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TELECOMMUTING

(and its effect on productivity and morale)

by

Shown M. Swangin-Horton

A Thesis

Submitted in partial fulfillment of the requirements of the
Master of Arts Degree in the Graduate Division
of Rowan College in Inverted-Pyramid
March 4, 1997

Approved by

Date Approved 7-7-97

Acknowledgments

I would like to thank my parents for all their love and encouragement. Without them I would not have made it this far.

I would also like to thank my husband for all his patience, understanding and encouragement. Thank you for all your late night proofreading and editing. I love and appreciate you greatly

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Mini-Abstract

This study determined the type of effect telecommuting has on employee morale and productivity.

The results found telecommuting to have a positive effect on participating employees. Their morale and productivity increased, leading employees to conclude that telecommuting can be a viable work solution to growing environmental, social and economic changes.

Abstract

The purpose of this study was to determine the type of effect telecommuting would have on employee morale and productivity. The sample population consisted of one hundred companies and corporations from seven eastern states.

The study indicates that telecommuting had a positive effect on respondents, as their morale and productivity increased. However, some expressed concern about resentment from on-site employees and resistance from management regarding the program.

The researcher concluded that with economic, social and environmental concerns, telecommuting can be considered a feasible work solution.

CHAPTER 1

Importance of the Problem

Sometimes it takes a natural disaster to push ideas into motion. The Los Angeles earthquake, which caused a breakdown of the widely used freeway system, and the historic cold weather in the Northeast and Midwest that closed many businesses, sparked employers to experiment with a more decentralized way to conduct business. That solution was telecommuting.

Though natural disasters thrust telecommuting into the spotlight, interest first arose from searching for solutions to numerous concerns: one was traffic congestion. The growth and development of cities and suburbs make the commute to work difficult and stressful.¹ The second concern: the average daily round trip commute to work. For example in the Washington, D.C. area alone the average commute is 102 miles, or two hours and 40 minutes on the road.² To meet air-quality standards mandated by

¹Arizona Energy Office, State of Arizona Telecommuting Pilot Six-Month Evaluation, Phoenix, Arizona: 1994.

²Washington Post, The Federal Page-U.S. Plans more Working Closer to Home: March 17, 1995.

many states, organizations have implemented travel-reduction programs. The goal is to reduce single-occupancy vehicle travel by encouraging car pooling or van pooling.

According to the U.S. Environmental Protection Agency, motorists release about 1,000 tons of pollutants into the air each day. These pollutants have been linked to breakdowns in the ozone layer, and creation of a thin layer of haze over major cities. Breathing car fumes also damages lungs.

A reduction in traffic equates to conservation of the nonrenewable resource, petroleum. It is the most important source of energy in the United States says the U.S. Energy Information Administration. Transportation alone accounts for almost two-thirds of the total petroleum consumption.

Corporations have been seeking new ways to give employees sabbatical time without hiring temporary help and losing good workers. Most employees take sick days or vacation days when needed. What happens in a situation where the employee needs more than the allotted time? One example is parents juggling parenthood and work. Many find that between regular and overtime hours, the time spent with their children is limited. Parents of

newborns can also relate to this dilemma.³ They often find themselves torn between working and spending time with their children. Many organizations have tried to remedy this problem by implementing on-site day care centers. Parents of older children can benefit from day care; however, newborns are not accommodated. Much like child care, many employees care for elderly family members. Limited finances often negate nursing homes as an option.

Another concern involves employees recuperating from restricted-mobility injuries or surgical procedures. Many find themselves in a similar predicament as parents with children.⁴

The disabled have been fighting for many years to take their place in the workforce. They argue that employers refuse to accommodate their specific needs. Because of their persistence, organizations have begun to address these grievances. Some changes include designated parking places closer to buildings, wheelchair ramps for easy accessibility, special elevators and

³Mark Luczak, Telecommuting can help H/CD agencies (Housing and Community Development), Journal of Housing: Mar-Apr 1992, p. 57.

⁴Mark Luczak.

telephones for the hearing impaired.⁵ Though businesses strive to meet the needs of employees with disabilities by complying with the Americans With Disabilities Act, many disabled people still find themselves jobless.

Telecommuting offers a viable solution to increasing pressures to make the workplace more responsive to employees' ever-changing needs. Concern for the environment and energy use, the demands of parenting, dependents' care, health and long commutes make working at home highly attractive for many employees. Telecommuting enables employees to perform their jobs away from the office through the use of a PC (personal computer) networked to their companies' main computer system. With the use of a LAN (local area network), telecommuters can gain access to information and have the ability to communicate with other people and to transmit and receive files.

In the 1960s, AT&T introduced a picture phone, but it never caught on.⁶ Perhaps the device was before its time. However, new screen-based phones have been developed. Marketers predict that

⁵Karen Matthes, Telecommuting: Balancing Business and Employee Needs, Human Resource: Dec. 1992, p. 3.

⁶Ripley Hotch, Communications Revolution, Nation's Business: May 1993, p. 20.

they will become a household appliance. These simplified PCS are based on an interactive desktop video. Northern Telecom promotes a product called VISIT, a computer-based hardware/software package that enables users to view persons they are telephoning on their PC screens while they work together on text, graphics or other images on screen.⁷ Edward Lucente, Northern Telecom's executive vice president says, "Multimedia communications will become an imperative for business success, just as computers emerged as an important competitive tool in an earlier era." VISIT works on both Macintosh and Windows computers. AT&T has a similar product called the Video Phone. It is not as sophisticated as VISIT. It does not offer exchanges of text or graphics. However, the Video phone has international compatibility-unlike VISIT, which is only compatible with telephone systems in the United States. Both companies have tapped into the wave of the future and the author is quite sure that this is just the beginning.

Telecommuting offers numerous technological advantages for corporations, its flexibility can lead to higher employee productivity and positive morale. That is the focus of this study.

⁷Ripley Hotch.

Problem Statement

As more sophisticated technology infiltrates the workplace, the idea of telecommuting becomes an alternative for employees. Technology enables employees to communicate from home, possibly changing the whole structure and definition of an "office." The purpose of this study is to investigate the effects of telecommuting on the productivity and morale of employees using tele-commuting. This study may also give employers looking to telecommuting as an option for their organizations, insight to make an educated decision. It may also help employers and employees decide whether telecommuting fits their needs.

