

TELECOMMUTING: THE RIDE OF THE FUTURE

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FOREWORD

This study was prepared in response to House Resolution No. 74, H.D. 1, adopted during the Regular Session of 1991. The Resolution requested the Legislative Reference Bureau to conduct a study to identify any existing or potential barriers that may prohibit employees from working at home and to recommend policies to address any existing or potential barriers that may discourage public or private employers from offering employees the opportunity to participate in telecommuting programs. The findings and recommendations to that end are the culmination of this report.

The Bureau extends its appreciation to all who cooperated and assisted with its investigation. Assistance was received from both the public and private sectors of industry forming a group far too large to be able to thank each contributor individually.

Samuel B. K. Chang
Director

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EXECUTIVE SUMMARY

This study is the result of House Resolution No. 74, H.D. 1, "Requesting a Study to Encourage Public and Private Employers to Adopt Telework Policies Allowing Employees To Work At Home," adopted during the Regular Session of 1991.

The study first examines the ambiguous nature of the terminology of telework and specifically defines terms as they are used in this study. A distinction is made between those who telework as independent contractors and those who telework as employees for employers. This report defines telecommuters as employees who work for employers at a remote site from the principal place of business. The definition of telecommuting excludes independent contractors who choose to telework from their homes. Employees can telecommute from a variety of places, for example, the Hawaii Telework Center or their home. This report focuses on home-based telecommuting of employees.

The resolution assumes telecommuting would be beneficial. This report articulates the advantages of telecommuting to include: (1) alleviating traffic congestion; (2) increasing productivity; (3) reducing costs to both employers and employees; (4) reducing stress caused by commuting and giving discretionary time back to employees; (5) improving employee retention; (6) reducing fuel consumption; and (7) improving air quality.

Before barriers can be identified the elements of a telecommuting program should be understood. Chapter three of this report explains that the type of personnel selected should be independent workers who are experienced at their position. The position of telecommuters should be one that does not require a lot of face-to-face contact or access to immovable files. Equipment needs can range from a pencil, pad and a phone to installing two additional phone lines, a personal computer, fax machine and a copier placed in the home workstation. The support of management is an essential element that every telecommuting program needs to have for its success. Finally, a telecommuting agreement should be drawn up to articulate each party's concerns. Several sample telecommuting agreements are included in Appendices B-1, B-II, and B-III.

Employers will be concerned with the bottom line. Successful telecommuting programs need to have the right telecommuters selected. The selection of both managers and employees will be a critical factor. Employers need to examine the job tasks and the degree of security desired to determine whether telecommuting will benefit their operations. An initial outlay of capital for purchase of equipment or installation of additional phone lines may dissuade employers from implementing a telecommuting program. Telecommuters retain all the benefits of employees and so employers are not relieved of the obligations, by law, to that effect. Insurance premiums for prepaid health insurance and temporary disability and taxes due for unemployment benefits both state and federal are not changed because employees choose to telecommute.

Employers may be subject to an increase in casualty insurance expenses if corporate equipment is stored off-premises (at home). Workers' compensation premiums will most likely not change as a result of telecommuting but it is not clear how an injury received in the course of employment while telecommuting at home will affect the system or an employer's workers' compensation premiums. The occupational safety and health law requires an employer to provide a hazard-free work environment. Telecommuting expands an employer's risk without giving the employer an opportunity to control the home telework station setting.

In the past there has been objection from labor unions about telework, but most of these objections have been met by having the telecommuter retain employee status and therefore retaining benefits. Unions recognized, as employers should, that telecommuting helps the organization by increasing the quality of life of the employees, and reducing less quantifiable costs to the employer, for example, minimizing turnover and absences due to mild illness. Today, the state Department of Transportation and other private companies are ready to assist employers in analyzing how telecommuting can benefit their company.

Employees need to consider similar issues as their employers but first must resolve the problems that may arise by working at home. Discussing the arrangement with those who may be affected at home is critical to the success of telecommuting. Employees will probably not be able to realize any tax benefits as the current definition of business use of the home is strict and telecommuting may not meet the requirements to allow a deduction from earned income. Employees should also be cognizant that because they are not physically present in the office there may be unintentional changes in relationships at the office. This could result in a feeling of isolation or being passed over for a promotion. Communication is critical to maintain contact and avoid inadvertent discrimination.

Several programs exist now in all facets of government and the private industry.

Significant barriers that exist are more of perception than legal or physical. Lack of management support is the number one barrier to employers instituting telecommuting programs. Telecommuting may require a change in management style which means a re-education of management. Telecommuting must be voluntary. If employees do not want to participate because they feel: (1) their careers will suffer; (2) they will lose touch with the relationships, both professional and personal, that they have developed at the office; or (3) concern over how their telecommuting from home will appear to others, then these perceptions will most certainly create potential barriers. As telecommuting is a new idea that has yet to be tested in the courts and is not directly addressed in the law, employers may perceive an undeterminable increase in risk that are not willing to take.

Technology is capable of handling most telecommuting today. Planning should be undertaken as to how advanced electronic networks will be introduced into the State and who will have authority over them.

County zoning does not appear to present a problem as ordinances have been interpreted to prohibit business activity that creates traffic, noise or noxious substances. Telecommuting creates none of these. Covenants, or restrictive clauses in leases, condominium bylaws and the like that prohibit any business use may be potential barriers to those subject to that type of agreement.

Findings and recommendations are presented in the last chapter and include the expansion of the present Telework Task Force. Appropriations should be made for the Task Force to pursue a marketing plan that serves to educate the general population about telecommuting. The Task Force should also evaluate the possible roles the State should play in development of an advanced electronic network (ISDN and fiber optics).

Other recommendations include the State instituting a telecommuting program for its employees that includes modification of certain policies including parking rules that would allow state employees to take advantage of some of the benefits that telecommuting can offer. Finally, the study suggests possible legislation that could be enacted that would provide a receptive atmosphere for telecommuting. These recommendations may be appropriate material for Telework Task Force analysis.

A bibliography is included.

Chapter 1

INTRODUCTION

Origin of the Study

This study is the result of House Resolution No. 74, H.D. 1,¹ requesting the Legislative Reference Bureau to conduct a study "To Encourage Public and Private Employers to Adopt Telework Policies Allowing Employees to Work at Home." The full text of the Resolution is set out in Appendix A. A careful reading of the Resolution makes apparent the State's recognition of the benefits of the high technology industry. Additionally, the Resolution identifies transportation, labor, and quality of life issues that need to be addressed if those situations are to improve. The Resolution embodies the desire to explore innovative methods and ideas that may alleviate or curtail current areas of concern.

Purpose of the Study

The stated purpose of the study is "to identify any existing or potential barriers that may prohibit employees from working at home" and "recommend policies to address any existing or potential barriers that may discourage public or private employers from offering employees the opportunity to participate in telecommuting programs." This purpose cannot be fully accomplished without a full understanding of telework and the various elements that surround telework. Therefore, this report begins by defining the terms of telework, then exploring the different elements of the policies and employee and employer considerations. After briefly examining other telework programs the report then sets out the barriers and finally provides findings and recommendations.

Scope and Methodology

This study is limited to exploring issues related to teleworking as an employee or an employer in an employee-employer relationship. It addresses issues of the independent contractor or entrepreneur who works out of the home only as those issues relate to the employee-employer relationship. It should be noted that the State and counties have a dual role in this study, one as employers and the other as regulating entities. An attempt has been made to distinguish these roles as applicable.

Geographically the scope of the study incorporates the entire State. All counties were contacted and the report is submitted with issues concerning both Oahu and the neighbor islands in mind.

Most of the information used for this report was gathered from other states' telework projects, private industry telework projects, and through conversations with agency personnel and with experts in the telework industry and participants in telework projects. The remainder of the information was culled from the numerous articles written in magazines and newspapers and listed in the bibliography.

Finally, it should be noted that this study does not determine whether or not teleworking is desirable. The Resolution requesting the study presumes desirability and directs the focus of the study to removing barriers to telework.

ENDNOTES

1. House Resolution No. 74, H.D.1 (1991), was adopted on April 22, 1991, by the House of Representatives during the Regular Session of 1991.

Chapter 2

TELEWORK: DEFINITIONS AND ADVANTAGES

"A rose by any other name still smells as sweet."

--Shakespeare

A rose, having familiar characteristics and historical references, is an easily recognizable object. Telework has neither familiar characteristics nor any historical reference for many. As an emerging concept with many different terms used to describe similar activities, pinpointing an exact definition of telework is elusive.

Definitions

Recognizing the confused state of the language of telework, experts in the field are starting to adopt standardized meanings for commonly-used terms. To avoid or minimize disagreements based on semantic differences in definition of terms, this report has interpreted those expressions and uses the following terms as set out below.

Home-based employment (HBE) means an employment condition in which workers, including entrepreneurs, independent contractors, and telecommuters, perform all or some of their job-related work at home.¹

Non-home-based telework (NHB) means telework that is performed by a worker outside of the principal place of business but not at the worker's home. NHB includes telework performed at telework centers, branch or satellite offices, or on car phones.²

Telecommute means a working arrangement in which an employee works from a remote site that is located in a place that reduces the employee's regular commute to the principal place of business, including working at home, at a satellite office, or at a telework center, and communicating electronically between the remote site and the employer's principal place of business.³

Telework means any job task performed by a person as part of the person's work activity that is accomplished by using electronic methods to produce or transmit a work product, including engaging a process from a remote site, the use of cellular phones, video conferencing, working from a telework center, and the use of computers.⁴

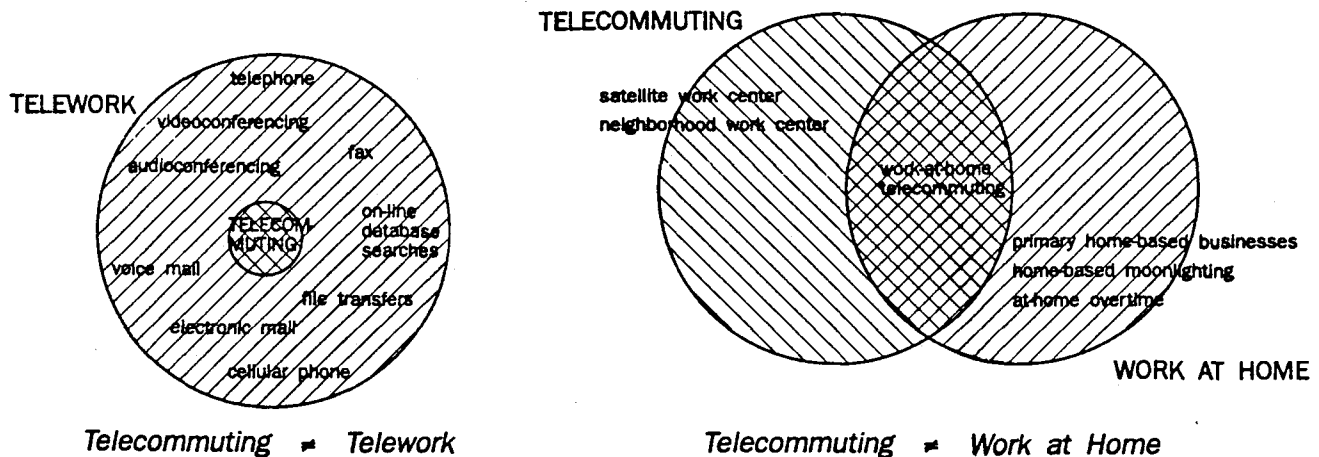
Telework center means a location that houses more than one telework station where the telework stations may be connected electronically to one or more principal places of employment.

