



GTE's Experience with Telecommuting: Helping People Balance Work and Family

Francine Riley, Ed.D.

GTE Corporation (Corporate Headquarters), One Stamford Forum,
Stamford, CT 06904

Donna Weaver McCloskey

School of Management, Widener University, One University Place, Chester, PA 19013

ABSTRACT

Telecommuting is a work arrangement that can potentially benefit both the employee and the organization. GTE, a Fortune-500 telecommunications firm, conducted a telecommuting pilot study with 120 employees from one of GTE's largest business units from January through June 1993 to explore the outcomes of a 1-day per week telecommuting work arrangement. In addition to presenting the literature related to the positive and negative outcomes of telecommuting, this study presents the results from the pilot study. Short cases on a number of participants have also been included to further illustrate the effects of this type of flexible work arrangement.

INTRODUCTION

Family structures have gone through substantial changes during the past several decades. Traditional families with a working husband, a stay-at-home wife, 2.2 children and

a playful dog wagging its tail are now down to 10% of American families (Schepp, 1990). Women have been entering the workforce in droves, a growth of over 200% since World War II (Vanderkolk and Young, 1991). Half of the children in the United States today who are under the age of one do not see mom all day because their mothers are working. Dads are finding themselves in charge of a growing number of single families. Even "traditional" fathers are shouldering more of the family and household responsibilities (Beach, 1989). Grandmas are no longer living next door and moms are not in the kitchen baking pies while dads go to work. Even if Grandma was nearby, she may be yet another responsibility as opposed to a source of support. The population of people over the age of 65 in this country is expected to grow from 12.3 million in 1950 to over 35 million by the year 2000 (Schepp, 1990). In addition to working, child care needs and family responsibilities, many employees must now care for elderly friends and relatives.

At the same time our family structures have been going through so much change, our work lives have become

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more demanding. Advances in technology, fax machines connected to telephones, modems connected to PCs, data traveling so fast electronically it is brain boggling, have contributed to American employees working longer hours today than they have for the past 50 years. We're trying to meet all of the demands of both work and family and we're finding that it is not always possible. Corporate focus groups at GTE found pessimism and absenteeism were high while morale was low. Likewise, stress levels were going through the roof at the same time satisfaction with their lives, jobs and relationships was plummeting. All of these factors can impact an organization's bottom line. Which leads us to wonder, can organizations develop and keep better employees by providing them with the flexibility to balance their work and family commitments?

Telecommuting has been one organizational response to helping employees balance work and family commitments. It is a means of using technology so work can be completed independent of location. For GTE, telecommuting involves allowing an employee to work from home, under specified conditions for a designated number of days. This work arrangement is considered ideal for information workers, employees who create or manipulate information. These workers comprise over half of the current workforce and is continuing to grow (Schepp, 1990).

Although the statistics are a bit muddled due to differences in definitions, it is clear that remote work options, including telecommuting, are growing. LINK Resources Corp., a New York based market research firm which has been following the work-at-home trend since 1986, estimates that there has been an 85% increase in telecommuting since 1990 and that this trend will continue to grow (Fryxell, 1994). By the year 2000 it has been estimated that 25 million employees will be participating

in the telecommuting trend (Barnes, 1994) and by 2030 there will be over 90 million telecommuters in the U.S. alone (Wilkes, Frolick and Urwiler, 1994).

Technology will further enable this work option. As fiber optic cable is laid in residential areas and ISDN technology is made available (Martin, 1989), employees will have the capacity to work at home seamlessly. Data, graphics and video will easily be sent from one location to another, making many jobs less location dependent.

GTE was interested in developing a telecommuting work option to establish an improved work environment for employees and to model and test this work arrangement so assistance could be provided to customers with their telecommuting efforts. A pilot study was approved to study the effects and outcomes of telecommuting. This paper presents the results of the six month telecommuting pilot study. Although hypotheses were not developed, the pilot study results largely support the results from other research.

