Understanding the Economic Effects of Flexibility through Three Employer Case Studies

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Market research conducted through the Urban Partnership Agreement (UPA) project on telework shows that employers need to be convinced of the economic benefits of telework before they will embrace such a policy. If telework is to gain widespread support in government and industry, employers need to be presented with strong evidence that telework is good for their bottom line and industry productivity.

It is not clear that previous research has documented the impacts of telework from an employer perspective. This research project proposes to investigate what are the bottom line (and economic) advantages to employers of telework policies in order to fill this gap in the literature and to provide evidence to employers considering telework policies.

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Final Report

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Acknowledgments

Table of Contents

List of Tables

Executive Summary

Market research conducted through the Urban Partnership Agreement (UPA) project on telework shows that employers need to be convinced of the economic benefits of telework before they will embrace such a policy. If telework is to gain widespread support in government and industry, employers need to be presented with strong evidence that telework is good for their bottom line and industry productivity.

It is not clear that previous research has documented the impacts of telework from an employer perspective. This research project proposes to investigate what are the bottom line (and economic) advantages to employers of telework policies in order to fill this gap in the literature and to provide evidence to employers considering telework policies.

This project was a case study of three organizations that varied by size and sector and that currently offered some form of workplace flexibility program or policy to some or all of its employees. The organizations were identified and recruited by the research team with help from a third-party organization that a member of the research team had previously worked with on implementing telecommuting programs. Using a survey instrument, in-depth interviews with management-level employees—and where possible—data collected by the organization on employee- and department-level outcomes, a profile for each organization was created to explore the impacts of flexible workplace policies on the organization as a whole.

Our goal was to test for a causal relationship between flex work policies and the economic bottom-line for an organization. However, it became apparent as we worked with each organization, that flexible workplace policies are defined and operationalized differently and there are multiple influences on an organization's bottom line that make it near impossible (absent the ability to create an experimental intervention) to isolate the economic effects of flexible workplace policies on an organization.

However, our findings do reveal management-level buy-in of flexible workplace policies and how leadership influences this buy-in; employee-level satisfaction with existing policies; and high employee usage rates and employee self-reflection on the influence flexible workplace policies have on their work productivity.

Our recommendation for future study into the economic impacts to employers implementing flexible workplace policies would be to conduct a quasi-experimental design where the research team implements methods to longitudinally collect data on productivity, employee retention, and facility costs. Ideally, only portions of an entire organization would be implementing a flexible workplace, creating experimental and control cases. If this is not possible, collecting baseline data and following an organization over time may suffice. If such a study were possible, we would also strongly recommend that a research team spends time interviewing and collecting other qualitative data to more deeply understand the culture and history of the organization.

Chapter 1. Introduction

According to a report from the Boston College Center for Work and Family, "Flexibility is a new business imperative" (Van Deusen, James, Gill & McKechnie, 2008). The word, *imperative*, invokes a sense of urgency and necessity for today's businesses to adopt flexibility in the workplace. But the way in which flexibility in the workplace manifests varies by company, by department within the company, and by the individual themselves.

It can be difficult to pinpoint a definition when multiple terms for flexibility abound (e.g. telework, flex-work, telecommuting, flex-time, work-family initiatives, eWorkplace, alternative work arrangements, etc.); as well as multiple ways to implement flexibility in the workplace—from individual employee arrangements to department- or organization-wide policies or programs; in addition to defining and implementing, there are many different motivations of employers to adopt these policies (e.g. "It is the 'right' thing to do," "It is how to stay competitive," "It improves the bottom-line," etc.). And, in the end, many employers are left wondering the value of implementing workplace flexibility without concrete evidence to prove its worth.

In the authors' experience, successful implementation of workplace flexibility is often the result of someone in a leadership position working to champion its adoption. In the absence of a champion, policies may never coalesce or existing flexible workplace policies or programs may fade. This research project was an attempt to better understand the economic impacts of flexible workplace policies on organizations in order to attempt to answer for employers the question of their worth. Our motivation to pursue this study was due to our own anecdotal evidence from employers who want policies that will retain talent and promote productivity, but need clear and convincing evidence of their benefits before implementing such policies and programs. Some employers are early adopters, willing to try because they think it is the right thing to do, but most are waiting for proof to begin, or enough proof to sustain a pilot program beyond its original champion.

To our knowledge, there is not yet clear and convincing evidence in scholarly literature of the economic costs and benefits of workplace flexibility to employers. In the transportation literature, great attention is paid to the potential benefits of telework (i.e. conducting work from home or from an alternative location than the traditional workplace) to the greater society through congestion reduction and lower carbon emissions (see for example, Kitou & Horvath, 2008; Shafizadeh, Niemeier, Mokhtarian, & Ilan, 2007; Choo, Mokhtarian & Salomon, 2005; Yen & Mahmassani, 1997; Sullivan, Mahmassani & Yen, 1993). Other literature pays particular attention to the conditions necessary for the adoption of telework, but mostly from the employee's perspective (see for example, Mokhtarian & Bagley, 2000; Mokhtarian, Bagley & Sullivan, 1998; Mokhtarian & Salomon, 1997; Bernardino & Ben-Akiva, 1996). Still more literature identifies the need for quantifying and communicating the benefits of flexible workplace policies for optimal acceptance by employers (see for example, Kelly et al, 2008; Bailey & Kurland, 2002; Agency Telework Methodologies, 2005).

The authors believe that flexible workplace policies are a win-win-win for employers, employees, and communities. For employees, they save time and money in commuting, and they

experience greater work-life balance, and greater quality of health and well-being (which also has implications for public health benefits). Communities experience a decrease in traffic congestion and thereby a decrease in overall pollution (see previous documentation reported by eWorkPlace and the Urban Partnership Agreement that shows teleworkers report less vehicle miles traveled).

The objective of this research study is to contribute to the sustainability of telecommuting initiatives, specifically, and to flexible workplace policies, more broadly, by exploring the employer-level impacts. To achieve this, we set out to understand through case studies the perspectives and experiences of employers currently implementing flexible workplace policies.

Our findings both confirm previous research as well as indicate directions for future inquiry into the impacts of workplace flexibility on employers:

- Employers fall along a spectrum of definitions and adoption of workplace flexibility;
- confirmation of previous findings of benefits/limitations to flexibility;
- direct measurements by employers of worker productivity, facility costs, and retention are rare;
- culture change is a key to long-term implementation of flexibility; and
- employees want a flexible work environment and when they get a "taste" of it, they want more.

The following section provides a summary of the literature on workplace flexibility and its impacts on worker productivity, satisfaction, absenteeism, and facility cost savings. This is followed by a description of the study's methods and findings and concludes with a discussion of the findings, study limitations, and recommendations for future study.

Chapter 2.   Background

A conflict between work and family life has emerged at the heart of where the *needs of a changing workforce* meet the outdated *assumptions of a traditional workforce*. A traditional workforce model—often referred to as an 'ideal worker' model (Williams, 2000)—treats individual workers as if they are the sole earners within a household where all family caretaking concerns are handled by a non-working (i.e. female) member of the household. While this traditional workforce model may have held some truth in the past, today's reality shows dramatic changes: the majority of families have two parents working; there is a rise in single-parent families and there are greater numbers of working adults caring for elderly or infirm relatives (Moen & Roehling, 2005).

Compounding the effects of a changing workforce are the assumptions society places on employees. First is the assumption that employees can completely separate themselves into two distinct spheres: the public and the private. The assumption that one can separate work (i.e. the public sphere) from 'the rest of one's life' (i.e. the private sphere) is the backbone of the ideal worker model that expects an employee to work long hours and be visible to managers and colleagues while doing their work. Underlying this assumption is a gendered division of roles, where men are the workers and women are the caretakers, leaving working women to carry the bulk of balancing work and family responsibilities (Moen & Roehling, 2005). While a gendered construct of who occupies roles in the public and private sphere does exist, it does not mean that work and family issues are relevant only to female employees. Rather, it points to the need for a systemic reconstruction of the workplace that allows for the private needs and concerns of all employees to have worthy consideration in the public sphere of work (Bailyn, 2006).

Work-family conflict is not unique to the United States. Many industrialized nations have responded with national public policy reforms to reconcile work and family conflict (e.g. family leave, changing work time regulations, public child care). In their comparative analysis of work-family policy reforms, Gornick & Meyers (2003) show that U.S. public policy lags significantly behind other industrialized nations, leaving the responsibility of providing policies and programs to help alleviate work-family conflict to individual employers. Minimal federal legislation exists (The Family and Medical Leave Act and other targeted programs for the most needy) as well as some state-level legislation, but it varies greatly (Kelly et al, 2008).

