

# Managerial Perceptions of Telecommuting in Two Large Metropolitan Cities

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## Abstract

*Technological advances in information processing make telecommuting an attractive alternative to commuting to a company office. This study measures the attitudes of mid-level managers in the Austin and San Antonio areas toward telecommuting. It also reports the extent to which office work is done at the homes of workers.*

*The managers participating in this study report taking work home frequently to meet deadlines, to avoid office interruptions, and to make up for insufficient office work time. Although they indicated advantages for telecommuting, more than three-fourths of the managers worked in companies without telecommuting programs. Just 4 percent of the respondents indicated their companies were considering such programs in the near future.*

## Introduction

Before long, many white collar workers may be staying at home to do their office work. Because technological advances in information processing make working at home an attractive alternative to commuting to a company office, telecommuting, or home officing, has been growing in popularity during the past few years.

The dramatic improvements in technology coupled with increased social concerns has made telecommuting attractive to both employees and their employers. LINK Resources reported that in 1988 six million men and women worked full time from their homes. This reflects a 19 percent increase over the 4.9 million who worked at home in 1987 (Knocke, 1988).

Because telecommuting is becoming such a popular alternative for white-collar workers, one IBM researcher predicts that no more large office buildings will be built by the year 2000 because people will work from home and telecommute or just come into the office for occasional meetings (Wolpin, 1989).

This study was conducted to measure the attitudes of mid level managers in the Austin-San Antonio area toward the concept of telecommuting or home officing and to determine the extent to which it is currently being used. Opportunities and drawbacks associated with this concept are reported, and a discussion based on the findings is presented.

Because of the small sample used for this study, it may not be possible to generalize to a larger population. However, because the population encompassed mid-level

managers from a wide variety of companies, it seems reasonable to assume that the information presented in this report will be of value to managers who are considering implementing a telecommuting program in their organization.

### **Background**

Huws (1984) reports that the first signs of interest in working at home were a result of the oil crisis of the early 1970s. People were motivated more by a desire to save money on energy costs than by a desire to improve the quality of work and home life.

According to Olson and Primps (1984), telecommuting arose out of technological developments in computers and communications and is now prevalent in many forms. DeSanctis (1984) and Brocklehurst (1989) point out that modern telecommunications equipment in homes can provide fast and reliable communication between an individual and the work place.

The most frequent telecommuters in today's business world are the regular organizational employees who take their work home and do it after normal working hours. They use personal computers or terminals linked to mainframe computers at the central office (Olson and Primps, 1984). Foegen (1985) states that telecommuting is best suited to workers who possess high-level skills and are generally well paid. These include, but are not limited to, accountants, engineers, and computer programmers. Other candidate jobs may include administrative managers, operations managers, systems engineers, systems programmers, and data-entry clerks ("How Corporate America . . . Part II," 1989).

### **Advantages of Telecommuting**

According to Galitz (1984) the advantages of telecommuting are increased productivity, expanded work force, reduced overhead and operating costs, energy conservation, and more personal time for the worker. The modern work environment is gravitating toward comfort, leisure, and independence. IBM's vice-president of personnel, J. Colucci, suggests that organizations can better balance the demands of their employees' work and personal lives with the home officing concept (Kirschenbaum, 1989). For example, the flexibility offered by telecommuting allows an employee to schedule and keep a doctor's appointment during the usual work hours without having to ask permission to leave the office (Kelly, 1988). In addition a telecommuter can save an estimated \$2,000 per year by not driving to work, eating out at noon, or buying "office" clothing (Carter, 1989).

Flemming (1988) reports that environmental factors have played a significant role in the development of home officing. Among the most important are reduced traffic congestion, energy conservation, and improvement of air quality.

Fersko-Weiss (1988) observes that many people find they are more productive at home, away from office distractions and interruptions, and have a greater sense of control over their work. The Mountain Bell Corporation claims that its telecommuters are 35 to 40 percent more productive than their office counterparts (Schwartz, et al., 1989). In addition to an increase in productivity, companies can save millions of dollars in rent and related management costs by implementing a telecommuting program ("How Corporate America . . . Part II," 1989). Such firms as Pacific Bell, The Travelers Company, and J. C. Penney have found they can save office space and cut down on major expenses with telecommuting (Schwartz, et al., 1989).