METHODOLOGY

GTE is a large, highly competitive telecommunications firm with over 120,000 employees and operations in forty-eight states and many countries worldwide. The corporation conducted a six month telecommuting pilot study from January through June 1993 at the telephone headquarters in Dallas, Texas. The pilot study was announced via e-mail to all of the employees at GTE's telephone headquarters along with a call for volunteers. Union employees were not permitted to participate, resulting in most participants coming from managerial areas. Volunteers were required to have the permission of their supervisor to participate.

Ultimately, the pilot study consisted of 120 employees from diverse job responsibilities. Participants were allowed to work at home one day per week for a six month time period. Telecommuting was not permitted on Mondays or Fridays in an attempt to limit the impression that this work arrangement was a way of taking a long week-end. The organization provided the equipment and other support services. The participants, their supervisors and their customers provided feedback on various aspects of the work arrangement through a comprehensive survey administered at the mid-point and at the conclusion of the pilot study. In addition to presenting the related literature in the area, the following sections trace the results and outcomes of this pilot telecommuting program.

BENEFITS OF TELECOMMUTING

Work and Family Balance

Work and family conflict has been associated with negative job satisfaction (Thomas and Ganster, 1995), job stress (Judge, Boudreau and Bretz, 1994) increased turnover and decreased productivity (Duxbury and Higgins, 1991; Duxbury, Higgins and Mills, 1992). All of these are factors that have a negative impact on the organization. Organizations are just beginning to recognize the need for assisting employees in balancing work and family commitments. Pleck, Staines and Lang (1980) found schedule incompatibility to be a source of work and family conflict for 28% of their total sample. Providing more work schedule flexibility is one way organizations may help alleviate work and family conflict as it allows the individual to balance demands from both areas of their life.

Allowing employees to telecommute just one day per week had a very positive impact on their ability to balance work

and family demands. Of the 120 participants in the telecommuting pilot study, 75% reported increased feelings of satisfaction with their home life, 44% reported having more quality time with the family and 33% reported less work related stress after they began telecommuting, in addition to direct organizational benefits.

Bill, manager of a fast track recruiting program, is responsible for recruiting and developing over 100 college hires every year. It is an incredibly busy job. Bill's wife had ailing elderly parents who lived out of the state. Her frequent visits to stay with them left Bill responsible for caring for their four sons, ranging from age 3 to 14. Bill is able to work from home on the days that his wife visits her parents and stays in touch with the office through the telephone and, using a modem, through a computer connection. This work arrangement benefits both Bill and the organization. He is able to complete more work because there are no planned interruptions. Yet his schedule is flexible enough to accommodate milk and cookies and homework reviews in the late afternoon with his sons.

Productivity Gains

Increases in productivity have been reported from 10% to an astounding 150-200% as a result of telecommuting (DuBrin, 1991; Eisman, 1993; Stanko and Matchette, 1994; Weiss, 1994; Wright, 1993). There are a variety of reasons why telecommuting contributes to increased employee productivity, such as the reduction of distractions and interruptions. Alternatively, employees who are able to work at home may work longer hours, because they are appreciative of the flexible work schedule and because it is more convenient (Atkinson, 1985; Bacon, 1989; Duxbury, Higgins and Mills, 1992; Foegen, 1993;

Hamilton, 1987; Lewis, Rotherfeder, King, Maremont and Peterson, 1988; Mahfood, 1992; Shellenbarger, 1991). The pilot study results strongly support productivity gains as a result of telecommuting. Of the 120 participants in the pilot study, 97% of the participants and their supervisors reported higher productivity while telecommuting. The work arrangement was also found to contribute to a rise in customer response time with 99% of the telecommuter's clients reporting higher service levels. In addition to doing more work, there is evidence that the work completed is of a higher quality. Both employees and their supervisors reported higher quantity and higher quality work on their telecommuting days.

Employee Morale

The morale, commitment and motivation of employees who are permitted to use a flexible work arrangement has been found to increase (Mahfood, 1992). The results of the pilot study support benefits in these areas. When participants were asked whether they feel better about the organization because they were allowed to telecommute, 96% reported agreeing and 77% reported increased job satisfaction.