The Work-Life Field

The last two decades has seen a new field of research emerge on workplace flexibility (Pitt-Catsouphes, Kossek & Sweet, 2005). Most research on workplace flexibility focuses on the adoption and implementation of policies and programs within organizations as well as the effects these policies and programs have on employees and employers (Kelly et al, 2008). However, there is a dearth of empirical evidence that work-family initiatives create an economic benefit to the implementing organization (this is noted by a number of academics in the field; see, for example: Kelly et al, 2008; Bailey & Kurland, 2002; Baruch, 2001; Gajendran & Harrison, 2007).

Disciplines & Definitions

This burgeoning field has caught the interest of a variety of disciplines: business and management, human resources, information systems, industrial relations, economics, psychology, public health, sociology, engineering, and transportation. This multidisciplinary interest, in turn, has created multiple definitions of the issue, multiple theories to understand the issue, and multiple veins of research to examine the issue (for recent reviews of the work-life field, see Allen, Herst, Bruck, & Sutton, 2000; Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005; Kossek, 2005, 2006—as cited in Kelly et al, 2008). As a result, there is a variety of terminology and constructs used to refer to workplace flexibility (e.g. work-family initiatives, work redesign, flex-work, distributed work, alternative work arrangements, etc.) and discussion over the name of the field itself (work-life versus work-family). For the purposes of this report, we use the terms *workplace flexibility* or *flexible workplace policies* as a general description of a variety of policies and programs implemented within organizations that 'provide employees with more control and discretion over the timing and other conditions of work' (Bailyn, 2006, p. 50).

Telecommuting & Workplace Flexibility

Telecommuting (also commonly referred to as telework) is an alternative work arrangement that is a type of flexible workplace policy. Its origins date from the late 1970s—before the larger movement toward workplace flexibility emerged. Telecommuting has been used as a workplace strategy to respond to a variety of organization and employee needs, including decreasing real-estate costs, promoting work-life balance, adhering to the 1990 Americans with Disabilities Act, and reducing air pollution and traffic congestion (Bailey & Kurland, 2002). Despite its roughly forty-year existence, a universal definition of telecommuting does not exist (Gajendran & Harrison, 2007; Bailey & Kurland, 2002; Baruch, 2001).

Our research study identifies four key approaches to examining the economic benefits of flexible workplace policies for employers: Productivity, Retention/Job Satisfaction, Absenteeism, and Facility Costs. The following four sections provide an in-depth look into the literature—with a particular focus on telecommuting—for each topic.

Productivity

Our review of the literature on the effects flexible workplace policies have on employee and organization productivity left us with more questions and issues to consider than replicable answers. The first, and we would argue most important, question is how to define and measure productivity. Most employees with access to flexible work are knowledge workers and measuring the output of knowledge creation is complex and often intangible. Most research-to-date uses employee self-reports on their perceived productivity and there is little evidence for the relationship between perceived productivity and business outcomes (Kelly et al, 2008; Baruch, 2001). The second issue expands upon the question of measurement to overall research design. Most studies that use employee self-reports are cross-sectional, i.e. the data is measured at one point in time (Kelly et al, 2008). The recommendation proposed in the literature is to consider flexible workplace policies as workplace interventions, and to design longitudinal, quasi-experimental research designs that would make for stronger causal claims for the relationships between productivity and business outcomes (Kelly et al, 2008).

Retention/Job Satisfaction

The literature generally suggests that telecommuting increases employee retention through increased job satisfaction (Olson, 1989; Hartman, Stoner, & Arora, 1991; Feldman & Gainey, 1997; Apgar, 1998; Lewis, 1998; McCloskey & Igbaria, 1998; Sackett, 1998; Moen, Erickson, Agarwal, Fields, & Todd, 2000; Saltztein, Ting, & Saltztein, 2001; Earle, 2003; Mamaghani, 2006; Schweitzer & Duxbury, 2006; World at Work, 2007; Fonner & Roloff, 2010), though some research is beginning to add qualifiers to that generalization. Numerous studies from Timothy Golden, for example, indicate that organizational scale makes a difference. Telecommuters who work from home more than half-time are more committed to their jobs than employees who only telecommute on an occasional basis (Golden, 2006). Employers who more widely encourage telecommuting achieve better results than employers who selectively allow just a few employees to telecommute (Kowalski & Swanson, 2005; Golden & Veiga, 2005; Golden, 2007). In organizations where telecommuting is not properly managed, extra work can fall to non-telecommuting employees, which causes increased stress and decreased job commitment within non-telecommuters (Golden, 2007). Additionally, some telecommuters report increased difficulties in maintaining work-life balance due to increased family interruptions during work hours and the propensity to work longer hours (Hartman, 1991; Hill, Miller, Weiner, & Colihan, 1998; Peper, Dulk, & Van Doorne- Huiskes, 2005; Golden, 2006).

The most common data type is attitudinal information gathered from employee surveys that measure a combination of factors, such as job satisfaction, stress, commitment and turnover intent (Golden, 2006; Jones, 2006; Gajendran & Harrison, 2007; Martinez-Sanchez, Perez-Perez, Vela-Jimenez, & de Luis-Carnicer, 2008, Hunton & Norman, 2010). The *Masloch Burnout Inventory* is a popular instrument (Golden, 2006; Jones, 2006), though the *global job satisfaction scale* (Fonner & Roloff, 2010), the *Allen and Meyer commitment scale* (Golden, 2006) and the *Schaubroeck, Cotton and Jennings turnover intention scale* (Golden, 2006) are also used within the literature. Many of the studies found for this literature review exclusively rely on survey data to measure retention, particularly the studies conducted on behalf of corporate clients for industry interest groups. Sackett (1998) cautions against using retrospective survey questions, preferring instead to survey subjects multiple times to capture more direct measurements. Most of these studies administered surveys in multiple time periods, though a few relied on only one survey (Golden, 2006; Hyland, Rowsome, & Rowsome, 2005). Peer-reviewed academic studies were more careful to include more than one instrument type to measure retention and turnover intent, resulting in stronger and more credible findings.

Absenteeism

Research on the relationship between flexible work policies and employee absenteeism has evolved alongside shifting cultural attitudes about when and where work can be performed. To place this research in context, many familiar workplace policies were just being implemented 20 years ago. Baum (2003) reminds us, for example, that the first state-level maternity leave laws were introduced in the late 1980s, while the federal Family and Medical Leave Act was not signed into law until 1993. These laws marked a large shift in how work absences were considered. Mitra, Jenkins, & Gupta (1992) find that research in the 1970s and 1980s was largely framed by notions that absenteeism is driven by illness and job attitudes. Researchers

and employers alike were concerned with finding turnover predictors, and absenteeism was viewed as a possible indicator of employee disengagement and low morale.

In the 1990s, researchers considered the impact of flexible scheduling policies that allowed employees to choose when to start work but kept intact the requirement for an 8-hour work-day. Dalton & Mesch (1990) determined that flexible scheduling significantly reduced absenteeism while no effect on turnover was found. Greater awareness of the complicated juggle between work and home developed (Dalton & Mesch, 1990; Mitra et al, 1992; Leibowitz & Klerman, 1995; Feldman & Gainey, 1997; Baum, 2003.) In this period, however, research on the connections between absenteeism and flexible work policies relied mostly on unsubstantiated, anecdotal corporate case studies (Weiss, 1994; Feldman & Gainey, 1997; Lewis, 1998). The use of anecdotal case studies by telework interest groups continues today, but contemporary peer-reviewed research now places more emphasis on experimental findings.

Research specifically focused on the connection between absenteeism and telework emerged in the late 1990s (Feldman & Gainey, 1997; Halpern, 2005; Jordan, 2006; Gill, 2006; and Casey & Grzywacz, 2008). Two dominant themes are apparent in the literature. The first theme examines the potential of telework to minimize disruptions caused by terrorism, pandemics or natural disasters (Jordan, 2006; Gill, 2006). The second theme focuses on the connections between employee health and absenteeism (Litchfield, Swanberg, & Sigworth, 2004; Akyeampong, 2005; Bloom, 2005; Davis, Collins, Doty, Ho, Holmgren, 2005; Dionne & Dostie, 2005; Halpern, 2005; Aumann & Galinksy, 2008; Casey & Grzywacz, 2008).

