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# A Study Of The Effectiveness Of The Virtual Office

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**A STUDY OF THE EFFECTIVENESS OF THE VIRTUAL OFFICE**

**BY**

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**Submitted in partial fulfillment of the  
requirements of the Master of Arts in Corporate and Public Communication  
Seton Hall University**

**1998**

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## Chapter I

### INTRODUCTION

The 1990s have brought with it many changes in the way companies do business. One change that has become increasingly popular is the shift to some form of "virtual office". Some companies refer to it as "telecommuting or teleworking." For the purpose of this study, the virtual office environment is defined as one where an employee performs a job away from the corporate office, at least 2 days a week, either part-time or full-time, typically in the employee's home or in a satellite center (Anonymous, 1994). The virtual office is a type of work alternative often used as a management strategy for organizations of every sector.

This trend toward a virtual work environment is a reaction to many different factors. John Vivadelli, president of Technologies International Corporation believes, "In our transition to a knowledge-based society, we've discovered a new source of wealth for businesses—the transfer of human knowledge," (Smith, 1994, p. 16). Companies are divesting of land, labor, and capital in an effort to make those costs variable as they invest more in knowledge and technology (Smith, 1994). The result is a virtual work environment, where employers can save on overhead costs. If employees can work remotely, employers can save on building space, parking lots, security, cafeterias, and so forth (Ross, 1997). One company boasting overhead savings after implementing a virtual office program is the Georgia Power Company in Atlanta. Frank Boyd, the utility's telecommuting coordinator states that the utility, "has saved \$100,000 yearly in

leased office space" (Blodgett, 1997, p.59). U.S. West Communications, Inc. reported savings of \$4,000 to \$21,000 annually per telecommuter in terms of space, reduced absenteeism and retention of workers (Mathes, 1992). Companies are saving two dollars for every dollar invested in telecommuting (Piskurich, 1996).

Another factor prompting the virtual office trend is that the technology makes this type of work alternative more practical and affordable (Dickisson, 1997). With low cost personal computers, electronic mail, client-server computing, fast modems and local area networks (LANs), employees are now able to work outside of the traditional office environment (Dickisson, 1997).

The cost savings, coupled with the fact that technology has made remote access so simple, makes the virtual office environment an attractive approach. Statistics support that more and more Americans are adopting this alternative approach to the traditional work environment. According to Computerworld Magazine (cited in Chaudron, 1995), 7.6 million American employees were working away from their offices in 1995. Other projections from Facilities Management Magazine (cited in Smith, 1994) forecast that by the year 2000, 57 percent of the U.S. workforce will telecommute. These statistics reveal that this trend in the workplace is becoming increasingly more accepted and even encouraged. The virtual work environment brings benefits to the employee as well as the employer. Employees in virtual work environments find working at home a great way to spend more time with the family, avoid an ugly commute or simply get more work done in less time (Online Money, 1997).

As more companies are adopting this approach, the expectations are to receive a return on their employee investment. Companies are looking to relieve themselves of

overhead costs and at the same time increase productivity and employee morale. The literature on virtual offices expresses the fact that there are positive and negative outcomes to making this transition. Most of the literature highlights case studies of companies who believe that their shift to virtual offices has led to increases in such areas as productivity and employee morale. Unfortunately, at this time, few authors have studied the telecommuting issue from a comprehensive empirical or theoretical approach (Hartman, Stoner & Arora, 1992). In addition, there are few studies representing the number of virtual employees who ask for their old offices back (Fryer, 1997). In fact, Dr. Charles Grantham (cited in Wells, 1997), president of the Institute for the Study of Distributed Work in Walnut Creek, California feels, "a complete and large-enough random sample of U.S. residences" has not been done to really determine the effectiveness of the virtual office (p.14) The author of this thesis believes a study of virtual employees can help substantiate the conclusions that many of the case studies have presented. The perspective presented here will be from that of the employee as well as the employer.

### Historical Perspective

The popularity of the virtual office was prompted by several changes in the American culture. Advances in technology, increased interest in our environment, and intense competition in all industries have contributed to the interest in alternative work environments and their benefits. In 1990, George Bush, President of the United States, advocated telecommuting in a public statement and spoke of it as a promising new business frontier (Gordon, Gray & Hodson, 1993).

This idea of changing the way we work is also a result of the new "Information Revolution." This new revolution gives a new perspective on the value that an employee adds to a company. This new perspective has transformed the way and the "where" of the workplace. This Information Revolution has been compared to the Industrial Revolution of the 18th and 19th centuries (Gordon, 1993.). The difference is that the Information Revolution has freed workers from the work-location restrictions that were typical of the Industrial Revolution. The days of employees all living and working in the same community are long gone. Without assembly lines and heavy machinery, employees no longer have to work clustered together (Mathes, 1992). Many employees are now working in information industries where they are equipped with remote technology that allows them to do their job anywhere. In addition, employers are finding that they don't need to be in close proximity to their employees in order to get the productivity they demand.

With the advent of the "Information Revolution" came the idea that remote employees not only create savings for their company but also for the environment. With fewer people commuting to work, there are less cars on the road which results in less pollution. The government was encouraged by many environmental agencies to recognize this connection. This eventually resulted in the clean air act laws passed in the 1980s that provided the additional push toward virtual offices (Boyd, 1997.) The clean air laws prompted the federal and local governments to take the lead on providing opportunities for employees to work from home in a virtual environment. This would reduce the number of people commuting to work each day which results in less cars on the road and thus less pollution. Federal and local governments were pushed to have 3%



of their workforce in a virtual work environment (Shepcaro, 1996). These same laws began pushing corporations to create their own opportunities for employees to work from home or from a location closer to their home, also reducing commuting time.

There has been additional legislation encouraging the trend of working virtual. New tax laws, taking effect in 1999, will enable more people to deduct the costs of a home office. Other legislation under consideration qualifies employer's telecommuting costs as tax free transportation cost, including extra phone lines (Wells, 1997).

### Statement of the Problem

As more employees enter the virtual workplace, there is a need for information on the effectiveness of this type of work environment. The term effectiveness applies not only to the criteria of the company's effectiveness but also to that of the employee's effectiveness. The literature on the subject indicates that this transition more often results in greater productivity for the company and increased employee morale for the company and the worker. A literature review as well as a study will be conducted in an attempt to reveal how effective this virtual work arrangement is and for whom.

Effectiveness is measured in terms of productivity, morale, satisfaction, balance between work and personal lives, recognition, and satisfaction with the amount of communication. Cost will not be used as a factor for effectiveness, considering that a reduction in overhead investments is an obvious reason to adopt a new work environment. Rather, this thesis will research how effective this work alternative is, despite any cost-savings.

