

**EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL OF ECONOMIC ADVISERS**



**WORK-LIFE BALANCE AND THE ECONOMICS
OF WORKPLACE FLEXIBILITY**

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WORK-LIFE BALANCE AND THE ECONOMICS OF WORKPLACE FLEXIBILITY

EXECUTIVE SUMMARY

American society has changed dramatically over the past half century. Women have entered the labor force in growing numbers and families have increasingly relied on more than one earner to make ends meet. And yet, children still need to be taken to the doctor and elderly parents still need care. Moreover, more adults older than 25 are attending school. Because these changes have caused many workers to face conflicts between their work and their personal lives, they also inspire a need and desire for more flexibility in the workplace.

Flexible workplace arrangements can be in terms of when one works, where one works, or how much one works (including time off after childbirth or other life events). They include a variety of arrangements such as job sharing, phased retirement of older workers, and telecommuting, that allow workers to continue making productive contributions to the workforce while also attending to family and other responsibilities.

This report presents a new economic perspective on flexible workplace policies and practices. The first section reports some of the changes in the U.S. workforce that have increased the need for flexibility in the workplace.

- Women comprise nearly one-half of the labor force; in nearly one-half of households all adults are working.
- In 2008, approximately 43.5 million Americans served as unpaid caregivers to a family member over the age of 50. Nearly one-fifth of employed people were caregivers who provided care to a person over age 50.
- The increasing demand for analytical and interactive skills—those largely obtained through post-secondary education—means it is all the more important and common for individuals to pursue additional education while also working.

The second section examines the current state of flexible work arrangements and reports that many employers have adapted to the changing realities of American workers.

- Overall, over one-half of employers report allowing at least some workers to periodically change their starting and quitting times. However, less than one-third of full-time workers report having flexible work hours, and only 39 percent of part-time workers do. This discrepancy between the employer and employee reports may be due to differences in data collection or because more employers would be willing to accommodate the needs of individual workers but these workers are not aware of it.
- Less-skilled workers have less workplace flexibility in terms of the scheduling of when they work than do more highly-skilled workers.

- Flexibility in where to work is less common: only about 15 percent of workers report working from home at least once per week.
- Finally, most employers offer at least some workers the ability to return to work gradually after a major life event such as the birth or adoption of a child, although job sharing appears less widespread.

The report concludes with a discussion of the economic benefits of workplace flexibility arrangements.

- Almost one-third of firms cite costs or limited funds as obstacles to implementing workplace flexibility arrangements. However, the benefits of adopting such management practices can outweigh the costs by reducing absenteeism, lowering turnover, improving the health of workers, and increasing productivity.
- The costs and benefits of adopting flexible arrangements differ across industries and employers of different sizes.
- Because many employers may not have accurate information about the costs and benefits of workplace flexibility practices and because some of the benefits may extend beyond the individual employer and its workers, wider adoption of such policies and practices may well have benefits to more firms and workers, and for the U.S. economy as a whole.
- A factor hindering a deeper understanding of the benefits and costs of flexibility is a lack of data on the prevalence of workplace flexibility arrangements, and more research is needed on the mechanisms through which flexibility influences workers' job satisfaction and firm profits to help policy makers and managers alike

INTRODUCTION

American society has changed dramatically over the past half century. Women comprise nearly one-half of the labor force; in nearly one-half of households all adults are working. And yet, children still need to be taken to the doctor and elderly parents still need care. Moreover, more adults are attending school. These and other changes have caused many workers to face conflicts between their work and personal lives. These changes also inspire the need and desire on the part of workers for more flexibility in the workplace. Flexibility can be in terms of when one works, where one works, or how much one works (including time off after childbirth or other life events). “Workplace flexibility” generally refers to arrangements—such as job sharing, phased retirement of older workers, flexible hours, and provision of computers to facilitate telecommuting—that allow workers to continue making productive contributions to the workforce while also attending to family and other responsibilities.

This report presents a new economic perspective on flexible workplace policies and practices. The first section looks more closely at some of the changes in the U.S. workforce that underlie the need for increased flexibility in work arrangements. The increasing demand for analytical and interactive skills—those largely obtained through post-secondary education—means it is all the more important and common for individuals to pursue additional education while also working. These trends raise the value of flexibility in the workplace as it helps workers balance work and family responsibilities.

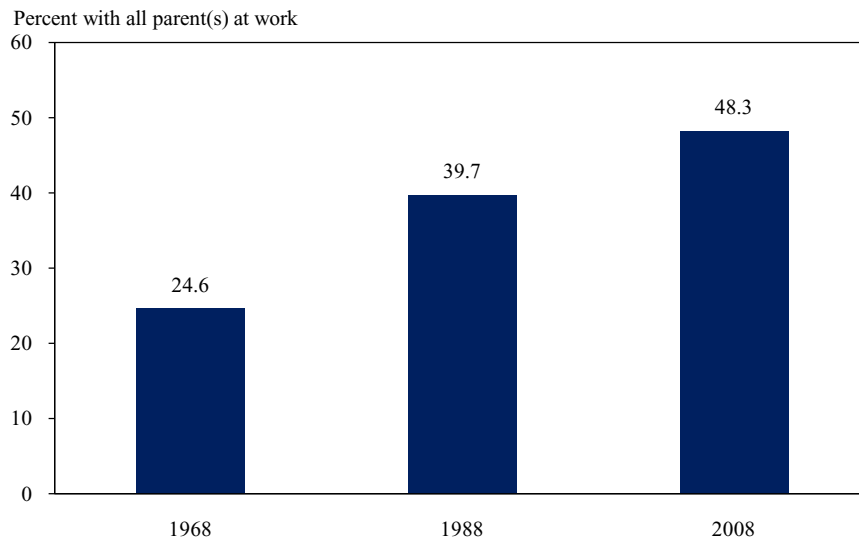
The second section examines the current state of flexible work arrangements. It finds that although the majority of employers report allowing at least some employees flexibility in their work schedules, far fewer full-time workers report having such flexibility, although there is variation across the workforce. Notably, less-skilled workers report the least workplace flexibility. A majority of employers are also willing to accommodate a gradual return to work after a major life event, such as the birth or adoption of a child. In contrast, it is less common for workers to be able to shift where they work (by, for example, working from home) and only about one-third of firms report allowing some of their employees to job share.

The report concludes with a discussion of the economic benefits of such practices and policies. One can think of accommodating flexibility in the workplace as a component of a worker’s total compensation package, along with other benefits such as health insurance and retirement benefits. If employees value flexible arrangements more than the costs to the employer of providing them, flexibility can be a cost-effective tool for attracting and retaining workers. The costs to firms of adopting such management practices can also be outweighed by reduced absenteeism, lower turnover, healthier workers, and increased productivity. Because many employers may not have accurate information about the costs and benefits of workplace flexibility practices and because some of the benefits may extend beyond the individual employer and its workers, wider adoption of such policies and practices may well offer benefits to more firms and workers, and for the U.S. economy as a whole. That said, a lack of current data on the prevalence of arrangements and too few studies on the mechanisms through which workers’ job satisfaction and firm profits are affected hinder a deeper understanding of the benefits and costs of workplace flexibility policies and practices.

THE EVOLVING NEEDS OF AMERICAN WORKERS

The structure of American society has changed significantly over the last half century. In 1968, 48 percent of children were raised in households where the father worked full-time, the mother was not in the labor force, and the parents were married; by 2008, only 20 percent of children lived in such households. The result: children are increasingly raised in households in which all parents work in the labor market (for single-parent households, this means that the one parent works; for two-parent households, both parents work). For example, as shown in Figure 1, in 1968, 25 percent of children lived in households in which all parents were working full-time; 40 years later, that percentage had nearly doubled.¹

Figure 1
Children with All Parents Working Full-time



Notes: Full-time workers were employed for at least 14 weeks in the previous year, working at least 35 hours per week. Sample is persons under 18 with at least one parent in the household.
Source: *Current Population Survey*.

The changing environment in which children are raised reflects in part a shift in the nature of the workforce. In 1950, women constituted about 30 percent of the labor force; in 2009, they comprised nearly half. The fraction of full-time workers who were parents in full-time working families (defined as families with children where all parents work full-time) has risen from about 18 percent to 26 percent since 1968.²

At the same time, people born around 1940 have a life expectancy over 10 years longer than those of the previous generation (born in 1910), producing added responsibilities for the care of older family members as well.³ According to one national study, approximately 43.5

¹ These changes have all caused many workers to face conflicts between their work and their personal lives. The Families and Work Institute's 2008 *National Study of the Changing Workforce* found that 41 percent of workers report that job and family life interfered with each other "a lot" or "somewhat."

² CEA calculations based on the *Current Population Survey*.