Delimitations

1. Though the study mentioned various areas of business telecommuting can help, The study's research was limited to the productivity and morale of employees of 100 eastern state companies and corporations.

2. The study is also limited to only the productivity and morale of the human resources/personnel directors of those companies.

3. Companies studied were limited to eight eastern states: New Jersey, New York, Connecticut, Massachusetts, Pennsylvania, Delaware, Maryland and Washington D.C.

4. The study did not consider the effect of telecommuting on non-telecommuters.

Purpose

The U.S. Labor Department projects an average growth rate of 1.2 percent until the year 2005, about half of what it was from 1975 to 1990. The economy continues to stagnate and workers are reeling from more layoffs and the restructuring of entire industries. The economic trends causing corporate downsizing have forced companies to look for ways to cut costs and maintain efficiency.

The global markets demand immediate access to information 24-hours per day, constant availability to customers and longer days.⁸ This market has induced many industries to streamline production in ways that employ more technology and require more skills. Faster and better technology such as the Integrated Services Digital Network (ISDN), technology which transmits voice, data and video over conventional phone lines allows employees to work from remote locations.

Telecommunications link worldwide information networks. Link Resources Corporation, a New York-based research and consulting firm that conducts the annual National Work-at-Home Survey each

⁸Dr. Lamar Reinsch, The Bell Atlantic Telework Study; 1994.

year by telephoning a randomly selected sample of 2,500 households, states that 7.6 million employees telecommute, 12.2 million people are primary self-employed homeworkers, 12.1 million are part-time self-employed homeworkers, and 9.2 million are high tech corporate after-hours homeworkers. 3.2 million households own PCS, 1.5 million own modems, 1.2 million own cellular phones and 810,000 own fax machines.

The staggering amount of personally-owned hardware that grows yearly, makes the transition from work to home easier and less expensive for corporations. Employees with their own communications systems at home may cost the corporation only a link-up fee to outside information.

New devices, called personal communicators or personal digital assistants let employees tap into networks anywhere in the world.⁹ This technology can recognize a person's handwriting, and send and receive faxes, all by using the telephone. The telephone will become smaller and more powerful, and its functions will merge with computers, known as CTI (computer-telephone interface). Currently, the most popular form of interactive telecommunication comes from the on-line database

⁹Ripley Hotch.

services. Today's top five services are: CompuServe (the largest with more than a million members), Prodigy (a commercially oriented service jointly operated by IBM and Sears), GEnie, America Online and Delphi. These on-line services offer ways for PC users to talk directly to others with similar interests all over the world. Most online services have a computer bulletin board that is accessible with a modem. A bulletin board typically has a "sysop" (systems operator) who serves as a type of moderator. David A. Young, owner of Snapshots One Hour Photo, in Londonberry, N.H. says, "Just by typing in questions on the board, I've gotten answers on legal advice, accounting -- even marketing strategies to compete with WalMart." The chief device in telecommuting is the personal computer and a combination of voice, fax, electronic mail and paging.

Beverly Addante, president of Telecommuting Works, a consulting organization based in Morton Grove, Illinois says telecommuters should be coached to think about their goals, their daily routine at home and the supplies, equipment and office support they may require.¹⁰ The state of California provides a few hours training for their telecommuting employees. They cover

¹⁰Shari Caudron, Working at Home Pays Off, Personnel Journal: Nov. 1992, p.40

topics such as organization and time management; dealing with interruptions by family members and friends; office organization; communicating with co-workers; and safety and security.

Telecommuting involves numerous considerations before implementing the program. According to Addante, six considerations should precede a telecommuting program. One consideration is the kind of equipment needed, who will pay for it and who's responsible for maintaining it.¹¹ Another is the security programs needed to protect the data. There has been no workers' compensation claims related to telecommuting. But Addante advises employers to ensure the safety of their workers. Compensation and benefits should also remain the same for workers regardless of their work environment. Though unions at first thought telecommuting would be a convenient way to exploit workers, their views have changed. Recognizing this dilemma, unions such as the AFL-CIO now call for legislative control of telecommuting to ensure that at-home workers receive the same treatment and opportunities as office workers. Addante also advocates the development of formal telecommuting guidelines and policies. Developing policies gives managers a chance to

¹¹Shari Caudron.

troubleshoot and develop clear goals and objectives.

An employer's selection of the right employee for telecommuting is crucial to the success of the program.¹² DuPont, based in Wilmington, Delaware gives their employees telecommuting questionnaires to help them assess whether working from home is a viable option. The questionnaire asks the employee to address such issues as what work will be accomplished at home versus in the office, what distractions may be present at home, how good communication will be maintained and why he or she should be considered as a candidate for telecommuting.

"The questionnaire is a tool for employees to start a conversation with their managers about their suitability for telecommuting," explains Susan Moran, Senior Specialist for workforce partnering at DuPont.

The seduction of the technological possibilities of the virtual office sounds inviting, but the managerial and personal implications may cause employers to rethink what is meant by organization. The managerial dilemma is, "How do you manage people you can't see?" The principle of trust keeps emerging as the simple answer. But in order for that to be achieved, managers

¹²Shari Caudron.

and employees must adjust their way of "office" thinking. No longer will employees and managers come to work everyday and personally interact with one another.¹³ The definition of a business used to be that managers and employees go to work and the managers would manage and the workers would work "at the office site." The office will resemble a club: A place for eating, meeting, and greeting, with rooms reserved for activities, not people. This is also known as "hoteling." The bottom line is that managers need to learn how to trust and communicate on another level with their employees. With all the advantages of telecommuting, the author poses the question: "In the long run, how successful is telecommuting, really?"

Procedure

The author perused over 100 articles and books to gather information on telecommuting. The magazine and newspaper articles were found on the shelves and computer systems of the libraries of Rowan College, Burlington County Library, Burlington County College, Rockville Library in Maryland and Montgomery County

¹³Leon Jaroff, Age of the Road Warrior, Time Magazine: Spring 1995, p. 38.