Telework station means a work area located at a remote site from the principal place of business, including a telework center, the home, or a branch or satellite office, where employees can perform their regular job tasks and work activities.⁵

Patricia Mokhtarian, a recognized expert in the field of telework, has defined telecommuting as a subset of telework. Graphically, she suggests the relations might be displayed as set out in Figure 2.1 below.

Figure 2.1

RELATIONSHIPS OF TELEWORK TERMINOLOGY



Historical Perspective

People have been working at home for a long time. The Wall Street Journal reports that President Thomas Jefferson was one of the earliest executives documented to have a home office which was set up in his bedroom at Monticello,⁶ but most early home industries focused on manufacturing and what is now known as the "cottage" industry. The Industrial Revolution caused a centralization of manufacturing in factories, and the cottage industry dwindled. The nation learned how to commute. Industrial advancements shifted manpower requirements from manufacturing to service-oriented businesses and launched an industry of information services. Along the way unpredictable side effects such as pollution, traffic congestion, excessive waste, and worker stress, emerged. These undesirable side effects are now just as important issues to resolve as is the forward movement of technology. The communications industry is being lauded as the solution to some of the side effects created by progress.

Today, an interesting decentralization is being experienced on several fronts. This report focuses on one aspect of the decentralization of business, that of sending employees home to work, effectively decentralizing the work environment, rekindling a new type of cottage

industry, an electronic cottage industry.⁷ While critics may say that these developments have caused business to evolve in a complete circle, a more accurate description might be a corkscrew pattern of evolution where similar concepts are returned to, but on a different, higher plane.

The Advantages of Telecommuting

There are many reasons why telecommuting, or having employees work at home, can be beneficial to employers, employees, and the community as a whole. While every individual may have personal specific reasons for wanting to work at home, the general advantages of telecommuting that follow will apply to the majority of telecommuting situations.

1. Contributes to Alleviating Traffic Congestion

The most obvious advantage of telecommuting is that it takes cars off the road during rush hours by allowing workers to commute to work using an "electronic highway" instead of a vehicle. Telecommuting was first explored in Hawaii as a solution to traffic congestion.⁸ The theory is that if people whose jobs may be accomplished at home stay home to work, there are fewer cars on the road and therefore less traffic for those who must commute to work. Five years ago, posing solutions to the immediate traffic congestion issues Councilman Gary Gill stated, "Getting seven percent of the cars off the road [would] accomplish it."⁹ While that theory is still a driving force behind the promotion of telecommuting, studies have shown that a large percentage of workers would have to participate for telecommuting alone to achieve a substantially noticeable result in the traffic on the highways.¹⁰ The theory has retained strength though, when examining telecommuting as a single flower in a bouquet of alternative working options that allow workers to travel at times other than the peak rush hours.

2. Increases Productivity

One consistent result measured in telecommuting programs both in the private and public sectors is increased productivity. While initial productivity may decrease for a short period of time, this is usually attributed to the change in routine and environment and learning new communication techniques. After this initial start-up period, actual production figures range from two percent increases to forty percent increases.¹¹

3. Reduces Costs for Employers and Employees

The employer can reduce costs in several areas when the employer implements a telecommuting plan. Telecommuting can reduce rent costs by reducing the square footage required for office staff. Pairing workers at work facilities in the principal place of business and then coordinating their telecommuting schedules may provide an alternative, less expensive solution to companies looking at expensive expansion bills due to a lack of space for present employees. Parking costs may also be reduced because telecommuters may no longer need regular parking stalls at the principal place of business. Quantifying rent and parking costs alone could save an employer \$365 a month or \$4,380 annually per employee.¹²

Other reductions in costs for employers that are not as easy to quantify but add to the bottom line can include improved employee retention leading to lower training fees,¹³ and reduced absences related to mild illness, illness of a child or other dependent that may have required the employee to stay away from the office.¹⁴ It should be noted, however, that reductions of employer costs may not be as great as initially anticipated. For example, if two employees each telecommuted two days a week, the result would be a forty percent reduction in the amount of time they were physically present in the office. Yet, the employer could not eliminate a work station entirely because of the periods of overlap when both employees are present.

Employees can also reduce their costs by telecommuting. Telecommuting reduces gas needs and reduces the wear and tear on an automobile thereby reducing maintenance costs. Employees who telecommute do not need as large a wardrobe of "downtown" clothes and can reduce their dry cleaning and laundry bills by telecommuting just a few days a week.

4. Reduces Stress Caused by Commuting and Gives Discretionary Time Back to the Employee

Anyone who has traversed the main traffic corridors in Hawaii during the rush hours can understand the trauma and frustration associated with an everyday commute. Nationwide, more than eleven percent of workforce hours are spent on highways.¹⁵ Telecommuters who work at a telework station in their home can reduce their daily commute time of 1.5 or 2 hours to one minute a day. Using the electronic highway translates into "discretionary time" for the employee which could add up to more than three extra work weeks a year when telecommuting only two days a week.¹⁶ The increased discretionary time improves employee satisfaction and morale by giving the employee flexibility to spend more time with family or pursuing other interests.

Fewer miles travelled by telecommuters and less cars on the road leads to reduced stress on both telecommuters and non-telecommuters, contributing to a "kinder, gentler" community. President George Bush has supported telecommuting in speeches and numerous

comments stating that one of the benefits of telecommuting is it "improves morale by allowing parents to work closer to the people that they're really working for: their children."¹⁷

5. Improves Employee Recruitment

The State of Hawaii has one of the lowest unemployment rates in the nation.¹⁸ The labor pool is small and hiring competent personnel is at present likely to be the hardest task for any business in this community. Telecommuting can broaden the labor pool by attracting those potential employees who desire more independence and cannot or do not want to commute downtown to the regular office.¹⁹ These potential employees include retired people who no longer want the difficulty of dealing with a daily commute, parents of infants who want to stay home with their children, those who need to care for elderly dependents, and physically challenged people whose accommodations are more comfortable in their home.²⁰

6. Reduces Fuel Consumption

In Hawaii's island community that is so dependent on the importation of fuel, everything that can be done to conserve fuel must be considered. No research on fuel consumption for telecommuters working out of the home has ever been done in Hawaii but research both in Hawaii and on the mainland indicate that telecommuters working out of a telework center travel substantially fewer miles in their cars than non-teleworkers.²¹

A reasonable assumption is that home-based telecommuters would have the same or better fuel conservation statistics as telecommuters at a telework center. Extrapolating the statistics of telecommuters at a telework center, telecommuters working out of the home would drive eighty-five percent fewer miles as telecommuters than when they were commuting regularly to their principal place of business. Telecommuters have the opportunity to reducing their fuel consumption by forty-seven percent and reducing transportation costs by approximately \$100 annually.²² The fewer the miles driven, the bigger the saving for the telecommuter, the bigger the reduction in fuel consumption, and the less dependent the community is on oil imports.

7. Air Quality is Improved

Even though Hawaii is blessed with trade winds that blow most noxious substances out to sea, the damage auto exhaust can cause cannot be ignored. The pollution caused by automobiles is a major reason why the metropolitan Los Angeles area has such a dramatic air quality problem and has been one of the instigators of recent California legislation mandating employers to annually reduce their employees' commuter trips by a percentage or pay a

penalty. By reducing the number of cars on the road each day, telecommuting is a step in the direction of improving air quality, or at least reducing the level of degradation.²³

Summary

The definition of telework is broad and includes any form of work that uses telecommunications; for example, the use of a telephone. Telecommuting, for the purposes of this report, refers to those employees of an organization that choose to perform their job tasks at home. Telecommuting, for purposes of this study, does not include entrepreneurial pursuits where a person runs a business from home or is an independent contractor.

Telecommuting can be a beneficial tool for the employee, the employer, and the community. The employee benefits by reducing the time spent commuting, reduced commuting costs, and reduced levels of stress. The employer can benefit by higher levels of productivity and reduced costs. The community benefits by reducing the number of cars on the road, reduction in gas consumption, and increased air quality.

Telecommuting is a relatively new concept that is catching on with both big and small companies. There are currently between 4.3 and 5.5 million company employees across the nation who work at home during normal business hours.²⁴ Telecommuting can be a good program addition and can complement other personnel policies that contribute to the alleviation of traffic congestion.

ENDNOTES

1. This term is popular with the federal government. See Wendell H. Joice, "Home Based Employment--A Consideration for Public Personnel Management," Public Personnel Management, Vol. 20, No. 1 (Spring 1991).
2. This definition does not distinguish between employees and independent contractors.
3. "Telecommuting" is a term coined by Dr. Jack Nilles in 1972. To date, the term has not been recognized as an employee-only situation but this report needs to determine a method to distinguish between different telework situations and therefore the definition specifically states "employee" and is not intended to cover independent contractors or entrepreneurs working out of their homes who by definition do not have regular commutes. The requirement that the remote site be located in a place that reduces the employee's regular commute is to exclude the type of employee that regularly travels as part of a work routine, for example, sales representatives.
4. The definition is purposefully broad to incorporate a wide array of activities by independent contractors, entrepreneurs, sales representatives, and employees, both those working at the principal place of business and those telecommuting.
5. The definition again specifically refers to "employee" to distinguish between the home office that is the principal place of business for an independent contractor or entrepreneur.

6. The Wall Street Journal, June 4, 1990, p. R32.
7. Sylvia Proter, "Barriers to telecommuting disappearing," Daily News, January 30, 1991, see also David Heenan quoted in "The Renaissance CEO," Hawaii Investor, August 1991, p. 19 and David B. Fisher, in comments made in Hawaii Acces Net, Hosted Forum, Item 1, Message 20, November 20, 1990.
8. 1988 Haw. Sess. Laws, Act 390, section 43A.
9. Ellen Paris, "A Desire Named Streetcar," Hawaii Investor, August 1991, pp. 20-22.
10. Ilan Solomon, "Telecommuting, A Complex Solution." Speech given at The Telecommuting Phenomenon: Another Way to Work: University of California, Irvine, July 15, 1991. Stated that a 40% adoption rate or people telecommuting 2 days a week, would only reduce vehicle miles travelled 6%.

SMS Research, Final Evaluation on Year One of the Hawaii Telework Center Demonstration Project (Department of Transportation: January 8, 1991); projected a 5% reduction in traffic if 5% of Oahu's population telecommuted.
11. William Atkinson, "Home/Work," Personnel Journal, November 1985, p. 105 (reports 2% to 40%).