Research on health-related absenteeism suggests two major reasons why telework reduces absenteeism. First, because employees have more flexibility in when and where work can be performed, employees are able to schedule medical appointments without having to miss an entire day of work (Akyeampong, 2005; Bloom & Canning, 2005; Davis et al., 2005; Dionne & Dostie, 2005; Halpern, 2005; Aumann & Galinksy, 2008; Casey & Grzywacz, 2008). Litchfield et al. (2004) find that this is especially important for hourly workers since past human resource policy approaches allotted sick leave by day-long increments rather than hours. Additionally, employees who are primary caretakers for children or elderly family members are able to complete work from home while also being able to attend to the needs of their loved ones (Bloom & Canning, 2005; Davis et al., 2005; Dionne & Dostie, 2005; Halpern, 2005; Aumann & Galinksy, 2008; Casey& Grzywacz, 2008.) Akyeampong (2005) finds that absences due to family responsibilities is on the rise in Canada, while Goetzel (2004) finds a similar trend in the United States.

Secondly, the literature emphasizes the role of telework in reducing stress, with the hypothesis being that increased levels of stress results in greater incidence of illness and absence (Litchfield, 2004; Bloom & Canning, 2005; Davis et al., 2005; Dionne & Dostie, 2005; Halpern, 2005; Aumann & Galinksy, 2008; Casey & Grzywacz, 2008) (Goetzel (2004) also explores the concept of "presenteeism," which suggests that inflexible workplace policies lead people to come to work despite being ill.). Casey and Grzywacz (2008) employ a particularly rigorous methodology to test this relationship. They match survey information from employee Health Risk Assessments (HRAs) to data on actual absences. They determine two key findings. First, survey questions about absences within the past year prove to be fairly weak instruments as employees do not adequately remember their behavior over such a long time frame. Secondly, employee

perceptions about the flexibility of their workplace are significant predictors of stress-related absences. Employees who believe they work in a flexible environment have fewer unanticipated absences than employees who do not believe they work in a flexible environment (Casey & Grzywacz, 2008).

Facility Costs

When flexible work policies are adopted on a widespread basis within a firm, companies realize budgetary savings in the form of reduced square footage-per-employee, utility costs, IT infrastructure and parking facilities. A growing body of corporate case studies suggests a wide range of expected savings depending on the size of the company and the number of employees who telecommute on a part-time or full-time basis. With 17,000 employees telecommuting, Sun Microsystems reports an estimated annual savings of $96 million (Lister; 2010, p.8). Another popularly cited study finds that AT&T has reduced office space costs by 50 percent since 1995 (Telework Australia, 2010). The U.S. Patent and Trademark Office reports being able to avoid $11 million in new facilities costs by shifting 70% of staff to full-time telecommuting status (Lister, 2010, p.9).

Reconciling these documented savings into an average per-employee estimate is daunting. Telework Australia suggests that telecommuting cuts office space by 33 percent, though this figure is scale dependent and is achievable only when enough employees transition to telecommuting to allow the firm to eliminate entire suites of offices and common-spaces like hallways and break rooms. The Telework Research Network suggests that having all employees telecommute half-time results in office space savings of 18 percent a year (Lister, 2010, p.7). This translates into an expected annual savings of $56,700 for every 50 employees that work from home on a half-time basis (Lister, 2010, p.9). The EEOC Division of the Office of Inspector General achieved a 35 percent reduction in total infrastructure costs over 5 years when telecommuting became an agency-wide requirement (Kacmarczyk, 2004, pp.119-120). The scale of the initiative matters, as does the location and time period. Depending on the location of a firm, the relative cost of rent to energy costs can vary widely (Kacmarczyk, 2004). Additionally, wide fluctuations in the cost of energy over the past ten years limit the general applicability of past case studies in estimating office space savings that could be achieved in the future.

Despite the breadth of case studies, few academic studies have delved into this subject. This literature review only found 6 peer-reviewed journal articles discussing employer-level real estate savings from telecommuting or other flexible work polices (Romm, 2000; Kaczmarczyk, 2002 and 2004; Kitou & Horvath, 2003; Matthews & Williams, 2005; Bonsall, 2006). Stan Kaczmarczyk, of the US General Services Administration, has developed the most rigorous framework for measuring office space savings due to telework (2002, 2004). In particular, he is responsible for creating the "Cost per Person Model" in 1999. The traditional approach to measuring office space used a simple calculation of "facilities cost per person" which incorporated standard real estate costs like rent, average utility costs and parking. Kaczmarczyk updated this concept by incorporating per capita costs of providing IT support, telecommunications infrastructure, other human resource services and shared or "hotelled" workspaces (2004). Kaczmarcyyk argued in 2002 that academia has been slow to research real estate savings from telecommuting because the topic is a multi-disciplinary "convergence" of

traditional approaches to researching facilities management, information technology and human resources (p. 163). Additionally, early research on telecommuting and other flexible work policies focused on individual-level benefits for employees or broader benefits for the community at large. With greater attention being paid to the culture of how and where work can be performed, the potential value of employer-level real estate savings is generating more discussion (Kaczmarczyk, 2002).

Chapter 3. Methods

This project was a case study of three organizations that varied by size and sector who currently offered some form of workplace flexibility program or policy to some or all of its employees. The organizations were identified and recruited by the research team with help from a third-party organization that a member of the research team had previously worked with on implementing telecommuting programs. Using a survey instrument, in-depth interviews with management-level employees--and where possible--data collected by the organization on employee- and department-level outcomes, a profile for each organization was created to explore the impacts of flexible workplace policies on the organization as a whole.

The survey instrument was administered to employees by the research team via SurveyMonkey (See Appendix for a copy of the survey instrument) to two of the three organizations. The third organization shared the results of two waves of survey data administered by a separate organization. In-depth interviews were conducted in person, most often in the employee's office, by a member of the research team. Any data on employee- and department-level outcomes were distributed by the organization directly to the research team.

There were two versions of the SurveyMonkey survey instrument, one for employees and one for managers. The manager survey contained additional survey questions on their experiences supervising employees who utilize flexible workplace policies. The survey was administered twice over a four-month period to the same employees and managers in each organization.

Analyses of the survey data were conducted using Microsoft Excel and R software. Open-ended survey questions and in-depth interviews were analyzed with NVivo, a qualitative data analysis software.

The initial goal of the study was to measure the following elements as organizational-level indicators of the effect of flex policies on organizational outcomes:

- Productivity
- Absenteeism
- Retention/Job Satisfaction
- Facility cost savings

However, the availability of data collected by an organization on employee- and department-level outcomes was almost non-existent. This meant that the in-depth interviews became an important way to understand how the above elements were defined and evaluated by an organization.

Chapter 4. Findings

Our goal was to test for a causal relationship between flex work policies and the economic bottom-line for an organization. However, it became apparent as we worked with each organization, that flexible workplace policies are defined and operationalized differently and there are multiple influences on an organization's bottom line that make it near impossible (absent the ability to create an experimental intervention) to isolate the economic effects of flexible workplace policies on an organization.

However, our findings do reveal management-level buy-in of flexible workplace policies and how leadership influences this buy-in; employee-level satisfaction with existing policies; and high employee usage rates and employee self-reflection on its influence on their work productivity.

The following are case profiles for each of the three organizations studied.

Case Profile 1

Case 1 is an administrative department within a statewide public agency that is implementing its statewide telecommuting policy. Championed by the department head, telecommuting is available to all employees in the department; however, individual use of the policy occurs on a case-by-case basis depending on the employee's supervisor.

Interviews

Definition of flexible workplace policies: The common vernacular for flexible workplace policies was *flextime* and was discussed in terms of the time and place where an employee conducts their work. For example, an employee can work longer days and take a "day off," or the employee can "work from home." Both of these options are available through a formal agreement between the supervisor and employee, leaving the discretion of who gets to *flextime* to the immediate supervisor. The supervisor discretion means that some employees do not get *flextime* if their supervisor does not like the concept or if the supervisor does not trust the employee (distrust was reported as due to poor past performance determined by the supervisor).

There is a common desire among employees for broadening flextime to create a cultural shift within the organization that would allow employees to determine their own work schedules and work locations, as long as they accomplish pre-determined work results. However, managers speculated that the organization was not ready for this kind of a cultural shift because of its accountability to the taxpaying public who would not understand that work is not defined only by the time employees spend in the office at their desk.