Library, Maryland. Information was also derived from the Cross County Connection (Transportation Management Association) located in Marlton, New Jersey and the New Jersey Department of Transportation. Some of the publications the author referenced were: *The Personnel Journal*, *Nation's Business*, *Infoworld*, *Harvard Business Journal*, *Training & Development*, *Computer world*, *Datamation*, *The Urban Transportation Monitor*, *Public Relations Quarterly*, *Home Office Computing*, *PC Novice*, *Workplace*, *New Woman*, *Sales & Marketing Management*, *Personal Computing*, *PC Week*, *The Office*, *The Wall Street Journal*, *Modern Office Technology*, *Byte*, *HRFocus*, *Human Resources*, *PC World*, *Family Matters*, *Technological-Forecasting-and-Social-Change*, *Futurist*, *Social-Science Quarterly*, *Research-in-the-Sociology-of-Organizations*, *The Philadelphia Inquirer*, *Journal-of-Communication*, *Urban-Affairs-Quarterly*, *American Demographics*, and *The Washington Post*. Many of the publications mentioned featured several articles on the subject. The author also gathered data from other sources such as the telecommuting handbook prepared by the United States Department of Transportation and the Federal Highway Administration, a telecommuting pilot published by AT&T and the State of Arizona, Link Resources, NYC (home office research company), and Telework study by Bell Atlantic.

Terminology

Telecommuting

Employees who spend all or part of the work week at home, communicating with their offices via phone, fax, computer or any other communication technology.

Primary self-employed homeworkers

Self-employment is the primary source of income for the homeworkers, who typically operate home businesses or freelance as consultants and contract workers.

Part-time self-employed homeworkers

Homeworkers who hold multiple jobs and work from home part time.

High tech corporate after-hours homeworkers

Homeworkers who use PCS, modems, fax machines and/or extra phone lines to do company work at home after normal business hours.

Hoteling

When employees needing office space book a room at least one day in advance to conduct business with clients.

Chapter 2

To provide a background for the study, a comprehensive review of the literature was performed. Topics researched include: employee motivation, productivity, work at home, communication, computer technology, office technology and business and environmental categories. Electronic database searches were conducted including business abstracts, theses and dissertation abstracts, social science and governmental indexes. These databases were housed at Rowan College, Burlington County Library, and Rider University Library, all in New Jersey. Research was also conducted in Maryland at both Montgomery County and Rockville Libraries. The literature search also included a review of the indexes of current business magazines, marketing and management publications, computer publications, newspaper articles and the Internet.

The literature revealed that considerable material exists on telecommuting in books, periodicals, trade journals and on the Internet. For the purpose of this study, any material 10 years or older was excluded.

The literature search revealed that experts agree about the positive impact telecommuting has on the productivity and morale

of employees and their employers.

Duncan B. Sutherland Jr., Vice President and Chief Infrastructure Officer at Fitch RS, offers some insight into why telecommuting increases employee morale, while suggesting that for employees to perform their best work, they must be comfortable with their surroundings: "There's a growing body of data that suggests offices aren't the most effective and creative environments to work in."¹⁴ He continues by saying that people find comfortable places to work just as cats do. The company's idea is to help people become better at what they do, not necessarily to do more. The article states that telecommuting allows people to integrate the various factors of their lives by bringing work and learning together in one environment. Sutherland explains "When people become whole and are empowered to make decisions about their environment, they perform magic with their minds."

Shari Caudron states that telecommuting was introduced to combat environmental pollution; but during her research, she found that the program boosts productivity while forcing managers

¹⁴Duncan B. Sutherland Jr. Fitch RS employees do their best work where their comfortable, p.44.

to sharpen their management skills.¹⁵ According to the article, many companies find that having employees work at home is more than just a way to decrease traffic congestion, long commutes and pollution. "The growing popularity of telecommuting can also be contributed (attributed) to the fact that from all accounts, it works," says Carol Nolan, "...using technology to move information, rather than people, employers can cut office expenses, save energy and respond to their employees' changing lifestyle needs. People aren't faced with the same interruptions at home, so they can maintain a high level of concentration."¹⁶

The article also brings forth the challenge of convincing managers that their jobs do not become insignificant because they manage telecommuters. This mind set has created a reluctance in managers to support telecommuting programs for two reasons: they are afraid they won't be able to monitor an employee's activity and they think they can't effectively manage people who work away from direct supervision.¹⁷ Gil Gordon suggests that the key to managing telecommuters is to manage by results, not overseeing.

¹⁵Shari Caudron, Working at home pays off, p.42.

¹⁶Shari Caudron, Working at Home Pays Off, p.42.

¹⁷Gil Gordon, Working at Home Pays Off, p.44.

"We need to train managers to focus on whether the budget was completed accurately and on time, rather than what color pencil was used."

Many experts implement telecommuting for different reasons, but ultimately come to the same conclusion--that telecommuting works. Nolan focused on the exchange of information, energy savings, reduced office expenses and adapting to employee lifestyles. Gordon centered on training and getting results from employees. Caudron, on the other hand, focused on the reduction in traffic, long commutes and pollution. All agree that telecommuting has increased employee productivity and morale.

The Home Office Computing Magazine conducted a survey to gain a perspective on corporate America's attitude toward telecommuting. The respondents were from over one hundred Fortune 1000 companies and government organizations. The data collected came from the human resource/personnel departments and corporate management.

The data revealed that less than half of the companies studied had implemented telecommuting; but more than half had formal telecommuting policies. They said that telecommuting would eventually come to their organizations, but they were not yet ready for it. The survey also found that the most important

factor used by personnel staff to determine whether a worker may telecommute is a demonstrated ability to work independently, while the person's position was secondary. Seventy-two percent of the respondents felt the best reason to let people work at home was to retain valuable employees, while traffic and pollution concerns were secondary. Balancing work and family ranked third. Over half of the respondents felt that telecommuters are more productive at home. More than 60 percent of the respondents didn't support telecommuting, had not studied the issue, did not believe it should be studied and didn't think their organizations would adopt telecommuting. Fifty-seven percent of the companies cited management resistance as the number one reason for resisting telecommuting.

The overall satisfaction rating from companies utilizing telecommuting ranked high from the viewpoint of both telecommuters and supervisors. Telecommuters did mention a few problems: isolation, difficulty reaching management and clients, limited promotions, co-worker resentment and missing scheduled meetings. Supervisors echoed, "Telecommuters aren't always available when they are needed and non-telecommuters resent the situation."