Determining the effectiveness of the virtual office should reveal additional information on what work styles, resources, or management techniques are necessary for

the employee to adopt in order to be a successful telecommuter or to implement a successful telecommuting project. What are the obstacles in this new environment that may not have existed in the traditional office setting? How are these obstacles overcome? Do virtual employees feel detached from the rest of the company? Is there still a feeling of being part of a team? What management methods are used or should be used in virtual office environments that can help foster the team environment and help employees increase interaction with other virtual employees?

#### Purpose of the Study

The conclusions and recommendations from this study will address the questions most organizations should be asking before they implement a virtual office environment. Organizations need to assess the benefits they expect to result from this new environment. Are these expectations realistic considering the research? Does the organization fit the mold of companies who see positive results? This study will bring together relevant research and literature on the subject and substantiate it with a qualitative case study of a sales team who recently experienced such a transition. The information resulting from this study might benefit those organizations currently using this approach or thinking of shifting to a similar environment. In addition, this study, it is believed, will uncover the need to do further research on the topic. At the very least, it may uncover the need for organizations to do further research on the topic before they themselves consider the implementation of a virtual office program.

## Objectives

The objective of this study is to assess the effectiveness of virtual offices through a literature review on the subject as well as a case study in the form of a survey. The goal of the survey is to substantiate the findings of the literature review in order to determine the benefits a virtual office brings to an organization as well as to the work team. The survey will place its emphasis on employees who are currently participating in a virtual office environment, with a follow-up interview of the employees' managers. What are their views on the success of this type of work environment? What challenges do they face everyday? What tools are used by management to actively manage a team that is not physically within their sight? How does this leave them feeling at the end of the day? This perspective should add relevance to the literature review. Much of the current research speaks of challenges, yet there is little empirical research showing how effective the virtual office is despite these challenges.

## Definition of Terms

For the purpose of this study the terms used are defined here.

1. Virtual office: refers to the work environment where the employee is working from home or a satellite office for the majority of their work-time. The term is often interchanged with telecommuting or teleworking.
2. Productivity: for the purpose of this study, is defined as the desired output of an employee by their organization. An increase in productivity would mean that the amount of the output is now greater than it was prior.

3. Morale: is defined as the overall feeling the employee has of their satisfaction with their job and their environment.
4. Satisfaction: refers to the degree of contentment with the virtual office environment and the benefits it brings.
5. Information Revolution: describes the period in time when technology has allowed workers to work remotely or away from the office and still be able to communicate the necessary information.
6. Effectiveness: refers to the degree to which the virtual office environment produces the desired results whether it be for the individual employee or the company itself.
7. Communication: refers to the exchanging of information.

### Limitations

The parameters of this study will limit the information from literature between 1990 to May of 1998. Including the most current years will yield the most up-to-date research results, since the virtual office is a relatively new concept and there is limited published information before 1992. The literature review not only was limited to these specific eight years, but included only literature that focused on the effectiveness of a virtual office. There is additional literature available on the type of phone networks, computers, electronic aids and conferencing tools that are common in virtual office environments. This study does not discuss these topics, as they refer to the design of a virtual office. This study is focused on the participants in the virtual office environment not the physical office set-up.

In addition, the survey that will be conducted to substantiate the literature review is limited to 13 individuals, all of whom are current employees of AT&T. These 13 individuals were transitioned to virtual offices at their homes in January of 1997. With a recent merger at AT&T, many areas within the wireless division are slowly being integrated into the parent company. These 13 individuals represent the national sales force in the northeast. They were one of the first groups to be taken from the wireless division to be managed under the AT&T parent company. When this transition took place, the designated employees were told that they would no longer be working from the wireless headquarters office in Paramus, New Jersey. Instead, this entire team would go virtual, with home offices.

This sales team is used as participants in a questionnaire to assess how effective they have found the virtual office environment to be, especially compared to the way they used to work prior to January of 1997. Because this study group is so small, and is not a random selection, the results will suffer from a probability bias. The survey's findings are probably not applicable to the entire virtual office population. The results may be directly influenced by the way the transition was managed by one company, AT&T. The results may have differed if answers from different companies were compared. However, regardless of the limited bias, this group is representative of employees who are "living" through the transition to a virtual office environment.

## Chapter II

### LITERATURE REVIEW

#### Overview

The literature on this subject favors the virtual office as not only a viable way to increase productivity, but also a strategy to increase an organization's overall effectiveness. The following literature review is divided into five sections. The first section covers the proposed benefits of virtual offices. The second section focuses on the proposed challenges. The third section covers success stories of companies who are reaping the rewards of virtual work environments. The fourth section is a brief overview of the importance of a virtual office policy. The last area of focus is dedicated to steps to take to ensure that a virtual office solution is successful.

The information gathered from the literature was used to develop these five sections. In addition, sections one and two include information that was used to frame the survey questionnaire that was given to the AT&T northeast national sales team. The questions on benefits and challenges on the questionnaire were taken directly from the literature review in an effort to uncover if a real virtual office environment reaps the same results that the experts are claiming to be true.

The sub-headings of the first two sections illustrate the benefits as well as the challenges associated with working virtual. These topics when combined may be indicators of how effective the virtual work environment can be. These same topics are measured later in the questionnaire used in the case study. All literature is grouped together based on the topic it supports, which in turn supports the research question.

## Benefits of the Virtual Work Environment

Paul C. Boyd, Ph.D. and president of the Telecommuting & Telework Strategies consulting firm based in Massachusetts, feels that most often, “the benefits exceed the costs” of working in a virtual environment (1997, Internet). In fact, Boyd has determined from his experience in this field that there are six organizational benefits justifying a virtual work environment. These six benefits are (a) improved employee productivity (b) schedule flexibility (c) increased time available for work (d) overhead reductions (e) improved employee retention and attraction and (f) program continuity (less sick days or inclement weather days).

These benefits are all desirable outcomes for an organization, which is why so many companies are using virtual offices as a strategy to increase effectiveness (Boyd, 1997). For the purpose of this paper, the author has decided to focus on the following topics, some of which, Boyd mentioned in his research: (a) productivity (b) morale (c) balance between work and personal lives (d) satisfaction with the virtual office environment (e) recognition and (f) communication.

The author selected these six topics based on the information in the literature. The author found that these same six topics are cited in the literature as both benefits and obstacles, depending on the literature source. These six topics will directly coincide with the topics covered in the questionnaire later in this study. This portion of the review will reveal how these aspects can be benefits in a successful virtual office environment.

### Productivity.

The majority of the literature agrees with Boyd's claim that a virtual office environment results in increased productivity. Barnard & DuBrin per reference (1993) found productivity increases ranging from 15.7 to 41.5 percent when they surveyed 34 at-home workers. Their study was intended to obtain insight into what they perceived as strong and weak points of their job. The productivity was measured from company records developed for the purpose of tracking the output of work-at-home employees (Barnard & DuBrin,1993). The average increase was 29.9 percent.