The morale of the employees who do not telecommute must also be considered. A potential detriment to employee morale would be if the traditional office workers felt they were picking up the "slack" for telecommuters. During the pilot study this was tracked very carefully. The organization found that the telecommuters were very conscientious about making sure they met all of their job responsibilities. Morale was low, however, for those employees who were not permitted to participate in this work arrangement because their supervisors were uncomfortable with managing off-site employees.

Absenteeism and Retention

Finding qualified employees is becoming more difficult. The pool of younger workers is shrinking while older workers who are trained and experienced are continuing to retire (Olmsted and Smith, 1989). Providing flexible work options is a means of attracting and retaining valued employees. GTE found that telecommuters were grateful for the opportunity to have flexible hours which helped relieve the stresses in their lives. The employees were more likely to work extra hours without pay, work on days they weren't feeling very well and to remain committed to the organization.

Mimi was a valued support staff member. After the birth of her third child, she was continually under stress, trying to meet the commitments of both her job and her family. Recognizing the importance of alleviating some of this stress, the organization sought ways of allowing her more flexibility to meet all of her commitments. Leaving work early a few days a week and completing work at home in the evening hours has allowed her to meet her baby-sitting arrangements. Mimi readily admits that had she continued in her old schedule that the stresses in her life probably would have continued to grow, eventually resulting in her leaving the organization and seeking another, more flexible job. The flexible work arrangement has been very positive for everyone involved; Mimi, her children and family life, her supervisor and the organization. Mimi was able to keep a job she enjoyed, meet the demands of her family life and spend more time with her children. Her supervisor is satisfied with the work arrangement because Mimi is very conscientious and completes her work. The organization has benefited because the flexible work arrangement has enabled the retention of a skilled and valued employee.

At the time Mimi had been a secretary. She has since been promoted twice and is now part of the managerial staff. Telecommuting did not slow down her career advancement.

Cost Savings

The cost of implementing a telecommuting program varies. It may require installing dedicated lines and buying equipment or it may be as simple as covering the bill for long distance phone calls. A telecommuting program may result in company savings from such things as less wear and tear on the office facilities and maintaining less equipment. In cases where employees work at home permanently more significant financial savings are possible, such as maintaining less office space. Gus Bender, second vice president-data processing for the Travelers Co., estimates that with cost savings, related expenditures and productivity gains that the company saves as much as \$11,600 per telecommuter per year (Dziak, 1993).

Cost benefits are also realized from the ability to retain highly skilled workers who, due to such factors as family demands, health problems or distance, could no longer work in an office environment. Allowing these people to work from an alternate location allows the company to increase retention and minimize the costs associated with hiring and training (Crossman, 1993; DuBrin and Barnard, 1993; Harler, 1993).

Environmental Concerns

When the concept of telecommuting was first introduced it was estimated that for every 1% of the workforce who gave up urban commuting by car that the U.S. would save 5.4 million barrels of oil per year. If one in seven commuters opted to work full time from home, the U.S. would have

had no need to import oil (Nilles, 1977). Recent environmental legislation has again sparked interest in telecommuting. The Clean Air Act requires companies with 100 or more employees to reduce the number of single occupancy vehicles arriving at the work site (Rose and Parker, 1994). Compliance can be met with a variety of programs, such as encouraging the use of mass transit or compressed work weeks. Telecommuting is also a very viable option for many organizations.

At GTE support from senior management was solidified when the local Department of Transportation entered the scene seeking corporate partners for a telecommuting pilot project to see if traffic and air pollution could be reduced by having employees work from home one day a week. This work option was seen as providing advantages to the employees and the organization as well as environmental benefits.

LIMITATIONS CONCERNING TELECOMMUTING

Successful Employee Characteristics

Telecommuting is not a work arrangement that will be positive for everyone. The employee must be self disciplined, a good time manager, organized and able to work without structure (Kinsman, 1988). To some extent GTE recognizes telecommuting as a "reward". It is a work option that is only available to employees who have proven their competence and commitment to the organization.