³ Shrestha (2006).

million Americans—the majority of them women—served as unpaid caregivers to a family member over the age of 50 in 2008.⁴ Nearly one-fifth of employed people in 2008 provided care to a person over age 50.⁵

In addition, the importance of strong workplace skills in the U.S. labor market has been increasing over the past several decades. In the mid-1960s, college graduates earned about 50 percent more than high school graduates (on average) and this premium has more than doubled in the time since then. Research also suggests that as much as one-third of the productivity growth between 1950 and 1993 was due to education.⁶ The growing need for a post-secondary education derives from the skills employers demand in the modern American workplace. Occupations that have grown in their share of employment require a greater intensity of non-routine analytic and interactive skills than do occupations that have been declining. Most forecasts are that these trends will continue.⁷

American workers are, in response, increasingly returning to post-secondary schools even after they are past the traditional school age. Between 1970 and 2006, the percentage of students enrolled in degree-granting institutions who were 25 years or older increased from 28 percent to 39 percent.⁸ While post-secondary institutions, notably community colleges, have attempted to adapt to their changing student bodies with classes held in the evenings, on weekends or online, more effort is needed. Among students who did not complete a post-secondary education program, one of the most commonly cited changes that would have been helpful for completing a college degree would be for programs to offer more courses in the evenings, weekends, and the summer so people can work while attending school.⁹

Evidence suggests that, on average, workers may not need to reduce the number of hours they work to balance these new family responsibilities and other activities. Technological gains have helped to decrease the intensity of some previously time-consuming tasks at home, such as cooking and cleaning, which is estimated to have more than offset the increase in working and commuting time for women.¹⁰ Economists estimate that relative to the mid-1960s, on average Americans in recent years have had more time to spend on socializing, passive leisure, active leisure, volunteering, pet care, gardening, and other activities.¹¹ Note, however, that these statistics represent overall averages and therefore include many young, unmarried, and/or childless individuals. As a result, these statistics may not adequately represent the time constraints of working caregivers.

⁴ National Alliance for Caregiving (2009).

⁵ CEA calculation based on data from National Alliance for Caregiving (2009) and labor force statistics from the Bureau of Labor Statistics.

⁶ Jones (2002).

⁷ Council of Economic Advisers (2009a).

⁸ Department of Education (2009).

⁹ Johnson et al. (2009).

¹⁰ For example, evidence from the *Residential Energy Consumption Survey* shows that the percentage of households with dishwashers increased from 35 percent in 1978 to 50 percent in 1997. See Greenwood, Seshadri, and Yorukoglu (2005) for review of the evidence of the effect of technology on labor female labor force participation.

¹¹ Aguiar and Hurst (2007).

In part, the need for flexibility derives from the fact that the gap between the time spent on market and nonmarket work for men versus women has narrowed. Compared with 1965, in 2003 women spent more time on market work and significantly less time on nonmarket work such as food preparation, kitchen cleanup, and washing clothes. For men, the patterns were reversed; between 1965 and 2003, men have spent substantially fewer hours on market work and somewhat more hours on nonmarket work.¹² With men and women both performing nonmarket and market work, often one or both of them need the ability to attend to family responsibilities such as taking children and parents to doctors' appointments.

THE PREVALENCE OF WORKPLACE FLEXIBILITY IN THE UNITED STATES

American workers increasingly need to balance employment with other responsibilities, but to what extent does the workplace accommodate these needs? While drawing on many sources, this section primarily relies on two nationally representative surveys to better understand the prevalence of different types of workplace flexibility in the United States. The first survey provides the perspective of employers through the Alfred P. Sloan Foundation's 2008 national survey of private employers, the *National Study of Employers*. This survey provides one of the most comprehensive and detailed sources of firm-level data on programs and policies related to work-life balance.¹³ As an employer's perspective on workplace flexibility may differ from that of its employees, the discussion also includes an analysis of the May 2004 *Current Population Survey* (CPS), a nationally representative survey of households.¹⁴ These data provide the perspective of the average U.S. worker on the extent to which their job provides such flexibility and are the most recent available at the national level. Note that both surveys reflect conditions before the current recession began.¹⁵

The discussion focuses on flexibility in the scheduling of hours, the place of work, and the numbers of hours worked, as well as those that cut across these categories.¹⁶ It also considers the special circumstances of small businesses and firms in the manufacturing sector.

Flexibility in the Scheduling of Hours

One of the most important sources of flexibility is the ability of workers to have some control over *when* they work. Examples include flexibility in when a worker arrives at or leaves work, the scheduling of breaks and overtime, and compressed workweeks (such as when one works more hours four days a week and a partial day one day a week). As shown in Figure 2, below, data from the *National Study of Employers* suggest that in 2007, 79 percent of employers allowed at least some workers to periodically change their starting and quitting times, within

¹² See Table II in Aguiar and Hurst (2007).

¹³ The 2008 sample includes 1,100 employers with 50 or more employees. These data are helpful both because of the relatively large sample size and because most other data sources, such as the *Current Population Survey*, do not contain detailed information on the prevalence of many of these practices.

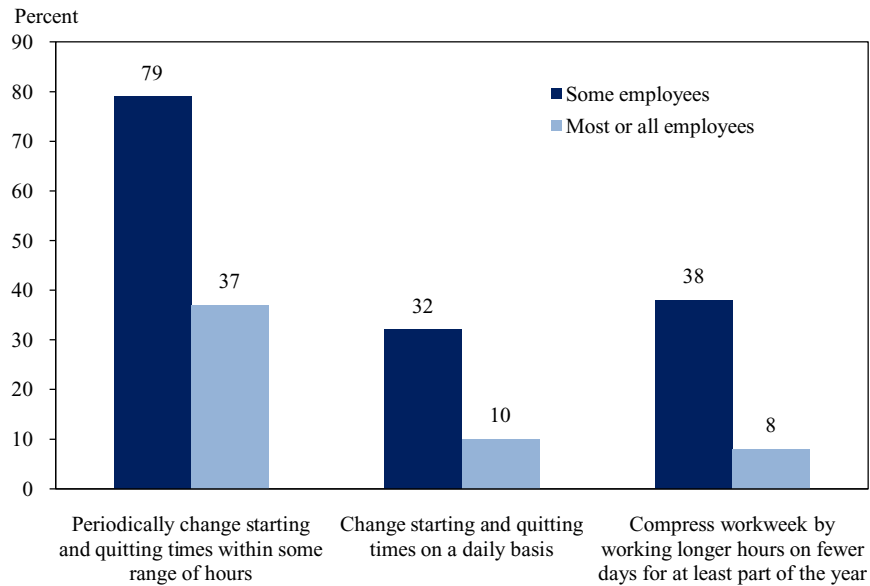
¹⁴ The May 2004 *Current Population Survey* included a supplement on work scheduling and the prevalence of work-at-home.

¹⁵ Data for the *National Study of Employers* data were collected from April through August, 2007.

¹⁶ Workplace Flexibility (2010a).

some range of hours. Fewer employers (32 percent) allowed at least some workers to change starting and quitting times on a daily basis.

Figure 2
Percent of Firms Offering Either Some Employees or All or Most Employees Selected Workplace Flexibility Benefits, by Benefit Type



Note: Samples restricted to firms with over 50 employees.
Source: 2008 National Study of Employers.

In contrast, data from the *Current Population Survey* show that in 2004, only 28 percent of full-time workers reported they had flexible work hours that allowed them to vary or make changes in the time they began and ended work, as shown in Table 1. Flexibility was more common for part-time workers (39 percent). Box 1 below discusses the differences in reported prevalence of flexible work arrangements between the *Current Population Survey* and the *National Study of Employers*.¹⁷

¹⁷ *Current Population Survey*, May 2004; Bond, Galinsky, and Sakai (2008).

BOX 1: WHY IS THERE SUCH A LARGE DIFFERENCE IN REPORTED PREVALENCE BETWEEN THE TWO SURVEYS?

One important reason for the difference between the two surveys is that in the employer-based surveys, employers report that they provide flexibility for “some” or “most” workers but do not otherwise indicate the prevalence. If many employers only provide a benefit to a minority of their workers, the percent of workers with a benefit will be smaller than the percent of firms offering the same benefit. In addition, there may be a difference between an organization’s policies and their implementation. The *National Study of Employers* attempted to address this issue by asking if the organization “allows employees to...” or “provides the following benefits or programs...” rather than if it has “written policies.” However, if workers are unaware that their managers would be willing to implement such practices or are unaware of such policies, they will report less availability of such arrangements than will their employers. Second, the *National Study of Employers* is a survey of employers in which the respondent is an organization rather than an individual. As a result, the data describe the benefits provided by a typical employer rather than those to a typical employee. Given that, by definition, larger employers represent more workers than do smaller firms, statistics about the average employer may not be representative of the experiences of the average worker. Finally, the data on workers are from 2004 while those from the employers are from 2007 and the prevalence of such practices may have grown in the interim. That said, data from the 2005 *National Study of Employers* reveals patterns of workplace flexibility that are broadly similar to the results presented in the 2008 *Study*.