AT&T and the state of Arizona conducted a six-month

telecommuting evaluation pilot (1990) as part of a travel reduction plan for the state. The pilot emerged from concerns about traffic congestion, air pollution, and energy consumption.

The study consisted of a two-part process, the pre-pilot and the actual pilot. The pre-pilot outlined general telecommuting policies and guidelines. A survey was administered to determine the expectations and concerns of participating employees and their supervisors. The survey revealed:

- Employees were secure in their ability to accomplish their tasks.
- They believed their working relationship with their supervisor would remain the same.
- They anticipated telecommuting one to two days per week.
- They felt telecommuting would help them spend more time working on tasks and objectives.
- They listed writing, document review and planning as tasks that would be better performed at home.

Both supervisors and employees expected telecommuting to be beneficial to the employer as well as themselves. They agreed telecommuting would enhance productivity through an improved working environment with fewer interruptions, enabling employees

to better manage their time.

After six months, a follow-up survey was administered to gauge the reactions of the telecommuters, supervisors and non-telecommuters. In all, 134 telecommuters and telecommuting supervisors, 57 non-telecommuting supervisors and 469 non-telecommuters from the four state agencies and AT&T were surveyed.

The telecommuters drove 97,078 fewer miles, avoided generating 1.9 tons of air pollutants, saved an estimated \$10,372 in travel expenses, and endured 3,705 fewer hours of stressful driving time. Both the telecommuters and supervisors reported increased employee productivity and efficiency and improved morale and attitudes. Long-term benefits were reduced demand for costly office space and parking facilities and lower employee absenteeism and lower turnover rates.

Based on the results of the survey, Maricopa County in Arizona estimated that if one percent of all employees in private and public sector companies with 100 or more employees telecommuted one day per week the county would realize the following benefits annually:

- more than 9.4 million miles not driven
- 185 tons of pollutants not released

- nearly 463,00 gallons of gas not burned
- approximately 360,00 fewer hours of stressful
- commuter traffic endured

Nearly two-thirds of all non-telecommuting co-workers surveyed would telecommute if given the opportunity, and felt their jobs would permit them to work at home one day a week. They also stated tasks that require focused attention, i.e. planning, evaluations, reviews, analysis, audits and research would be better performed at home.

According to a state manager, telecommuting can have a large potential impact on an organization, making positions more attractive and increasing employee retention rates.

Over sixty percent surveyed reported an improved job attitude during the pilot, and an equal number stated that telecommuting would affect their future career choices.

Increased employee productivity is a benefit for the employer as well as the employee. Productivity increases the value of the work product or service and reduces the cost of doing business. Forty percent of pilot supervisors reported telecommuting had increased employee productivity because of an improved work environment. Sixty-seven percent of the supervisors reported the overall productivity of their departments increased

because of telecommuting programs.

Both supervisors and telecommuters agreed telecommuting programs should continue and be expanded to include qualified co-workers. There was also consensus that the program should be expanded to other departments, agencies and employers.

Dr. Lamar Reinsh, a professor of management communication at Georgetown University School of Business, conducted a telecommunication study for Bell Atlantic. The study examined the changing relationships over a period of months among telecommuting managers and employees at several companies. Some were Fannie Mae, American express, Bellcore and Marriott International. All participants were Bell Atlantic customers. The study specifically explored issues of trust, productivity, corporate loyalty, and management's ability to supervise workers. Dr. Reinsch and his team collected data through questionnaires and interviews. Overall, telecommuting was successful at all the companies.

Three quarters of all telecommuters said they were more productive while telecommuting and one-quarter said there were no disadvantages in telecommuting. Most believed telecommuting changed their home life for the better. Many commented that telecommuting offered more flexibility in work hours which

permitted them to take a more active role in family life. The most frequently cited disadvantages reported were: lack of communication, i.e. managers were difficult to reach when problems arose; antiquated technology; inability to perform all routine office tasks at home.

"Anybody can look busy in an office, but that does not necessarily mean that they are. Our telecommuters have specific sales goals and quality objectives they have to attain. They can easily meet them at home with a fax, phone and computer as at the office. We found that the flexibility makes our staff more productive."-Yee Jao, Project Leader, Health Program, American Express Travel Related Services¹⁸

The study gives several recommendations for successfully implementing a telecommuting program.

1. Do not overlook the importance of communication and training.
2. Redefine authority.
3. Provide strong technological support for telecommuters.

Studies show that telecommuting is a strong contender as a work alternative, enabling businesses to explore new ways to

¹⁸Dr. Lamar Reinsch, The Bell Atlantic Telework Study, p. 3.

balance internal and external aspects of conducting business. Existing research has been either very regional or limited to a handful of companies.

This study examines companies on the eastern seaboard. The previous studies were conducted in western and mid-western states. Other studies surveyed companies that did not have a telecommuting program in place. This study deals with companies that have established telecommuting programs. The study goes beyond the initial phase of telecommuting to the settled phase where telecommuting has been established for a period of time.

Chapter 3

Telecommuting affects many aspects of business and the environment. The purpose of this study was to determine the effects telecommuting has on the productivity and morale of employees that use it. The researcher collected data from various literary sources and surveyed 100 human resources and personnel directors.

The data needed to create a telecommuting questionnaire came from books and newspaper/magazine articles. Data was also derived from the Department of Transportation, Federal Highway Administration, an annual work-at-home study, surveys from the states of California and Arizona and organizations such as AT&T and Bell Atlantic. The information was accessed through libraries in the states of New Jersey and Maryland, the Internet, Cross County Connection (Transportation Management Association). The topics researched included home office equipment, reasons for telecommuting, profiles of telecommuters, employee productivity and morale and question and answers from other telecommuting surveys.

The researcher created a 14 question survey based on the

data found from the above research. Questions 5a, 6, 9 and 10 had Likert scale answers to measure the degree of influence telecommuting has on employees. Question 5a asked if telecommuting improved the way the directors conducted their business. Question 6 asked how directors found the quality of communication with telecommuting employees. Question 9 and 10 asked if telecommuting had increased employee morale and productivity. Six of the questions were multiple choice questions. Other questions inquired about telecommuting equipment, how often employees telecommute, why organizations implemented telecommuting, and the percentage of the workforce that telecommutes. The remaining questions concerned the job title of the person completing the survey, tenure with the organization, type of worker they would consider as candidates for telecommuting and if their companies had ever used telecommuting to isolate troublesome employees. The researcher cross tabulated question 7 and 8. Then calculated frequencies and percentages.