Randy Hoder, "Working at home boosts output; traffic, space problems eased" City & State, February 26, 1990, p. GM2 (reports 5% to 25%) (hereafter cited as "Hoder").
12. Assuming a reduction of 100 sq. ft. at \$2.65/sq. ft. office space; and \$100 parking per month.
13. CSG Backgrounder, "Telecommuting," June 1990, p. 2 and telephone interview with Myra Yuen, Sears and Roebuck, Human Resources, June 12, 1991, said when Sears was planning the move out of the tower in Chicago they offered telecommuting as an option to retain some employees who did not want to make the move out to the suburbs.
14. Pamela Grady, Ph.D., "Telecommuters Go To Work Without Leaving Home," First Reading, Legislative Research Unit, Illinois General Assembly, Vol. 6, No. 7, August 1991, p. 5.
15. Cheri Collis, "The Shape of America," State Government News, June 1991, p. 28.
16. Based on a 1.5 hour commute round trip per day, two days a week telecommuting would save 3 hours a week. Multiplying this by 50 weeks a year equals 150 hours which, when divided by 8 hours a day, is approximately 18 working days.
17. Speech by President George Bush at the Minnesota Telecommuting Conference, Minneapolis, May 14, 1991.
18. Bureau of Labor Statistics, Monthly Labor Review, September 1991, United States Department of Labor, p. 57.
19. Hoder, supra n. 11.
20. Physically challenged people may appear to be the ideal candidates for telecommuting, but there have been opinions voiced that the isolation of telecommuting would not help relieve one of the major hurdles physically challenged people are faced with every day, that of accessibility to the non-physically challenged environment.

21. The Hawaii Telework Center reported an 85% reduction in round trips to town for regular telecommuters at the telework center. SMS Research, Final Evaluation on Year One of The Hawaii Telework Center Demonstration Project (Department of Transportation: January 8, 1991), p. 15.

An interim evaluation of transportation impacts in the telecommuting pilot study by the County of San Diego reported that non-telecommuters travelled four times as many miles as telecommuters. Patricia L. Mokhtarian, Telecommuting Pilot Study. Interim Evaluation of Transportation Impacts (University of California, Davis: May 21, 1990), p. 4.

22. SMS Research, supra n. 21.
23. Borut Prah, "The Clean Air Act and Telecommuting," Government Technology, January 1991, p. 12.
24. Alison Calderbank, "Smaller firms lead in telecommuting," Computer Reseller News, April 1, 1991, p. 112.

Miller, Thomas, "1991 Telecommuting Data," Link Resources Corporation, 79 Fifth Ave., New York, New York 10003.

Chapter 3

ELEMENTS OF A MODEL HOME TELEWORK PROGRAM FOR TELECOMMUTERS

Putting together a telecommuting program is like fitting jigsaw puzzle pieces. Once all the right pieces are identified each comes together to form the big picture. This chapter discusses the several elements that should be considered when establishing a home telework policy for telecommuters. Proper selection of personnel, including their home environment and their motivation to telecommute, the position, and the equipment required to perform the employee's regular tasks at home are essential items that will contribute to a positive telecommuting experience. Telecommuting is only possible if management chooses to embrace the concept and recognize its value. A clear telecommuting agreement between management and the telecommuter that spells out the duties and responsibilities of each will guide both parties through any circumstances that may arise during the course of time an employee chooses to telecommute.

Personnel

The best person for telecommuting is the person who really wants to be a telecommuter. Telecommuters should always be volunteers. Repeated research confirms, that a telecommuter needs to be an independent worker, a self-starter who shows discipline and responsibility regarding the quality, accuracy and punctuality of their work and one who needs little supervisory assistance.¹ Typically, the best telecommuters are workers who have some seniority and have a great degree of familiarity with their job tasks. Link Resources, Inc. has defined the typical telecommuter to be married, between the ages of 35 and 40, and earning \$40,000 a year.² While those particular indicia may represent the average telecommuter it is important to note that telecommuters represent people from both above and below those particular figures.

The employee's home environment is another critical factor to the success of the telecommuting arrangement. The home environment needs to be both physically and psychologically adequate. The home environment should be physically able to accommodate a separate area that is exclusively designated as the telework station. No specific square footage is prescribed but the area should be adequate to provide for an ample work space including handy access to any necessary equipment. Setting aside a separate area helps the telecommuter and family members distinguish between work tasks and home tasks, and may influence insurance coverage.³

The employee's motivation for seeking to be a telecommuter will also have some bearing on the success of the telecommuting arrangement. Research has shown that telecommuting should not be used as a substitute for child care of non-school age children.⁴

Many employees may be motivated to institute a temporary telecommuting arrangement with their employer to care for a bedridden dependent or to extend their time with a newborn before returning to work. These type of motivations may produce successful results contrary to the research cited above because the nature of the care required for these dependents would allow an employee to work for blocks of time that coincide with the sleeping patterns or amount and type of care required of the dependent. Those who are seeking relief from a daily commute or who just want to spend more time at home with family members who are willing to cooperate with a daily home-work schedule will usually be good candidates for telecommuting.

Position

Obviously, some positions will be more suitable than others for telecommuting and others may be totally inappropriate. Positions that require a physical presence, for example, receptionist, maintenance worker or brain surgeon, would never be good candidates for telecommuting because all those positions require the person to be physically present in the office to accomplish the majority of the position's tasks. Conversely, a position that would be a good candidate for telecommuting would be a position that deals with information management or service. Positions that require infrequent interaction with other office personnel and little access to immovable equipment or files are also good candidates for telecommuting. Positions with job tasks that have daily patterns and deadlines or that have cycles, either calendar cycles or are project- or stage-oriented cycles, usually have attributes that work well with telecommuting.⁵

There are many job positions that can be re-engineered to have their tasks adapted and structured to accommodate a telecommuting schedule. Service positions such as accountants, attorneys, agents, journalists, instructors, and managers who earn their living by providing or handling information are ideal candidates. Over fifty percent of all workers in the United States today hold these type of service information jobs.⁶ Individual tasks of positions should be examined to determine if a telecommuting schedule can be set up. Employees and managers may be able to redesign patterns of work that allow an employee to telecommute at least one or two days a week.

Equipment

The type and amount of equipment required for a home telework station depends on the tasks of the job to be performed. All the equipment that may be required is a pencil, pad and occasionally, a phone, or at the other extreme the equipment required to perform some tasks at home may include installing a commercial phone line, a computer, modem, facsimile machine, and a copier. The point is that each home telework station may be unique and can be arranged to suit the task at hand. The recent promotion of public telecommunication facilities around the islands may make it possible for items to be available in the neighborhood on an

"as needed basis".⁷ Fully equipped workstations may include electronic mail, voice mail, and teleconferencing capacity.

An additional item of equipment that is somewhat masked behind any computer hardware is the need for communications software if computers are to be linked by modems. Computers need instructions to be able to communicate through a modem. There are many commercial brands of communication software available at various prices. Some communication software comes already packaged with modems and will also allow a computer and printer to operate as a facsimile machine. This type of modem and software can be purchased for under two hundred dollars.⁸ When considering the purchase of any additional computer equipment the type of software that will be operating and the communications capacity should be considered. Most of these questions can be answered by any retail computer store or consulting service.

Management

No telecommuting program can succeed without the support and guidance of management. This may be the most difficult element to attain. Ironically, managers do not object when workers take work home to complete in the evening, but many managers do not immediately accept telecommuting programs because their sense of control is lost if the worker does not physically report in each day. Telecommuting requires most managers to change the way they manage. Telecommuting means that managers must manage by objective and results rather than by observation of activity. Many managers will need additional training to assist them in realigning their focus.

Managers who have a positive attitude toward telecommuting, including a basic trust in their employees and belief that the people they supervise can accomplish quality work without constant supervision, will be the best candidates for managing telecommuters.⁹

Telecommuters Agreements

The telecommuters agreement is an essential tool for the success of any program. The written agreement protects both the employer and the employee. An agreement can take on many forms and is simply an expression of the responsibilities and duties of both parties. The agreement may be very specific or very general. It may incorporate other documents, for example, a memorandum of understanding, a job description, general telecommuting policies of an organization, or a set of standards. It is generally agreed that the more detailed the agreement, the more clear the understanding of the roles each party plays. Sample agreements are included in Appendices B-I, B-II, and B-III. These can be used as guidelines but every agreement should at the very least include the following items.

1. **Identification.** The agreement should state the names of the employee, the supervisor, any union authorization required, and upper level management authorizing the program. All parties should sign and date the agreement.

2. **Dates.** The dates of the duration of the program from start to finish. These terms may be specific dates or may be conditional and linked to certain events or performance schedules.

3. **Employee status.** The status of the employee as retaining all rights and benefits related to the status of employee should be clearly stated.

4. **Employer's responsibilities.** Issues that should be addressed concerning the employer's responsibilities include liability of equipment, purchase and ownership of any equipment, training and support, reimbursement to employee for costs related to installation, or substantial increases in employee's utility bills.

5. **Employee's responsibilities.** The most important of the employee's responsibilities that should be considered in the agreement are the required number of hours of work each week and work schedule, perhaps defining core hours that the employee should be available at all times, and allowing flexibility beyond that. Other considerations include employees' maintenance of the home-work environment and equipment, regular communication with the office, liability for equipment, and authorization or release from any lease restrictions.

The agreement can be drawn up by the employer and the employee and does not require an attorney, but prudent employers may want their attorney to review the final agreement for comments or clarifications. Both employers and employees should consider the issues raised in chapters 4 and 5 of this report when making their agreement.

Summary

Telework policies for a good telecommuting program include selecting the right people, selecting the right type of job, having access to the necessary equipment, working under the right supervision, and having a good written expression of the employees' and employer's agreement. General policies can be adopted to provide a basic framework, but the details of each agreement should be considered individually. Working through the different elements builds a good base for developing successful telecommuting policies.

ENDNOTES

1. Annetta Miller and Elisa Williams, "Escape from the Office," Newsweek, April 24, 1989, p. 59. CSG Backgrounder, "Telecommuting," June 1990, p. 4.

ELEMENTS OF A MODEL HOME TELEWORK PROGRAM FOR TELECOMMUTERS

2. Fred Sissine, "Telecommuting: A National Option for Conservation of Oil." Testimony prepared for the Oversight Hearing on American Energy Independence held by the Subcommittee on Water, Power and Offshore Energy of the House Committee on Interior and Insular Affairs, September 11, 1990, p. 4 citing E. Page Bucy, "Telecommuting: Home Work Comes of Age." Working World, May 14, 1990, p. 18. See also Home Based Telework Proceedings (Hawaii, Department of Transportation), October 12, 1990.
3. See chapter 4 for coverage of employer's insurance issues and chapter 5 for employee's insurance considerations.
4. Wendell H. Joice, "Home Based Employment--A Consideration for Public Personnel Management," Public Personnel Management, Vo. 20, No. 1 (Spring 1991) at 55.
5. Gil E. Gordon and Marcia M. Kelly, Telecommuting, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1986, pp. 52-53.
6. Borut Prah, "The Clean Air Act and Telecommuting," Government Technology, January 1991, p. 12.
7. DITTO's and many other commercial copy and printing centers now offer facsimile services in addition to copying services.
8. Interview with Jeff Corn, Sales Manager, Software Plus, July 28, 1991. This price estimate assumes the computer is equipped with necessary hardware elements.
9. Joice, supra n. 4.