Table 1 shows other differences in reported workplace flexibility by worker characteristics. While one might expect that working women are more likely to report having a flexible schedule given family responsibilities, in fact, the data suggest that in 2004 men were slightly more likely to report having such flexibility than were women. In contrast, differences across racial or ethnic status and educational attainment were somewhat larger. Whites and Asians were more likely to report having workplace flexibility compared to Blacks and Hispanics.

Table 1
Flexible Time by Race, Ethnicity, Sex, and Work Status

	Percentage with Flexible Work Hours
Full-time Workers	28
Men	28
Women	27
White	29
Black	20
Other Races	27
Hispanic	18
Less than HS Diploma	15
HS Diploma or Equiv	21
Some College	28
BA or Higher	38
Part-time Workers	39

Notes: Sample excludes self-employed workers. White and Black refer to workers who identified exclusively with that race, respectively. Other Races includes all multiracial groups. Hispanics are coded using a separate question and may be any race. Full-time workers usually worked 35 or more hours each week at their principal job (or usually worked 35 hours at all jobs if hours at their principal job varied), while part-time workers usually worked less.

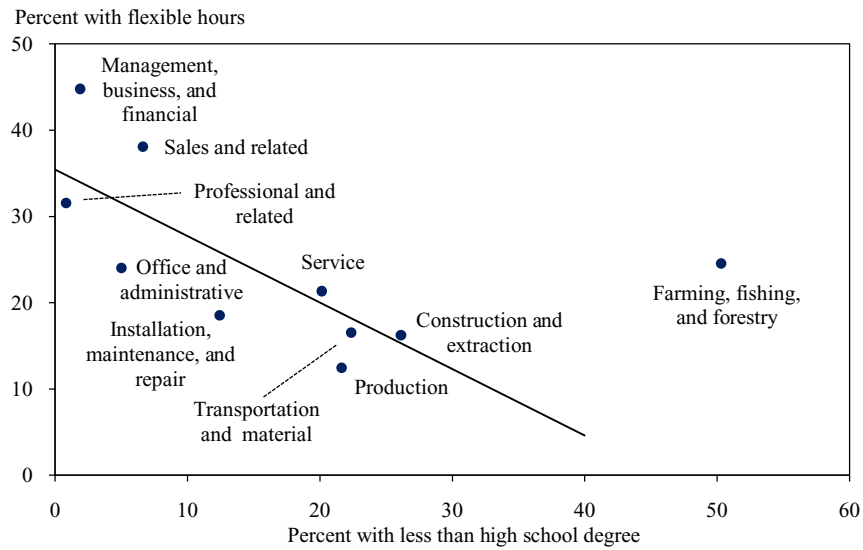
Source: *Current Population Survey*, May 2004.

In addition, these data reveal substantial differences in the prevalence of flexible schedules by educational attainment. Workers with a bachelor's degree or higher were more than twice as likely to report having flexible work arrangements as were those with less than a high school diploma.¹⁸ Economists have focused on two explanations for this pattern. First, as discussed in the next section, flexibility is a form of compensation. Just as more educated workers enjoy higher earnings and are more likely to have benefits such as employer-sponsored health care, they are also compensated with more flexibility. In addition, one study suggests that the nature and context of low-wage jobs—such as the need for around-the-clock coverage—may make giving flexibility to some low-wage workers more costly.¹⁹ To explore this issue more fully, Figure 3 shows the relationship between the percent of full-time workers in an occupation that have flexible schedules and the percent that do not have a high school degree. Occupations such as management and business and sales that have a high degree of flexibility also have a low percentage of workers with less than a high school degree; workers in occupations with a low degree of flexibility, such as construction, also tend to have a high percent of workers with less than a high school degree.

¹⁸ The *Current Population Survey* also shows that workers in lower-income households report lower levels of flexibility.

¹⁹ Corporate Voices for Working Families (2006).

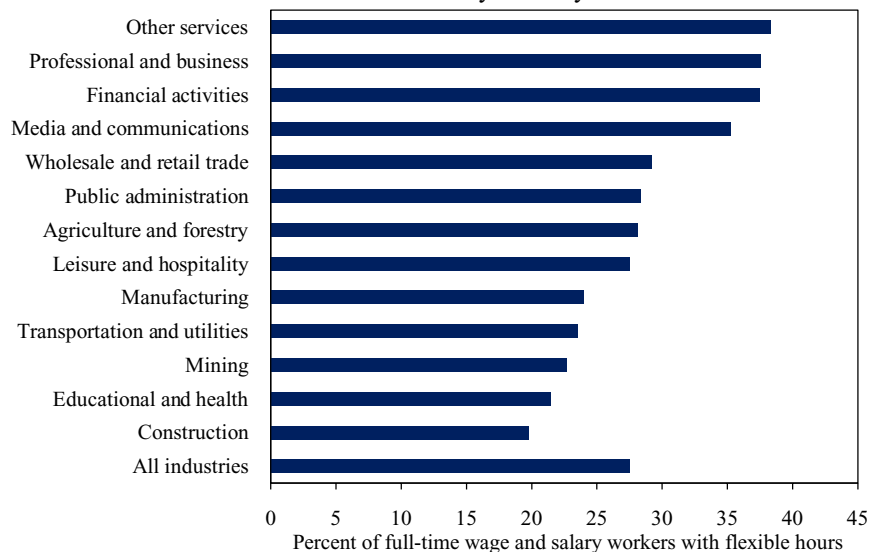
Figure 3
Flexible Hours by Occupation and Education



Notes: Sample limited to full-time workers. Plotted regression line is weighted by number of workers in each occupation.
Source: *Current Population Survey*, May 2004.

The CPS data also reveal substantial cross-industry differences in the flexibility of scheduling. As shown in Figure 4, only about one-quarter of full-time workers in manufacturing reported having the flexibility to change their working hours in 2004, compared to about 40 percent of workers in the financial activities and professional and business services industries. These differences may reflect the potential difficulties that manufacturing companies have in adopting policies and practices that result in a more flexible workplace, a point further discussed at the end of this section.

Figure 4
Flexible Hours by Industry



Notes: Industry code is for primary job. Full-time workers usually worked 35 or more hours at principal job.

Source: *Current Population Survey*, May 2004.

Flexibility in the Place of Work

Many jobs require an individual to be physically present at the worksite. For example, teachers, sales clerks, and assembly-line workers cannot fulfill many of their obligations from an off-site location. Managers and members of teams may need face-to-face contact. For other workers, however, a substantial fraction of their work could, in principle, be conducted from home or a satellite office. One study estimated that in 2000 more than half of all jobs were amenable to telecommuting, at least on a part-time basis,²⁰ and undoubtedly that fraction has increased since then as a result of the spread of high-speed internet and mobile technology.²¹

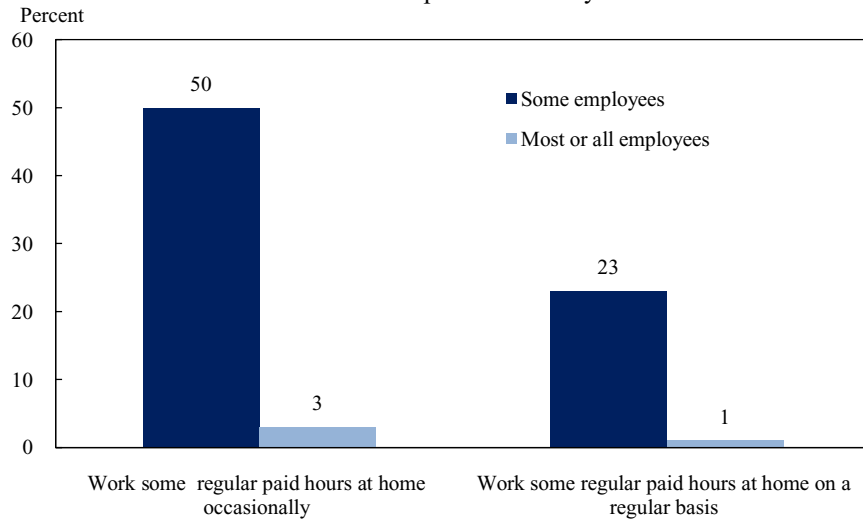
The *National Study of Employers* provides an opportunity to understand the extent to which employers have adopted policies and practices that allow for flexibility in where employees work. The difference between the share of firms that provided this dimension of flexibility to “some” workers versus “most or all” workers in 2007 is striking. For example, as shown in Figure 5, 23 percent of employers reported allowing some workers to work at home on a regular basis; only 1 percent of employers allowed most or all of their employees to do so. At the same time, it was more common for employers to report allowing employees to work from home occasionally.²²

²⁰ Potter (2003).

²¹ Smith (2002).

²² Bond, Galinsky, and Sakai (2008).

Figure 5
Percent of Firms Offering Either Some Employees or All or Most Employees
Work-At-Home Workplace Flexibility Benefits



Note: Survey includes firms with over 50 employees.
Source: 2008 National Study of Employers.

In this case, the reports of workers track those of employers as 11 percent of all paid wage and salary workers work from home at least once per week as part of their primary job. The rates of working from home were similar for all men and women. Self-employed individuals were far more likely to report working from home (48 percent).²³ Overall, 15 percent of workers report working from home.