Georgia Power Company also found increases in productivity of 10% among the customer service center workers who have offices at home (Blodgett, 1997). Boyd found that virtual workers were more productive because the multiple, seemingly endless interruption at the office create a pattern that is subject to repeated restarts. These interruptions, such as water cooler conversations, and idle chatting, do not exist for virtual workers (Boyd, 1997). In addition, American Express cites an annual sales productivity gain of \$40 million that resulted from its virtual-office initiative that allowed sales reps to be closer to customers (Gordon, Hequet, Lee, Picard, & Stamps,1996). The virtual office environment works well with sales teams since implementing this environment can increase the face-to-face time with customers by four hours a week (Smith, 1994).

Jack Nilles, a telecommuting consultant and author of Making Telecommuting Happen, typically finds that telecommuters' productivity exceeds that of non-telecommuters by ten percent to 20 percent ( Fischer, 1994). Dickisson (1997), a



financial analyst at AT&T who writes on the subject of telecommuting, claims that an increase in productivity is most often a result of the elimination of noise and interruptions associated with the conventional office. Business Week in its December 27, 1993 issue, reported that Hewlett-Packard employees who work from home handle 20 percent more calls than their peers who work in the company's Response Center (Fischer, 1994). The Telecommuter's Handbook, Debra and Brad Schepp (cited in Fryer, 1997) also claim that employees working at home are 20 percent more productive than those in the office. U.S. West Communications Inc., reported increases in productivity to be as much as 40 percent with their telecommuters (Mathes, 1992). Nilles (cited in Fischer, 1994) suggests that these increases are a direct result from the fact that telecommuters get more done because they spend more time working instead of recovering from or preparing for grueling commutes. This coincides with Boyd's organizational benefit of increased time available for work. Boyd believes that "it takes productive time out of the work day to wind down from, and mentally prepare for, the stress associated with commuting to and from work" (1997, Internet).

Piskurich (1996) an independent consultant and writer for Training and Development, believes that the increases in productivity result from the ability that virtual employees have to custom design a personal work schedule. Morning people are not wasting their time commuting and evening people don't need to leave for home just as they begin to get productive.

The studies cited so far indicated productivity increases of anywhere from 10-41% for virtual employees. Hartman, Stoner and Arora (1992) also surveyed telecommuters in order to determine if they felt their productivity at home was higher or

lower than at the office. In this study 11 different organizations participated and questionnaires were distributed to 262 telecommuters. The results indicated that 84% of respondents reported higher productivity while working at home.

### Balance Between Work and Personal Life

Eric Shepcaro, vice president, customer engineering and application support of Sprint Business, agrees that flexibility is a benefit that employees working out of their homes gain, as they avoid time-consuming and aggravating commutes (Shepcaro, 1996). Freeing up extra hours, gives telecommuters more time for personal interests, including their family. This flexibility brings better balance between work life and home life (Dickisson, 1997). Barnard & DuBrin's (1993) survey of work-at-home employees of the NPD Group Inc. indicated that "many telecommuters perceived working at home as an opportunity to better manage family demands and schedule their own work" (p. 15).

Alastair Reid (1994), a business consultant and tele-worker for the past six years found that this arrangement enabled employees to retain their role as a provider while enhancing their ability to care for their family. Working virtual means that the office doesn't close down at 5 p.m., you are not snowed in during a blizzard, and staying home with a sick child does not mean a lost work day (Preston, 1998).

### Satisfaction

Shepcaro (1996), also found that a virtual work program improves employee retention and attractiveness. Such programs can provide a competitive edge in attracting workers, and in many cases can retain workers who might otherwise leave. Other sources of satisfaction result from the idea that companies that support telecommuting send a message that they trust and empower their employees (Dickisson, 1997). In

Alastair Reid's (1994) experience as a teleworker and business consultant, he found that a combination of factors cause virtual employees to be happier, more responsible and more motivated ( p. 4). These factors include the removal of commuting stress, reduction in personal financial pressures and a more attractive work environment (1994).

In Jack Nilles'(cited in Schepp, 1990) positions as a telecommuting consultant, working with companies for more than 15 years setting up telecommuting programs, he has found the most prevalent benefit of telecommuting to be an emotional one. Nilles explained that telecommuters "feel more in control because they can shape their work around the rest of what's going on in their lives," leading to increased satisfaction (Schepp, 1990, p. 13). Having the ability to run an errand, take care of a chore, let in a repairman, or pick up a child from school leads to greater contentment.

Hartman, Stoner and Arora (1992) found similar results from their telecommuting questionnaire of 11 different organizations. Using a job satisfaction scale, satisfaction was rated high overall, among telecommuters. The factors that were correlated with satisfaction included positive support and understanding from management.

### Morale

The fact that telecommuters experience less interruptions and are more motivated may partially explain the increase in employee morale when involved in a virtual office environment (Fisher, 1994). Georgia Power Company not only found increases in productivity among virtual workers, but also found a rise in morale (Blodgett, 1997).

### Communication

It can be a challenge to communicate when employees work remotely.

Employers have addressed this by developing many tactics that are meant to bring peers

together and create a team feeling. One tactic is to incorporate "in office" meetings at least a half day in the office every week (Filipczak, 1992). Or another method used by AT&T in order to increase communication between colleagues, is called the "virtual water cooler". This is a mandatory lunch that co-workers schedule with each other once a week to encourage interaction (Wells, 1997). This method has been so successful that one AT&T virtual employee, Jenny Nelson, feels "I'm actually in closer contact with more people now than ever before" (cited in Wells, 1997, p.14).

American Express uses a formal buddy system to encourage communication between peers who work virtual. The buddy system, pairs up peers for support issues, perspective or simply to vent (Oudekerk, 1996). At advertising agency Chiat/Day in New York, virtual employees are encouraged to work or have coffee with peers in a "student union" area (1996). It appears from the literature that virtual employees find formal or informal ways to gain the level of communication they are comfortable with.

Some organizations find that the quality of communication with virtual employees is actually better. When virtual workers show up at the office, communication is more to the point and more productive (Schepp, 1990). There appears to be less gossip among virtual work teams. Schepp describes this as "some of the color and texture" of the communication "may be missing" but you still get all of the details (1990, p. 16).

### Recognition

The data from Klayton's (1995) study on whether supervisors evaluated telecommuters differently than on-site employees, indicated "no difference in performance criteria used to evaluate telecommuters and non-telecommuters" (p.233). In fact, one study done in 1993 for the Small Business Administration found that

telecommuters actually get promoted at greater rates than non-telecommuters (Warner, 1997).

Schepp (1990) found in his studies, that as more managers move toward managing by objectives rather than observing employees, the issue of recognition will become less of a concern. If a virtual employee is worried about being recognized, Schepp suggests "talking up" accomplishments, especially when visiting the office (p. 35).