Chapter 4

EMPLOYERS' CONSIDERATIONS

Employers are in business to make a profit. In their evaluation of whether or not to institute any new policy or program one of their first concerns will be, "How does it affect the bottom line?" Quantifying the cost of implementing a corporate telecommuting project will vary according to each employer's policy decisions. Cost ranges are broad and many pilot projects to date have not been able to specify exact costs due to uncontrollable variables in the studies.¹ Ultimately an employer must review the issues set out in Chapter 3 concerning all the elements of telecommuting, in addition to insurance, taxes, and labor concerns, to be able to fully determine the cost of telecommuting. Employers may want to institute a smaller scale pilot project to quantify or test a telecommuting plan before offering telecommuting as an alternative to employees on a broad scale.

There are several resources already available to assist in determining whether or not telecommuting can prove to be a positive program to a business. Currently, the state Department of Transportation is offering a service to local businesses that evaluates and calculates how telecommuting can improve operations.² Employers, especially those employing a large number of employees, may want to hire private telecommuting consultants to guide or assist them in developing their telecommuting programs.³

Elements of the Telecommuting Policy Revisited

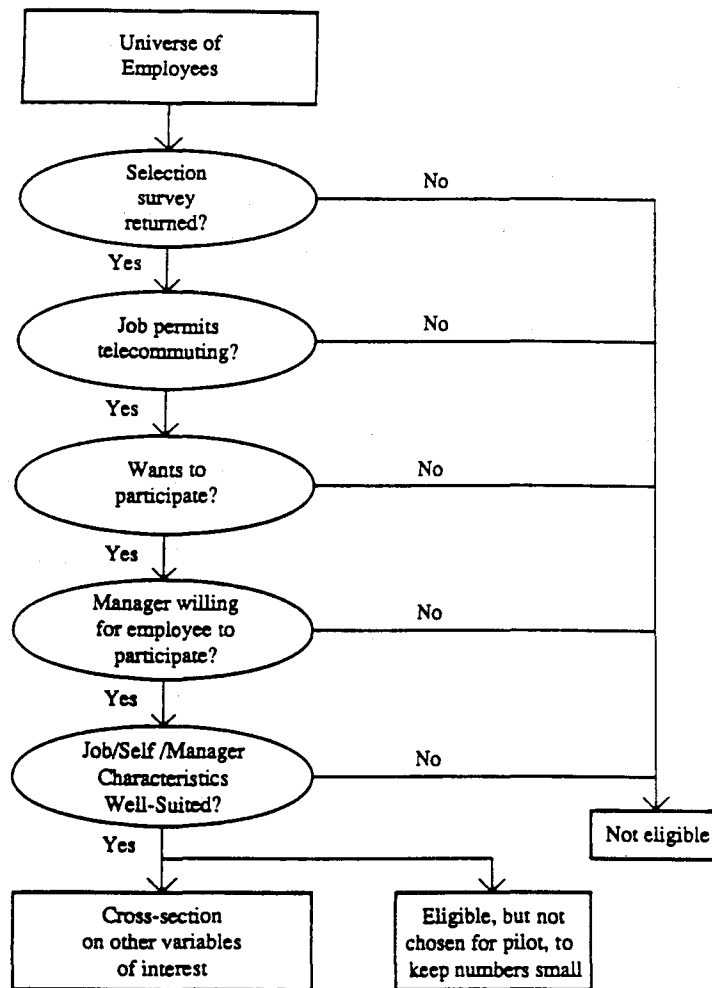
Choosing Telecommuters

Increased productivity is what choosing the right employees for telecommuting can do for a business. Chapter 3 describes the kind of person that is likely to have the most success telecommuting. If employers wish to implement a successful telecommuting program the employer must be able to select the people that will be the most effective telecommuters. In addition to selecting the personnel, the employer must also decide whether the job tasks can be performed adequately outside the office. Finally, the employer must determine the support provided for the program by the supervisor or manager.

Scholars in the area have attempted to analyze the selection process of telecommuters. Some authorities have displayed the selection process graphically as a triangle, stating that it does not matter where one starts, only that all the corners are defined and the triangle is closed. Others have defined a step-by-step analysis where an initial survey is distributed to the universe of employees. Figure 4.1 illustrates the selection process used for the Southern California Association of Governments Telecommuting Program.⁴

Figure 4.1

TELECOMMUTER SELECTION PROCESS



Notice that there should be an opportunity for consideration of both the manager as well as the potential telecommuter. Surveys can help determine who these candidates are. Surveys used in the Southern California Association of Governments program are set out in Appendices C and D. These types of surveys, modified to accommodate a business's special interests, are good tools to identify prime candidates for telecommuting at both management and employee levels. Selecting the most appropriate individuals for telecommuting is one of the keys to improving productivity.

The selection process should accrue only incidental cost, but there should be a budget allotted for training both managers and employees. Training the selected individuals will reduce the "down" time resulting from the transition of environments. Training those employees who do not telecommute on how to locate telecommuters, forward messages, and

relay messages to clients is essential to keep communication levels high and to make telecommuting essentially invisible to outsiders.

Job Tasks and Security

One element that should be addressed concerning the nature of the tasks and confidentiality of material handled by potential telecommuters is security. Employers need to consider whether special measures should be taken to safeguard confidential material. Some employers have considered this as a threshold issue.⁵ Typical measures taken may be to restrict removal of certain materials or set up a security system within the office computer network to ensure that only authorized personnel have access to certain data.

Security should be considered with regard to the confidentiality of the material as well as the integrity of the computer system. Opening a computer system to modem access may also present a security break if proper precautions are not taken to safeguard access and prevent infiltration of unwanted computer viruses. Password entry at various levels of program and information access is one form of protection. Other forms of computer security that require somewhat more advanced procedures for installation are random password access and call-back access. Employers need to weigh the benefits of the ability to telecommute with the degree of security that may be jeopardized.

Equipment Purchase and Maintenance

Capital costs for equipment that will be incurred by the employer will be determined by the variables in equipment required for an employee to accomplish the tasks defined by the position. Methods to curb these costs include:

- (1) Allowing employees to use their personal equipment;
- (2) Restructuring the daily routine to allow for low-tech days to be telecommuting days and therefore alleviating the need to purchase any new equipment for home use;
- (3) The use of portable equipment, for instance a laptop computer, that can be shared between telecommuters in addition to operating as an additional office station when required; or
- (4) Providing low-interest rate loans to employees to purchase their own equipment for home telecommuting use.

Recurring charges related to equipment should be addressed at the outset of setting up the program. Common recurring charges include monthly phone bills for an additional line into

an employee's residence, incorporating special feature fees on a monthly phone bill, for example, call-forwarding, utility bills, and messenger services. These are negotiable points that should be addressed in the telecommuting agreement.

An important aspect of telecommuting is to maintain communication, and as communication charges can be one of the more regular charges several questions should be answered when considering decisions about phone use and installation. Before making decisions concerning a phone, a determination should be made as to:

- (1) How much time does the employee spend on the phone each day that is related to work?
- (2) Does the time spent on the phone by the employee warrant a separate phone line to be put into the residence for the days the employee will be telecommuting?
- (3) Who will pay the costs, installation, and monthly charges?
- (4) Is there a call-forwarding service already installed in the current phone system or is this a feature that will need to be added?⁶
- (5) Will there be lengthy periods of computer hookup through a modem that will cause the line to be busy regularly and therefore limit communication or does the computer connection have the capacity to "download" and "upload", tying the phone line up for only short periods of time?

Installing additional phone lines in employee's residences may present an additional cost to the employer. GTE Hawaiian Telephone's present tariff rates state that if a phone is used for commercial purposes, the corporate rate shall apply. It is the opinion of GTE Hawaiian Telephone that telecommuting would be categorized as a commercial use⁷ and therefore phones installed in employees' residences would be subject to the higher commercial rate, currently about \$41.00 per month for regular business service.⁸ This is an additional area where creativity and research can create options for the employer that may curb costs. If only one phone line will do but the residential phone line cannot receive the company's call-forwarding because of its residential status (see note 6), an option for the employer may be to upgrade a residential phone to commercial use and negotiate a monthly subsidy to the employee to cover the additional fee above and beyond the residential rate.

Agreements

The agreement should incorporate all the points outlined in Chapter 3 and be an expression of the agreement between the employee and the employer. The final negotiated agreement should be written and signed by all parties, employer, employee, and perhaps the union representative (see Labor Issues below). Drawing up a telecommuters agreement does

not necessarily require the services of an attorney, although employers may want to consult their regular business attorney for review and comment.

Insurance

Employers already pay large amounts for insurance and telecommuting does not appear to affect premium rates either positively or negatively. General liability premiums that are set by the claims made against a company and the product or service it provides would not be affected as telecommuting does not alter those factors. Multiple line policies covering liability, theft, water damage or fire can cover equipment stored at an alternate site but every employer holding this type of policy should confirm the limits of their policies with their insurance agent. Premiums may increase if the type of coverage is expanded.⁹

Telecommuting does not affect temporary disability insurance premiums or reduce medical insurance premiums because telecommuters maintain their status as employees. Employers remain under the same obligation to provide health insurance and temporary disability insurance to telecommuters as to other employees.¹⁰

Finally, telecommuting also appears to have no effect on workers' compensation premiums.¹¹ Currently in Hawaii, with respect to workers' compensation premiums, all employers are subject to specific classification rate schedules set by the Hawaii Insurance Bureau. The Hawaii Insurance Bureau replied to a letter from the Legislative Reference Bureau addressing the workers' compensation issue. When asked if working at home would affect the workers' compensation premiums related to particular telecommuters, the response of the Hawaii Insurance Bureau appeared to be somewhat narrow. Referring only to those categorized as clerical office employees the Hawaii Insurance Bureau confirmed that if the telecommuter still met the qualifications there would be no change in classification and therefore no change in fees charged. The Hawaii Insurance Bureau response is set out in Appendix E. The classification of clerical office employees covers a broader range of personnel than is implied by the title, covering any type of general office worker from file clerk through systems analyst and executive. The Hawaii Insurance Bureau confirmed that more than likely most people who telecommute would be assigned this classification, the least expensive classification.

The qualifications under the classification of clerical office employee also include a description of the working environment, specifically, that the clerical personnel area is set apart from other areas.¹² The policy behind this qualification is based on maintaining a safety threshold particularly in instances where clerical personnel are working in proximity to more dangerous activities, for example, high speed machinery.¹³ (See related material under Occupational Safety below.) Guiding the employee to the selection of an appropriate location

in the home with these qualifications in mind will help to ensure that workers' compensation premiums will not increase.¹⁴

Occupational Safety and Health Standards

Employers also need to be aware that they are required by law to provide a place of employment that is safe and free from recognized hazards.¹⁵ The law defines a place of employment as any place, and the premises appurtenant thereto, where employment is carried on.¹⁶ The law does not specifically address the home workstation issue, but the Department of Labor and Industrial Relations states that in the home, the workstation and area issues should receive the same safety and health considerations given to dangerous equipment in conventionally provided workstations.¹⁷ The employer must ensure that the working environment meets the rules and standards as set out by the Department of Labor and Industrial Relations.¹⁸ This can be accomplished by an initial inspection of the workstation and periodic visits. The inspections by the employer and maintenance of the safe and hazard free environment by the employee should be addressed in the telecommuters agreement.