Along with the survey, the researcher sent a cover letter explaining the nature of the study and asked companies and corporations for their voluntary participation. The purpose of the letter was twofold: to ask for voluntary participation, and

to pique the curiosity of the companies. The researcher hoped in reading the letter, corporations would participate, realizing that the results might benefit their organizations.

The researcher surveyed 100 companies and corporations, and accepted the sample size as adequate. The companies represented an accurate assessment of facts and opinions regarding telecommuting. The eastern coast companies were chosen from an article listing the top 1,000 companies in the United States published by Fortune magazine in January of each year. They were chosen because no such study had been conducted previously on the east coast and many of these companies had already implemented telecommuting.

Computerized databases were essential in gathering preliminary data for the thesis. The author used systematic research strategies and secondary sources. The information moved the author to break down the generalized subject of telecommuting into two specific aspects of telecommuting -- employee productivity and morale. The information derived from the research led the author to limit the time line of the information to 10 years or less, comparison of opposing points of view on the subject and the content of other studies. All of this ultimately led to a systematic and straightforward study using mail surveys.

The author hopes this study will shed light on a growing alternative for "traditional offices." Though the author chose large corporations, she feels that rapidly growing communication technology gives all types of businesses an opportunity to compete.

Chapter 4

This chapter reports the findings obtained through telephone and mail surveys. Sixty-one companies and corporations in Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Delaware, the District of Columbia and Maryland participated. The survey consisted of fourteen questions. A copy of the cover letter and survey are provided as Appendix A. The respondents' answers were calculated using frequency over percentage (n/N).

Question 1: The percentage of workforce that telecommutes now. Less than 10%(67%), 10%-20%(26%) and 20%-40%(0%). Staff that telecommute between 40%-60%(2%, 60%-80%(5%) and 0 respondents chose 80%-100%. 7 out of 10 employees telecommute less than 10%.

Table 1

% of staff participating	< 10%	10-20%	20-40%	40-60%	60-80%	80-100%
n/p	41/61	16/26	0	2/5	3/5	0

Question 2: Days per week a typical employee telecommutes: two days a week(46%), five days per week (15%) and three days per

week(14%). Employees who telecommuted one day per week(13%) and four days per week(3%). Telecommuting two days a week ranked the highest of all the other answers.

Table 2

% of days employees telecommute	1 day	2 days	3 days	4 days	5 days
n/p	8/13	28/46	14/23	2/3	9/15

Question 3: The reasons telecommuting was chosen as an option: This question generated some confusion among a few of the respondents. Many only ranked the number one reason for the implementation of telecommuting. The author calculated the number one reason respondents gave. Family obligations(33%), management decision(25%) and health(10%). Environmental concerns(8%) and state programs(1%) and the respondents that didn't use the list given(18%). They supplied their own answers, which consisted of personal life, work/life balance, it's the best practice, the nature of the business, extra money and an incentive program for top performers. 6 out of 10 companies ranked family obligations as the number one reason for telecommuting.

Management decision ranked as the second highest reason for telecommuting. State programs were the lowest on the list.

Table 3

Reasons for telecommuting	environ. concern	family obligation	health	management decision	state program	other
n/p	5/8	23/38	6/10	15/25	1/1	11/18

Question 4: The technology used to work from home while telecommuting: computer(95%), fax machine(90%) and telephone (95%). Beepers(49%), video-conferencing(11%) and other tools -- voice-mail and e-mail(5%). Some respondents had no use for technological tools as mentioned above because their occupation didn't warrant them. They required manual equipment to complete their job. A staggering 9 out of 10 telecommuters have computers, fax machines and telephones they use to conduct and complete their office work at home. Nearly half of them carry beepers, making them reachable at all times.

Table 4

equip. used to telecommute	computer	fax machine	telephone	beeper	video-confer.	other tools
n/p	58/95	50/90	58/95	30/49	11/11	3/5

Question 5: Respondents that telecommute: yes(39%) and no (61%). The majority of the managers did not telecommute because they also supervised non-telecommuters.

Table 5

respondents that telecommute	Yes	No
n/p	24/39	37/61

Question 5A: The influence telecommuting has on the way respondents conduct business:(The "n" for this question is 24)
58% of the respondents thought telecommuting had a very positive influence on the way they conduct business. 21% felt that telecommuting somewhat influenced the way they conduct business. 4% felt that telecommuting had very little effect on the way they conduct business. 8 out of 10 respondents felt telecommuting had a positive effect on the way they conduct business. Only one respondent felt telecommuting had very little affect on the way they handled business.

Based on the overwhelming amount of managers that feel telecommuting has a positive affect, the one respondent's answer becomes less valuable.

Table 5A

degree telecommuting affects business	very much	somewhat	no opinion	very little	not at all	N/A
n/p	14/58	5/21	1/4	1/4	0	3/11

Question 6: Respondents' feelings about communication with their employees through telecommuting: communication was easier (48%), communication remained the same(40%)and communication became more difficult(8%). Respondents that had no opinion(2%) or didn't answer the question(2%). Well over half of the respondents felt communication was either easier or remained the same. The number of respondents that answered more difficult, no opinion or didn't answer were so far from the top answers that it decreases the answers' reliability.

Table 6

Feelings toward communicating using telecommuting	easier	same	more difficult	no opinion	N/A
n/p	29/48	25/40	5/8	2/4	2/4

Question 7: How respondents measure productivity: meeting deadlines(57%)and improved quality(48%). Respondents that chose the "other" category suggested client surveys, claims, customer satisfaction, fewer errors, and the quantity of the work completed(26%).Decreased downtime(9%)and no response(5%). Over half of the respondents felt meeting deadlines best measured productivity. Improved quality ranked second in measuring productivity.