### Obstacles and Challenges

Telecommuting seems to help productivity, but no one can tell for sure (Korzeniowski, 1997). The evaluation methods for determining the success of a virtual office are difficult to assess. Quantifying and documenting savings and benefits is difficult (Korzeniowski, 1997). So, in addition to the many obstacles, such as isolation, lack of will power, and boredom, determining effectiveness itself is also a challenge. It may be difficult to assess since each employee may have a unique work style. The following paragraphs indicate how the same six positive aspects of a virtual work environment can also become major obstacles.

#### Lowered Productivity

A national study by the Massachusetts Institute of Technology Center for Real Estate, found the virtual work environment to foster reduced or limited productivity (Bergsman, 1995). Causes for the reduced productivity were not given in the study. However, there could be several factors causing a decrease in productivity when an employee begins working virtual. For one, the employee may be a poor candidate for

this type of work environment. The Georgia Power Company found this out when they implemented their own telecommuting program. Frank Boyd, the telecommuting coordinator at Georgia Power determined, "If an employee isn't productive in the office, he is unlikely to be more productive at home" (Blodgett, 1997, p. 61).

Employees who have not been properly prepared for the virtual work environment can become frustrated by the challenges of this type of work arrangement which can lead to lower productivity (Piskurich, 1996). In fact, Pacific Bell in California, instituted a virtual office program in the early 1990s, where most of the virtual employees voluntarily returned to the office. Those that returned to the office, blamed the failure of their virtual setup on the lack of preparation and training (Piskurich, 1996).

Pape (1996) found through his research at his company Verifone, that many organizations document immediate productivity gains. However, in Pape's experience "long run productivity drops if managers aren't alert to the potential problems of reduced informal contact and improper work spaces" (p. 25).

#### Lack of Balance

Some virtual employees find their new work environment allows greater balance between their work and personal lives. Others find the opposite result. With their office in the next room, many employees turn into workaholics who cannot separate work from family life (Dickisson, 1997). A lack of balance will result when a telecommuter substitutes this new work at home arrangement for a day-care service (Piskurich, 1996).

#### Dissatisfaction

Some of the dissatisfaction from the virtual work environment results from a lack of self-discipline on the part of the employee. Schepp (1990) found that "with no boss to

keep them in check, some telecommuters slip into bad habits, indulging their weaknesses" (p. 27). Some of these indulgences include overeating and drinking.

Susan J. Wells, a writer for the New York Times, interviewed several virtual employees in different companies for an article that appeared on Sunday, August 17, 1997. Many of those interviewed succumbed to the challenges and went back to the 9-5 office job. One of them, Ms. Rossbach, worked virtual for years and found she had no structure to her workday and felt totally isolated. After returning to an office environment, Rossbach (cited in Wells) realized that, "it's a separate, professional environment that gives me the discipline and structure I need to get my work done" (p.12).

### Low Morale

The literature suggests that the virtual office, although "great for the company's bottom line, can produce mixed results for the employees it was meant to benefit in the first place" (Fryer, 1997, p.60). Not every virtual employee is happy with their new work arrangement, regardless of the flexibility it may bring. In fact, according to Illinois Institute of Technology sociologist Christena Nipper-Eng, (cited in Fryer, 1997), "as many as half of these work-at-home arrangements fall apart very quickly" (p.59). The reasons for failing to adapt to the virtual environment include a lack of motivation, inflated expectations, lack of willpower, feelings of isolation and simple boredom. In her book, Transition to Telecommuting, Nippert-Eng found "people think telecommuting means they can stay in bed until 8:00am., hang out in their sweats all day, and work while taking care of the baby"(p.60). Although, telecommuting offers additional flexibility, it is not meant to take the place of child care. For those telecommuters that are able to

juggle home and work demands, Nippert-Eng found that this lifestyle gets boring, as people miss getting dressed up for work and miss the routine.

### Lack of Communication

Filipczak (1992) found that a lack of communication leading to feelings of isolation is the most often cited drawback to the virtual office. His studies showed that “outgoing, gregarious people who thrive on human contact probably are not good candidates” for virtual offices (p.54). Although Dickisson (1997) found the virtual office environment to be more productive, he agrees that isolation is a common obstacle. Lynn Perez (cited in Korzeniowski, 1997), director of integrated workplace strategies at Ameritech, said employees need the personal contact that comes from being in the office. Robert Strauss (1997), an industry analyst with IDC/Link Research agrees that employees need face-to-face contact, because they don't want to feel like they have been left out of the loop.

Tammy Lowry (1996), a Rice University student, found in her study on ‘The Effects of Distance and Media use on the Supervisor-Subordinate Relationship’, that “neither the quality or quantity of communication between a supervisor and employee is related to the distance between the two” (p.3442). However, her study did reveal that “while the communication seems to be the same . . . , employees in non-traditional distance jobs (telecommuters) feel as if they are more isolated and communicate less with their supervisors” (p.3442).

Bronwyn Fryer (1997), a writer for Working Woman, telecommuted during her pregnancy and revealed her virtual experience in her article “Home Work” in the April 1997 edition. To Fryer's surprise and horror, she wrote,



I grew to hate the sight of that cramped, lonely home office. Within two short weeks, in fact, I would come to realize that full-time telecommuting-rather than a salvation -was my own circle of Hell. I missed the face-to-face chats with co-workers. I even missed those regular 3pm meetings-the sterile conference room, the stifled yawns, the doodling (p.59).

William R. Pape, (1996) cofounder of VeriFone Inc. in California, found that “whenever you substitute electronic tools for a physical work space, you lose the synergy of daily contact, and you risk alienating workers from one another and from the company goals (p. 25). To overcome this obstacle employees must make a conscious effort to keep in touch with colleagues (Dickisson, 1997). Some efforts employed by Pape and his organization include: videoconferencing, on-line chat areas and personal home pages.

#### Lack of recognition

Another challenge facing virtual employees is the feeling that they will not be recognized for their achievements. Sometimes this feeling becomes so overwhelming that even ambitious workers suddenly find themselves less motivated because they “think they’ve been bumped off the fast track” (Fryer, 1997, p.60). In some cases, these fears become reality. Some virtual employees aren’t among the ones chosen for promotions, because their bosses feel they aren’t very visible (Warner, 1997).

These obstacles create major challenges to implementing a successful virtual office environment. Yet, researcher Dr. Nippert Eng (cited in Wells, 1997) found that it is not these particular obstacles that cause the virtual work set-up to fail. Rather, there are two specific reasons: “Employees have unrealistic expectations, and employers are afraid of losing control” (p.14).

### Case Studies/Success Stories

The following paragraphs describe two successful virtual office programs that have been implemented at AT&T and Merrill Lynch. Both companies pride themselves on the success of their programs and attribute the success to various factors. The factors that exist at both companies include extensive preparation, a well-thought out program and follow-up. These companies provide examples of behaviors that help to ensure success when implementing a similar virtual office program.