Taxes

Telecommuting will not affect the employment taxes an employer is obligated to pay. Employers are still responsible for payroll taxes, including state and federal income tax withholding and FICA (Social Security). Telecommuting will also not change any state and federal FUTA (unemployment compensation) taxes because telecommuters retain the status of employees.

Currently, there are no specific state or federal income tax advantages directly related to telecommuting, although legislation was introduced in both houses of the state legislature during the Regular Session of 1990, and the Regular Session of 1991 to create a tax credit for employers establishing telework workstations.¹⁹ However, no legislation has ever been enacted.

Labor Issues

Unions have not been in favor of telework. As stated in the AFL-CIO resolution on computer homework (Appendix F), union concerns relate to worker exploitation, unsafe working conditions, and violations of minimum wage and child labor laws.²⁰ Many of the concerns are more prevalent when considered in the context of employees who are forced to become home teleworkers as independent contractors. These individuals no longer have the protections of employees and therefore are more apt to be subject to the potential abuses described in the AFL-CIO resolution. Identifying the potential abuses is a step in the direction of avoiding conflict with any union when planning a telecommuting program.

The employee contract that has been negotiated with a union should be examined to determine whether telecommuting is a negotiable issue and whether or not telecommuting options must be addressed during regular contract negotiations. Even though it may be the opinion of a union that telecommuting is within the scope of negotiations as a working condition of employment, unions may publicly support a program without formal negotiations if the program is mutually beneficial by improving the quality of life of the employee and providing a more productive workforce for the employer.²¹ For example, the original position of a union in Los Angeles was that telecommuting could not be implemented until the employees' contracts were renegotiated. Ultimately, the union reversed its opinion under pressure from members who wanted to participate in the telecommuting program being offered by Los Angeles County. The union supported the telecommuting program being offered to their members as long as certain conditions were met. This appears to be the current trend in union opinions about telecommuting. In Hawaii, union support for telecommuting, as defined in this report, can be seen in the participation of the Hawaii Government Employees Association, Local 152, in the pilot telecommuting project at the City Clerk's Office of the City and County of Honolulu.²²

Unions are becoming more accepting because telecommuting does not automatically mean loss of benefits to the employee. Maintaining workers in an employee status without severing benefits resolves what appears to be the central concerns expressed by union leadership. Working with the unions and incorporating them in the formulation of the program, and at least as signatories into the telecommuting agreement, is essential to the success of the program.

What is Saved

After looking at all the costs involved associated with setting up a telecommuting program, the employer must also examine what is gained when employees telecommute. Dollarwise, employers may be able to reduce the square footage of office space requirements and therefore reduce rental fees. Fewer employees located daily at the principal place of business means less space is required. While it is not recommended in the initial periods of experimenting with telecommuting policies, once a permanent telecommuting program is established, telecommuting employees may coordinate the days in the office (one telecommutes two days a week, the other telecommutes the other three days a week) that make sharing workstations possible at the principal place of business, therefore eliminating the need for the space required for two workstations. The same theory of cost savings can apply to parking spaces.

Telecommuting can also save employers time in finding new employees by offering a program that would retain valuable employees. Current employees seeking alternative solutions to the rigors of commuting may find telecommuting the answer. Telecommuting also opens a whole new labor pool for an employer. Many good employees that may not be able to, or choose not to commute on a regular basis become potential candidates as new employees.

Prime examples of this category of potential employees include those who are physically challenged and those in early retirement.

Beyond increased productivity, less quantifiable factors that may add to the bottom line should be considered when employers consider telecommuting. Studies have repeatedly shown that telecommuters have fewer absences due to illness, and are more satisfied with their jobs due to increased flexibility in their jobs.²³ While these factors may not be as easy to translate into exact numbers, minimizing employee absences and turnover by offering an alternative program to employees does translate into reduced training costs and reduced production delays.

Summary

Reaping the benefits of telecommuting is possible for any employer. Employers need to master selection techniques and be creative in curbing capital costs for equipment to ensure lower costs. Agreements can protect employers and assets by stating responsibilities and conditions of telecommuting. Training managers and employees is a cost that should not be spared.

Telecommuting has little or no effect on insurance premiums and taxes due. Employers may want to consult their attorneys and insurance agents to confirm their individual situations. Incorporating labor unions, where applicable, into the process is essential to ensure their support. While there are costs inherent in setting up and maintaining a good telecommuting program there are also savings that result beyond increased productivity. Telecommuting can result in reduced rents by requiring reduced office space and parking stalls, the retaining of valuable employees, the opening of new labor pools from which to select new employees, and providing new job satisfaction for employees with increased flexibility and independence.

Telecommuting is a new concept for employers which appears to be good not only for employers but for the employee, the community, and the environment.

ENDNOTES

1. Washington State has just started a pilot telecommuting project that has telecommunications professionals very excited because of the high degree of control that has been built into the study. The Washington State pilot project is being directed by the Energy Office and will last a full year. For more information, see chapter 6 of this report.
2. Interested persons should contact John R. Eiting, Facility Administrator, Telework Center Demonstration Project, 300 Kahelu Ave., Mililani, HI 96789. This service provided by the Department of Transportation is free and is provided as a marketing tool in the promotion of teleworking in Hawaii. The analysis focuses on the participation of a business at the Telework Center rather than home telecommuting but the resource has been included here because the issues in cost evaluation are similar.

3. Two consultants that employers may want to contact who are experienced and appear to be held in high regard in the telecommuting field are:

Jack M. Niles, President, Telecommuting Research Institute, Incorporated, 971 Stonehill Lane, Los Angeles, CA 90049, (213) 472-3547; and

Gil Gordon, President, Gil Gordon Associates, 10 Donner Court, Monmouth Junction, NJ 08852, (908) 329-2266.

4. Evaluation Report, Telecommuting Pilot Project for the Southern California Association of Governments with Central City Association, Telecommunications Task Force, Telecommuting Sub-Committee, 600 S. Commonwealth Ave., Suite 1000, Los Angeles, CA 90005, August 1988.
5. The state Department of Taxation, acting in its capacity as an employer, aborted the pursuit of a home telecommuting program for departmental employees who worked with confidential tax returns citing the inability to satisfy a threshold security factor. The department does allow departmental employees to telecommute from the Telework Center in Mililani, however, where they can perform their operations behind locked doors. Notes and comments from an unpublished compilation of field auditors concerns. Technical Review Office, Department of Taxation.
6. Currently, GTE Hawaiian Telephone offers many types of call-forwarding that may or may not operate to forward a call to an employee's residence. One common variety is an internal system that allows call-forwarding only within a closed-company system. Another allows forwarding to a number outside of a business's own system but must be forwarded to a similar type of service line, for example, business to business but not business to residence. This type of service would still require telecommuters to install a business line into their residence to receive call-forwarding from a business. There are also systems that will allow any phone to call forward to another phone. The point is compatibility of systems needs to be investigated. More features usually mean higher costs.
7. Telephone interview with Galen Haneda, Senior Account Executive, GTE Hawaiian Telephone, August 27, 1991, by Pamela Martin, Researcher, Legislative Reference Bureau.
8. Ibid.
9. Telephone interview with Ms. Kathleen B. Sansone, Sr. Vice President, Hawaii Insurance Bureau, October 16, 1991, by Pamela Martin, Researcher, Legislative Reference Bureau.
10. Note the distinction between the employee as the telecommuter as opposed to the independent contractor. Independent contractors teleworking for a business would reduce TDI and medical insurance premiums paid by the employer because the employer is under no obligation to provide these services to independent contractors. This discussion is not pursued because the scope of this report is limited to employees who telecommute.
11. Ibid.
12. See Appendix E.
13. Sansone interview, supra n. 9.
14. Ibid.
15. Hawaii Rev. Stat., sec. 396-6.

EMPLOYERS' CONSIDERATIONS

16. Hawaii Rev. Stat., sec. 396-3.
17. Interview with Harold Barks, Administrator, Occupational Safety and Health Division, Department of Labor and Industrial Relations, January 13, 1992, by Pamela Martin, Researcher, Legislative Reference Bureau.
18. Chapters 12-60 through 12-102, Hawaii Administrative Rules, Department of Labor and Industrial Relations, as applicable to the particular industry but particularly Chapter 12-60, General Safety and Health Requirements; Chapter 12-66, Illumination; and Chapter 12-102, Office Environments.
19. See S.B. No. 94, S.D. 2 (1991) and H.B. No. 61, H.D. 1 (1991), S.B. No. 2649 (1990) and H.B. No. 3067 (1990).
20. See Appendix F.
21. Telephone conversation with Guy Tajiri, Hawaii Government Employers Association, October 22, 1991.
22. See the Memorandum of Understanding attached in this report as a sample telecommuter's agreement in Appendix B-1.
23. CSG Backgrounder, "Telecommuting," June 12, 1990.

Chapter 5

EMPLOYEES' CONSIDERATIONS

Telecommuting can give new inspiration to employees, restore some quality of life, and may help solve some logistical problems associated with working parents and growing active children. Working at home might be the dream of many employees, but telecommuting is not suited for everyone. While there are many benefits to telecommuting, there are also sacrifices. This chapter explores issues that will help employees decide if their work habits, job tasks, personality, career pursuits and home environment will produce a successful telecommuting experience for them, their families, and their employers.

Working Habits

Successful telecommuters are the type of people that enjoy working independently. They know how to perform their job with little or no direct supervision, have confidence in their own problem solving ability and know where to go and who to ask when trouble arises.¹ Employees that make good telecommuters are also very self-disciplined and are good at scheduling their work to accomplish their tasks in a timely manner. Telecommuters must be good communicators with both their co-workers, their supervisors, and their employer's clients. If an employee does not communicate effectively when in the office, communication will not improve once telecommuting starts.

Employees need to examine their working styles. Working at home obviously separates the employee from the rest of the working group and social interaction with the employee's co-workers is reduced. Working at home does reduce the unscheduled work interruptions from co-workers dropping in to discuss both work-related and nonwork-related issues. While these periods of uninterrupted work may be the cause of the increase in productivity that so many of the pilot studies report, it also contributes to the telecommuters' feeling of isolation. The feeling of isolation is the most common negative statement by telecommuters. Employees who enjoy the interaction and socialization of the office will have to take assertive action to maintain access to the informal information loop and to social ties if they choose to telecommute. These informational ties can often be maintained without face-to-face contact by the increased use of electronic mail.

Working style also relates to fashion. Employees should consider whether dressing up and spending the day out of the house, or downtown near shopping and other businesses, is a positive or a negative factor for the potential telecommuter. Several sources recommend that telecommuters should continue similar morning rituals, including dressing appropriately each morning, when working at home to help establish a routine. The positive factor is that dressing appropriately for telecommuting from home still means saving on "downtown" clothes and cleaning bills.