Flexibility in Number of Hours of Work

A third way employers provide workplace flexibility is in the number of hours an employee works. Flexibility of this sort can be further divided into practices that reduce the number of hours worked in a given week and those that allow employees to take leaves of absence (paid or unpaid).

In 2007, 29 percent of employers reported allowing some workers to share jobs, and 41 percent reported allowing at least some individuals to move from full-time to part-time and back again while remaining at the same position or level. A smaller percent of firms allowed most or all employees to take advantage of these forms of flexibility. Interestingly, there has been relatively little change in the prevalence of these practices since 1998.²⁴

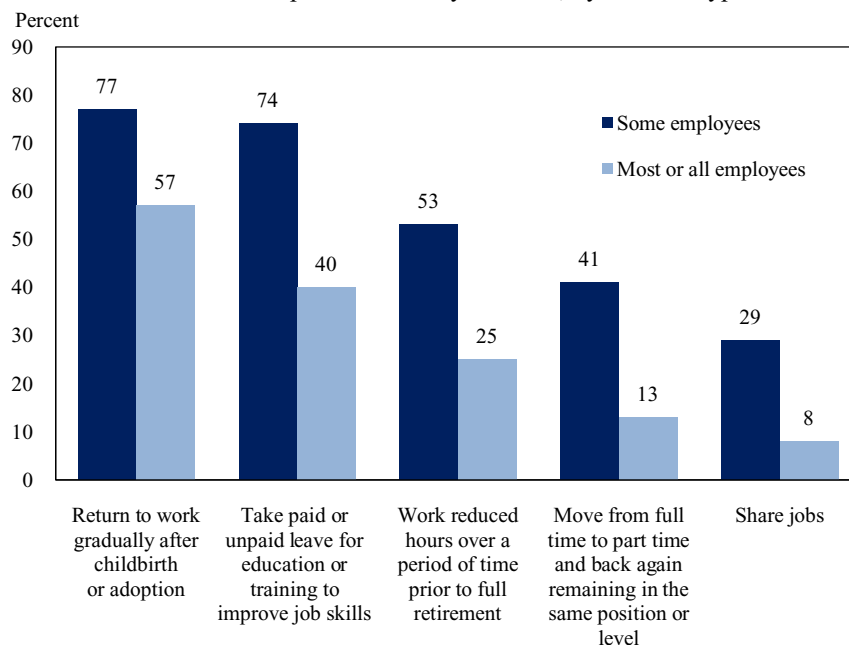
Allowing employees to take a leave of absence after an important life event also provides flexibility in the amount of work. Partially as a result of the Federal Family and Medical Leave Act (FMLA) of 1993, this form of flexibility is now widespread although it does not cover all

²³ CEA calculations based on the *Current Population Survey*, May 2004.

²⁴ Bond, Galinsky, and Sakai (2008).

workers.²⁵ Data from the Bureau of Labor Statistics' 2006 *Employee Benefits Survey* show that 82 percent of all workers in the private sector had access to unpaid family leave in 2007. Further, as shown in Figure 6, in 2007 77 percent of employers allowed some workers to gradually increase their hours after the birth or adoption of a child while 57 percent allowed some or most employees to do so. Almost three-quarters of employers permitted their employees to take paid or unpaid time away from work to improve their education or job skills. A majority of employers also allowed at least some workers to take extended career breaks.

Figure 6
Percent of Firms Offering Either Some Employees or All or Most Employees Selected Workplace Flexibility Benefits, by Benefit Type



Note: Survey includes firms with over 50 employees.
Source: 2008 National Study of Employers.

Paid leave is an important source of workplace flexibility, especially for workers who lack financial resources. The 2008 *National Study of Employers* suggests that roughly half of surveyed employers (47 percent) allowed most employees a few days off to care for mildly ill children without losing pay or having to use vacation days. Slightly more than half (56 percent) of employers reported giving female employees paid maternity leave. In most cases, however,

²⁵ The FMLA requires both Federal and private employers with more than 50 workers to provide up to 12 weeks of unpaid leave per employee each year. This leave must include access to health benefits. The employers must have worked for the employer for at least 12 months (not necessarily consecutive) and 1,250 hours within the past year. The FMLA can be used for the birth and care for a newborn or adopted child, care for an immediate family member with a serious health condition, medical leave for the employee herself, or in circumstances relating to an immediate family member's being called onto active duty as a member of the National Guard or Reserves. Evidence suggests that the FMLA increased leave coverage and usage but did not appear to have a significant negative effect on the wages and employment of women. See Waldfogel (1999). Note however, that the Act does not apply to workers at smaller firms, part-time workers, or employees that recently joined a firm. In addition, the FMLA does not extend to unmarried partners or same-sex couples, regardless of marital status, to care for their partners when they become ill.

the pay was less than an employee's typical pay; only 16 percent offered men paid time off after the birth of their child. However, paid vacation appears to be more common; data from the *Employee Benefits Survey* shows that 75 percent of workers had paid vacation, and 76 percent received paid holidays in 2008.

Finally, as reflected in Figure 6, flexibility in the number of hours of work can ease the transition to retirement for older workers. In 2007 more than one-half of employers allowed at least some workers to phase into retirement by working reduced hours, and 25 percent of the firms allowed most or all of their employees to do so. Other survey data also find that this form of flexibility is common. According to a 2008 survey of more than 140 mid-sized and large employers by Hewitt Associates, 47 percent of firms offered some sort of phased retirement arrangement in 2007, although only 5 percent have formalized phased-retirement programs.²⁶ These types of arrangements are most common in the health care/social assistance, education, and manufacturing sectors and at larger firms.²⁷

Not only do employers report offering these types of arrangements, but workers report using the benefits. According to the *Health and Retirement Study*, in 2004 nearly half of surveyed retirees had engaged in some sort of phased-retirement arrangement prior to fully retiring and approximately one-in-eight workers between the ages of 63 and 73 engaged in some sort of phased retirement work arrangement.²⁸ Most workers who participate in phased-retirement arrangements are below the traditional retirement age.²⁹

Other Forms of Workplace Flexibility

Perhaps the ultimate form of workplace flexibility is the evaluation of employees based on what they produce rather than the number of hours they work. This management practice, called “results-only work environment” (or R OWE), allows for flexibility along multiple dimensions because it permits workers to choose when, where, and for how long they work, as long as they are sufficiently productive. Clearly, this level of flexibility is not practical for all circumstances; for example, one large employer adopted these practices for headquarters employees but not for retail store employees. Moreover, in many cases, the output of workers is difficult to measure directly. That said, a manager in one county government that has experimented with these practices concluded that “the county wins, the staff person wins, and it’s a better balance.”³⁰

In addition to R OWE, there are other practices that employers can adopt to promote flexibility along many dimensions. The following case study shows how the Executive Office of the President (EOP) has used telecommuting to provide many forms of flexibility to its employers.

²⁶ Hewitt Associates (2008).

²⁷ Workplace Flexibility 2010 (nd.b).

²⁸ Workplace Flexibility 2010 (nd.b).

²⁹ One study found that more than half of so-called “phasers” in 2004 were younger than 60 years old. (Sloan Work and Family Research Network (2009)).

³⁰ Kerrigan (2010).

BOX 2: TELECOMMUTING AND THE EXECUTIVE OFFICE OF THE PRESIDENT

Over the past several years, the EOP has increasingly used technology as a way of meeting the growing demands for flexibility of its employees. For several years, most EOP employees have used wireless devices to stay connected while off site, and recently, the EOP has begun a transition to full remote access. To date, more than half of all EOP employees have been issued secure mobile workstation laptops, and all employees can connect to the network through the internet from any computer in the continental United States.

This flexibility also allows staff to access their official files from remote locations, helping employees balance work and family responsibilities. For example, some employees can leave work early to spend time with their children and work remotely in the evening. In addition, this technology helps the government operate effectively during emergency situations. As an example, in February of 2010, the Washington, D.C. area was blanketed with over 30" of snow over a 12-day period. The snow shut down major roads and transit systems in the area, preventing employees from reaching their offices safely. As a result, the Office of Personnel Management closed federal offices for four days, and yet more than 60 percent of EOP employees logged on remotely to continue their work. Workplace flexibility capability substantially reduces the cost of such "shutdowns" to taxpayers by allowing employees to continue some of their work, even if they cannot reach the office. According to one estimate, the snow closures would ordinarily cost the federal government over \$100 million per day in lost productivity. By allowing federal employees to continue their work, however, telecommuting capabilities saved over \$30 million per day, for a total savings of more than \$150 million over the five snow closures in December 2009 and February 2010.