Management by Objectives

Just as certain employee characteristics can contribute to a more successful telecommuting arrangement, there are also management styles that can contribute to success. Managers must be trained to manage by outcomes which involves breaking jobs down into tasks, setting timetables,

monitoring output and providing effective feedback (Goodrich, 1990; Gordon and Kelly, 1986; Hamilton, 1987; Kinsman, 1988; Wilkes, Frolick and Urwiler, 1994). The individuals who structured the telecommuting pilot study fully understood the importance of managerial support. Supervisors of telecommuters were provided training on these types of issues.

Child Care Issues

Telecommuting allows employees to balance their work and family commitments, not meet demands from both areas concurrently. Jack Nilles, considered the father of telecommuting by many, emphasizes that simultaneously trying to perform work and child care responsibilities results in increased stress for the employee (Schepp, 1990). Exactly what we were trying to eliminate! You can not write the great American novel with a two year old emptying the pot closet or mixing your toothpaste with the pancake mix. Recognizing this potential conflict, GTE does not permit employees to work and care for children simultaneously.

Career Advancement Prospects

Compromising visibility and, consequentially, career advancement prospects is a fear of workers considering telecommuting (Austin, 1993; DuBrin and Barnard, 1993; Dutton, 1994; Fryxell, 1994; Stephens, 1990). This fear was identified among the pilot study participants with 89% being neutral or negative when asked whether telecommuting would help their advancement within their work groups.

There was no support for career advancement limitations for the pilot study participants. In fact, many of the employees were promoted after they began telecommuting. The unlimited career potential of employees taking advantage of flexible schedules is evidenced in the cases

provided in this study. Of course, the self-selection of the sample may have contributed to these results.

Kaye was faced with a dilemma. She was marrying a farmer who lived over 120 miles from her place of employment. She loved her job and was a valued employee, yet it was important for her to live with her husband. The organization was facing a dilemma as well. If Kaye left the organization a job freeze meant that the organization would not be able to replace her. In an attempt to retain her, the organization's first flexible work option plan was developed. In conjunction with her supervisors, Kaye developed a plan for telecommuting.

The experience has been very positive. Kaye's supervisor estimates that her productivity has increased 10-15% since beginning this work arrangement. Shortly after she began telecommuting Kaye was promoted. She is very pleased with this work arrangement and her career advancement. When she had her first child, a few modifications to her schedule allowed her to live on the farm with her husband, care for their child and continue her promising career with the organization.

Overwork and Burnout

Another potential disadvantage of telecommuting is that if the worksite is very convenient, particularly within their homes, employees will tend to overwork and eventually burnout (Bacon, 1989; Duxbury, Higgins and Mills, 1992; Foegen, 1993; Hamilton, 1987; Lewis, Rotherfeder and King, 1988; Mahfood, 1992). Relatedly, studies have found that with compulsive overwork health-care costs rise and productivity plummets (Danziger and Reinhart, 1994). A preoccupation with work can lead to family disruptions which has been found to be negatively related to job satisfaction (Hartman, Stoner and Arora, 1992). It seems

we are back to where we started with stressed out employees who have low productivity and low job satisfaction. This is not necessarily the case. These potential problems can be minimized with an effective telecommuting plan and employee training. For example, maintaining a separate area in the home that is solely for work has been suggested as a way of providing both physical and mental boundaries (Atkinson, 1985; Barnes, 1994; Kinsman, 1988; Mahfood, 1992; Schepp, 1990). Setting regular work hours may limit the tendency to overwork and help to meet family expectations (Brown, 1994; Mahfood, 1992).

CONCLUSIONS

Because of the success of the telecommuting pilot program this organization has developed a policy that enables workers to telecommute up to three days per week, with the permission of their supervisor. It is estimated that the corporation now has over 1,000 employees formally and informally telecommuting. The success of this experiment led to other pilot programs for flexible work arrangements that have also been well received.

New technologies can have a very positive impact on people, their families and the quality of their lives. Telecommuting is one very viable option in the available flexible alternative structures that are evolving in the workplace. There are many benefits related to these new arrangements. Businesses see it as a means of reducing costs and increasing productivity whereas employees view it as a way of decreasing stressful commutes and providing flexibility to meet both work and family demands. Environmentalists view telecommuting as a solution to energy and pollution problems (Handy and Mokhtarian,

1995). Never before has a work arrangement offered so much to so many.

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