Home Environment

Work space is a critical consideration for would-be telecommuters. It may be that the employer will be encouraging telecommuting because the principal place of business is already overcrowded, but if the would-be telecommuter has no space at their home to set up an adequate workstation, the employee may be jumping from the proverbial frying pan into the fire. Alternatives for employees without adequate space may include telecommuting from a neighborhood telework center.²

Once the employee establishes that there is room at home to telecommute, the ability to concentrate in the home environment draws into play some relevant concerns about family life. An employee who lives with family or other people at home must have the cooperation of those people if the telecommuting situation is to be successful. An employee considering telecommuting should discuss with family members the employee's new home schedule before the telecommuting program starts. The employee must be sure that rules about noise levels, interruptions, and breaks are fully understood if telecommuting from home is to be successful.



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Job Tasks

An employee needs to examine each of the daily tasks performed at work. If some but not all of the tasks can be performed at home, the tasks may possibly be rearranged so that the employee could telecommute one or two days in the week. The evaluation of whether or not an employee's position is suitable to telecommuting should include a thorough review of the amount of interaction necessary with other office workers. Employees need to be creative

when evaluating whether or not telecommuting suits their position. Employees who want to telecommute but will require some juggling of their present routine to arrive at an efficient schedule for telecommuting will need to devise a comprehensive and reasonable plan to present to supervisors who may be reluctant to disturb regular patterns of work. A good resource for employees in this category is Lis Fleming's, The One-Minute Commuter.³

Insurance

Casualty

Employees must consider the consequences of loss whether they purchase their own equipment, lease their equipment from their employer, or simply keep their employer's equipment in their home. Responsibilities for loss, damage and maintenance of the equipment regardless of who owns it should be addressed in the telecommuters agreement. Employees may want to confirm with their insurance agents whether or not their homeowner's policy extends protection to employer's equipment permanently stored in the home.

Workers' Compensation, Temporary Disability, and Health Care

Employees who choose to become telecommuters, as defined in this report, do not change their employment status in the eyes of the law. They remain bona fide employees and are entitled to the same benefits as those who do not telecommute. The employer's obligation to provide health care benefits, temporary disability insurance and workers' compensation coverage remains the same as for those working in the office. The issue that telecommuters must be aware of is the level of scrutiny that may be applied in the examination of workers' compensation claims stemming from injuries incurred at home.

Workers' compensation claims are examined on a case-by-case basis. Telecommuters who file a claim for workers' compensation as a result of an injury received in the course of employment may be subject to closer scrutiny than those filing a claim working in the principal place of business. This means that when officials in the Department of Labor and Industrial Relations are reviewing a workers' compensation claim made by a person who was injured in the course of employment while they were telecommuting from their home workstation, the department will look at the telecommuters agreement and the nature of the injury to help determine whether the claim is a valid workers' compensation claim.⁴ The telecommuter's agreement should provide time and job responsibility parameters that will assist claim reviewers in evaluating the validity of the claim. Work injuries may be more difficult to separate from other injuries when the injury happens at the home. Telecommuters can safeguard against claim reviewers' misinterpretation by keeping a work routine and following the telecommuter's agreement as closely as possible.

Taxes

Many employees wonder whether the expenses they incur setting up a home office for telecommuting are deductible from their income as filed on their annual income tax returns.⁵ The rules for both state and federal income taxes concerning deductions related to a home office are very strict and generally do not allow deductions for the business use of a residence. Specifically, the Internal Revenue Code will allow a deduction for an item:⁶

...to the extent such item is allocable to a portion of the dwelling unit which is exclusively used on a regular basis-

- (A) the principal place of business for any trade or business of the taxpayer.
- (B) as a place of business which is used by patients, clients, or customers in meeting or dealing with the taxpayer in the normal course of his trade or business, or
- (C) in the case of a separate structure which is not attached to the dwelling unit, in connection with the taxpayer's trade or business.

In the case of an employee, the preceding sentence shall apply only if the exclusive use referred to in the preceding sentence is for the convenience of his employer.

Key phrases to be examined when determining eligibility for a deduction for business use of the residence include "exclusively used on a regular basis" and "for the convenience of the employer". "Exclusively used on a regular basis" means that the space and equipment cannot be used by anyone for anything other than the business use claimed for the deduction, in this case telecommuting. There can be no personal use or other business use of the space or equipment.

Once the "exclusive use" test is hurdled, then the second phrase, "for the convenience of the employer" must be dealt with. Telecommuting is a voluntary program and as a voluntary program, it is a reasonable interpretation that telecommuting is for the convenience of the taxpayer and not for the convenience of the employer. There are some fact patterns where it may be reasonable to interpret that telecommuting is for the convenience of the employer. For example, in the State of California, where state law requires employers to reduce the amount of commuter trips for employees it would appear to be more reasonable to interpret a telecommuting program as "for the convenience of the employer" because telecommuting is a sanctioned method of reducing commuter trips which is required by law.

Historically, the Internal Revenue Service has interpreted the deduction for business use of the home very narrowly and although telecommuting may provide fact patterns that might force those interpretations to broaden in the future, it is generally believed by tax advisors today that telecommuting in the State of Hawaii does not meet the criteria for a deductible business use of the home.⁷ Therefore, deductions on individual income tax returns related to the expenses incurred in having a home workstation for telecommuting would most likely be disallowed under current state and federal law.

Career Aspirations

Many employees feel that the quality of life in Hawaii is deteriorating. Many people must work two jobs to make ends meet. Spending all day on the job, spending time commuting and doing errands has caused many dual income parents to relinquish the care and nurturing of their children to other people. Employees frustrated with the current conditions of their employment, including commuting, constant interruption during work periods, an uncomfortable working environment, and lack of time for other interests are struggling with their desire to pursue higher levels of achievement in their careers and searching for ways to decrease the level of stress this type of lifestyle naturally inflicts on employees. Telecommuting may be the answer for those workers who want to maintain the career track but need relief from the daily grind.

Today's technology makes it possible to arrange the workweek to accommodate different schedules and lifestyles. Telecommuting is being recognized by more and more personnel departments as a viable alternative work schedule.⁸ Telecommuting generally does not work as a substitute for childcare, especially for preschool toddlers,⁹ but telecommuting can help to provide more flexibility in a schedule to enable parents to attend children's school functions or drive them to other activities. Telecommuting two to three days a week may provide the flexibility and independence necessary to restore a person's quality of life.

Employees on the career track may be concerned about their lack of physical presence in the office. Working from home may increase an employee's productivity but employees may wonder whether the increase will be noticed at the office. This is a valid concern. Telecommuters need to keep lines of communication open to their supervisors. Telecommuters also need to make themselves regularly available for input and feedback to keep the career track "greased".

Telecommuters should be aware that supervisors may need to shift their style of management to managing by objective. Management by objective means there are clear objectives and goals, usually with guideposts along the way. Management by objective can actually lead to less direct communication with a supervisor but more efficient communications. The reduced face to face contact may subconsciously, adversely affect a supervisor's final

decision about a promotion concerning a telecommuter, so it is important to maintain contact. Telecommuting on a part-time or seasonal basis may balance those considerations.

Employees who are considering starting their own businesses may find telecommuting to be a safe, intermediary step. Establishing a business can sometimes be a frightening experience and telecommuting may be able to provide some initial experience by allowing an employee to be more independent. Telecommuting can provide an employee with the experience of operating more independently and encourage, or at least give employees the confidence, to strike out on their own. Telecommuting can also help an employee realize that operating an independent business can sometimes be more stressful than the security of being a telecommuter. Either way, telecommuting can open new opportunities for employees.

Summary

Telecommuting is not for everyone. Telecommuting does not have to be an all or nothing proposition. Most programs have telecommuters coming into the office at least once a week.¹⁰ After an examination of the different aspects and changes that occur in a working situation with telecommuting an employee must assess whether their interest still exists in pursuing telecommuting and whether they have the necessary support of the family and their employers.

When exploring whether telecommuting will work for an employee each individual employee should examine the issues as the issues relate to the employee personally. If telecommuting is to be a successful program it should be voluntary and should reduce the amount of stress in an employee's life. A helpful publication to explore these ideas further and to assist employees in producing an acceptable telecommuting program for themselves and their employers is Lis Fleming's, The One-Minute Commuter.

ENDNOTES

1. President's Council on Management Improvement, Human Resources Committee, Guidelines for Pilot Flexible Workplace Arrangements (January 1990), at 36. For more information contact Dr. Wendell Joice, Office of Personnel Management, Washington, D.C. See also Pamela G. Grady, "Telecommuters Go to Work Without Leaving Home," First Reading, Legislative Research Unit, Illinois General Assembly, Vol. 6, No. 7, August 1991.
2. The Hawaii Telework Center located in Mililani or a branch office of private enterprise may be able to provide space for a telework station, but as the focus of this study is the home telecommuter this issue is beyond the scope of this study.
3. Lis Fleming, The One-Minute Commuter, Acacia Books, 1309 Redwood Lane, Davis, CA 95616, 1989.
4. Telephone interview with Gary Hamada for Orlando K. Watanabe, Administrator, Disability Compensation Division, Hawaii Department of Labor and Industrial Relations, October 15, 1991.

5. Hawaii, Department of Taxation, Technical Review Office, unpublished comments of potential telecommuters at Department of Taxation.
6. 26 U.S.C.A. §280A(c)(1). This provision is incorporated into Hawaii state law through section 235-2.3, Hawaii Rev. Stat.
7. Telephone interview with Lowell Kalapa, Executive Director, Tax Foundation of Hawaii, December 20, 1991, by Pamela Martin, Researcher, Legislative Reference Bureau.
8. President's Council on Management Improvement, supra n. 1.
9. Fleming, supra n. 3, at 19. See also Wendell H. Joice,
10. "Home Based Employment--A Consideration for Public Personnel Management," Public Personnel Management, Vol. 20, No. 1 (Spring 1991), at 55.

Chapter 6

PROGRAMS IN PROGRESS

Telecommuting from the home has been in action for many years on an informal level. Employees who have demanded the opportunity to work at home a few days a week under the guise of an informal telecommuting program have become known as "tele-guerillas". Several formal telecommuting programs have been instituted to legitimize and structure these tele-guerilla activities. Other organizations that have not been subject to tele-guerilla warfare and that have not experimented with informal telecommuting programs, have instituted formal or pilot programs to find alternative solutions to other problems that may be present. Private companies and public institutions, both in Hawaii and on the mainland, are all becoming involved in formal telecommuting programs. This chapter examines some of the interesting aspects of different programs. In Appendix G is a list of contacts for several of the programs. The list has been compiled by the Telecommunications Advisory Council (TAC).¹

Public

Federal Agencies

The federal government is promoting several different pilot alternative work programs including telecommuting. The Human Resources Committee of the President's Council on Management Improvement has sponsored the program and issued Guidelines for Pilot Flexible Workplace Arrangements.² The term "flexible workplace" is meant to include any approved alternate work space but the policies recommend working at home or at a satellite office. Written policies alert supervisors to refrain from authorizing technically feasible locations such as restaurants, parks or the beach, which are more likely to provide uncontrolled distractions leading to less productivity.³ Nationwide, there are approximately 500 federal employees currently participating in this pilot flexible workplace program.