Small Businesses and Manufacturing

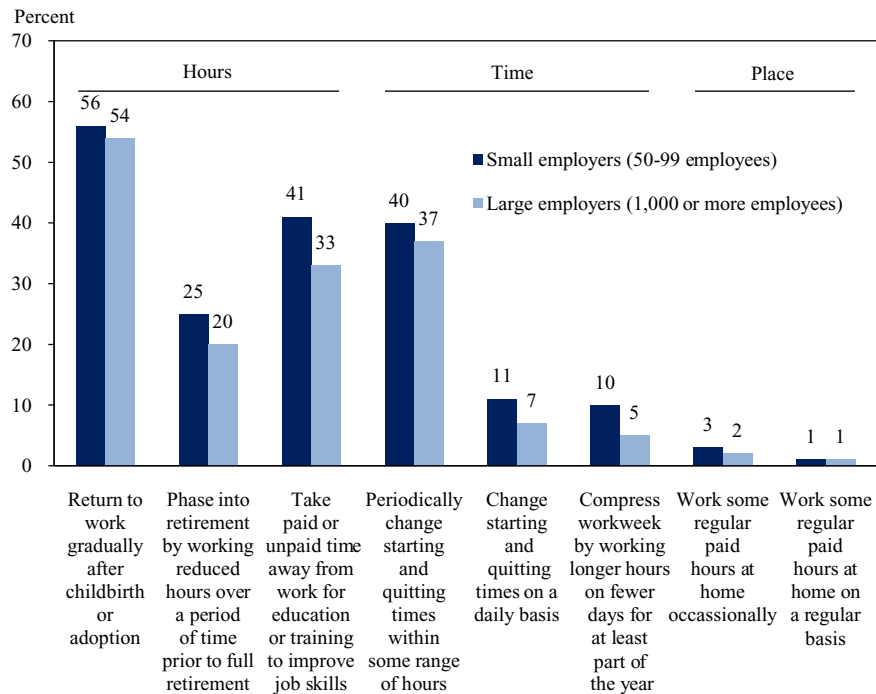
The discussion above makes clear that there is substantial heterogeneity across firms in terms of flexible workplace policies and practices. Two types of firms where many argue flexible policies are particularly difficult to implement (and thus likely to be less prevalent), are small businesses and manufacturing firms. For example, in response to a 2006 Department of Labor Request for Information concerning the FMLA, one commenter argued that intermittent leave "is more burdensome to a call center/manufacturing environment than to other types of work that do not need to be managed in the same way." An HR administrator claimed that because manufacturing employers do not have employees who are cross-trained to work "...the production process is often slowed down or brought to a halt when an employee is out." Finally, a small business owner argued that the flexible work arrangements in the FMLA put "undue financial pressure" on his small business.³¹ This subsection therefore examines workplace flexibility at small firms and manufacturing firms in more detail.

Small Businesses. Some argue that while flexible scheduling may work in large firms, each member of a small business's team can be critical to business operations, making it too costly to implement such practices. At the same time, one challenge with flexible work schedules can be difficulty ensuring that workers are productive while they work from home.

³¹ Regulations.gov (2007).

Because managers and employees may interact more frequently at small firms, it may be easier for these firms to implement such practices and still be able to monitor a worker's productivity. Data from the *National Study of Employers* suggest that while some of these concerns may be valid, in fact as shown in Figure 7 below, small firms (50–99 employees) provide as much as or more flexibility to their employees as do large firms (1,000 and more employees).

Figure 7
Percent of Firms Offering Most or All Employees Selected Workplace Flexibility Benefits, by Benefit Type



Note: Survey includes firms with over 50 employees.
Source: 2008 National Study of Employers.

We emphasize that this survey did not include employers with fewer than 50 workers. Other data suggest that for the smallest employers, leave policy is usually handled on a case-by-case basis.³²

Manufacturing. Figure 4 showed that in 2004, full-time workers in manufacturing were significantly less likely to have flexible work arrangements than were all full-time workers in the private sector. This difference may be due to technological difficulties that limit the amount of flexibility manufacturing firms can give their workers. For firms that rely on formal shifts,

³² Specifically, a survey conducted by the National Federation of Independent Business Research Foundation in 2004 includes information from more than 750 firms with fewer than 250 employees. National Federation of Independent Business (2004). This study found that the vast majority of employers (82 percent) handled requests for time off due to family or medical leave on a case-by-case basis. Small businesses also typically did not have formal policies governing short absences for doctor's appointments or parent-teacher conferences; 81 percent of firms also handled such requests on a case-by-case basis. Note however, because of the difficulty of accurately surveying very small firms, the results may not be nationally representative.

employees may not be able to leave at non-standard times without disrupting their colleagues. In addition, the on-site physical nature of many manufacturing jobs may make telecommuting impossible.

Despite these challenges, there are at least two strategies that some manufacturing companies have used to increase workplace flexibility. First, some manufacturing firms encourage workers to be trained not only in their own tasks but also in the tasks of workers “upstream” and “downstream” from them. Increasing the breadth of training can help ensure that workers understand how their inputs were created and how their output will be used, and may contribute to increased productivity. This modern manufacturing practice has the benefit of ensuring that workers can more effectively fill in or otherwise compensate for one another in case a worker cannot be present at a particular time.

As another strategy, some firms such as Kraft Foods, discussed in the following box, have been able to use retired workers as a source of labor to help meet short-term labor demands created by workers’ absences.³³

Box 3: KRAFT FOODS

In December 2002, Kraft Foods began a flexible work program called “Fast Adapts” for hourly employees and production supervisors who work in manufacturing facilities. Kraft is a multi-national food- and beverage-manufacturing company which, together with its many subsidiaries, employs tens of thousands of workers in the U.S. Most of its employees are hourly workers.

Kraft Foods began the Fast Adapts program in response to employee dissatisfaction, particularly among hourly workers, in its manufacturing plants who reported in surveys during 2001 and 2002 that the available flexible work options were not as useful to them as they were to professional workers. The program offers options for manufacturing workers to increase their work flexibility including shift-swapping for hourly workers, single-day vacations, employment of hourly retirees, tuition reimbursement for online courses, and job sharing. Thus, whereas before some employees had to take vacation in one-week increments, the single-day vacation policy allows even hourly workers to take one-day vacations. Also, employing retirees to cover worker absences means that regular workers are not always required to cover for co-workers by working overtime or weekends. All hourly workers are eligible for Fast Adapts if the policy is deemed conducive to the employees’ specific work process, plant policy, or union contract. If not, there are options in place to create alternative flexible work solutions.

The directors of work/life initiatives at Kraft Foods feel that Fast Adapts is a success. A 2003 survey showed improvement in hourly worker’s satisfaction with work-life integration. The success of the program has been attributed to accountability and autonomy. Plant managers are held accountable for developing flexible work strategies, but they have the autonomy to create the arrangements that work best for their individual plants.

³³ Boston College Center for Work and Family (2004).

THE ECONOMICS OF WORKPLACE FLEXIBILITY

Employers that have adopted flexible workplace practices cite many economic benefits such as reduced worker absenteeism and turnover, improvements in their ability to attract and retain workers, and other positive changes that translate into increased worker productivity.³⁴ But, workplace flexibility has costs as well. For example, the associated fixed costs of recruiting, training, and monitoring an employee can raise the cost of hiring a worker part-time rather than full-time. In addition, some projects that have short deadlines and that cannot be easily divided make it costly to not have an employee working full-time. In fact, almost one third of firms cite costs or limited funds as obstacles to implementing workplace flexibility arrangements.³⁵

This section discusses the small but growing research literature assessing the impact of flexible workplace practices on workers and employers before laying out an economic rationale for why wider adoption of such practices could be good for the American economy.

The Empirical Evidence on the Economic Impacts of Flexible Workplace Practices

Worker compensation has many components, such as wages, health and retirement benefits, sick leave, and vacation time. And employers have discretion over which benefits to provide their employees, resulting in differing compensation “packages.” There is evidence that workers take into account the entire compensation package—and not only wages—when considering job offers. For example, it has been well established that workers must be paid higher wages to accept jobs without health insurance, partly to help pay for their health expenses.³⁶ Similarly, workers who have little workplace flexibility require higher wages to help pay for services such as emergency child care and elder care.³⁷ Given that workers consider the entire compensation package, if the value to employees of flexible arrangements exceeds the costs of providing them to the employer, flexibility is a cost-effective tool for attracting and retaining workers.

Unfortunately, quantifying the costs and benefits of these arrangements is challenging. It is clear that employees place high value on flexibility. A study of more than 1,500 U.S. workers reported that nearly a third considered work-life balance and flexibility to be the most important factor in considering job offers.³⁸ In another survey of two hundred human resource managers, two-thirds cited family-supportive policies and flexible hours as the single most important factor in attracting and retaining employees.³⁹ And while we do not have direct estimates on the cost of providing flexible workplace arrangements, costs associated with other workplace outcomes can provide some insights into the likely net benefit for employers in the form of reduced turnover, lower costs for recruitment, reduced absenteeism, and more productive workers.

³⁴ A Better Balance (2008); Corporate Voices for Working Families (2005).

³⁵ Bond, Galinsky, and Sakai (2008).

³⁶ Council of Economic Advisers (2010).

³⁷ Baughman, DiNardi, and Holtz-Eakin (2003).