### **Disadvantages of Telecommuting**

Despite the numerous advantages, pitfalls are inherent which may discourage organizations from implementing telecommuting. One of the major disadvantages is the lack of daily social interaction with co-workers. The office environment sets the stage for management/employee interaction, creative thought, and numerous other activities. Telecommuting confines the worker to his or her home environment, thus eliminating face-to-face communication with peers and supervisors ("How Corporate America . . . Part II," 1989). In addition to the social isolation, employees who are seeking promotions may find that diminished visibility is a problem because their supervisors do not personally observe their work or work habits (Mills, 1984).

Some significant problems arise from the loss of on-site management control. Lewis (1988) contends that many managers feel their employees need to be closely supervised. Furthermore, some managers feel they simply cannot trust employees they cannot see (Castro, 1989). Magee (1985) notes that many managers are concerned whether or not the telecommuter is actually working the number of hours expected of an organizational employee.

However, Foegen (1984) points out that some home workers actually succumb to a strong temptation to work excessively, creating a new crop of workaholics. Employees are placed under a great deal of stress and tend to burn out quickly. Their computer is a constant reminder of all the work they should or could be doing. Curiously, many telecommuters find they end up working longer hours and taking fewer vacations than their office counterparts (Lewis, 1988).

According to Best (1986), the success of telecommuting depends heavily on the ability of managers to work with a people-oriented approach where employees work under loose day-to-day supervision but with clear objectives and performance standards.

### **Research Design**

A questionnaire was chosen as the instrument to collect the primary data because of its convenience, relatively low

cost, and the facilitation of data analysis. Design of the questionnaire was based on relevant concerns to management on the issue of home office, as reported in current literature. A total of 116 mid-level managers of various white-collar companies in the Austin-San Antonio area were surveyed.

### The Sample

Mid-level managers were selected as the target population because they usually supervise employees whose jobs are most suitable for telecommuting. Of the 116 managers surveyed, 75 questionnaires were returned, netting a response rate of 64.7 percent.

To determine the nature of the population, a series of demographic questions were asked, including gender, age, type of company, number of employees, and exact job title. In addition to the demographic questions, managers were asked about the absentee rate of employees in their departments and the frequency that they and their employees take work home.

The majority of the respondents were from 26 to 35 years of age (46.7 percent) and worked for companies with 200 or more employees (50.7 percent). Approximately 54.7 percent were male and 45.3 percent were female, and almost two-thirds (65.3 percent) were at least somewhat familiar with the home-office concept. As shown in Table I, a wide variety of firms were represented in this study.

**TABLE 1**  
**COMPANY CLASSIFICATIONS**  
(n = 75)

Type of Firm	Percent
Manufacturing	22.7
Governmental	21.3
Service	18.7
Financial	10.7
Computer-related	6.0
Retail sales	5.3
Wholesale sales	2.7
Construction	2.7
Other (no written responses)	6.0

### Measuring Managerial Perceptions

To get an impression of how the respondents (the mid-managers) perceive telecommuting as a benefit to workers, they were given a list of 11 key benefits. These items were found in the literature reviewed for this study. The respondents were asked to mark each of the listed benefits as "1" = highly beneficial, "2" = moderately beneficial, or "3" = not beneficial. As is generally the case with scales, the distance between the numbers may not be equal. In this case, especially, note that 2, the midpoint, is "moderately

beneficial," a positive evaluation. An evaluation of 3, "not beneficial," is negative. Thus the space from 1 to 2 might be considerably less than the space from 2 to 3. Nevertheless, to facilitate reporting the results, a weighted mean was computed for each of the benefits. The value of the mean, when viewed with these limitations, gives an indication of how the managers perceive the 11 benefits.

The next section of the questionnaire directed the respondents to evaluate 10 *disadvantages* of telecommuting accruing to employees. Then, the managers evaluated telecommuting benefits and disadvantages to business firms (employers). Again, a weighted mean is used to report the evaluations, and the reader should interpret these means as indicated above.

Rating questions were used to determine the perceived advantages and disadvantages of telecommuting to both employees and employers. First, the respondents were asked to rate eleven benefits that telecommuting could provide employees. A three-point scale was used where "1" represented "highly beneficial," "2" represented "moderately beneficial," and "3" represented "not beneficial." Next, eleven disadvantages to employees were listed. Respondents were asked to use a three-point scale to indicate their opinions, with "1" = "a big disadvantage," "2" = "a moderate disadvantage," and "3" = "no disadvantage."

Managers were also asked their opinions on the advantages and disadvantages to their firms (employers) of telecommuting, using the same scale as above.

