropdown)
4	Are you exempt (salaried) or non-exempt (hourly)? _____ Exempt/Salaried _____ Non-Exempt/Hourly
5	What is your age group? (optional) [Note: Question numbers were not presented to participants, so item numbers 6-9 are skipped to create parallel structure from baseline to post-intervention] _____ Under 25 _____ 26-35 _____ 36-45 _____ 46-55 _____ 56-65 _____ Over 66
10	Do you currently use flexible work arrangements? _____ Yes _____ No
11	If yes, which arrangement(s) do you use: _____ Flexible Hours _____ 4x10 (Non-Exempt/Hourly only) _____ 4.5x9 (Non-Exempt/Hourly only) _____ Telecommuting _____ Other (please describe)
12	If no, are you interested in flexible work arrangements? _____ Yes _____ No

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[NOTE: All of the below questions were presented in randomized order so questions did not influence each other]

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
13	In general, I am satisfied with my job.					
14	In general, I like working at my organization.					
15	I frequently think about quitting my job.					
16	I am planning to search for a new job within the next 12 months.					
17	If I have my own way, I will be working for this organization 1 year from now.					
18	If you choose to discuss, you feel comfortable talking to your supervisor about any conflicts between work and non-work.					
19	Your supervisor demonstrates effective behaviors in how to juggle work and non-work issues.					
20	Your supervisor works effectively with employees to enable balance between work and non-work, if you choose to make your supervisor aware of such issues.					
21	Your supervisor organizes the work in your department or unit to allow you to balance work and personal life.					
22	I know what is expected of me at work.					
23	I have clear, planned goals and objectives for my job.					
24	The demands of my work interfere with my personal life.					
25	The amount of time my job takes makes it difficult to fulfill non-work responsibilities.					
26	From most obstructive to least obstructive, which of the following things PREVENT you from balancing your work and personal life? Please rank all that apply.	<input type="checkbox"/> Supervisor <input type="checkbox"/> Organizational Policies <input type="checkbox"/> Organizational Culture <input type="checkbox"/> Amount of work <input type="checkbox"/> Commute <input type="checkbox"/> Other (please describe)				
27	From most helpful to least helpful, which of the following things ENABLE you to balance your work and personal life? Please rank all that apply.	<input type="checkbox"/> Supervisor <input type="checkbox"/> Organizational Policies <input type="checkbox"/> Organizational Culture <input type="checkbox"/> Amount of work <input type="checkbox"/> Commute <input type="checkbox"/> Other (please describe)				

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Appendix 4
Flexible Work Arrangement Pilot Follow-Up Questionnaire

Question	
1	OPTIONAL: We request that you create a unique but anonymous code below by combining the name of the street you grew up on with your high school mascot (e.g., main tigers). This information will allow us to see the impact of our transformation over the course of multiple surveys without identifying you as an individual. <u>This is an optional step</u> , but would be appreciated.
Question	
Response	
2	Department: (use dropdown)
3	Location: (use dropdown)
4	Are you exempt (salaried) or non-exempt (hourly)? <input type="checkbox"/> Exempt/Salaried <input type="checkbox"/> Non-Exempt/Hourly
5	What is your age group? (optional) <input type="checkbox"/> Under 25 <input type="checkbox"/> 26-35 <input type="checkbox"/> 36-45 <input type="checkbox"/> 46-55 <input type="checkbox"/> 56-65 <input type="checkbox"/> Over 66
6	Did your team participate in the Flex pilot? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure
7	If yes, did you manage others who used flexible work arrangements? <i>(If no, questionnaire will skip to #10)</i> <input type="checkbox"/> Yes <input type="checkbox"/> No
8	If yes, did you notice any disruption to your team? Check all that apply: <i>(If no, questionnaire will skip to #10)</i> <input type="checkbox"/> No disruption <input type="checkbox"/> Disrupted productivity <input type="checkbox"/> Disrupted ability to collaborate <input type="checkbox"/> Difficulty reaching associates <input type="checkbox"/> Other disruption/difficulty (please describe)
9	What feedback do you have about the Flex pilot? Feel free to comment on the communication, training, implementation, program offerings, or any other aspect of Flex.
10	Do you currently use flexible work arrangements? <input type="checkbox"/> Yes <input type="checkbox"/> No
11	If yes, which arrangement(s) do you use: <input type="checkbox"/> Flexible Hours <input type="checkbox"/> 4x10 (Non-Exempt/Hourly only) <input type="checkbox"/> 4.5x9 (Non-Exempt/Hourly only) <input type="checkbox"/> Telecommuting <input type="checkbox"/> Other (please describe)
12	If no, are you interested in flexible work arrangements? <input type="checkbox"/> Yes <input type="checkbox"/> No