The interaction of productivity with flextime: There was no single definition of worker productivity, but typical answers had to do with the speed of task completion and whether customer feedback was positive. There was general recognition of the difficulty in objectively measuring productivity and that current practice is for the supervisor to comment on productivity during the employee's performance review. Despite the lack of a common definition and

objective measurement, managers were still able to comment that they believed there was a neutral to positive influence of flextime on worker productivity. Specifically, there was mention of less interruptions, as well as high worker satisfaction due to lower stress from not having to commute, the feeling of being trusted enough to be able to use flextime, and that flextime felt like a "soft perk" when pay increases were not possible at the organization.

<u>Limitations to implementing flextime:</u> There were multiple mentions that given the type of work conducted by this department required frequent interactions with other employees in the organizations and historically, there has been the expectation that these interactions happen in-person (even though it is not required). Therefore, to accommodate working remotely, employees were challenging the organization's culture and expectations by working in a different location than the office.

Table 1: Case 1 Summary Survey Data

		Employee n=27	Manager n=6	Employee n=19	Manager n=6
		Time 1		Time 2 (Time 1 + 4mos.)	
Importance of Flex Work Policies	Important	96.3%	66.7%	94.4%	88.3%
	Somewhat important	3.7%	33.3%	5.6%	16.7%
	Not important	0%	0%	0%	0%
Aware of Flex Work Policies	Yes	88.9%	100%	88.2%	100%
	No/I don't know	11.1%	0%	11.8%	0%
Personal Satisfaction with Flex Work Policies	Very	44.4%	50%	47.1%	50%
	Somewhat	29.6%	50%	29.4%	50%
	Not	22.2%	0%	23.5%	0%
Top 3 Benefits of Flex Work Policies[1]		1. Increased Work Satisfaction 2. Increased Productivity 3. Spend less time commuting	1. Increased Employee Work Satisfaction 2. Spend less time commuting 3. Avoid bad weather	1. Spend less time commuting 2. Increased Productivity 3. Convenience	1. Spend less time commuting 2. Increased Employee Work Satisfaction 3. Increased Employee Productivity

[1] Survey respondents could choose up to three responses from the following choices: cost savings, spend less time commuting, convenience, accommodate employee health or disability needs, ability to avoid bad weather, spend more time with family, increased employee work satisfaction, increased employee productivity, lower stress levels, reduce absenteeism.

As Table 1 shows, at both survey times, the majority of employees and managers think that flexible workplace policies are important to their organization. The majority of employees and all managers are aware of their organization's flexible workplace policies. Among employees, there is mixed satisfaction with the policies available, although the majority is either somewhat or very satisfied. All managers are either somewhat or very satisfied.

In addition to the above results, 93 percent (Time 1) and 90 percent (Time 2) of employees would ideally work both from home and at the office and the majority of employees at both survey times agree or strongly agree that their work is of higher quality in a flexible environment. One hundred percent of managers at both survey times agree or strongly agree that a flexible work environment enhances employee job effectiveness and the majority (80 percent at Time 1; 100 percent at Time 2) agree or strongly agree that a flexible work environment encourages employees to do higher quality work.

In the open-ended portion of the survey, respondents reported a range of experiences with flexible workplace policies from citing positive benefits (e.g. decreased commuting costs, an increased sense of engagement, feeling more productive because of reduced interruptions) to expressing frustration over inconsistent implementation, because those who could use flextime "depended on who you knew" or that certain job duties were determined unsuitable for flextime by their supervisors.

In comparison to the above survey findings, the organization shared data with this research team from a survey conducted in 2010 with employees in the same department who were using flextime. The survey found that of employees using flextime, 94.7% felt they were more productive when using flextime than before they had the flextime option. For employees who were supervising flextime workers, 28.6% reported they saw a difference in the performance of the flextime worker, with 2/3 of these supervisors seeing an increase in productivity. In addition, 81.6% of flextime workers reported they were less likely to leave the organization because they have flextime.

Case Profile 2

Case 2 is a department within a local government agency that is implementing a formal program to shift to a results only work environment (ROWE). Concurrent with the shift to ROWE, the department is undergoing a fundamental shift to the way in which employees perform their job duties, including where and with whom they work.

As Table 2 shows, the majority of employees and managers at both survey times indicated they are aware of flexible workplace policies at their organization and that these policies are important to their organization. The majority of employees and managers are also somewhat or very satisfied with their flexible workplace policies, however in the open-ended portion of the survey, respondents reported mixed responses to how much they are satisfied with the implementation of ROWE.

Table 2: Case 2 Summary Survey Data

		Employee n=1,032	Manager n=192	Employee n=224	Manager n=43
		Time 1		Time 2 (Time 1 + 4mos.)	
Importance of Flex Work Policies	Important	82.4%	71.8%	81.2%	64.3%
	Somewhat important	14.3%	25%	15%	31%
	Not important	3.3%	3.2%	3.8%	4.8%
Aware of Flex Work Policies	Yes	95.7%	95.2%	97.1%	95.2%
	No/I don't know	4.3%	4.8%	2.9%	4.8%
Personal Satisfaction with Flex Work Policies	Very	60.6%	47.3%	61.4%	60%
	Somewhat	30%	40.3%	23.3%	22.5%
	Not	8%	10.8%	13.8%	15%
Top 3 Benefits of Flex Work Policies[1]		1. Spend less time commuting 2. Increased Productivity 3. Increased work satisfaction	1. Increased Employee Work Satisfaction 2. Increased Employee Productivity 3. Spend less time commuting	1. Spend less time commuting 2. Lower stress levels 3. Increased Productivity	1. Spend less time commuting 2. Lower stress levels 3. Increased Employee Productivity

[1] Survey respondents could choose up to three responses from the following choices: cost savings, spend less time commuting, convenience, accommodate employee health or disability needs, ability to avoid bad weather, spend more time with family, increased employee work satisfaction, increased employee productivity, lower stress levels, reduce absenteeism.

Respondents shared in the open-ended portion that some employees choose to work away from the office to minimize the stress levels that they associate with the office environment. However, by working away from the office, it seems that in some cases the employees that work remotely do not feel as responsible for shared team responsibilities. As a result, more work falls on those who choose to stay in the office. This breeds resentment, distrust of team members, and a greater desire for all to work out of the office, even when there are duties that need to be accomplished in the office environment. Some individuals also felt stress due to feeling like in order to meet their results they had to put in more than 40 hours a week and to work on weekends.

Many respondents also mentioned that under ROWE they felt less connected to their peers, and felt a reduced sense of having a team that they cared about and wanted to help out. Some of this had to do with feeling like it was more difficult to get in touch with other staff members or their supervisors when they had questions or needed advice, since everyone was working different schedules.

Employees also expressed appreciation for most of the aspects of ROWE, especially feeling like their employer trusts them and treats them as a professional. Many employees like the reduction of a commute, and the freedom to organize their lives in a way that works for them. While some employees mentioned they were more distracted when they worked at home, the majority commenting on this topic mentioned that they were less distracted when working from home since they could work for longer periods of time uninterrupted. Many felt that ROWE made the multiple changes and stressors that they face in their work lives easier to deal with, and one person even mentioned that in their opinion flexible work policies was an adequate compensation for not having a pay raise in several years. In the ROWE environment, many reported sleeping more, and having more time to take care of their health, as well as more time to juggle other responsibilities in their lives. Employees and managers also reported less absenteeism under ROWE since they could work from home when they were sick or make time up later in the week. Many mentioned that ROWE eased their stress since they could organize their schedule in a way that worked for their unique circumstances, and alter it week by week.

At the time of the survey, employees were undergoing a transition to shared workspaces and to a decentralized organizational model. Many respondents mentioned the impacts of these organizational transitions, including feeling underappreciated by leadership. Employees felt that their opinions were not being solicited when changes were being made, and that even when they spoke out, their voices did not make a difference. Many respondents mentioned wanting to leave the organization.

In the in-depth interviews, managers felt their employees were more productive because they had less interruptions working from home and worked longer days because they begin earlier and end later without a commute. Managers also reported that with ROWE, their employees feel like they are treated as adults because they are trusted to do their work through results rather than by clocking in or out. One manager reflected that when she began with the organization years earlier, employees were required to sign in and out for the work day and for breaks and employees were reprimanded for being five minutes late.