³⁸ Hudson Highland Group, Inc. (2008).

³⁹ Williams (2001).

Do Flexible Work Arrangements Reduce Turnover and Help Recruitment?

Recruitment and retention are so important to employers because the costs associated with turnover—both direct and indirect—can be high. When an employee leaves a firm, frequently he or she must be replaced. Recruiting can include costs such as advertising for the position, time interviewing, a agency and search firm fees, referral bonuses, hiring a company recruiter, and relocation assistance. In addition, when a worker separates from a firm, he or she takes with him or her firm-specific knowledge (such as how to manage a computer program that is used only by that firm).⁴⁰ Such losses are likely to be especially costly for firms that extensively train their workers with such “firm-specific” skills.⁴¹ In addition, managers report that a competitive compensation package (which could include flexible work schedules) is especially important for retaining particularly productive workers who are at risk of receiving competing offers of employment from other firms.⁴²

Combined, these costs can be considerable. For example, one study found that hiring costs account for more than \$2,500 per hire in large firms, or approximately 3 percent of total annual labor costs for a full-time equivalent worker.⁴³ Another study argues “visible” costs such as advertising and orientation costs account for only 10-15 percent of total turnover costs of making a hire.⁴⁴

With such considerable costs to recruiting new workers, employers have an incentive to find ways to recruit those likely to remain with the firm for some time and to find cost-effective ways to retain them. For such reasons, flexible work practices can potentially pay for themselves if they help a company reduce turnover or increase recruitment.

There are several ways that flexible work arrangements can help reduce turnover. Workers with more flexible arrangements report higher levels of job satisfaction, more loyalty and commitment to their employers, and “high likelihood[s]” of remaining with their employers for the following year.⁴⁵ Flexible work arrangements can also decrease turnover by encouraging individuals to remain working at a firm even after a major life event such as the birth of a child.⁴⁶

The research on the impact of flexible workplace practices on turnover is small.⁴⁷ Case studies of firms such as the Detroit Regional Chamber of Commerce, highlighted in the following box, provide qualitative insights into perceived benefits.⁴⁸ In addition, larger studies of the effect of policies that allow new parents to take paid time away from work on the employment and wages of workers find that such arrangements encourage new parents to stay in

⁴⁰ Becker (1964); Mincer (1974); Lazear (2003).

⁴¹ It is not surprising, therefore, that researchers have documented that firms that provide on-the-job training (for firm-specific skills) for their employees aim for lower rates of voluntary turnovers (Pencavel, 1972).

⁴² Salop and Salop (1976); Weiss (1980).

⁴³ The study included more than 300 large organizations. Data referred to the 2007 calendar year. The average size of the company in the report has annual revenue of \$5.7 billion and roughly 17,000 employees. See PricewaterhouseCoopers LLP. (2009).

⁴⁴ See Baughman, DiNardi, and Holtz-Eakin (2003).

⁴⁵ See Gerhardt (2001) for references for studies that link satisfaction with retention.

⁴⁶ Baum (2003).

⁴⁷ The literature on the impact on recruitment is even smaller since one needs to know about those individuals who were not hired.

⁴⁸ Sloan Work and Family Research Network (2005b).

the labor force.⁴⁹ In a survey of 120 randomly-selected employers in New York, economists found that those that offered flexible sick leave and child care assistance had significantly lower rates of turnover.⁵⁰ Other studies report that firms with more flexible telecommuting practices had lower turnover.⁵¹

**Box 4: FLEXIBLE WORK ARRANGEMENTS AND TURNOVER AND RECRUITMENT:
THE EXPERIENCE OF THE DETROIT REGIONAL CHAMBER**

The Detroit Regional Chamber, the chamber of commerce serving Southeast Michigan, has a tailor-made flexible work schedule program for its highly-skilled workers. The flexible work program was originally implemented as a way to recruit and retain talented workers. Between 10 percent and 15 percent of employees have a standard flexible schedule that involves coming in and leaving the office earlier than normal business hours would permit. Other flexible work options include reduced lunch hours in exchange for early departure time, telecommuting, and even part-year scheduling. The Chamber arranges flexible work options based on individual needs as long as they do not interfere with work objectives.

Since its implementation in 2000, retention rates have increased from 75 percent to an average of almost 90 percent. Turnover rates are significantly lower than rates across the southeast Michigan region. Furthermore, employee testimonials show that the workplace flexibility is highly valued by current and prospective employees.

Do Flexible Work Schedules Reduce Absenteeism? Worker absenteeism can be costly to a firm by creating uncertainty over the workforce size and composition that a manager can expect on any given day. In companies where multiple workers perform similar tasks, workers can help compensate for one of their missing colleagues. In smaller firms or firms where each worker's job is different and critical to a company's mission, however, unplanned absences may be especially costly if each member of a team is important for the firm's output. One report suggests that "just not wanting to go to work" that day was enough to keep 34 percent of workers from showing up at least once a year.⁵² One study estimated that employee stress due to concerns about balancing obligations with children and work leads to higher rates of absenteeism, with absenteeism costs to businesses ranging from \$496 to \$1,984 per employee per year.⁵³

Although some absences are inevitable, existing evidence suggests that smart workplace arrangements can reduce them. For example, the few studies that followed workers as they switched between firms that offered a flexible work schedule (such as work-at-home options) to those that did not have found that workers tended to miss work more in the new firms.⁵⁴

⁴⁹ Ruhm (1998).

⁵⁰ Baughman, DiNardi, and Holtz-Eakin (2003).

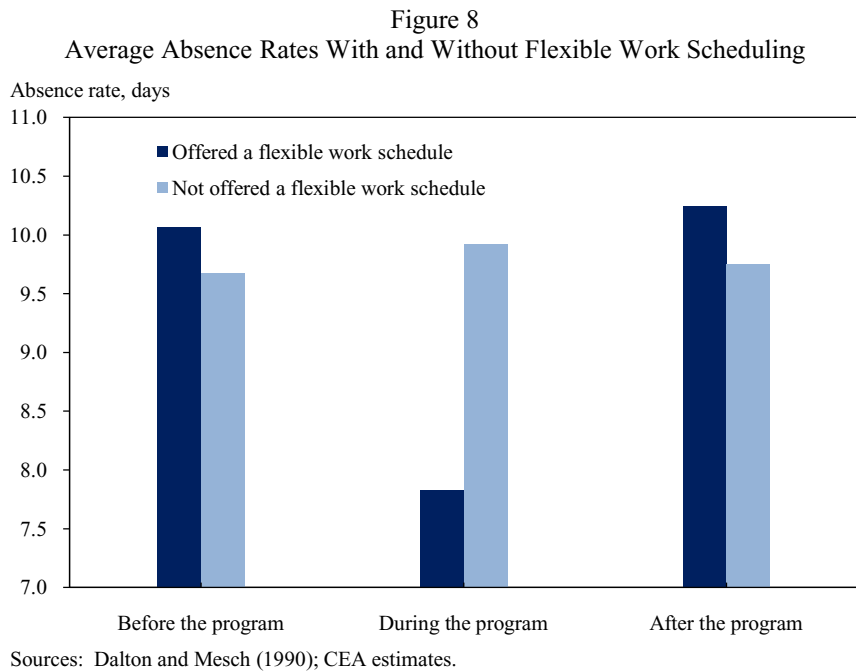
⁵¹ See Yasbek (2004) and Computer Economics (2008).

⁵² Ferrara (2009).

⁵³ Corporate Voices for Working Families (2004).

⁵⁴ Dionne and Dostie (2007). For other evidence, see Yasbek (2004); Comfort, Johnson, and Wallace (2003); Akyeampong (2001).

Perhaps the most compelling study of the impact of flexible work scheduling on absenteeism comes from within a single large public utility that temporarily adopted a flexible work schedule in one of its sub-units while retaining standard scheduling for other sub-units.⁵⁵ As shown in Figure 8, prior to the program, the average rates of absenteeism were roughly similar between the sub-unit that was offered a flexible work schedule and those that were not. In the year after the program was adopted, the sub-unit with a flexible schedule reported a more than 20 percent reduction in absences, with the absenteeism rate in the other sub-units essentially unchanged. Moreover, when the company reverted back to standard scheduling for all of the sub-units considered after a one-year trial, the rates of absenteeism of the two groups of sub-units became, once again, similar.



As a rough estimate, these results, if they generalize to other firms, suggest that wholesale adoption of flexible workplace schedules could save about \$15 billion a year.⁵⁶

Do Flexible Work Schedules Improve Health? A growing literature links job stress to poor health (such as chronic hypertension and heart disease).⁵⁷ And researchers are increasingly

⁵⁵ Dalton and Mesch (1990). For this company, flexible work scheduling meant allowing workers to distribute their working hours during the day without changing the total numbers worked in a day.