IMPACT OF FLEXIBLE WORK ON ENGAGEMENT

[NOTE: All of the below questions were presented in randomized order so questions did not influence each other]

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
13	In general, I am satisfied with my job.					
14	In general, I like working at my organization.					
15	I frequently think about quitting my job.					
16	I am planning to search for a new job within the next 12 months.					
17	If I have my own way, I will be working for this organization 1 year from now.					
18	If you choose to discuss, you feel comfortable talking to your supervisor about any conflicts between work and non-work.					
19	Your supervisor demonstrates effective behaviors in how to juggle work and non-work issues.					
20	Your supervisor works effectively with employees to enable balance between work and non-work, if you choose to make your supervisor aware of such issues.					
21	Your supervisor organizes the work in your department or unit to allow you to balance work and personal life.					
22	I know what is expected of me at work.					
23	I have clear, planned goals and objectives for my job.					
24	The demands of my work interfere with my personal life.					
25	The amount of time my job takes makes it difficult to fulfill non-work responsibilities.					
26	From most obstructive to least obstructive, which of the following things PREVENT you from balancing your work and personal life? Please rank all that apply.	<input type="checkbox"/> Supervisor <input type="checkbox"/> Organizational Policies <input type="checkbox"/> Organizational Culture <input type="checkbox"/> Amount of work <input type="checkbox"/> Commute <input type="checkbox"/> Other (please describe)				
27	From most helpful to least helpful, which of the following things ENABLE you to balance your work and personal life? Please rank all that apply.	<input type="checkbox"/> Supervisor <input type="checkbox"/> Organizational Policies <input type="checkbox"/> Organizational Culture <input type="checkbox"/> Amount of work <input type="checkbox"/> Commute <input type="checkbox"/> Other (please describe)				

IMPACT OF FLEXIBLE WORK ON ENGAGEMENT

Table 1

Participant characteristics

Flex Pilot Program Participation	Potential number of employees ¹	Pay status	Departments represented
Included	N=562 67%	90.6% salaried 9.4% hourly	Marketing, Merchandising, Inventory, Human Resources, Information Technology, Accounting, Public Sector Sales, and Pricing.
Not Included (control)	N=275 33%	82.3% salaried 17.7% hourly	National Accounts Sales, Legal, Corporate Finance, Transportation and Supply Chain Operations.
Corporate Office Total	N=837 100%	87.8% salaried 12.2% hourly	

IMPACT OF FLEXIBLE WORK ON ENGAGEMENT

Table 2

Descriptive statistics for job satisfaction, turnover intentions, work-life conflict, supportive supervisor behaviors and role autonomy

	<u>Baseline</u>				<u>Post-Pilot Program</u>			
	N	M	SD	α	N	M	SD	α
Job Satisfaction	422	3.970	.778	.806	282	4.027	.785	.850
Turnover Intentions	422	2.221	.979	.848	282	2.174	.905	.820
Work-Life Conflict	421	2.980	.999	.832	282	2.871	1.016	.855
Role Autonomy	423	3.955	.816	.790	281	4.125	.756	.713
Supportive Supervisor Behavior	421	3.797	.859	.875	284	3.945	.835	.873

Note: α denotes estimates of Chronbach's alpha

IMPACT OF FLEXIBLE WORK ON ENGAGEMENT

Table 3

Changes in mean response to job satisfaction, turnover intentions, work-life conflict, supportive supervisor behavior and role autonomy

Measure	<u>Baseline</u>		<u>Post-Pilot Program</u>		df	t	p
	M	SD	M	SD			
Job Satisfaction	3.970	0.778	4.027	0.785	702	-0.936	ns
Turnover Intentions	2.221	0.979	2.174	0.905	702	0.649	ns
Work-Life Conflict	2.980	0.999	2.871	1.016	701	1.412	ns
Role Autonomy	3.955	0.816	4.125	0.756	702	-2.779	0.006
Supportive Supervisor Behavior	3.797	0.859	3.945	0.835	704	-2.266	0.024