Case Profile 3

Case 3 is a mid-size private manufacturing firm that offers a menu of flexible workplace policies focusing on promoting the health and well-being of its employees. More than two-thirds of its workforce are in hourly wage and nonexempt roles. The firm has two work locations: one is the production setting; the other holds more of the administrative functioning. One administrative department within the company is implementing ROWE, a Results Oriented Work Environment. The human resources department leads the effort to create and formalize the myriad policies, but individual employee use of policies like work location and schedule is negotiated with an individual's supervisor. The company implements multiple surveys per year to gauge employee health, engagement, and satisfaction with their work, pay, and benefits.

The research team and the company agreed not to implement the survey instrument as was done for the other two case sites due to survey fatigue among its employees. The company shared survey results from its own surveys with the research team. In a survey given once in both 2010 and 2011, the average response--on a scale from disagree to agree--employees gave to the following statement, "I have the flexibility I need to balance my work and personal life" was *agree*. In the same survey, the average employee response agreed that their benefits package is good compared to others in the same industry. Seventy-five percent in 2010 and 84 percent in 2011 answered positively to, "I want to stay with this company for more than a year."

In another survey administered in 2011, 98 percent of employees somewhat or strongly agreed to the statement, "I have the schedule flexibility I need at work to manage my personal and family responsibilities." See Table 3 for additional survey results.

Table 3: Case 3 Summary Survey Data

		Employee (Combined both locations)	Employee (location 1)	Employee (location 2)
		2010	2011	
Control over scheduling work hours.	Complete	0%	19%	7%
	A lot	16	**51**	19
	Some	0	21	15
	Very little	**49**	4	20
	None	29	2	**33**
	Don't know	5	2	6
Allowed to work from home.	Yes	**80%**	**91%**	16%
	No	18	9	**74**
	Don't know	2	0	10
Supervisors/Managers assess employee performance by accomplishments, not hours spent at workplace.	Strongly agree	**67%**	**68%**	33%
	Somewhat agree	24	26	**42**
	Somewhat disagree	9	4	17
	Strongly disagree	0	2	8
Work schedule fits needs.	Strongly agree	**69%**	**79%**	**57%**
	Somewhat agree	25	19	32
	Somewhat disagree	5	0	7
	Strongly disagree	0	2	3
Have the schedule flexibility to manage personal and family responsibilities.	Strongly agree	**67%**	**81%**	41%
	Somewhat agree	27	17	**42**
	Somewhat disagree	5	0	11
	Strongly disagree	0	2	6

In interviews with managers, leadership from the company CEO set the tone for flexibility. Interviewees pointed to the recent change in CEO as a catalyst to changing the workplace culture to one that valued flexibility, however, the discretion for any individual employee to have flexibility was still left to supervisors and interviewees indicated that this created different standards and practices by department and even within departments depending on who was in charge. One interviewee reflected that within their department, employees had to be encouraged to take breaks or work less hard because their commitment to the company was leading to lower work-life balance. This interviewee attributed the employees' high commitment and hard work to workplace flexibility. In juxtaposition, another interviewee expressed concern about the effects of workplace flexibility on employees; in this person's opinion, employees have lost a sense of urgency in their work due to flexibility. This interviewee concluded that employees may be happy with the flexibility, but the company's business suffers.

Despite this perspective, organizational data collected on retention, paid time off (PTO), and health plan utilization show bottom line benefits to the organization in recent years. The firm remains below the industry standard in turnover: in 2010 voluntary turnover was 4 percent; in 2011 it was 2 percent; and in mid-2012 it is trending at 1.2 percent. Since opening an on-site health clinic, over 9,700 PTO hours have been saved as employees use paid work time to visit with a health professional. In this same period, he firm has seen an overall reduction in health insurance claim costs and its worker population achieved better-than-average risk stratification when compared to national norms. This has resulted in over $1.2 million savings in direct medical costs.

Chapter 5. Conclusions

These case profiles show variation along a spectrum of flexibility and shifting work culture that could be plotted along a scale from simple to complex definitions of flexibility and from low to high integration within an organization. Case 1 is implementing a telecommuting policy without change to the rules and norms of the existing work culture. Employees at Case 1 voiced a desire for more flexibility options, but recognized that it cannot happen without a larger cultural shift within the organization, and perhaps in the greater public because it is a public agency. Case 2 is undergoing a significant work culture shift to a results-only work environment, attempting to transcend formal policies to embrace a culture of flexibility that puts control in the hands of employees over not just their work schedule, but in defining their work results. Case 3 sits between Case 1 and Case 2 as a company implementing a full menu of formal policies to support the health and well-being of its employees. Company leadership embraces a philosophy of flexibility, but the implementation of flexibility is still in the hands of management, creating both pockets of a flexible workplace culture and pockets of a more traditional workplace. These three cases confirm findings in previous studies that show high worker satisfaction with a flexible workplace, but there is a subtle—yet significant—difference in how employees in this study express their satisfaction. Some employees are satisfied because they feel like they have earned a 'perk' outside of the norm of the workplace (this is true for Cases 1 and 2) where others are satisfied because they feel like they are being treated as an adult capable of being responsible for their work results (this is true for Cases 2 and 3).

Placement along a spectrum of flexibility is not static, and movement along, or off, is a constant reality for organizations. For example, when first recruiting for organizations to participate in this study, we began working with a local government agency that was implementing a results-only work environment while simultaneously downsizing their offices because employees would be spending time working from home. Our work with them began in the late summer as they were about to begin ROWE, but after election day that fall, leadership within the local government changed, and from one day to the next, the plans for ROWE ceased to exist. This highlights the instability of these policies that seem to live and die by the whim of management and leadership.

Across all three case sites, employees and managers expressed high satisfaction with a flexible work environment and survey respondents at Cases 1 and 2 reported their work to be of higher quality and performed with greater effectiveness in a flexible environment. Interviews with managers at all three case sites reiterated the survey findings, reporting that workplace flexibility had either a neutral or positive effect on employees' work. Inferring from these reports, we believe there is a net benefit to organizations implementing a flexible workplace. However, without concrete data, this conclusion remains inferred from self-reported data. Therefore, an additional finding from this study is that direct measurements of worker productivity, facility costs, and employee retention are low due to a lack of available data within organizations. Future research will need to take this into consideration.

Our recommendation for future study into the economic impacts to employers implementing flexible workplace policies would be to conduct a quasi-experimental design where the research team implements methods to longitudinally collect data on productivity, employee retention, and

facility costs. Ideally, only portions of an entire organization would be implementing a flexible workplace, creating experimental and control cases. If this is not possible, collecting baseline data and following an organization over time may suffice. If such a study were possible, we would also strongly recommend that a research team spends time interviewing and collecting other qualitative data to more deeply understand the culture and history of the organization.

As in most research endeavors, the final set of data does not often match the researchers' original intentions. Such was the case with this study. Our most difficult challenge was in the recruitment of employers to our study. Although there were many employers interested in participating, this interest was not sustained to actual participation. And for those employers who participated, our ability to time our various data collection methods was subject to the employers' timeline, not that of the researchers. Not surprisingly, each organization is unique and holds its own set of idiosyncrasies, which ultimately led to inconsistency in data collection across each case.

Additionally, the research team attempted to identify a set of metrics with each case that could assess organization-wide economic benefits along productivity, absenteeism, retention, and facility cost measures. The reality the research team faced in uncovering these kinds of metrics revealed both their complexity and how little is formally tracked and recorded by organizations.

All of this is to say that our findings should be held in context to these limitations. We but only glimpsed into the complex nature of employee and employer relationships, bringing to the foreground the negotiations of flexible workplace policies while attempting to understand and incorporate the myriad background of factors that affect organizational outcomes.

References

Akyeampong, E. B. (2005). *Fact sheet on work absences -- perspectives on labour and income.* Ottawa, CN: Statistics Canada.

Allen, T. D., Herst, D. E. L., Bruck, C. S., & Sutton, M. (2000). "Consequences associated with work-to-family conflict: A review and agenda for future research." *Journal of Occupational Health Psychology, 5*(2), 278-308.

Apgar IV, M. (1998). "The alternative workplace: Changing where and how people work." *Harvard Business Review, 76*(3), 121-136.

Aumann, K., & Galinksy, E. (2008). *The state of health in the American workforce: Does having an effective workplace matter?* New York, NY: Families and Work Institute. Accessed October 17, 2010. http://familiesandwork.org/site/research/reports/HealthReport.pdf.