#### AT&T

AT&T first introduced trial programs in telecommuting in 1989. By the end of 1995, nearly 28 percent of the company's managers were working virtual (Dickisson, 1997). Dickisson (1997), of AT&T, cites a survey conducted by the company to determine if employees favored this type of job flexibility:

According to a call-in survey conducted...92 percent of respondents favored the practice for co-workers. Among the major employee benefits of telecommuting cited by nearly two out of three respondents: better balance of work and personal life, and increased productivity (p.14).

AT&T's success with telecommuting may be a result of their careful preparation as well as their continued efforts in monitoring the program. In order to carefully assess the success of the program, AT&T has developed an internal team to explain administrative requirements, create and implement measures of success, and provide decision tools (Dickisson, 1997). Surveys are distributed prior to selecting a telecommuter in order to assess their compatibility with this type of work arrangement. In addition, AT&T has developed a telecommuters' agreement that states the expectations of both the manager and the employee. (see Appendix A). This written agreement is on

file and used to insure that the arrangement meets the company's performance standards and the employees needs (Dickisson, 1997). A management by results (MBR) approach is often adopted to communicate the tasks, deadlines and measurements.

### Merrill Lynch

Merrill Lynch has a virtual office policy in place that has been so successful that only one employee has ever dropped out of the program. The company, initially interested in the possibility of implementing a virtual office environment, studied the topic for four years. Then, in 1996, a formal virtual office program was adopted. Nationwide, there are 400 participants.

Much of the success may be a result of the what Merrill Lynch, calls "a well-thought-out structure" (Wells, 1997, p.14). The company has an extensive, comprehensive 21 page guideline book accompanied by workshops, labs, and interviews that make up a four-step preparation process. Similar to family counseling, these workshops include the manager and employee, and discuss fears, measurement tools, expectations and time management (Wells, 1997). In the labs, employees work from home, practicing how to communicate via e-mail and voice mail, and how to troubleshoot technical problems. This extensive preparation may be the reason behind their very high success rate.

### Organizational Communication/Telecommuting Policies

Many of the organizations that are now implementing virtual offices develop policies to regulate and manage the expectations of this new work style. These policies

are often found in employee handbooks and they outline who can participate, what is expected of management and what is expected of the employee. Shiva Corporation in Bedford Massachusetts, has a telecommuting/flexible work program that is governed by their employee policy. It states, "Telecommuting/flexible work schedules should be designed to align with Shiva's mission and core values: Mission - To be the world's leading provider of remote network computing solutions...." (Telecommuting, 1997). Based on this statement, virtual offices should only be implemented and supported if their existence is in alignment with and helps to meet company goals. (Appendix A, AT&T's Telecommuter's Policy)

#### Suggestions for Success

The overall consensus among the available literature is that working virtual is not for everyone. Organizations must select the right types of people for remote work and refrain from trying to change the ones who aren't so inclined (Parker, 1996). Bronwyn Fryer (1997), a writer for *Working Woman*, suggests that employees considering a virtual work option should take a telecommuting survey. Fryer developed a survey as a result of her own experience working virtual. The survey helps to determine whether the employee is a good candidate to work virtual. Fryer feels that, "without a clear understanding of the social, physical and psychological adjustments that need to be made, would be telecommuters and their bosses may find their good intentions simply paving the way back to the office" (p.60). Fryer even determined that she was a poor candidate for a virtual office environment and "could not return" to the office "fast enough" (p.60).

Training is another key to success. Parker (1996), a research director with the International Development Research Council of Atlanta, believes virtual workers must be drilled on the protocol for working together productively when they don't see each other for days at a time (Parker 1996). Considering the success of Merrill Lynch's virtual program, training is a key to success.

Managers should ensure that workers maintain a sense of balance between work and personal life. Shepcaro finds that many organizations "rely heavily on telecommuters, expecting them to be available at all hours simply because they can be reached" (Shepcaro, 1996, p.26).

Organizations may find it tempting to implement virtual work environments as strategies to bring upon benefits. Gil Gordon (cited in Wells, 1997), who has operated a telecommuting consulting firm in Monmouth Junction, N.J. for 15 years, believes the decision to implement a virtual work environment comes down to three factors: "the suitability of the job, the suitability of the worker and the manager, and the suitability of the home environment" (p.12).

Toni Apgar (1994) an editorial director for Vegetarian Times suggests several tips for managing a virtual staff that worked with her team of reporters:

1. Pay attention to people management.
2. Schedule regular face-to-face meetings.
3. Practice good long-distance communication skills.
4. Use conference calls for weekly meetings.
5. Keep in touch.

6. Consistently check voice-mail.
7. Avoid us vs. them attitudes (virtual vs. non-virtual employees).
8. Listen.
9. Call yourself a group/team/department/etc.

10. Plan for it and define what it means to the company. Definitions range from simply working at home to the more complicated scenarios of flextime, part-time and job-sharing (Piskurich, 1996).

11. Recruit the right employee. George Piskurich (1996), writer for Training and Development, suggests that a successful telecommuter has the following traits: good planning skills, self-motivated, strong communication skills, task oriented, flexible, committed, and responsible.

## Chapter III

### DESIGN OF THE STUDY

#### Background

The foundation for the case study resulted from the conflicting literature that supported the virtual environment in some cases and found it to be challenging and unsuccessful in other instances. This literature was gathered from business and professional journals, books, and web-sites. In the opinion of the author, there is an abundance of literature and very few actual studies cited. This created a concern on the part of the author as to the validity of these claims. The case study was designed to validate the claims and uncover the challenges.

To further substantiate the findings of the literature review, a case study of virtual offices at AT&T Wireless Services in Paramus, New Jersey was conducted. The study included 13 sales employees who were transitioned to virtual offices at their homes as of January 1, 1997. This case study was used to uncover the "real" pros and cons of virtual offices as they affect the employees who actively participate in them.

Some of the literature reveals that virtual offices do increase productivity and employee morale as well as employee retention. Case studies were cited earlier illustrating organizations that are reaping these benefits. Organizations such as Price Waterhouse, Microsoft, Pacific Bell, IBM, and American Express have telecommuting programs already in place (Shepcaro, 1996). They are each expecting to reap some if not all of the proposed benefits as they prepare to cut costs, increase productivity, and gain an

edge on the competition. But are they also aware of the many obstacles also cited in the literature review?

Virtual offices have become the proclaimed answers to the business industry question on how to compete. With expected benefits of increased production, less stress, increased morale, empowerment, dollar savings, flexibility, more time to spend with the family, and overall increase in the quality of life, who wouldn't invest in this approach (Cooper,1996)? The author feels that the problem with diving in head first to the virtual office idea, is that there are gaps that need to be filled in with data and statistics. The gaps exist in that there are few conclusive studies whether it be questionnaires or surveys that have reached out to employees to support the results that these organizations are boasting about. This study of 13 AT&T employees who work virtual will show how effective this alternative work arrangement is for the employee.