Table 7

measurement of productivity	improved quality	decreased downtime	meeting deadlines	other	N/A
n/p	28/48	5/9	35/57	16/26	3/5

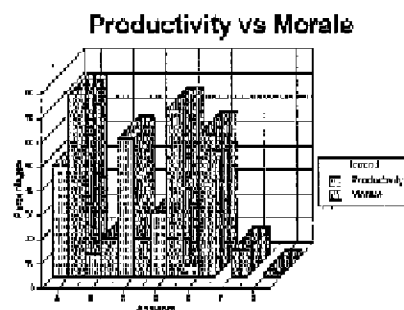
Question 8: How respondents measure employee morale: (The respondents checked all the answers that applied to them) positive attitude(76%), the quality of work(69%), and the quantity of work(59%). The"other"category(11%) cites client surveys, customer satisfaction, fewer errors, reduced turnover and reduced stress as a morale indicator. Decreased absenteeism (16%)and communication(16%). 8 out of 10 managers feel a positive attitude best depicts morale. The quality of work ranked second with 6 out of 10 managers and the quantity of work came in a

close third with 5 out of 10 managers. The chart on the next page illustrates the comparison of productivity (Question 7) and morale (Question 8) answers.

Table 8

measurement of morale	positive attitude	decreased absent.	better comm.	quality of work	quantity of work	other	N/A
n/p	46/75	10/16	10/18	42/69	36/69	7/11	4

Exhibit 1.0



Productivity

- A-Improved Quality
- B-Decreased Downtime
- C-Meeting Deadline
- D-Other
- E-No Opinion

Morale

- A-Positive Attitude
- B-Decreased Absenteeism
- C-Better Communication
- D-Quality of Work
- E-Quantity of Work
- F-Other
- G-No Opinion

Question 9: Has telecommuting increased employee morale?

Telecommuting has increased employee morale very much

(69%). Telecommuting increased morale somewhat (28%) and no opinion (3%). The respondents that chose very little or not at all (0%).

7 out of 10 respondents feel telecommuting has increased employee morale. Less than one-third of the respondents that chose the answer somewhat ranked second.

Table 9

employee morale	very much	somewhat	no opinion	very little	not at all
n/p	42/69	17/28	2/3%	0	0

Question 10: Has telecommuting increased employee

productivity? Increased very much (64%), somewhat (34%) and very little (2%). 6 out of 10 respondents agree that telecommuting caused an increase in productivity. Only one respondent felt productivity had increased very little.

Table 10

employee productivity	very much	somewhat	no opinion	very little	not at all
n/p	39/64	21/34	0	1/2	0

Question 11: The type of worker considered to be the best candidate for telecommuting: self-discipline(28%), self-motivation(25%)and hard worker(13%). Good communication skills (12%), 6 months or more work time with the company(12%), dedication(9%)and knowledge of their job(3%). One-fourth of the respondents felt self-discipline and self-motivation were key factors in a good telecommuter. A hard worker and good communication surprisingly were a distant second.

Table 11

Type of worker	self-motivated	self-discip	hard workers	good comm	dedication	time with company	knowledge of job
n/p	15/25	17/28	8/13	7/12	5/9	7/12	2/3

Question 12: Job titles of respondents: human resource managers(41%), supervisory/managerial positions(31%) and personnel managers(13%). The category of other -- customer service manager, telecommuting manager, director of employee policies and programs, director of work/life initiatives, employee relations manager, placement representatives and work life consultant(15%).

Question 13: Years respondent worked with their organization:

1-10 years(61%), 10-20 years(30%) and employed 20+ years(3%).

Table 13

Number of years	1-10 years	10-20 years	20+ years
n/p	41/67	18/30	2/3

Question 14: The respondents that use telecommuting to isolate troublesome employees: 100% of the respondents answered no. A very common comment expressed was "troublesome employees should be fired."

Chapter 5

Summary

In recent years external American businesses have faced the dilemma of adapting to changes that directly impact their organization. Unfortunately, many companies respond by downsizing, massive-layoffs, mergers or closing their doors permanently. Organizations are beginning to redefine themselves and their employees in an effort to stay competitive. In the past, the organization was the instrument of its owners while the individual was the instrument of the organization. The individual was a hired hand, a human resource, employed to work the assets of the organization. Good pay, good prospects, and a challenging job were enough for most. The human resource, however, is now the human asset, not the human liability. Companies are placing more value on employees.

Over the last several years, information technology has triggered a host of social and economic changes affecting people and institutions worldwide. American companies seek fresh approaches that will help them compete more effectively domestically and globally. They also want to provide benefits to

all areas of society including ecology, the economy, and the quality of life of their employees. Telecommuting is an option considered by businesses and government agencies. Employers benefit from increased worker productivity, higher employee morale, better retention rates, reduced cost of office space, fewer parking spaces, less air pollution and reduced strain on LANs.

CONCLUSION

This study surveyed one hundred companies from Connecticut, New York, New Jersey, Maryland, Washington D.C. and Massachusetts. Companies were asked if telecommuting increased employee productivity and morale. The results indicate that telecommuting does increase employee morale and productivity.

A questionnaire was formulated with the help of the author's professor. A cover letter and the questionnaire were mailed to one hundred companies, with seventy-five responses via mail. The author called the companies that did not respond and conducted ten to forty minute surveys via telephone. These conversations provided more in-depth information regarding the feelings and

concerns of the employees, above and beyond the scope of any written questionnaire. Example: Although many employees love telecommuting, many managers deny the privilege to telecommute because they are leery of the program. Another example: Sometimes the distractions at home outweigh the distractions at work making it easier to complete tasks, making the workplace more inviting.

The surveys returned via mail also provided valuable information concerning policies and procedures of the companies. Many companies sent the company handbook along with actual questionnaires used to determine the eligibility of an employee to telecommute. Some even sent their training manuals. Because sampling was not random, the results and interpretation reflects the opinions of the managers surveyed.

The results were that few employees telecommute and those who do, do so infrequently (once or twice a week). Organizations consider telecommuting a privilege that must be earned. Some companies have questionnaires for both the manager and the potential telecommuter to assess eligibility. If telecommuting is accepted, the participants and their managers engage in a training session, explaining each person's role and outlining changes that telecommuting brings.