Bailey, D. E., & Kurland, N. B. (2002). "A review of telework research: Findings, new directions, and lessons for the study of modern work." *Journal of Organizational Behavior, 23*(4, Special Issue: Brave New Workplace: Organizational Behavior in the Electronic Age), 383-400.

Bailyn, L. (2006). *Breaking the mold: Redesigning work for productive and satisfying lives* (2nd ed.). Ithaca, NY: ILR Press/Cornell University Press.

Baruch, Y. (2001). "The status of research on teleworking and an agenda for future research." *International Journal of Management Reviews, 3*(2), 113-129.

Baum, C. (2003). "The effects of maternity leave legislation on mother's labor supply after childbirth." *Southern Economic Journal, 69*(4), 772-799.

Bloom, D. E., & Canning, D. (2005). "Health and economic growth: Reconciling the micro and macro evidence." No. Working Paper 42). Stanford, CA: Stanford Institute on International Studies - Center on Democracy, Development and Rule of Law.

Bonsall, P., & Shires, J. (2006). "Employer expectations for commuting and business-related travel in an environment rich in information and communication technologies." *Transportation Research Record: Journal of the Transportation Research Board, 1977*, 268-276.

Casey, P. R., & Grzywacz, J. G. (2008). "Employee health and well-being: The role of flexibility and work-family balance." *Psychologist-Manager Journal, 11*(1), 31-47.

Dalton, D. R., & Mesch, D. J. (1990). "The impact of flexible scheduling on employee attendance and turnover." *Administrative Science Quarterly, 35*(2), 370-387.

Davis, K., Collins, S. R., Doty, M. M., Ho, A., & Holmgren, A. L. (2005). "Health and productivity among U.S. workers." (Issue Brief New York, NY: The Commonwealth Fund. Accessed October 17, 2010. http://mobile.commonwealthfund.org/~/media/Files/Publications/Issue%20Brief/2005/Aug/Health%20and%20Productivity%20Among%20U%20S%20%20Workers/856_Davis_hlt_productivity_USworkers%20pdf.pdf.

Dionne, G., & Dostie, B. (2005). "New evidence on the determinants of absenteeism using linked employer-employee data." No. Working Paper 05-21). Montreal, QC: CIRPEE. Accessed October 17, 2010. https://depot.erudit.org/bitstream/002050dd/1/CIRPEE05-21.pdf.

Earle, H. A. (2003). "Building a workplace of choice: Using the work environment to attract and retain top talent." *Journal of Facilities Management, 2*(3), 244-257. doi: 10.1108/14725960410808230.

Eby, L., Casper, W. J., Lockwood, A., Bordeaux, C., & Brinley, A. (2005). "Work and family research in IO/OB: Content analysis and review of the literature (1980–2002)." *Journal of Vocational Behavior, 66*(1), 124-197.

Feldman, D. C., & Gainey, T. W. (1997). "Patterns of telecommuting and their consequences: Framing the research agenda." *Human Resource Management Review, 7*(4), 369.

Fonner, K. L., & Roloff, M. E. (2010). "Why teleworkers are more satisfied with their jobs than are office-based workers: When less contact is beneficial." *Journal of Applied Communication Research, 38*(4), 336.

Gajendran, R. S., & Harrison, D. A. (2007). "The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences." *Journal of Applied Psychology, 92*(6), 1524-1541.

Galinsky, E., Bond, J. T., & Sakai, K. (2008). "2008 national study of employers." Families and Work Institute. Accessed October 17, 2010. http://www.familiesandwork.org/site/research/reports/2008nse.pdf.

Gill, T. (2006). "Countering the economic effects of bird flu through teleworking." *Journal of Business Continuity and Emergency Planning, 1*(1), 27-36.

Goetzel, R. Z. (2004). "Health, absence, disability and presenteeism cost estimates of certain physical and mental health conditions affecting U.S. employers." *Journal of Occupational and Environmental Medicine, 46*, 398-412.

Golden, T. (2007). "Co-workers who telework and the impact on those in the office: Understanding the implications of virtual work for co-worker satisfaction and turnover intentions." *Human Relations, 60*, 1641-1667.

Golden, T. D. (2006). "Avoiding depletion in virtual work: Telework and the intervening impact of work exhaustion on commitment and turnover intentions." *Journal of Vocational Behavior, 69*(1), 176-187.

Golden, T. D., & Veiga, J. F. (2005). "The impact of extent of telecommuting on job satisfaction: Resolving inconsistencies." *Journal of Management, 31*, 301-318. doi: 10.1177/0149206304271768.

Gornick, J. C. (2003). *Families That Work: Policies for Reconciling Parenthood and Employment*. New York: Russell Sage Foundation.

Halpern, D. F. (2005). "How time-flexible work policies can reduce stress, improve health, and save money." *Stress and Health, 21*, 157-168. doi:10.1002/smi.1049.

Hartman, R. I., Stoner, C. R., & Arora, R. (1991). "An investigation of selected variables affecting telecommuting productivity and satisfaction." *Journal of Business and Psychology, 6*(2), 207-225.

Heymann, J. (2005). "Inequalities at work and at home: Social class and gender divides." In C. Beem, & J. Heymann (Eds.), *Unfinished work: Building equality and democracy in an era of working families* (pp. 89-121). New York: The New Press.

Hill, E. J., Miller, B. C., Weiner, S. P., & Colihan, J. (1998). "Influences of the virtual office on aspects of work and Work/Life balance." *Personnel Psychology, 51*, 667-683.

Hochschild, A. R. & Machung, A. (2003). *The Second Shift*. New York: Penguin.

Hunton, J. E., & Norman, C. S. (2010). "The impact of alternative telework arrangements on organizational commitment: Insights from a longitudinal field experiment." *Journal of Information Systems, 24*(2), 67-90.

Hyland, M., Rowsome, C., & Rowsome, E. (2005). "The integrative effects of flexible work arrangements and preferences for segmenting or integrating work and home roles." *Journal of Behavioral and Applied Management, 6*, 141-160.

Jones, E. C., & Chung, C. A. (2006). "A methodology for measuring engineering knowledge worker productivity." *Engineering Management Journal, 18*(1), 32-38.

Jordan, B. (2006). "Telework's growing popularity: And it makes good homeland security sense, too." *Homeland Defense Journal, 4*(6), 16-22.

Kaczmarczyk, S. (2004). "Financial impact of alternative workplace strategies." *Journal of Facilities Management, 3*(2), 117-124.

Kaczmarczyk, S. (2002). "Measuring the performance of innovative workplaces." *Journal of Facilities Management, 1*(2), 163-176. doi: 10.1108/14725960310807908.

Kelly, E. L., Kossek, E. E., Hammer, L. B., Durham, M., Bray, J., Chermack, K., Murphy, L.A., Kaskubar, D. (2008). "Getting There from Here: Research on the Effects of Work-Family Initiatives on Work-Family Conflict and Business Outcomes." *The Academy of Management Annals*, *2*(794992891), 305-349. doi: 10.1080/19416520802211610.

Kitou, E., & Horvath, A. (2003). "Energy-related emissions from telework." *Environmental Science & Technology, 37*(16), 3467-3475.

Kossek, E.E. (2005). "Workplace policies and practices to support work and families." In S. Bianchi, L. Casper, & R. King (Eds.), *Work, family, health, and well-being* (pp.97-116). Mahwah, NJ: Lawrence Erlbaum.

Kossek, E.E. (2006). "Work and family in America: Growing tensions between employment policy and a changing workforce. A thirty year perspective." Commissioned chapter by SHRM Foundation and University of California Center for Organizational Effectiveness for the 30th anniversary of the State of Work in America. In E. Lawler and J. O'Toole, (Eds.) *America at work: Choices and challenges* (pp.53-72). New York: Palgrave MacMillan.

Kowalski, K. B., & Swanson, J. A. (2005). "Critical success factors in developing teleworking programs." *Benchmarking: An International Journal, 12*(3), 236-249. doi: 10.1108/14635770510600357.

Leibowitz, A., & Klerman, J. (1995). "Explaining changes in married mothers' employment over time." *Demography, 32*, 365-378.

Lewis, B. J. (1998). "Tapping into the benefits of telecommuting." *Journal of Management in Engineering,* (Nov/Dec), 9-10.

Lister, K. (2010). *Workshifting benefits: The bottom line* (1st ed.) Telework Research Network. Accessed August 9, 2010. http://www.workshifting.com/downloads/downloads/Workshifting%20Benefits-The%20Bottom%20Line.pdf.