Local sources revealed that none of the Hawaii-based federal employees are participating formally in the pilot project for two reasons. First, the project's focus was on the nature of the job and not the convenience of the employee. While there are several employees who would have liked to participate, especially those currently living in the Hawaii Kai traffic corridor, their job descriptions did not meet the criteria outlined in the guidelines for the project. The second reason why there are no Hawaii-based federal employees in the pilot program was due to the inordinate amount of paperwork the study required the employees and the supervisors to generate in order to monitor and measure the effectiveness and success of the program. Informally, there are several employees who occasionally stay at home to work but this is always on an irregular basis. Most local offices of federal agencies in Hawaii are looking forward to participating when the program becomes an accepted permanent policy.⁴

State and Local Governments

Many state and local governments are looking to telecommuting to solve a wide variety of current unsatisfactory conditions, for example, traffic, pollution, office space requirements, reduced labor pool, and employee burn-out. State and local governments play the dual role of major employer and regulator. Many state employers have taken a leadership role in promoting telecommuting within their system. Some have passed legislation that requires a reduction in commuter trips by employees, subjecting themselves, as well as other employers, to stiff penalties if violated. States on the mainland have been motivated to encourage alternate work patterns, including telecommuting, to reduce air pollution caused by vehicle emissions. Unless federal air quality requirements defined by the Clean Air Act are met, states are in danger of losing their federal highway funds.⁵

The most widespread use of telecommuting appears to be in California. As early as 1985 the State of California was planning the California Telecommuting Pilot Project. The final project report was made in June, 1990.⁶ Most of the early participants were located in the Sacramento and San Francisco areas but now there are participants in the southern areas of the state as well. As a result of the pilot study, legislation authorizing a telecommuting option for every state agency was enacted.⁷

A current source of motivation for both public and private employers in California to adopt telecommuting policies is regulation adopted by air quality management districts. Air quality management districts are authorized by law to adopt rules and regulations to control air pollution⁸ and have "a duty to represent the citizens...in influencing the decisions of other public and private agencies whose actions might have an adverse impact on air quality."⁹ The largest and most active district is the South Coast Air Quality Management District (SCAQMD) spanning four counties including most of the metropolitan Los Angeles area.¹⁰ The SCAQMD recently adopted new rules referred to as "Regulation XV" forcing employers having more than 100 employees to institute employment policies that reduce the amount of commuter trips by certain degrees. The law allows several different methods of reduction in commuter trips and the employers get credits for ridesharing, flexible hours, and setting up telework centers outside the main traffic corridors, including home telecommuting. Compliance with these new regulations is mandatory or penalties as severe as the incarceration of the chief executive officer may be imposed.¹¹ The success of Regulation XV has caused the adoption of a model policy to be considered for adoption in other air quality management districts.¹²

Encouraged by the success of the state's program and the recent regulation, county and city governments in California are offering telecommuting options to their employees. The County of Los Angeles, the County of San Diego, and the Southern California Association of Governments with the Central City Association in Los Angeles are among those participating in ongoing telecommuting programs.

Telecommuting in Arizona is also now an accepted form of employment. The State of Arizona enacted legislation in 1988 establishing a travel reduction task force at the county level and required all major employers to reduce employee travel by five percent annually.¹³ The law requires every major employer to submit a travel reduction plan that includes measures that will be undertaken by the employer to reduce employee travel. Establishment of a full-time or part-time work at home program for employees is one of the suggested measures employers should take.¹⁴

The State of Arizona, as a major employer, embarked on a telecommuting project in conjunction with AT&T in April, 1990. The two employers issued a press release on April 24, 1991, announcing the results of their pilot study saying "telecommuting [is] a win-win program for the State of Arizona."¹⁵ The state agency that coordinated the program in Arizona was the Arizona Energy Office of the Department of Commerce.

The Washington State Energy Office is also the sponsoring department for the telecommuting project in the Puget Sound area. The demonstration project includes a variety of modes of telecommuting, including home-based telecommuting, telecommuting from a satellite office, and telecommuting from a neighborhood telework center. This project has had a long planning stage where much of the focus has been on setting up controls and measurement systems so that the impacts of telecommuting can be evaluated more accurately than in previous studies and pilot projects. Funding for the project has come from private, state, and federal sources.¹⁶

The State of Florida conducted research that led to proposed legislation for the development of state telecommuting pilot programs that would measure costs, savings, and effects on productivity, job satisfaction, and morale.¹⁷

The State of Virginia announced last year that the state would start a telecommuting program for all state employees with "telecommutable" jobs. The State, convinced by the success experienced in other programs, decided to dispense with any pilot or trial basis programs and offer the alternate work schedule to any state employee with a "telecommutable" job. A task force that supervised the investigation into telecommuting also recommended that the Virginia legislature appropriate funds beginning July 1, 1992, "for the state to start a marketing program to encourage private businesses and local governments to allow employees to work at home."¹⁸

Hawaii

Locally, the State of Hawaii Department of Personnel Services currently is not participating in any formal home telecommuting programs, although it has supported the state agencies participating in the Hawaii Telework Center in Mililani.

As a result of House Resolution No. 74, H.D. 1, requesting this study, a brief telecommuting experiment was set up in the Legislative Reference Bureau (LRB). For the purpose of producing this study, the writer, an LRB researcher, received authorization from the Speaker of the House of Representatives and the President of the Senate to access the House and Senate computer systems through a modem. From the middle of September to the middle of November the writer spent two to three days a week telecommuting from her home. Using her personal equipment, which was not identical to the system used by the Legislature, she was still able to draft work using the text processing feature without significant difficulty.

During this brief experiment in telecommuting, the writer experienced difficulty in two areas, particularly during the initial phase. First, the differences in equipment, particularly the different keyboards and the location of the special function keys on the keyboard, created some difficulties when using the more advanced features of the text processing system. Although no special training was received, the writer was eventually able to determine where the keyboards on the two systems were compatible; but the trial and error method used to determine their compatibility increased the time anticipated to adjust to the telecommuting activity. The second problem area was that using the residential phone line to "hook up" to the state computers by modem tied up the phone for long periods of time. During these periods of time when the writer was "on-line" to the Legislature's computers through the modem, not only was the phone busy for all incoming calls, but when a computer problem existed there was no way to contact anyone for help without hanging up the phone, thereby breaking the connection. Hanging up on the computer under these circumstances usually created another related problem. Both of these hurdles could have been easily avoided with proper training and another phone line, or having the software set up to "download" the information to the researcher's personal computer, alleviating the long-term phone tie up. The brief, informal nature of this particular experiment did not warrant the expense.

Overall, the experiment was a success for several reasons. First, the experiment showed that work could be generated and produced from the home work station with little or no extra effort. It also made it possible to continue working even when the terminals in the office had been disconnected when the LRB was in the process of moving from the State Capitol to its new quarters in the Capitol Center. Because the experiment was conducted during the interim between legislative sessions, a time when the LRB does not get many walk-in visitors, and the workload consists primarily of the studies being handled by the researchers rather than requests for legislative documents, the absence of the physical presence of the writer did not create workload problems for other staff members. Other than the commuting time personally saved by telecommuting, the writer can provide no data on the commuting aspect of telecommuting as she already uses public transportation or rides a bicycle to work.

The City and County of Honolulu has participated in an informal telecommuting program for many years through its Department of Data Systems. The director of the department believes it is a beneficial program for all involved.¹⁹ The Department of Data Systems has allowed several different employees to telecommute for a variety of reasons including special

projects, emergency computer care, and to allow a sick employee to work when her health allowed while convalescing at home from cancer. All these programs have been temporary and irregular in nature. While there are no actual data to support the director's belief that telecommuting saves money and increases productivity, the City and County is pursuing more formal avenues for telecommuting to provide real data.

The Department of Data Systems has recently assisted in setting up a formal telecommuting project at the Office of the City Clerk. The project will measure the actual costs and savings involved with telecommuting on a more controlled level. The project has the support of management and the employee's union. This initial telecommuting project involves only two employees but if successful, will be offered to other employees. The program as outlined in the proposal (see Appendix H) requires the telecommuters among other things, to work one day a week at the office and to be available during "core hours" 9:00 a.m. to 11:00 a.m. and 1:30 p.m. to 3:30 p.m., on the days they telecommute. The telecommuters are still obligated to fulfill their 40-hour-a-week schedule but are free to set their own hours beyond the "core hours". The program provided training and equipment, including a computer, modem, and an additional phone line at the city's expense. Results of the City Clerk's telecommuting project should be available after February 28 when the pilot project is scheduled to end.

Private Industry

Determining the use of telecommuting in the private sector is not as easy as in the public sector. One reason is business competition. A private company that has found a way to increase productivity may not be so willing to share the secret with the competition. Additionally, private employers may not want to parade new, untested employment methods for public scrutiny until more formal practices are in place, both in their work environment and within the regulatory arena. Regardless, there are some larger private companies that are participating in company-wide telecommuting programs.

Naturally, telecommunications companies appear to be at the forefront of the telecommuting phenomenon. Pacific Bell and AT&T have participated in several joint pilot projects with public agencies in addition to offering their own employees a telecommuting option. In June 1989, Pacific Bell, the telephone company serving the Southern California area, reported that at least nine percent of its employees considered themselves telecommuters, and sixty-eight percent of managers reported working at home as a substitute for or in addition to regular office hours.²⁰ Summarizing the results of surveys taken at the employee and supervisor levels, most (ninety-six percent) of the telecommuters were satisfied with telecommuting and the majority of supervisors (sixty-one percent) felt that managing telecommuters was no different than managing non-telecommuters.²¹

Sears, Roebuck and Company utilizes telecommuting on a limited basis in its corporate office in Chicago. The program is generally a success and could be expanded when Sears

moves some of its offices to Hoffman Estates, north of Chicago, in 1992. In Hawaii, there is no formal telecommuting program at Sears but several staff members have the capability of accessing reports and electronic mail via laptop computers while away from their offices.²²

Verifone, Inc., a publicly held high-tech company that manufactures and designs transaction systems competes on an international level and has a research and development office in Mililani Technology Park. Verifone claims to have no "formal" policy for telecommuting but fully supports those employees who choose to work out of their homes by supplying at least two extra phone lines into the employee's residence, one exclusively for data and another for communication. The human resource department of Verifone says that supervision of telecommuting employees is not a problem because telecommuting is usually reserved for employees with seniority or proven ability and performance.²³

International Business Machines Corporation (IBM) announced a formal work-at-home program on March 25, 1991, in an effort to give "employees greater flexibility in balancing their work and personal needs while enabling IBM to meet its business needs."²⁴ The program is offered to those on a twenty-, twenty-four-, twenty-five-, or thirty-hour work schedule and telecommuters must report to the normal work location at least one four-hour day a week. The work-at-home program is available to employees in Hawaii but there is currently no one participating although IBM did participate in the Hawaii Telework Center Pilot Project.