The research also showed that although many state agencies utilize telecommuting, only a single respondent indicated the program was state initiated. Most respondents said family obligations or a management decision caused them to telecommute. It seemed ironic to the author that management decisions were cited because telephone research indicates that most managers avoid telecommuting for many reasons.

The data indicated that the best measure of productivity was improved work quality. To the surprise of the author, quality of work and quantity of work dominated other choices the author felt pertained to morale.

All the respondents agreed that telecommuting should not be used to isolate troublesome employees. The consensus was that troublesome employees should be fired. They said telecommuting is used as a reward for hard working employees.

RECOMMENDATION

The author found that telecommuting shows definite promise in the race to balance business' and employees' needs. It is a convenience that allows workers their freedom to create their own

daily schedule. Technology has enabled employees to do just about anything through computers, from banking to purchasing wardrobes. Telecommuting is just another step in the information age that benefits businesses and society.

Although telecommuting is a wonderful program, the author recommends further studies on the effect of telecommuting on non-telecommuters. They are also part of organizations and their adjustments to the program should be taken into consideration.

Because employees were not surveyed in this study, the author feels that further studies should be conducted with the telecommuters themselves. Talking with the telecommuter would prompt many questions such as: How they divide their time? How did they create their daily schedule? What time of day is best to work? How they deal with distractions at home and how much overtime do they accrue?

The author recommends that training for managers and telecommuters should be extended to non-telecommuters as well. The author, along with many organizations, feels the training of all employees is the key to making telecommuting a success.

The traditional rules of management, marketing, technology and communications are changing. The pace and complexity of new technologies, the dynamics of customer and supplier relationships

and the changing nature of employee-to-employer relationships are causing people and organizations to redefine themselves. To help redefine their existence and improve their performance, organizations are now using public relations to:

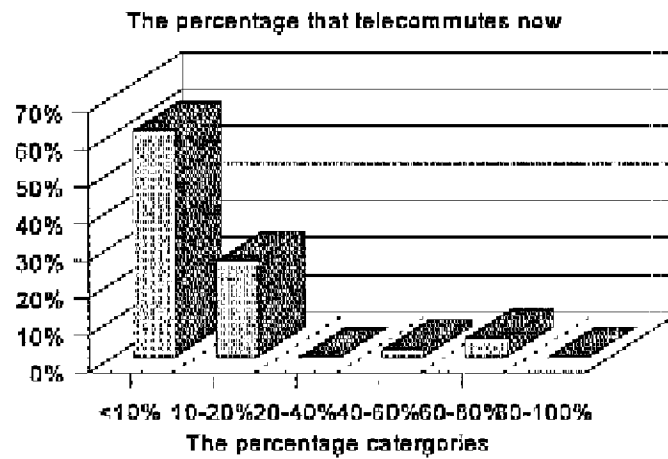
- *Re-engineer their business system
- *Identify and organize what they do best
- *Create an organizational architecture showing how work, people and formal and informal structures interact
- *Use time as a source of competitive advantage throughout organizations
- *Build a framework for their future that relies on knowledge, learning and the ability to apply them to daily decisions
- *Empower employees at all levels with the authority to think through their assignments and take responsibility for improving efficiency, productivity, quality and morale
- *Use total quality management to addresses the quality of work life and the quality of products and services for the entire organization

The nature of business is forever changing. Each day new

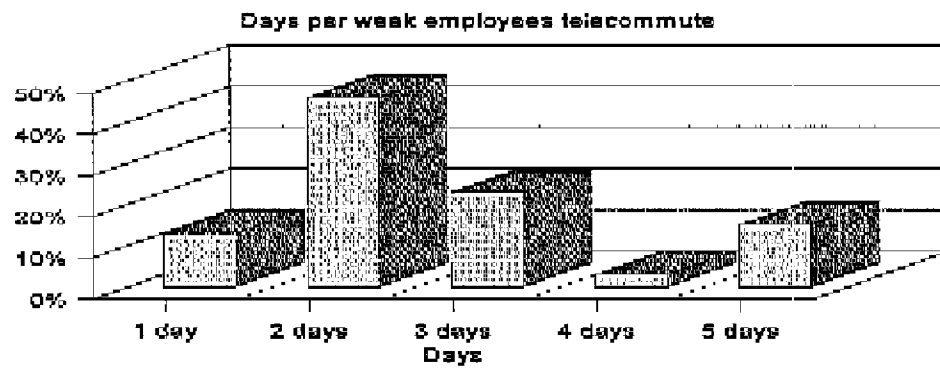
rules emerge. The information age combines computers and communication, lifts the field of public relations to a new level. No longer is communication an afterthought in business, the art of communication is business.