An internal consistency assessment of the 11-item scales discussed above yielded Cronbach-Alphas ranging from .64 to .72. Although this estimate of reliability is relatively modest, the level is sufficient to meet Nunnally's (1974) criteria for exploratory research purposes.

One ranking question asked the managers to speculate on the reasons why their employees take work home.

To determine the types of jobs that might lend themselves to telecommuting, respondents were given a list of 16 job titles and asked to check all that applied. Extra space was provided for respondents to include additional job titles.

Finally, one "yes/no" question was given to determine if the company currently has a telecommuting program. If a "no" answer was given, the manager was asked if the company was considering implementing such a program and when.

### Limitations of the Study

Although the term telecommuting is used here in reporting the results of this study, a word of caution is necessary. Telecommuting and working at home are not the same. Quite likely, many workers who at this time complete some of their work at home will be involved in telecommuting at some time in the future. By the same token, many who

do a great deal of work at home will never be involved in telecommuting. Because telecommuting is a fairly new function, the questionnaire used the term "taking work home." (Indeed, 76 percent of the managers surveyed worked in organizations that did not have telecommuting.) Because of the similarity of working at home and telecommuting, results of this study are believed to be applicable to telecommuting.

The respondents were asked to rank 11 telecommuting advantages and disadvantages that were distilled from a literature review. The managers were not asked to add additional items to be ranked, and the results should be considered in this light.

### Findings

The respondents were asked how often they took work home during the past year. The phrase "take work home" was used rather than "telecommuting" because some respondents may not be familiar with the latter term. Although "take work home" and "telecommuting" may have different meanings, telecommuting, of course, involves working at home. Presumably people who work at home will eventually be involved in telecommuting.

As shown in Table 2, more than half reported taking work home daily or as often as 2 to 3 times per week. Interestingly enough, just 2.7 percent indicated that they never worked on office projects at home.

TABLE 2

FREQUENCY OF WORK TAKEN  
HOME BY MANAGERS  
(n = 75)

Frequency	Percent
Daily	14.7
2-3 times/week	37.3
Once a week	20.0
2-3 times/month	8.0
Once a month	5.3
Rarely	12.0
Never	2.7

The respondents were in substantial agreement that the principal reasons employees take work home are (1) to meet deadlines, (2) to avoid interruptions at the office, and (3) to make up for insufficient office time. The respondents were given 11 reasons for employees taking work home. They were asked to select three from this list.

Table 3 lists the 11 reasons and indicates the number of times each was chosen. Because some respondents selected fewer than three reasons, the total does not equal 225 (3 selections times 75 respondents).

TABLE 3

PERCEIVED REASONS THAT  
EMPLOYEES TAKE WORK HOME  
(n = 75)

Reasons	Times Selected
Deadlines	50
Interruptions at the office	49
Insufficient office time	33
Office telephones	14
Increased productivity	13
Convenience	10
Insufficient office staff	7
Meetings	4
Better working conditions	3
Privacy	3
Comfort	2

### How Telecommuting Benefits Employees

The 11 benefits evaluated by the 75 managers who returned questionnaires are shown in Table 4. Flexible scheduling, decreased commuting costs, and no commuting time were the benefits rated highest by the managers. Saving money on meals and environmental concerns ranked lowest. It is interesting to note that additional leisure time and having a more relaxed environment were, in the combined judgment of the respondents, just moderately beneficial advantages for employees.

TABLE 4

PERCEIVED BENEFITS OF  
TELECOMMUTING FOR EMPLOYEES  
In rank order of benefit  
(n = 75)

Benefit	Weighted Mean
Flexible scheduling	1.514
Decreased commuting costs	1.577
No commuting time	1.586
Additional family time	1.754
Fewer interruptions	1.754
Money saved on child care	1.900
Additional leisure time	1.971
More relaxed environment	2.042
Decreased clothing costs	2.159
Money saved on meals	2.332
Environmental concerns	2.493

### Disadvantages of Telecommuting for Employees

When office work is done at home, the principal disadvantages for employees as perceived by the managers were lack of equipment and reference materials, isolation from co-workers, and no managerial guidance. As shown in Table 5, the respondents rated stress as the least important disadvantage. Factors relating to jobs, such as lower salaries, job downgrading, and decreased job security were rated near the bottom of the 11 disadvantages.