IMPACT OF FLEXIBLE WORK ON ENGAGEMENT

Table 4

Correlations among job satisfaction, turnover intentions, work-life conflict, supportive supervisor behaviors and role autonomy

	Job Satisfaction	Turnover Intentions	Work-Life Conflict	Role Autonomy
Baseline				
Turnover Intentions	-0.745*			
Work-Life Conflict	-0.359*	0.388*		
Role Autonomy	0.613*	-0.517*	-0.175*	
Supportive Supervisor Behavior	0.531*	-0.524*	-0.438*	0.524*
Post-pilot Program				
Turnover Intentions	-0.743*			
Work-Life Conflict	-0.380*	0.443*		
Role Autonomy	0.546*	-0.468*	-0.227*	
Supportive Supervisor Behavior	0.590*	-0.592*	-0.418*	0.490*

* $p < .05$

Table 5

Regression statistics for role autonomy and supportive supervisor behaviors as predictors of employee engagement at baseline

	B	t	p	r	r ²
Job Satisfaction					
Step 1				0.014	0.000
Use	0.021	0.279	ns		
Step 2				0.660	0.436
Use	0.040	0.690	ns		
Role Autonomy	0.437	10.598	0.000		
Supportive Supervisor Behavior	0.264	6.746	0.000		
Turnover Intentions					
Step 1				0.038	0.001
Use	-0.075	-0.779	ns		
Step 2				0.598	0.357
Use	-0.106	0.690	ns		
Role Autonomy	-0.403	-7.140	0.000		
Supportive Supervisor Behavior	-0.396	-7.663	0.000		
Work-Life Conflict					
Step 1				0.047	0.002
Use	0.095	0.971	ns		
Step 2				0.444	0.197
Use	0.045	0.510	ns		
Role Autonomy	0.092	1.456	0.146		
Supportive Supervisor Behavior	-0.554	-9.231	0.000		

IMPACT OF FLEXIBLE WORK ON ENGAGEMENT

Table 6

Mean differences in job satisfaction, turnover intentions, work-life conflict, supportive supervisor behaviors and role autonomy by age group

Age	<25	26-35	36-45	46-55	56-65	66+	df	F	p
Baseline									
N	6	82	116	114	83	5			
Job Satisfaction	4.083	3.951	3.931	3.983	4.072	4.000	5, 400	0.376	ns
Turnover Intentions	2.167	2.317	2.382	2.190	1.916	1.600	5, 400	2.981	0.012
Work-Life Conflict	2.583	2.768	3.099	2.978	3.116	2.000	5, 399	2.583	0.026
Role Autonomy	4.083	3.939	3.927	3.987	4.036	4.000	5, 401	0.243	ns
Supportive Supervisor Behavior	4.000	3.905	3.836	3.803	3.645	4.700	5, 400	2.040	0.072
Post-pilot program									
N	6	55	82	77	40	2			
Job Satisfaction	3.916	4.036	4.092	4.052	3.938	4.750	5, 256	0.580	ns
Turnover Intentions	2.056	2.142	2.181	2.121	2.200	1.000	5, 256	0.750	ns
Work-Life Conflict	2.333	2.609	2.835	3.020	3.013	2.000	5, 256	1.961	0.085
Role Autonomy	4.083	4.112	4.025	4.175	4.275	4.750	5, 255	0.943	ns
Supportive Supervisor Behavior	4.042	3.950	3.958	3.997	3.856	4.500	5, 258	0.319	ns

IMPACT OF FLEXIBLE WORK ON ENGAGEMENT

Table 7

Regression statistics for role autonomy and supportive supervisor behaviors as predictors of employee engagement at post-pilot program

	B	t	p	r	r ²
Job Satisfaction					
Step 1				0.009	0.000
Use	-0.020	-0.157	ns		
Step 2				0.665	0.443
Use	0.192	2.004	0.046		
Role Autonomy	0.419	8.484	0.000		
Supportive Supervisor Behavior	0.343	6.406	0.000		
Turnover Intentions					
Step 1				0.067	0.004
Use	0.160	1.117	ns		
Step 2				0.628	0.394
Use	-0.094	-0.819	ns		
Role Autonomy	-0.527	-8.890	0.000		
Supportive Supervisor Behavior	-0.277	-4.299	0.000		
Work-Life Conflict					
Step 1				0.095	0.009
Use	0.257	1.599	0.111		
Step 2				0.419	0.175
Use	0.039	0.257	ns		
Role Autonomy	-0.486	-6.248	0.000		
Supportive Supervisor Behavior	-0.041	-0.491	ns		