### The Questionnaire

The objective of the questionnaire was to determine the effectiveness of virtual offices from the perspective of the AT&T Wireless Account Manager in the northeast. The results of the survey were expected to either support or contradict the literature on this subject. Effectiveness was measured in terms of productivity, balance between work and family life, satisfaction with the amount of communication, satisfaction overall, morale, and feelings of recognition. The data was used to compliment what was found in the current literature.

The questionnaire uses a variation of question types, including: purposeful, concrete, complete sentences, as well as a combination of open and closed questions.



Most questions include ordinal response choices. There are also several questions that require numerical responses.

The design of the questionnaire is observational in nature, surveying the existing sales group. The observational design used is a cross section. (see Appendix B). The questionnaire is divided into five sections. Section one is comprised of eight demographic questions. Section two is comprised of 25 ordinal questions asking respondents to rate how strongly they agree with each statement. The statements address the following issues: productivity, morale, communication, recognition, balance between work and personal life, as well as satisfaction with the current work environment. There are three questions focusing on productivity, two on morale, seven on the balance between work and personal life, eight on communication, three on satisfaction and one on recognition.

Section three is comprised of a list of six different forms of communication (e-mail, fax, internet, landline phone, wireless phone, and voice-mail). This section requests that the respondent rate the six forms of communication in rank order with number one representing the form they use most often. This section determines what channel of communication is relied upon most often. This could reveal information leading to why respondents are or are not satisfied with their environment.

Section four consists of six numerical questions, asking the respondent the number of days they participate in certain activities. This section will determine how often a virtual respondent interacts with management, works in the office, and interacts with co-workers. This information will be merged with the responses on effectiveness to

determine if effective virtual employees interact more or less than ineffective virtual employees.

The final section of the survey is an open ended question intended to encourage respondents to share additional feedback. This section is intended to capture any thoughts, topics or ideas that the survey missed.

### Population and Sample

The population selected for this questionnaire includes all virtual Wireless Account Managers employed at AT&T Wireless Services. The sample is comprised of 13 of these AT&T employees based out of the 15 E Midland Avenue office in Paramus, New Jersey. The eligibility requirement for this sample is that each participant must be a member of this 13 person sales team that is responsible for managing national sales in the northeast. There are no additional criteria other than being a member of this team. This team is virtual and that is the only criteria for this sample. This nonprobability sample automatically rules out anyone that is not a member of this team. This sample was selected because of its close vicinity to the author as well as the ease in getting the surveys completed by this sample.

To promote responses, this self-administered questionnaire was sent via e-mail. Returns were requested via e-mail. This is the standard form of communication for this group, which increases the likelihood that the survey gets completed. In addition, the survey responses are confidential. A follow-up interview was conducted with the manager who oversees this staff of virtual employees. This informal interview was used

to determine if the manager agrees with the data produced from the survey, as well as to ascertain the management styles they deploy to get the best results.

### Securing the Data

After reviewing the available literature on the topic of virtual offices, the author felt that a survey might add validity to the literature findings. The survey was developed to compliment the current literature. The purpose of the survey was to determine the effectiveness of working in a virtual environment. The results of the survey will be compared with that of the literature review to either confirm or dispute the findings.

The 13 surveys were administered via e-mail. Nine of the 10 responses were received via e-mail. One response was faxed. The response rate of 77% was expected by the author since the sample was a small familiar group. Respondents had 15 days to respond.

A follow-up interview was also conducted with the manager of the AT&T virtual team, after the surveys were completed and the data was analyzed. The informal interview was conducted over the phone.

## Chapter IV

### ANALYSIS OF THE DATA

#### Respondents Background

Of the 13 member sample 10 people or 77% responded. Of the survey's 10 respondents, 9 (90%) were male. All respondents (100%) were married. Seven (70%) of the respondents had children with 4 (40%) respondents having two or more children. Seventy percent of the respondents have been with the company between 1-3 years. Twenty percent were with the company for 3-5 years, and 1 respondent had 5 or more years with the company. Eight (80%) were in this same position when the company made the transition over to virtual offices. Three of the 10 respondents held previous positions that were also virtual.

#### Responses

##### Productivity

In terms of productivity, respondents were asked if they felt more productive in a virtual work environment. According to the data, 100% replied that they are in indeed more productive working virtual as opposed to working in an office setting. In fact 40% answered that they 'Strongly Agreed' that they are more productive. Of the 10 respondents, 8 (80%) also found that they worked more efficiently in a virtual environment. These results support the findings of Barnard and Dubrin (1993), Jack

Nilles (1994) and Frank Boyd (1997), who all cited increases in productivity when employees work virtual. These results also agree with Harman, Stoner, and Arora's (1992) study where 84 % of their respondents indicated increased productivity after going virtual. Whether or not the respondent was male or female, had children or had been with the company longer had no effect on productivity.

#### Balance between Work and Personal Life

There were seven questions on the survey to determine if a virtual work environment helps or hurts the balance between ones personal and professional life. According to the literature on this topic, some employees find that a virtual work environment helps to balance work and family life, while others can no longer make the distinction. The respondents from our sample, all agreed that they have more time to focus on work now that they don't commute. However, they did not agree that the lack of commuting helps to balance their work and family lives. The results indicate 60% of the respondents strongly agree that working virtual helps to balance their work and family lives. Thirty percent felt that this question did not apply to them or they did not have enough information to answer. One respondent did not agree with the statement that working virtual helps to balance work and family life.

The author attempted to uncover a correlation that caused some respondents to answer favorably to this statement and others to answer unfavorably. There does not appear to be any apparent correlation that can be discovered from the data collected. The author attempted to determine if the answers were dependent on the number of children the respondent had living at home with them. This proved untrue and invalid. The respondent who did not find the virtual office to help the balance has two children.

There are three other respondents who have three children and they all responded that they strongly agree that working virtual helps to balance work and family. The discrepancy may be caused by different personality types or different work styles.

The data on balancing work and family did reveal that more often than not, virtual workers are putting in more hours. Nine of the 10 respondents answered that they put in more hours now that they work virtual. All (100%) are working past 6:00p.m. Seven of the respondents admitted that they work on weekends. Additionally, 80% find that working virtual allows them more time to focus on their personal lives. One respondent answered that the balance between work and family life has been disrupted since working virtual.

### Communication

Results were divided on many of the questions concerning communication. Fifty percent of the 10 respondents felt that co-workers were not as accessible in a virtual environment compared to the traditional office setting. Forty percent of respondents found co-workers to be equally as accessible as they were before working virtual. However, regardless of how accessible co-workers may be, seventy percent of respondents communicate with co-workers less. In fact, 90 percent of respondents answered that management does not require virtual employees to meet with co-workers at least once a week. Yet, 90 percent indicated that they do meet with co-workers face to face at least once a week, regardless of management's direction. Once again, there was no correlation between any independent variables and whether or not the respondent was satisfied with the quantity and quality of the communication.