TABLE 5

**PERCEIVED DISADVANTAGES OF  
TELECOMMUTING FOR EMPLOYEES**  
In rank order of disadvantage  
(n = 75)

Disadvantage	Weighted Mean
Lack of equipment	1.466
Lack of reference materials	1.466
Isolation from co-workers	1.500
No managerial guidance	1.653
Improper office set-up	1.887
Lack of structure	1.930
More interruptions	2.141
Lower salaries	2.224
Job downgrading	2.388
Decreased job security	2.417
More stressful	2.704

### How Telecommuting Benefits Firms

Eight ways that telecommuting could benefit firms were evaluated by the respondents. The results are shown below in Table 6. The managers are obviously aware of the possible saving of office space when employees work at home, and their combined judgment is that this benefit rates with two others at the top of the benefit scale. The other two are increased employee morale and increased employee productivity, two benefits that are probably interrelated. Concern about a decreased office staff was rated last among the eight benefits.

### Disadvantages of Telecommuting for Firms

In the opinion of the managers who responded to this study, the chief disadvantage of telecommuting for employers is the lack of daily interaction. (See Table 7) The other disadvantages they rated high—loss of face-to-face communication and loss of managerial control—are closely related to daily interaction. The managers were not quite so concerned with increased security risks and increased costs of phones and training.

TABLE 6

**PERCEIVED BENEFITS OF  
TELECOMMUTING FOR FIRMS**  
In rank order of benefit  
(n = 75)

Benefit	Weighted Mean
Reduced office space	1.775
Increased employee productivity	1.765
Increased employee morale	1.746
Reduced employee sick leave	1.884
Less turnover	1.970
Reduced energy consumption	2.171
Increased labor pool	2.191
Decreased office staff	2.348

TABLE 7

**PERCEIVED DISADVANTAGES OF  
TELECOMMUTING FOR FIRMS**  
In rank order of disadvantage  
(n = 75)

Disadvantage	Weighted Mean
Lack of daily interaction	1.329
Loss of face-to-face communication	1.466
Loss of managerial control	1.653
Hardware/software costs	1.841
Increased security risk	1.912
Increased telephone bills	2.075
Increased training costs	2.281

### Possible Telecommuting Jobs

Respondents were asked to select from a list of 16 job titles the ones that would lend themselves to telecommuting. The list was compiled after reviewing current literature on this topic. As expected, word processors received the most responses, followed by documentation writers and data entry clerks. Table 8 presents the top eight jobs that were selected by the 75 managers.

More than three-fourths (76 percent) of the managers polled worked in companies or organizations that do not have a telecommuting program. In addition, only 4 percent of these respondents indicated that their company was considering implementing such a program in the near future.

TABLE 8

POSSIBLE JOBS FOR TELECOMMUTING  
(n = 75)

Job titles	Times Selected
Word processors	45
Documentation writers	36
Data entry clerks	28
Systems programmers	25
Data processors	24
Program analysts	23
Sales staff	20
Research associates	17

### Discussion

At least one researcher predicts that the construction of large office buildings may soon be halted because of the popular alternative of telecommuting. The literature in this area clearly indicates that many people find that they are more productive working at home, away from office distractions and interruptions. The 75 managers who participated in this study indicate that they frequently take work home, and that fact corresponds with what appears to be true throughout the nation. In fact, more than half of these managers indicated that they take home work at least two or three times a week (15 percent take work home

daily!). Another 20 percent of them take work home once a week.

According to the mid-managers, employees take work home to meet deadlines, to avoid office interruptions, and to make up for insufficient time to do the work in their offices.

One of the prime purposes of this study was to obtain managers' perceptions concerning the benefits and disadvantages of telecommuting for employees as well as employers. For employees, the principal benefits offered were flexible scheduling, decreased commuting costs, and the elimination of commuting time. For business firms (employers), the main benefits mentioned were office space and increased employee productivity and morale.

But disadvantages to telecommuting exist. For employees, the managers considered the chief disadvantages to be lack of equipment and reference materials, isolation from co-workers and no managerial guidance. The disadvantages for firms, according to the respondents, are lack of daily interaction, loss of face-to-face communication, and loss of managerial control.

The small percentage of companies that have implemented a telecommuting program and the smaller percentage of companies that are considering implementing one indicates that telecommuting is not a very popular alternative for white-collar workers in the Austin-San Antonio area. One might conclude that several factors may contribute to the lack of employer and employee interest in telecommuting, including the absence of severe traffic congestion, the abundance of fuel, relatively low office rents, and the plethora of office space.

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