⁵⁶ Nicholson et al. (2005) estimate that the annual cost of workforce absences due to illness was \$74 billion. If workplace flexibility reduces absences by 20 percent and if all of this reduction translates into lower costs for employers, the implied savings due to flexibility are almost \$15 billion a year. Note, however, that this estimate includes only absences due to illness, so the total cost due to all absences is likely to be higher. At the same time, there are several reasons why the estimate of cost savings may be too large. Most importantly, the results from the intervention that reduced absences by 20 percent may not generalize to other firms. In addition, the estimates of the annual cost of absences due to illness calculated by Nicholson et al. (2005) may overstate the true cost.

⁵⁷ See Mann (2006) for a literature review. As noted by Mann, this literature is not well-settled. More research could help determine the importance any relationship between job stress and health.

linking poor worker health to poor economic outcomes, such as lower productivity and slower economic growth.⁵⁸ As a result, it is not surprising that recent studies establish a positive relationship between flexible workplace arrangements and worker health.⁵⁹

The most compelling evidence comes from a workplace intervention conducted at 12 Midwestern grocery stores. The researchers at Michigan State University and Portland State University found that workers supervised by family-supportive managers reported improved physical and mental health.⁶⁰ A second study conducted by researchers at the University of Minnesota found that a workplace intervention to allow employees greater control over their work time resulted in employees being less likely to say that they felt obliged to come to work when they were sick, or to not see a doctor even though they felt they should. The intervention also resulted in improved sleep quality, increased energy, and reduced psychological stress among employees.⁶¹

Do Flexible Work Schedules Improve Productivity? An important question is whether flexible work-life arrangements increase worker productivity. Several studies document a positive relationship between workplace flexibility and worker productivity.⁶² The two case studies in boxes, below, explore this relationship.⁶³ One documents the productivity increases experienced by a bank after restructuring its scheduling policies. The other describes how a telecommuting program increased the productivity for a large technology company. A mechanism through which more flexible workplace practices may enhance productivity is by allowing firms to recruit and retain the best workforce.⁶⁴ In a larger study of over 700 firms in the United States, United Kingdom, France and Germany, researchers found a significant positive relationship between work-life balance practices and total factor productivity.⁶⁵ The

⁵⁸ See, for example, Davis et al (2005); Council of Economic Advisers (2009b); Bloom and Canning (2005). Research has also explored the link between good health on the one hand and more productive employees and lower turn-over on the other. For example, data from the *National Study of the Changing Workforce* show that 35 percent of employees who say their overall health is “excellent” are highly engaged on the job, compared to 23 percent of those who say they are in “poor” overall health. Similarly, 68 percent of employees who say they are in “excellent” health report that they are “not at all likely” to leave their job, compared to just 45 percent of employees who say they are in “poor” health (Aumann and Galinsky, 2008). Again, this research suggests that workplace flexibility policies that improve employee health can provide substantial economic benefits for the employer.

⁵⁹ See, for example, Grzywacz, Casey, and Jones (2007); A Better Balance (2008).

⁶⁰ Work, Family, & Health Network (2008a).

⁶¹ Work, Family & Health Network (2008c). Another study conducted at the Harvard School of Public Health which looked at the relationship between a range of workplace policies and informal practices and health outcomes in four extended-care facilities in Massachusetts found that employees exposed to managers with low creativity and lack of openness to work-family issues were more likely to have cardiovascular disease risk factors (Work, Family, & Health Network, 2008b). Finally, a study conducted by researchers at Pennsylvania State University found that on days when hotel workers reported an interpersonal stressor at work, children reported spending one less hour than usual with their parent (Work, Family & Health Network, 2008d).

⁶² Anecdotal evidence also points to this conclusion. For example, an employee at Texas Instruments, a company that has given its employees more flexibility, said that “workplace flexibility has enabled me to improve[her] focus and performance.”

⁶³ Georgetown University Law Center (2010). Sloan Work and Family Research Network (2005a).

⁶⁴ For example, Konrad and Mangel (2000) note that, among professionals, work-life conflicts tend to arise when employees reach their peak productive years in their 30s and 40s. Thus, the workers who most need work-life balance policies could also be the most productive.

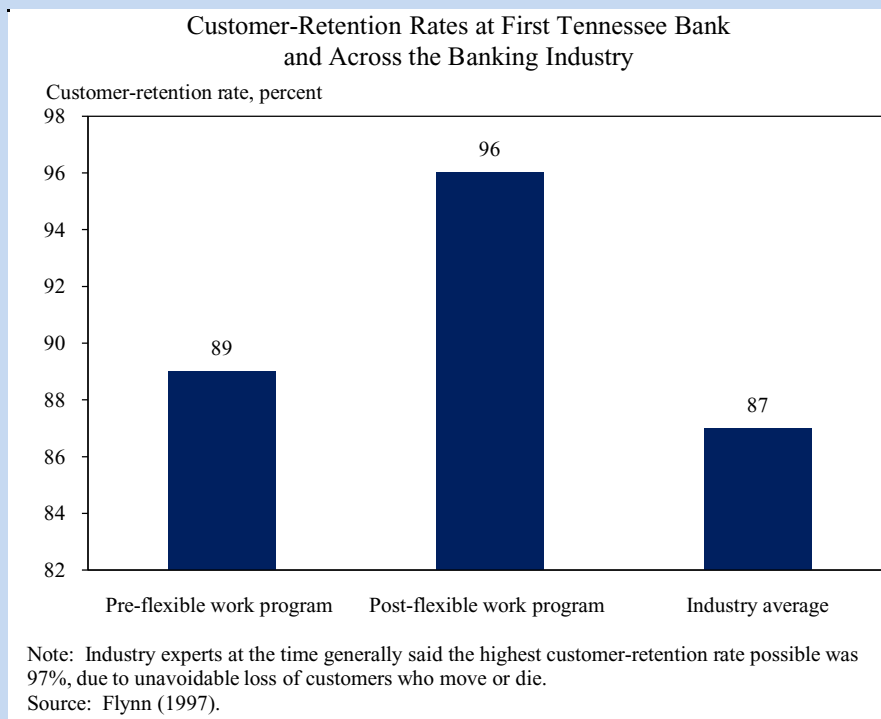
⁶⁵ Bloom, Krestchmer and Van Reenen (2006). This same study contains a reference to a large number of papers that document a positive correlation between flexibility and outcomes like productivity.

authors believe that this correlation could be driven by a third factor—good management. Well-managed firms both have higher productivity and tend to embrace flexible workplace practices. Importantly, the study finds no evidence that workplace flexibility harms productivity.

**BOX 5: FLEXIBLE SCHEDULES AND WORKER PRODUCTIVITY:
THE CASE OF FIRST TENNESSEE BANK**

One example of a company using flexible work arrangements to increase worker productivity is First Tennessee Bank (FTB). FTB, a financial services company with banking sites in several Southeastern states, first implemented a flexible work program in 1992. The program replaced previous company-wide attendance policies, allowing managers at individual banks to decide attendance and scheduling rules. Part-time work options were available to any employee who had been at the bank at least one year, and these workers could reduce their hours to as few as 20 per week while retaining benefits.

The FTB flexibility program has been successful in increasing productivity at the bank. In 1997, customer retention was 96 percent at FTB, compared to an industry average of 87 percent. This may have been due to changes in the accounts-reconciliation department following implementation of a workplace flexibility program. The department restructured its schedule to include 12 hour days at the beginning of the month in return for time off at the end of the month, and as a result the amount of time it took the group to reconcile an account fell from 8 days to 4. This productivity increase resulted in a 50 percent increase in customer quality responses. The following figure shows this gain in productivity.



BOX 6: CISCO SYSTEMS

In 1993, Cisco Systems, a large multinational internet network provider, began a formal telecommuting program for managers and employees.

Cisco's telecommuting program was one of the first among Silicon Valley companies. It began out of the need to better organize the company's global workforce. Since many workers travel, it became necessary to enable them to work remotely. The program allows employees to work from home or keep flexible hours by using broadband technology to work in remote locations. The company does not necessarily require a set schedule as long as employees accomplish work objectives within appropriate time frames. More than 90 percent of employees currently telecommute at least some of the time using residential broadband services.

Cisco's flexible work arrangement has resulted in cost savings for the company. In 2003, it saved \$195 million due to increased worker productivity. The company believes that telecommuting allows workers to be more focused and dedicated to their jobs. In addition, the telecommuting system allows the company uninterrupted access to mission-critical resources in the event of severe inclement weather. The company also hopes to save on rental costs, given its locations in many high rent business districts. Workers appreciate the flexibility the company offers. Anecdotal evidence suggests it helps in recruiting employees, since the company is seen as a good place to work. In 2010, Cisco ranked number 16 on Fortune's 100 Best Companies to work for.

The Economic Case for Wider Adoption of Flexible Workplace Practices and Policies

The evidence cited above strongly suggests that workers clearly gain from workplace flexibility. They are happier, healthier, and more likely to remain with a firm that grants such flexibility.