Sixty percent of respondents felt comfortable with the amount of information they get from their managers, even though they agreed that they communicate with their boss less now than when they worked out of the office. In fact, 7 of the 10 respondents do not feel alienated from company goals, simply because they work virtual. These results conflict with the results that Lowry (1996) found when studying the effects of distance on the supervisor-subordinate relationship. Lowry determined that the quality and quantity of communication with management was the same for remote and traditional employees. Lowry's study suggested that remote employees may require more communication with their managers than those employees in traditional work environments (1996). The results from the current study do not reflect the same need.

### Morale

In terms of morale, 80% of respondents are happier working virtual. One respondent is neutral on this statement and one respondent is not happier. Fifty percent of respondents have feelings of isolation from not being around their co-workers. Of this fifty percent, there are three respondents who previously answered that they are happier working virtual, however, they have indicated here that they do in fact feel isolated. In addition, six of the original ten respondents indicated that they do feel a sense of separation from their team. Its interesting to note that four of these six originally responded that they are happier working virtual. These responses tend to suggest that although there are feelings of isolation and separation, employees may still prefer the virtual work environment. The question remains, whether or not these feelings of isolation and separation negatively affect other aspects of their job?

### Recognition

This sense of separation and isolation does not appear to have any effect on an employees' sense of recognition. When respondents were asked if they felt that they were adequately recognized for achievements, 80 percent agreed. Two respondents remained neutral on this topic. Although respondents did agree, 70 of the 80 percent only noted that they agreed and not that they strongly agreed. So 70% did not feel strongly on the subject.

In all, 90 percent of respondents prefer working in a virtual environment. One hundred percent of respondents agreed that working virtual gives them increased flexibility.

In terms of the channel of communication that is used most often, 50 percent of respondents use their landline phone as their primary means of communication. Thirty percent rely on their wireless phone as the primary communication tool. Twenty percent are using voicemail most often. It is interesting that a landline phone would be chosen as a primary communication tool, when 90 percent of respondents indicate that they are in the field at least 2 days a week. The fax machine came in last according to 70 percent of responders.

One of the 10 respondents answered the open ended question in Section V. The responses indicate satisfaction with working virtual as well as agreement that it adds balance between their work and personal lives. However, this respondent did indicate that the "biggest negative is the interaction among co-workers - if it wasn't for a close relationship with X - it would be a rare day that I spoke to someone on my team". This



respondent admitted that this lack of communication can negatively affect the ability to strategize and exchange ideas.

#### Results of Manager's Interview

After the data was secured and analyzed, a follow-up interview was conducted with John Lynch, the National Sales Manager of this virtual team. The informal phone interview was designed to share the survey results and solicit any feedback that may explain the results.

Considering that the virtual office environment is a new concept at AT&T, John Lynch admitted that this was his first time working with a virtual team. In addition, it was the first time that several of the members of his team worked in such an environment. However, Lynch feels that the virtual environment is a good fit for his team, since they spend the majority of their time on the road and in front of customers. As a sales team, they are encouraged to increase their face-to-face time with the customers. The virtual environment allows his staff the ability to create their own schedules and work independently.

The primary challenge Lynch faces managing this team is having his team feel connected. Lynch admitted that it is difficult to share information when the team is working virtual. As a result, Lynch was not surprised to hear that communication is the biggest challenge his team faces. To help address this challenge Lynch makes sure that he is always available for his team. In addition, the team meets in person every other month to share their account progress with the entire team. Quarterly face-to-face meetings are also required. Conference calls and daily voicemails are also very common.

Lynch also agreed with the survey results on the increase in productivity that results from having a virtual office environment. Productivity and more hours spent on work were cited as Lynch's most important benefit derived from this work arrangement. Lynch agreed that not only is he personally more productive, but his team is as a whole. In all, Lynch was satisfied with the results of the survey. He agreed that he would need to spend more time on issues such as balance, morale and communication. The teams overall success has been very positive despite the fact that the entire sales team as well as management were adjusting to this new type of work environment.

## Chapter V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The effectiveness of the virtual office is dependent on many variables. The literature review indicates that this work environment can produce many benefits. Employers as well as employees may prefer this type of approach because of the many advantages associated with it. However, the literature review also revealed that this approach has its drawbacks. There are significant obstacles that can reduce the effectiveness of the virtual work environment. The survey results are in alignment with the literature review. The majority of participants working virtual prefer it, however, they do recognize that its effectiveness is often challenged by many conditions that may not exist in the traditional office environment. The isolation, lack of communication and lack of recognition can be obstacles that may lead to low morale, reduced productivity and dissatisfaction. The literature review suggests that the obstacles are more often the exception rather than the rule. The survey supports this. Every respondent (100%) of the survey indicated that they prefer to work virtual. Yet, there were respondents who agreed that isolation and lack of communication are among some of the drawbacks. The survey results suggest that participants of virtual work environments recognize the challenges, however, still prefer the virtual approach. It appears that the benefits exceed the obstacles.

Shepcaro in 1996 stated that, "those who are now pioneers in the virtual workplace are paving the way for the practitioner of the future" (p.26). Two years later, the author agrees that the virtual office may still be in its infancy. Since many of the

benefits of the virtual office are soft; everyone involved may feel as if productivity is improving, but when the CFO asks for proof, it can be difficult to document (Korzeniowski, 1997). Knowing this, true evidence as to the value a virtual office adds may not be evident for years to come. Pape (1996) concluded from his studies, that immediate productivity gains do exist from virtual office programs. However, the challenge exists in maintaining long run productivity as problems of reduced contact begin to effect the original productivity gains (Pape). Although there are many organizations adopting this approach the long run effectiveness has yet to be determined. As this approach becomes more commonplace, there will be more empirical data available to assess its effectiveness. As we near the millennium, estimates suggest that the year 2000 will bring anywhere from 11 to 15 million telecommuters into virtual offices (Piskurich, 1996). With that many organizations going virtual the author concludes that more conclusive data on effectiveness should exist. Or the numbers may suggest that the effectiveness of the virtual office is worth any of the challenges it brings with it.

For now, the literature supports the organization who wants to attempt it, but does suggest some guidelines to help ensure success. Extensive training, rigid recruiting, ample support, guidelines and policies, management by objectives, and encouraged communication are just a few of the suggestions by the authors in the literature review. Many of the obstacles and challenges can be alleviated if the organization is aware of the possibility of them existing and is prepared to address them.

The author concludes that the virtual office can be the answer for the right organization, the right employee and the right job description. As each organization

differs in their culture, objectives and management approach, there is no one virtual office boiler plate program that will fit every company. The virtual office program must be adapted to fit the organization's needs. Adaptation can mean adjusting the number of days an employee is virtual, setting up the office in a remote site rather than an employee's home, sharing office space, etc. There are no rules. The answer lies with whichever solution works best for the company in providing effectiveness for the employer as well as the employee. Careful consideration of the needs and work styles of each participant will help ensure virtual success.