Litchfield, L., Swanberg, J. E., & Sigworth, C. M. (2004). *Increasing the visibility of the invisible workforce: Model programs for hourly and lower wage employees.* Boston: Center for Work and Family at Boston College. Accessed October 17, 2010. http://www.bc.edu/centers/cwf/research/publications/meta-elements/pdf/LowWageStudy.pdf.

Mamaghani, R. (2006). "Impact of information technology on the workforce of the future: An analysis." *International Journal of Managment, 23*, 845-850.

Matthews, H. S., & Williams, E. (2005). "Telework adoption and energy use in building and transport sectors in the United States and Japan." *Journal of Infrastructure Systems, 11*(1), 21.

McCloskey, D. W., & Igbaria, M. (1998). "A review of the empirical research on telecommuting and directions for future research." In M. Igbaria, & M. Tan (Eds.), *The virtual workplace* (1st ed., pp. 338-358). Hershey, PA: Idea Group.

Mitra, A., Jenkins Jr., G. D., & Gupta, N. (1992). "A meta-analytic review of the relationship between absence and turnover." *Journal of Applied Psychology, 77*(6), 879-889.

Moen, P., Erickson, W. A., Agarwal, M., Fields, V., & Todd, L. (2000). *The Cornell retirement and well-being study*. Ithaca, New York: Bronfenbrenner Life Course Center, Cornell University.

Moen, P. & Roehling, P. (2005). *The Career Mystique: Cracks in the American Dream*. Lanham, MD: Rowman and Littlefield.

Olson, M. H. (1989). "Organizational barriers to professional telework." In E. Boris, & C. R. Daniels (Eds.), *Historical and contemporary perspectives on paid labor at home* (pp. 217-237). Urbana, IL: Univeristy of Illinois Press.

Peper, B., Dulk, D., & Van Doorne-Huiskes, A. (Eds.). (2005). *Flexible working and organisational change: The integration of work and personal life*. Northampton, MA: Edward Elgar.

Pitt-Catsouphes, M., Kossek, E. E., & Sweet, S. (Eds.). (2006). *The work and family handbook: Multi-disciplinary perspectives, methods, and approaches* (1st ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

Romm, J. (2000). "The internet and the new energy economy." Paper presented at the *E-Vision 2000: Key Issues that Will Shape our Energy Future,* Washington, D.C. 131-152. Accessed August 16, 2010. http://www.rand.org/scitech/stpi/Evision/Supplement/index.html.

Sackett, P. R. (1998). *An evaluation of the Cambridge telework center: Commuting time and distance, work attitudes, job performance, and financial impact: Final report*. St. Paul, MN: Minnesota Dept. of Transportation, Office of Research Services; Springfield, VA.

Saltzstein, A. L., Ting, Y., & Saltzstein, G. H. (2001). "Work-family balance and job satisfaction: The impact of family-friendly policies on attitudes of federal government employees." *Public Administration Review, 61*(4), 452-467.

Schweitzer, L., & Duxbury, L. (2006). "Benchmarking the use of telwork arrangements in Canada." *Canadian Journal of Administrative Science, 23*, 105-117.

Telework Australia. (2010). *Saving office space costs.* Canberra, Australia: Telework Australia.

Weiss, J. M. (1994). "Telecommuting boosts employee output." *HR Magazine, 39*, 51-53.

Williams, J. (2000). *Unbending Gender: Why Family and Work Conflict and What to Do About It*. Oxford: Oxford University Press.

World at Work. (2007). *Attraction and retention: The impact and prevalence of work-life & benefit programs.* Washington, DC: WorldatWork. Accessed August 28, 2010. http://www.worldatwork.org/waw/adimLink?id=21945.

Appendix A: Survey Instrument

Flexible Workplace Policies Survey

Introduction

Thank you for your willingness to participate in a research survey about work practices, workplace culture, and work attendance. Our study's objectives are 1) to identify employee perceptions of work practices, workplace culture, and work attendance and 2) to identify how flexible workplace policies and programs may be beneficial if implemented by Minnesota employers.

We define "flexible workplace policies" as policies and programs implemented within organizations that provide employees with more control and discretion over the timing and other conditions of work, such as work location and scheduling. Flexible workplace policies are also sometimes called flex-work, alternative work arrangements, eWorkplace, telework or work-family initiatives, among other terms.

This research project is being conducted by Emily Saunoi-Sandgren, Research Fellow at the Public and Nonprofit Leadership Center at the Hubert H. Humphrey School of Public Affairs, University of Minnesota-Twin Cities and Adeel Lari, Director of Innovative Finance, State and Local Policy Program, at the Hubert H. Humphrey School of Public Affairs, University of Minnesota-Twin Cities.

Your participation will involve completing an online questionnaire via the SurveyMonkey website. Completing the questionnaire will take about 10-15 minutes. Your participation is voluntary, and there is no penalty if you do not participate. Nothing you say on the questionnaire will in any way influence your present or future employment with your organization.

Your participation in this survey is anonymous. The results of this study will be used for scholarly purposes only and will be shared with your employer or published only in an aggregate form and no individual will be identified. All data is stored in a password protected electronic format at the Hubert H. Humphrey School of Public Affairs, University of Minnesota-Twin Cities.

You may start filling out this survey and stop if necessary, to resume at a later time. If you have any questions or concerns about completing the survey or about this study, you may contact Emily Saunoi-Sandgren at sandg011@umn.edu.

Thank you in advance for taking the time to complete this survey!

Sincerely,
Emily Saunoi-Sandgren & Adeel Lari
Humphrey School of Public Affairs
University of Minnesota-Twin Cities

1. ELECTRONIC CONSENT: Please select your choice below.

Clicking on the "agree" button below indicates that you have read the information on the previous page and agree to participate in the study.

If you do not wish to participate in the research study, please decline participation by clicking on the "I do not agree" button, which will exit you out of the survey.

- ○ I agree
- ○ I do not agree

2. What is your status within your organization?

○ Employee (I do not supervise other employees)

○ Manager (I supervise at least one other employee)

Other (please specify in provided space)

Employee Perspective on Flexible Workplace Policies

3. How important do you think it is that flexible workplace policies be part of your workplace? (Choose one of the following.)

Reminder: We define "flexible workplace policies" as policies and programs implemented within organizations that provide employees with more control and discretion over the timing and other conditions of work, such as work location, scheduling, etc.

- ○ Important
- ○ Somewhat Important
- ○ Not Important

4. How aware are you of flexible workplace opportunities in your organization? (Choose one response for each statement.)

	Yes	No	I don't know
My company has a flexible workplace plan in place	○	○	○
My employer provides needed resources (for example, a computer) when I work some of my regular paid hours at home or at a location other than my typical workplace	○	○	○

5. Your work location.
(Please choose one answer for each question below.)

	No	Sometimes	Yes	I don't know
Are you allowed to work part of your regular paid hours at home?	○	○	○	○
Does your employer provide any resources (for example, a computer) when you work some of your regular paid hours at home or at a location other than your typical workplace?	○	○	○	○

6. When it comes to my organization's flexible workplace policies...
(Choose one response for each statement.)

	Very Satisfied	Somewhat Satisfied	Not Satisfied	N/A
I am	○	○	○	○
Employees in my organization are	○	○	○	○
My organization on the whole is	○	○	○	○

Flexible Workplace Policies Survey

7. Your work schedule.

(Please choose one answer for each question below.)

	None	Very Little	Some	A lot	Complete
Overall, how much control would you say you have over the number of hours you work?	○	○	○	○	○
Overall, how much control would you say you have in scheduling your work hours?	○	○	○	○	○

8. If you could choose your ideal work location, assuming access to appropriate equipment, you would:

(Choose up to three responses.)

☐ Work at an office.

☐ Work both at home and at the office.

☐ Work at home or at a location other than my organization's office.

☐ Work at the office and a location other than my organization's office.

Please specify what technology or equipment is available to you:

9. What would you consider to be the greatest potential benefits of flexible workplace policies for employees at your organization?
(Choose up to three responses.)

Reminder: We define "flexible workplace policies" as policies and programs implemented within organizations that provide employees with more control and discretion over the timing and other conditions of work, like work location, scheduling, etc.