IMPACT OF FLEXIBLE WORK ON ENGAGEMENT

Table 8

Differences in post-pilot program means by use of flexible work arrangements

	<u>Included in pilot program</u>		<u>Not included in pilot program</u>		df	F	p
	Users	Opt-Out	Users	Non-Users			
N	221	40	11	9			
Job Satisfaction	4.039	4.000	3.818	4.056	3, 277	0.292	ns
Turnover Intentions	2.143	2.354	2.273	2.019	3, 277	0.741	ns
Work-Life Conflict	2.817	3.200	2.818	2.556	3, 277	1.945	0.123
Role Autonomy	4.134	4.050	4.136	4.125	3, 277	0.138	ns
Supportive Supervisor Behavior	4.008	3.575	4.227	3.611	3, 277	4.054	0.008

IMPACT OF FLEXIBLE WORK ON ENGAGEMENT

Table 9

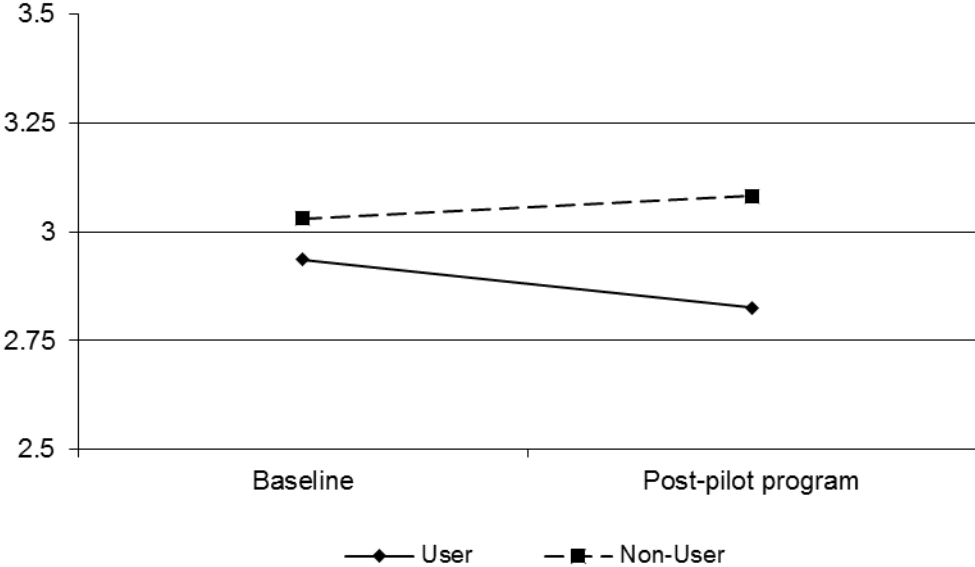
The effect of flexible work arrangement use and time on job satisfaction, turnover intentions, work-life conflict, supportive supervisor behaviors and role autonomy

	df	F	p
Job Satisfaction			
Time	1, 700	0.454	ns
Use	1, 700	0.002	ns
Job Satisfaction x Use	1, 700	0.102	ns
Turnover Intentions			
Time	1, 700	0.001	ns
Use	1, 700	0.116	ns
Turnover Intentions x Use	1, 700	1.471	ns
Work-Life Conflict			
Time	1, 699	0.101	ns
Use	1, 699	3.581	0.060
Work-Life Conflict x Use	1, 699	0.753	ns
Role Autonomy			
Time	1, 700	3.808	0.051
Use	1, 700	0.129	ns
Role Autonomy x Use	1, 700	0.429	ns
Supportive Supervisor Behavior			
Time	1, 702	.009	ns
Use	1, 702	11.350	0.001
Supportive Supervisor Behavior x Use	1, 702	5.079	0.025

IMPACT OF FLEXIBLE WORK ON ENGAGEMENT

Figure 1

Effect of flexible work arrangements use on work-life conflict over time



IMPACT OF FLEXIBLE WORK ON ENGAGEMENT

Figure 2

Interactive effect of flexible work arrangement use and time on supportive supervisor behaviors