Appendix A

Question 1



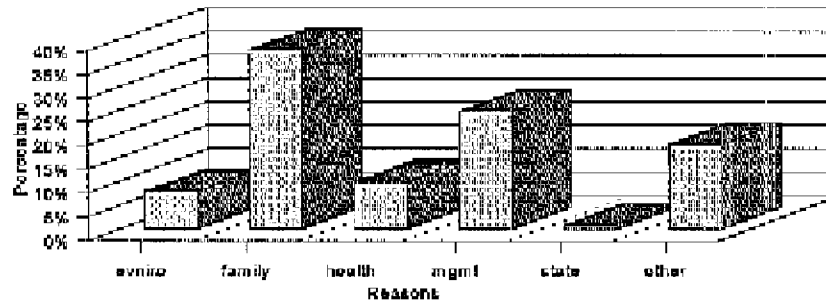
Question 2



Appendix B

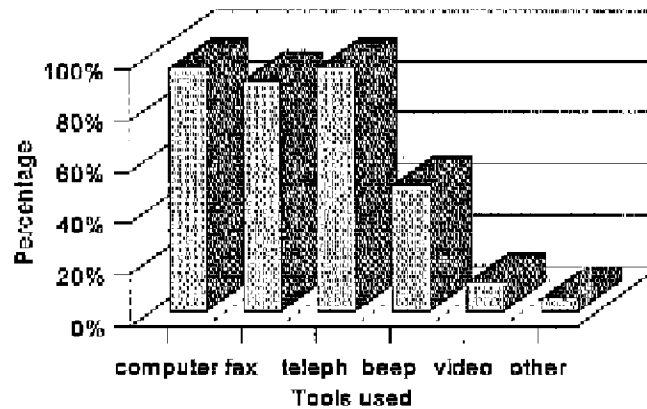
Question 3

Reasons for telecommuting



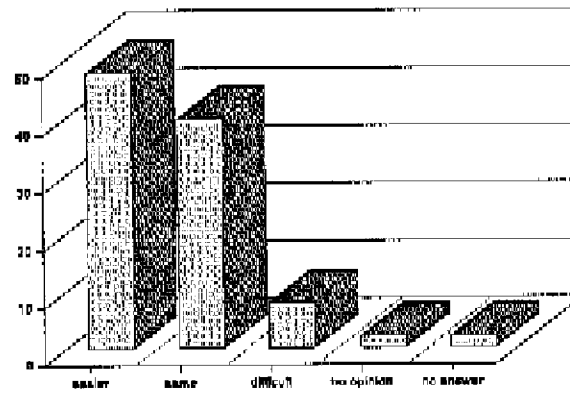
Question 4

Technological tools used

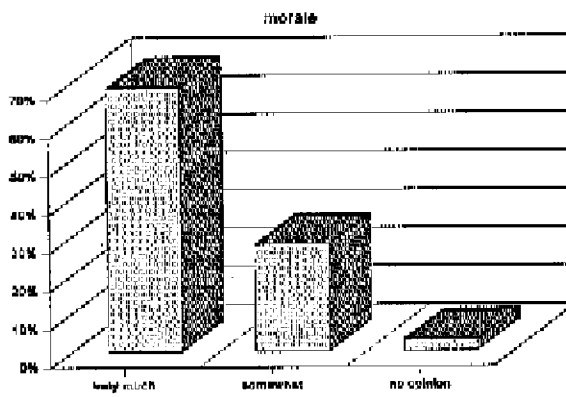


Appendix C

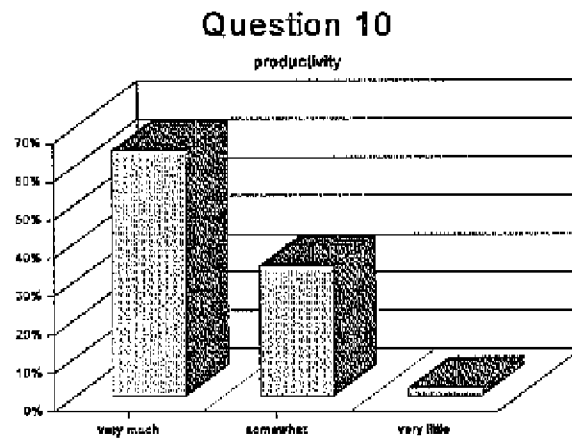
Question 6



Question 9



Appendix D



Appendix E

TELECOMMUTING QUESTIONNAIRE

Telecommuting is defined as an employee who works from home part of the workweek. Communication with the office is maintained through telephone, computer, fax or other home communication technology.

1. What percentage of your workforce telecommutes now?

☐ less than 10% ☐ 10-20% ☐ 20-40% ☐ 40-60% ☐ 60-80% ☐ 80-100%

2. How many days per week does a typical employee telecommute?

☐ 1 day ☐ 2 days ☐ 3 days ☐ 4 days ☐ 5 days

3. Why was telecommuting chosen as an option?

(Rank in order of most frequently used reasons, use "1" for reason most frequently used; use "5" for reason least used)

<input type="checkbox"/> environmental concern	<input type="checkbox"/> management decision
<input type="checkbox"/> family obligations	<input type="checkbox"/> state program
<input type="checkbox"/> health	

4. Check the box that best describes the technological tools used to do your work from home while telecommuting. (Check all that apply)

☐ computer ☐ fax ☐ telephone ☐ beeper ☐ video-conferencing ☐ other _____

5. Do you personally telecommute?

☐ yes ☐ no

5a. If you do telecommute, has telecommuting been a positive influence on the way you conduct business?

☐ very much ☐ somewhat ☐ no opinion ☐ very little ☐ not at all

6. Do you find communicating with your employees through telecommuting:

☐ easier ☐ same ☐ more difficult ☐ no opinion

7. How does your organization measure productivity? (check all that apply)

☐ improved quality ☐ decreased downtime ☐ meeting deadlines ☐ other _____

8. How do you measure employee morale?

- ☐ positive attitude ☐ decreased absenteeism ☐ better communication ☐ quality work
☐ quantity of work ☐ other (please specify) _____

9. In your opinion, has telecommuting increased employee morale? (check all that apply)

- ☐ very much ☐ somewhat ☐ no opinion ☐ very little ☐ not at all

10. In your opinion, has telecommuting increased employee productivity?

- ☐ very much ☐ somewhat ☐ no opinion ☐ very little ☐ not at all

11. What type of worker would you consider to be the best candidate for telecommuting?
(consider work habits, initiative, organization, etc.....)

12. What is your job title?

13. How long have you been with the organization? _____

14. Have you ever used telecommuting to isolate troublesome employees? (explain)

(Please send or fax the survey to the below address)

Thank You for your
Cooperation,

Shawn M. Swagin
321 Irick Road
Westampton, New Jersey 08060
Phone (609) 261- 0674
Fax (609) 702- 0071

Shawn M. Swangin
321 Irick Road
Westampton, New Jersey 08060
Home (609) 261-0674
Fax (609) 702-0071

To: Human Resource or Personnel Director

I'm a graduate student from Rowan College of New Jersey gathering information for my thesis on telecommuting. I'm studying how telecommuting affects employee morale and productivity in your corporation.

I have constructed and enclosed a survey to gather original information. Would you participate in my project? Your organization's participation in this study would help provide accurate information about the pros and cons of telecommuting as an alternative work style. I'll keep all information sources and answers confidential.

If you have any questions, please call or fax me at the above numbers. Any additional information you can provide would be greatly appreciated. For example, I would appreciate copies of policies, employee manuals, orientation material and feed back documents. (You may copy and distribute the letter and survey to all managers who supervise telecommuting employees). I look forward to receiving your completed questionnaire.

Thank You for your Cooperation,

Shawn M. Swangin

P.S. There's been no results from this geographic area on telecommuting. Your contribution can begin the data collection about this important work style change.

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