- ☐ Cost savings

- ☐ Spend less time commuting

- ☐ Convenience

- ☐ Accommodate health or disability needs

- ☐ Ability to avoid bad weather

- ☐ Spend more time with family

- ☐ Increased work satisfaction

- ☐ Increased productivity

- ☐ Lower stress levels

- ☐ Reduced absenteeism

Other (please specify in provided space)

A-6

Manager Perspective on Flexible Workplace Policies

10. How important do you think it is that flexible workplace policies be part of your workplace? (Choose one of the following.)

○ Important

○ Somewhat Important

○ Not Important

11. How aware are you of flexible work opportunities in your organization? (Choose one response for each statement.)

	Yes	No	I don't know
My company has a flexible workplace plan in place	○	○	○
My employer provides needed resources (for example, a computer) when I work some of my regular paid hours at home or at a location other than my typical workplace	○	○	○

12. When it comes to my organization's flexible workplace policies …
(Choose one response for each statement.)

	Very Satisfied	Somewhat Satisfied	Not Satisfied	N/A
I am	○	○	○	○
Employees in my organization are	○	○	○	○
My organization on the whole is	○	○	○	○

13. Your work schedule.
(Please choose one answer for each question below.)

	None	Very Little	Some	A lot	Complete
Overall, how much control would you say you have over the number of hours you work?	○	○	○	○	○
Overall, how much control would you say you have in scheduling your work hours?	○	○	○	○	○

14. If I could choose my ideal work location, assuming access to appropriate equipment, I would:

(Choose up to three responses.)

☐ Work at an office

☐ Work both at home and at the office

☐ Work at home or at a location other than my organization's office

☐ Work at the office and a location other than my organization's office

lease specify what technology or equipment is available to you:

[text box]

15. What would you consider to be the greatest potential benefits of flexible workplace policies for managers at your organization?

(Choose up to three responses.)

Reminder: We define "flexible workplace policies" as policies and programs implemented within organizations that provide employees with more control and discretion over the timing and other conditions of work, like work location, scheduling, etc.

☐ Cost savings

☐ Spend less time commuting

☐ Convenience

☐ Accommodate employee health or disability needs

☐ Ability to avoid bad weather

☐ Spend more time with family

☐ Increased employee work satisfaction

☐ Increased employee productivity

☐ Lower stress levels

☐ Reduced absenteeism

Other (please specify in provided space)

[text box]

A-8

Employee Thoughts on Work Practices

16. Work practices.

(Please choose one response for each statement.)

	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
I am willing to put in extra effort to get the job done during flextime the same way as I would during traditional in-office work hours	○	○	○	○	○
My work is of higher quality when in a flexible work environment as compared to a traditional work environment.	○	○	○	○	○
When I work in a flexible work environment, I do not have access to technology and equipment to get my job done.	○	○	○	○	○
When I work in a flexible work environment, I have access to managers for information to get my job done.	○	○	○	○	○
My manager focuses on the time spent at my desk, not the results of my work.	○	○	○	○	○
While working I believe I manage my time efficiently.	○	○	○	○	○
I am willing to put in extra effort to get the job done during flextime the same way as I would during regular in-office work hours	○	○	○	○	○

17. Please add any additional comments on your work practices here:

Manager Thoughts on Work Practices

18. Work practices.
(Please choose one response for each statement.)

	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
A flexible work environment enhances our employees' job effectiveness, as compared to a traditional work environment.	○	○	○	○	○
A flexible work environment encourages my employees to do higher quality work, as compared to a traditional work environment.	○	○	○	○	○
It is important for me that our employees spend time at their desk/in the office.	○	○	○	○	○
I am willing to provide employees with enough resources to get their job done.	○	○	○	○	○
I do not trust our employees to manage their own time to get their work done.	○	○	○	○	○
Our employees tend to use their flextime irresponsibly and need supervision.	○	○	○	○	○
Our employees are willing to put in extra effort to get the job done during flextime the same way as they would during traditional in-office work hours.	○	○	○	○	○

19. Please add any additional comments on your employees' work practices here:

A-10

Employee Thoughts on Workplace Culture

20. Workplace culture.
(Please choose one response for each statement.)

	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
I have the flexibility I need to meet my work, personal and family commitments.	○	○	○	○	○
I feel a sense of teamwork at my job.	○	○	○	○	○
My job lets me develop my skills and abilities.	○	○	○	○	○
I usually do not feel overly stressed at work.	○	○	○	○	○
Management demonstrates that all employees are important to the success of the organization.	○	○	○	○	○
Overall, I am satisfied with my job.	○	○	○	○	○
I intend to stay with this organization for a long time.	○	○	○	○	○

21. Please add any additional comments on your workplace culture here:

A-11

Manager Thoughts on Workplace Culture

22. Workplace culture.
(Please choose one response for each statement.)

	Strongly Disagree	Disagree	Agree	Strongly Agree
Our employees have the flexibility they need to meet their work, personal and family commitments.	○	○	○	○
There is a sense of teamwork in our organization.	○	○	○	○
Our employees have access to opportunities to develop their skills and abilities.	○	○	○	○
Our employees usually do not feel overly stressed at work.	○	○	○	○
I demonstrate that all employees are important to the success of the organization.	○	○	○	○
Overall, our employees are satisfied with their jobs.	○	○	○	○
Our employees intend to stay with this organization for a long time.	○	○	○	○

23. Please add any additional comments on your workplace culture here:

Employee Thoughts on Work Attendance

24. In the past six months, have you missed work? (Please do not include vacation time or other pre-planned absences, such as scheduled appointments.)

○ Yes

○ No

Would you comment on reasons you missed work (health issues, childcare, elder care, personal time, etc.)

[text box]

25. If you answered "Yes" to the previous question, please indicate the number of days you have missed in the past six months.

○ 1-10 days

○ 10-20 days

○ more than 20 days

26. Health and Dependent Care.

(Please choose one response for each statement.)

	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
I am satisfied with the current state of my health.	○	○	○	○	○
I currently get enough sleep.	○	○	○	○	○
While working I am satisfied with the current care provided for my child(ren).	○	○	○	○	○
While working I am satisfied with the current care provided for my family members.	○	○	○	○	○

27. Please add any additional comments on your work attendance here:

[text box]

Manager Thoughts on Work Attendance

28. Health and Dependent Care.
(Please choose one response for each statement.)

	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
Our employees are often absent from work.	○	○	○	○	○
Our employees often have difficulty in managing their health.	○	○	○	○	○
Our employees have difficulty in managing the care of their child(ren).	○	○	○	○	○
Our employees have difficulty in managing the care of their elderly family members.	○	○	○	○	○

29. Please add any additional comments on employee work attendance here:

A-14

Flexible Workplace Policies Survey

Brief demographic questions

Why are we asking you these questions?

We include demographic questions in our survey for two main reasons:
1) To see how closely the people surveyed replicates the known population; and
2) To allow analysis of sub-groups of those responding to the survey.

30. Are you male or female?

○ Male

○ Female

31. Which category below includes your age?

○ 17 or younger

○ 18-20

○ 21-29

○ 30-39

○ 40-49

○ 50-59

○ 60 or older

32. What is your current relationship status?

○ Living with a partner

○ Married

○ Widowed

○ Divorced

○ Separated

○ Single, Never married

33. Do you have children under 17 currently living in your household?

○ Yes

○ No

If yes, how many children under 17 are currently living in your household? (Please enter a number in the space provided.)

34. What is the highest level of education you have completed or the highest degree you have received?

○ Less than high school degree

○ High school degree or equivalent (e.g., GED)

○ Some college but no degree

○ Associate degree

○ Bachelor degree

○ Graduate degree (e.g., JD, Master's, PhD, MD, etc.)

35. Which category below includes your current total household income?

○ Under $25,000

○ $25,000-$39,999

○ $40,000-$49,999

○ $50,000-$74,999

○ $75,000-$99,999

○ $100,000-$124,999

○ $125,000-$149,999

○ Over $150,000

36. How long have you been working with your organization?

Years (enter a number) [   ]

Months (enter a number) [   ]

37. How long have you been working with your organization in your current position?

Years (enter a number) [   ]

Months (enter a number) [   ]

38. Are you currently working part-time or full-time (based on your workplace definition of part-time and full-time employment)?

○ Part-time

○ Full-time

Thank You Page

Thank you for taking time to complete this survey! Your responses are greatly appreciated. This survey will help us understand flexible workplace policies in Minnesota.

If you have any further comments/feedback on this survey or on flexible workplace policies in general, you may contact Emily Saunoi-Sandgren at sandg011@umn.edu.