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## Appendix A

## Appendix A

### Summary of AT&T's policy on working virtual or telecommuting

#### Policy

AT&T supports telecommuting as an alternative work arrangement, whether initiated by employees (who can telecommute with prior supervisory approval) or management (who may choose to have employees work at home or elsewhere, including in a "virtual office").

Telecommuting can help AT&T:

- Better meet both business and employee needs
- Attract and retain a diverse and talented workforce
- Comply with Clean Air Act and other laws
- Improve productivity for certain jobs/persons
- Better understand and capture a growing market for telecommuting products and services by having internal experience
- Reduce operating expenses in some cases

#### Definitions:

Telecommuting:

When employees work part or all of their standard workweek at home on a regularly scheduled basis.

Telecommuter's Agreement:

A document that describes the specific telecommuting arrangement between employees and their supervisors.

Virtual Office:

A location-independent work environment supported by telecommunications, computer, and peripherals. A virtual office allows employees to work anywhere at anytime (e.g., sales employees who need to work at home, on customer premises, in their cars, in airports, etc., may have virtual offices).

**Appendix B**

## Appendix B

**How effective is the virtual office work environment?**

Thank you in advance for taking the time to answer the following questions related to working in a virtual office environment. For the purpose of this study, "virtual" refers to working in an environment where your base office is not at a company facility, but rather you have an office set up in your home. Although you may work in the field often, you return to your home office to take care of the follow-up work, not to a set office or space in a company facility

**Section I**

Please feel free to state your name if you would not mind being contacted for a follow-up interview. If you prefer not to reveal your identity, leave this first box blank and your answers will be kept anonymous. Please do fill out the following questions in this first section. These questions are in reference to basic demographics that will help us to determine how the results effect different groups of people.

**Name** (optional)

**Job Function**

**Male**  **Female**

**Are you married?** Yes  No

**How many children do you have living at home with you?** 0  1  2+

**How many years have you been with the company (this includes when it was McCaw)?** 1-3 years  3-5 years  5+ years

**Were you in this current position before they made the transition to a virtual environment last year (1997)?** Yes  No

**If not, have you always worked in a virtual office?** Yes  No

<b>Section II</b>
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The next series of questions refer to your feelings about your work environment. Please answer each question by indicating with a check in the appropriate box whether you strongly agree, agree, strongly disagree, or disagree with each statement. There is a box provided titled "Neutral" if you feel this question does not apply to you or if you do not have enough information to answer it. Please be as honest as possible.

- 1. I am more productive in a virtual work environment versus one where an office is my base location.**

<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 2. I get more work done now that I work virtual.**

<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 3. I am more efficient working virtual versus working in the office.**

<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 4. I am happier working virtual versus working in the office.**

<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 5. I work more total hours a week now that I am virtual than when I worked in the office.**

<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 6. I feel my co-workers are equally as accessible to me as they were before I was virtual.**

<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 7. I often find myself doing work after 6:00pm.**

<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
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8. I often find myself doing work on weekends.

Strongly agree      Agree                  Neutral              Disagree              Strongly Disagree  
                                                                                       

9. Working virtual helps me to balance my work and family life.

Strongly agree      Agree                  Neutral              Disagree              Strongly Disagree  
                                                                                       

10. The balance between my work and family life has been disrupted since I began working virtual.

Strongly agree      Agree                  Neutral              Disagree              Strongly Disagree  
                                                                                       

11. I have feelings of isolation from not being around my co-workers as often.

Strongly agree      Agree                  Neutral              Disagree              Strongly Disagree  
                                                                                       

12. I feel I get enough information from my managers even though I am not in the office.

Strongly agree      Agree                  Neutral              Disagree              Strongly Disagree  
                                                                                       

13. I prefer working in a virtual environment versus one where I report back to an office.

Strongly agree      Agree                  Neutral              Disagree              Strongly Disagree  
                                                                                       

14. There was an initial transitional period where I needed to adjust to working virtual.

Strongly agree      Agree                  Neutral              Disagree              Strongly Disagree  
                                                                                       

15. I communicate with my boss less now than when I had space at the office.

Strongly agree      Agree                  Neutral              Disagree              Strongly Disagree

**16. I am satisfied with the amount of communication that occurs between myself and my boss.**

Strongly agree      Agree      Neutral      Disagree      Strongly Disagree  
                                                                               

**17. I feel I am adequately recognized for my achievements.**

Strongly agree      Agree      Neutral      Disagree      Strongly Disagree  
                                                                               

**18. I feel that I have more flexibility working virtual.**

Strongly agree      Agree      Neutral      Disagree      Strongly Disagree  
                                                                               

**19. I have more time to focus on work now that I don't commute to the office.**

Strongly agree      Agree      Neutral      Disagree      Strongly Disagree  
                                                                               

**20. I have more time to focus on my personal life now that I don't commute.**

Strongly agree      Agree      Neutral      Disagree      Strongly Disagree  
                                                                               

**21. I feel a sense of separation from my team now that we all work virtual.**

Strongly agree      Agree      Neutral      Disagree      Strongly Disagree  
                                                                               

**22. I feel alienated from company goals since I don't work in the office.**

Strongly agree      Agree      Neutral      Disagree      Strongly Disagree  
                                                                               

**23. My manager requires that I meet with co-workers once a week.**

Strongly agree      Agree      Neutral      Disagree      Strongly Disagree

**24. I feel that I communicate with co-workers more now than when we worked in the office.**

**Strongly agree**      **Agree**      **Neutral**      **Disagree**      **Strongly Disagree**  
                       

**25. I feel alienated from company goals now that I work virtual?**

**Strongly agree**      **Agree**      **Neutral**      **Disagree**      **Strongly Disagree**  
                       

### **Section III**

In order to better understand how virtual workers communicate, the following list represents different types of communication. Please rate the following types of communication from 1 - 6. Use #1 to rate the type you use most often, ranking down to #6 as the one that is used the least.

**E-Mail**  
**Fax**  
**Internet**  
**Landline Phone**  
**Wireless Phone**  
**Voice-Mail**

### **Section IV**

The next set of questions will ask you how often in a given work week a particular activity is performed. The answers will help to assess differences between those people who have their base office in their home versus those who have their base office at the company facility.

**In the average work week how many days do you work in your home office?**

1  2  3  4  5

**In the average work week how many days are you working in the field?**

1  2  3  4  5

**In the average work week how many days do you go to the office?**

1  2  3  4  5

**In the average work week how often do you have a face to face meeting with your boss?**

1  2  3  4  5

**In the average work week how often do you meet with co-workers face to face?**

1  2  3  4  5

**In the average work week how often do you have a conference call with your boss?**

1  2  3  4  5

#### **Section V**

Please feel free to use this section to provide any additional information on your feelings towards working in a virtual office. Are you exceptionally satisfied with it? Do you feel it is a good tool for the company to use for retention as well as attracting new employees? Or do you prefer working in an office? Please use the space provided to share your thoughts on virtual offices. Thank you.