As for whether such policies and practices result in increased firm profits, generally speaking, there are three possibilities (assuming perfectly competitive markets and that managers are well informed about the costs and benefits of a flexible workplace). One is that the costs of the arrangements outweigh the benefits such that firm profits fall. In this case, we would not anticipate that firms would embrace such arrangements. A second possibility is that the benefits and costs are such that firms' profits are unchanged by a move to flexibility. In this case firms are likely to be indifferent about the adoption of a flexible workplace, but might be open to persuasion by workers or other interested parties. The third possibility is that the net benefits are such that firms also gain from workplace flexibility. In this case, simple economics suggests that we should see such policies and practices adopted.

An innovative paper attempting to study the impact on firm profits tracked the announcements of new work-life balance policies (such as dependent care or flexible work arrangements) by Fortune 500 companies in *The Wall Street Journal*. It found that on average, firms' stock prices rose 0.36 percent on the days following announcements of work-life balance initiatives.⁶⁶ Such evidence indicates that flexible practices boost investors' perceptions of the

⁶⁶ Arthur (2003).

value of a firm, which may derive from their beliefs about the impact of the policies on worker productivity.

And yet, many firms have not adopted such practices. As documented earlier, less than one-third of full-time workers report having access to flexible work hours. If these practices generate such large economic benefits for both workers and firms, why don't more workers have access to them?

One possible explanation is that the relative costs and benefits of these practices differ across and within firms. For example, employers in the financial services industry may find it possible to allow employees to work occasionally from home, while food service companies would likely find such practices infeasible. Economic theory suggests that the firms with the greatest (net) gains to adopting flexible practices should be among the first to embrace them. Existing studies of the effect of flexible arrangements come from firms that have already adopted these practices. Therefore, the evidence presented above may overstate the economic benefits that firms that have not yet adopted flexible arrangements would enjoy. Moreover, from a strictly economic perspective, if firms maximize profits, those that find such policies improve their profitability would adopt them while those that find them too costly would not. In this case, there would be no economic gains to additional firms adopting such policies.

That said, there is still an economic rationale for why additional firms and the U.S. economy could benefit from wider adoption of flexible workplace practices. There is a growing literature that suggests not all firms adopt the most efficient practices, especially in less competitive industries. For example, in the manufacturing sector where productivity is more easily quantified (and even in the context of professional football), managers of firms sometimes appear to fail to make the best choices.⁶⁷ Economists argue that one factor that may contribute to the incomplete adoption of the best management practices is lack of information.⁶⁸ Due to the changing nature of the labor force, it is likely that the best practices from years ago do not provide enough flexibility for today's workforce.⁶⁹ Just as U.S. automotive firms took years to embrace lean manufacturing despite the practice's documented improvements in productivity,⁷⁰ firms today may be failing to adopt flexible arrangements. In this case, encouraging supervisors at firms to reevaluate their management practices in light of the evolving demands of workers can make both the firm and the workers better off. One way to help is for companies to establish "right to request" policies which lay out the circumstances and procedures by which workers can ask their supervisors to consider altering their work arrangements to meet their needs for flexibility.

A second justification for promoting work-life balance is that flexible practices may help society in ways that are not taken into account by either an employer or employee (what economists call "social benefits"). For several reasons it is possible that these social benefits are

⁶⁷ Romer (2006); Bloom and Van Reenen (2010). See also Levitt (2006); Cho and Rust (forthcoming), Bloom, Kretschmer, and Van Reenen (2006); and Yasbek (2004).

⁶⁸ Bloom and Van Reenen (2010).

⁶⁹ Griliches (1957), Cohen and Levinthal (1990), and Levitt and March (1988), among many others, also develop models where a firm's adoption of a new technology is not immediate. See also Nelson and Winter (1982).

⁷⁰ Bloom and Van Reenen (2010).

larger than the private ones. For example, some economic models have emphasized that firms may be reluctant to offer benefits packages that are particularly attractive to workers for whom the benefits are most costly to provide. The classic example is generous health insurance packages which may attract the sickest workers. If a similar dynamic operates with flexible workplace arrangements, then too few employers may offer such arrangements and those that do will pay a higher cost.⁷¹ If more firms offer flexible workplace arrangements, the cost for all will decline, allowing more workers to benefit from the increased flexibility.

In addition, on average adopting flexible practices likely encourages labor force participation among those workers that would otherwise find it too “costly” to work or invest in workplace skills.⁷² Taxpayers and society as a whole benefit from having productive individuals in the workforce because they are more likely to make contributions in the form of taxes (and conversely are less likely to use the social safety net). As another social benefit, allowing workers to work during a typical hours can reduce the commuting time for other workers that may not be taken into account by a profit-maximizing manager.⁷³ One study found that in 2005, peak-period drivers spent 38 extra hours a year in traffic as a result of highway congestion, up from 14 hours in 1982.⁷⁴ Moreover, over a third of drivers report that traffic congestion is a serious problem in their community.⁷⁵

Given the changing nature of the U.S. workforce, the tendency for some firms to fail to update their workplace practices, and the potential for benefits to society as a whole, many firms may find embracing more flexible work helps their workers, their bottom line, and the country as a whole.

CONCLUSION

The non-work responsibilities of the typical American worker have changed dramatically over the past 50 years, largely as a result of the entrance of women to the workforce in large numbers. While four decades ago women spent much more time performing nonmarket work—taking care of children and older family members, and keeping an organized and efficient home—and men primarily performed market work, more recently the household division of labor has blurred. As a result, the fraction of children raised in households where all of their parents work full-time has nearly doubled, and the percentage of full-time workers who are

⁷¹ Summers (1989) explains this as an example of asymmetric information. Suppose that providing the benefit is costly and that a firm does not have accurate information about an individual’s probability of using the benefit. When a firm offers a benefit it attracts the workers who value it most. If the benefit is most costly to provide to these workers, the cost to the firm of offering the benefit will increase. The cost would be lower if all firms offered the same benefit. (Levine (1991) provides a related argument). Evidence on the magnitude of this effect in the context of flexible work arrangements is limited (see Yasbek (2004) for some evidence), but in other contexts there is clear evidence that asymmetric information is economically important (Cutler and Reber, 1998).

⁷² Goldin (2006) has documented links between changes in women’s expectations about future careers and increases in women’s human capital investment. Similarly, the adoption of flexible practices may cause women to invest more in preparation for their careers. Klerman and Leibowitz (1999) explore the short-run effects of workplace flexibility on the labor force patterns of new mothers.

⁷³ Walters (1961).

⁷⁴ Lomax and Schrank (2007).

⁷⁵ Deshpande and Elmendorf (2008).

parents in full-time working families has increased substantially. And because their parents are living longer, an increasing number of workers also find that they must make time to care for them as well. As a result, many workers report difficulty juggling their work and family responsibilities.

Many employers have adapted to the changing realities of American workers. Overall, over one-half of employers report allowing at least some workers to periodically change their starting and quitting times; however fewer than one-third of full-time workers report having flexible work hours, and only 38 percent of part-time workers do. This discrepancy between the employer and employee reports may be due to differences in the data collection, but it may also reflect that more employers would be willing to accommodate the needs of individual workers but their workers are not aware of it. The flexibility to regularly work from home appears even less common: only about 15 percent of all workers report working from home at least once per week. Finally, most employers offer at least some workers the ability to return to work gradually after a major life event such as a childbirth or a adoption, although job sharing appears less widespread.

As in all business decisions, critical factors in a adoption are the costs and benefits of a program. Indeed, almost one-third of firms cite cost or limited funds as obstacles to implementing workplace flexibility arrangements. At the same time, these practices can reduce turnover and improve recruitment, increasing the productivity of an employer's workforce. These practices are also associated with improved employee health and decreased absenteeism, a major cost for employers. Although the literature has identified potential benefits along a variety of dimensions, the costs and benefits of adopting flexible arrangements differ across firms and industries and employers of different sizes.

Nonetheless, there are several reasons to suspect that wider adoption of work-life practices may benefit employers and workers. First, some employers may not have adopted these policies simply because they overestimate the difficulty and cost of doing so and are unaware of potential benefits. In addition, should more firms adopt such practices the benefits to society, in the form of reduced traffic, improved employment outcomes, and more efficient allocation of workers to employers, may be greater than the gains to individual firms and workers.

A factor seriously hindering our deeper understanding of the benefits and costs of flexibility is a lack of data. The largest detailed survey of employers reflects practices from three years ago and does not contain information for the smallest firms; nationally-representative data from workers are six years old and only provide limited understanding of the prevalence of flexible practices. More importantly, evidence on the effects of flexibility on worker productivity, absenteeism, turnover, and health is limited. While the existing evidence has established that there is a strong connection between flexibility and productivity, research that explores the mechanism through which flexibility influences workers' job satisfaction and a firm's profits would better inform policy makers and managers alike.

Although the literature is small, the best available evidence suggests that encouraging more firms to consider adopting flexible practices can potentially boost productivity, improve

morale, and benefit the U.S. economy. Especially at this time as the U.S. rebuilds after the Great Recession, it is critical for the 21st century U.S. workplace to be organized for the 21st century workforce.

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