Finally, telecommuting has not always had the glowing review most companies now give it. The early development of telecommuting in the private sector is probably the cause of much of the labor unions' initial rejection of telecommuting policy. Telecommuting has been used to exploit workers by firing them as employees, rehiring them as independent contractors, and paying them on a piecework basis. This was a popular practice in the insurance industry where former employees were paid by the number of claims they processed. This nurtured an environment for several different situations unions had been battling against for some time. The use of telework in this form could amount to an electronic version of practices in the garment and tobacco industries at the turn of the century that were often the focal point of labor unrest. The protection of the employee's benefits was lost and the potential for violation of child labor laws was high. The piecework type of telecommuting has not been suggested as the mode of pursuit for a successful telecommuting program.

Summary

Telecommuting is a management tool that both the public and private sectors are now learning to use. Organizations have chosen to adopt telecommuting options for several reasons. Whether the reasons are motivated by traffic congestion, air pollution, increased productivity or employee satisfaction, employers are pursuing telecommuting as a solution to many different problems that can exist in both small and large companies and government agencies.

ENDNOTES

1. The Telecommunication Advisory Council can be contacted through Carol Nolan, Pacific Bell, 1010 Wilshire Blvd., Room 1440, Los Angeles, CA 90017.
2. This program was adopted in part due to the rejection of H.R. 2435, 101st Congress, 1st Session, a bill to enact the " Flexible Work Arrangements for Federal Employees Act of 1989."
3. President's Council on Management Improvement, Human Resources Committee, Guidelines for Pilot Flexible Workplace Arrangement (January 1990), p. 17.
4. Telephone interview with Ken Fujii, Senior Personnel Advisor, United States Office of Personnel Management, September 23, 1991, by Pamela Martin, Researcher, Legislative Reference Bureau.
5. 42 U.S.C.A. §7401.
6. California, Department of General Services, The California Telecommuting Pilot Project Final Report, JALA Associates, Inc., June, 1990.
7. Deerings California Government Code, §§14200 to 203.
8. Deerings California Health and Safety Code, §40000.
9. Deerings California Health and Safety Code, §40412.
10. Deerings California Health and Safety Code, §40410.
11. Interview with Jeannie Kelley, Transportation Specialist, South Coast Air Quality Management District Transportation Programs, 9150 Flair Drive, El Monte, CA 91731, July 16, 1991.
12. California, Air Resources Board, Employer Based-Trip Reduction: A Reasonably Available Transportation Control Measure (Sacramento: May, 1991).
13. Arizona Revised Statutes, §49-588. See also: Richter, M.J., "Telecommuting in Arizona: Compounded Benefits," Governing (July 1991), p. 67.
14. Arizona Revised Statutes, §49-588 A3(c)(xii).
15. Arizona, Energy Office, Department of Commerce, "AT&T, State of Arizona Telecommuting Pilot Six Month Evaluation". For further information, contact John Corbett at (602) 280-1410.
16. Washington, Energy Office, "Puget Sound Telecommuting Demonstration Update," April 1990.
17. Florida, Legislature, Joint Committee on Information Technology Resources, Telecommuting: A Productivity Tool for Florida, March 1990, Appendix A-5 (S.B. No. 1014, Florida Senate 1990).
18. Bruce Potter, "Task Force Backs State Work-At-Home Program," The Richmond News Leader, December 31, 1990, p. 13.
19. Interview with Robert Graham, Director, Department of Data Systems, City and County of Honolulu, August 20, 1991, by Pamela Martin, Researcher, Legislative Reference Bureau.

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20. Carol Nolan, "Telecommuting Case History: Pacific Bell May 1985-July 1989," Pacific Bell, Los Angeles, California, July 1989.
21. Ibid.
22. Telephone interview with Myra Yuen, Sears and Roebuck Company, Human Resources, June 12, 1991, by Pamela Martin, Researcher, Legislative Reference Bureau.
23. Telephone interview with Karen Hansen, Manager, Employee Relations, Verifone, Inc., 100 Kahelu Ave., Mililani, Hawaii, September 23, 1991, by Pamela Martin, Researcher, Legislative Reference Bureau.
24. Attachment to letter from R.T. Adams, Marketing Manager, IBM United States, July 8, 1991, responding to letter from Legislative Reference Bureau inquiring about IBM Work at Home Programs dated June 10, 1991.

Chapter 7

NUTS TO CRACK: EXISTING AND POTENTIAL BARRIERS TO HOME-BASED TELECOMMUTING

This study has defined different terms surrounding telework, examined the policies that can be incorporated into different programs, reviewed considerations from both an employee's and employer's point of view, and looked at several different programs in action. From this point of understanding, existing and potential barriers can be identified as they might exist in this community.

Lack of Management Support

Telecommuting is adopted by different organizations for different reasons but one of the main reasons telecommuting is not adopted by organizations is opposition from management. Telecommuting is a style of work that usually requires change and change is not always easy. The reluctance of support by management usually centers around the concepts of supervision, productivity, and cost (assuming in the first place that the tasks required in the employees' jobs are appropriate for telecommuting).

Managers who oppose telecommuting do so because they believe it is not possible to manage employees who are not physically at the same site as the managers. Managers who believe they cannot manage an employee who is not physically in front of them need to change their management style if the organization is to adopt a successful telecommuting policy. Management of telecommuters needs to emphasize the productivity of employees and divert the focus away from other measures such as whether or not the employee is tardy every day for work. Often managers who oppose telecommuting are concerned that they will not know whether or not their employees are really working. When managers are concerned about how they are going to measure a telecommuter's productivity, the response should be, the same way the manager measures productivity when the employee works in the office. If managers assume that the employee's presence in the office indicates the employee is working, then those managers are most likely practicing poor management techniques.

Good management manages by objective regardless of whether or not employees are telecommuters. Not all organizations have good, well-trained management, or some organizations may have been operating the same way for so many years that little management may actually be needed. Management's focus on the need for direct physical supervision is a potential barrier in all organizations and may be an existing barrier in certain organizations. This barrier could be overcome by proper management training that instills the skills and confidence in management to make the supervision of telecommuters possible and in some cases even preferred.¹

Management will also not support telecommuting if it represents an increase in costs that will eat away at bottom line profits. While the benefits of telecommuting may be greater than its costs, there are situations where an employer may not be able to take advantage of all the benefits and telecommuting may increase costs to an employer. The most common regular cost associated with telecommuting, beyond the initial capital investment of equipment, is the telephone line expenses. The number of lines put in and paid for by an employer to an employee's home may not offset the benefits of telecommuting, especially those operating on a small profit margin. With the existing telephone tariffs and technical telecommunications infrastructure, management's objection to telecommuting based on cost may be the strongest argument, and therefore one of the most significant barriers.

Employees' Lack of Participation

Telecommuting can never be successful unless it has employees participating on a voluntary basis. Employees may choose not to participate for several reasons. Telecommuting is a relatively new concept in the workplace and some employees may not know what it is. The telecommuting program may not be adequately publicized to employees by management, and employees simply may not know that such a program exists. Some telecommuters may not want to participate because there is no room in their home to set up an adequate workstation. Other reasons for lack of participation are more complicated.

Telecommuting separates an employee from the group. The most common complaint from telecommuters is that they feel isolated.² Feelings of isolation can be magnified when regular inter-office information is exchanged informally on a face-to-face basis. Removal from an informal professional information loop might deter an employee from participating in a telecommuting program. Telecommuting from home can also limit the informal social contact that those employees working in the office take for granted. Informal social contact can be one of the highlights of a job that some employees may not be willing to give up for telecommuting.

Employees may not want to telecommute because they feel it is a less competitive situation for promotion. This is a common perception and may be accurate to a degree. Consciously or subconsciously, management may not consider the telecommuter as seriously for promotion as the office employee who is physically present and may pass over the telecommuter to promote a more visible office employee. This lack of physical presence may also prevent the employee from being able to handle certain emergency or other priority matters that cannot be handled effectively by a telecommuter, thereby denying the employee those opportunities to make a good impression on the supervisors.

Employees have also expressed a concern about the appearance of telecommuting to neighbors. It may appear to neighbors that are unaware of the telecommuting concept that the employee is "playing hooky". Employees have stated that they feel there may be a negative impact on perceptions of themselves and their employers if their neighbors see the employees

home during the day.³ These are educational concerns that need to be addressed at the community level.

Liability Issues

Employers'

Telecommuting is a new concept whose place has yet to be carved out in the legal arena of employers' issues. Even though telecommuting appears not to be in direct violation of any laws or regulations,⁴ employers are unwilling to test the waters because telecommuting from home clearly expands their liability in situations where they are not in direct control. Telecommuters increase an employer's liability concerning casualty insurance if company assets are stored at the residence. Telecommuters also represent a potential increase in work-related injuries because the employer has no regular way to monitor the working environment of a telecommuter. There are no rules or laws specifically concerning telecommuting so employers see the expansion of liability as an undeterminable risk and this is a potential barrier.

Employees'

An employee's increased exposure to liabilities may be a potential barrier to telecommuting. If employees are liable for the additional equipment at their home or their homeowners insurance rates are increased as a result of their telecommuting they may not want to participate.

Telecommuters who are responsible for additional telephone lines into their residence may consider this a liability they will not want to incur. Additional costs to the employee that may not be deductible on their annual income tax return may cause the employee to reject a telecommuting program.

Technology

The technology for telecommuting, as it has been described in this study, exists and is operational now. Most telecommuting requires only electricity and a regular phone line. The current operating technology of phone lines, whether or not the tariff rates are categorized at the residential or commercial levels, is adequate to support current telework systems and is doing so today. A potential barrier that may exist in technology is that communications capacity lags behind technological expertise. If telework is to proceed as anticipated then the current systems will need to be upgraded.

Telecommuting means moving people off traditional highways and transporting their work on electronic highways. Just like traditional highways, electronic highways must be adequate to handle daily activity. The technology that can handle the increase in electronic daily activity including room for the innovations of today that will become the standards of tomorrow is called Integrated Services Digital Network (ISDN). This new technology is currently available and GTE Hawaiian Telephone Company, Inc., recently received approval from the Public Utilities Commission (hereafter "PUC") to commit funds to install interface equipment in the Honolulu DS-2 central office switch.⁵

Following the highway analogy, the current phone lines can be correlated with regular roads. By way of comparison, ISDN is comparable to two lane highways, and fiber optics can be considered the super highways of electronics. Although GTE Hawaiian Telephone has received approval for the installation of ISDN services, these services will not be available throughout the entire State and the PUC has identified this as a potential barrier to telecommuting.⁶ The PUC has stated that the reasons for this is that the installation of ISDN services is a market driven service as opposed to vehicular highways which are government's responsibility. The PUC has expressed the opinion that because of this difference it is inappropriate to compare the cost of building vehicular highways with "electronic highways."⁷ Currently, Oahu has only a few fiber optic cables that have been installed. These cables are for the use of the installers only. The electronic network needs to be upgraded to accommodate the increased electronic traffic if a full-blown telecommuting environment is to be achieved. The cost of laying more fiber optic cables is almost nil when compared to the cost of constructing the same length of highway.⁸ Further, no determination has been made as to whose responsibility it is to pay for the cost of making this advance electronic network available to the residential population making the common connection.

Zoning Ordinances and Lease Restrictions

County zoning ordinances may appear to be an existing barrier to telecommuters but a survey of the four counties' ordinances reveal similar restrictions that focus on barring business or trade activity that changes the character and external appearance of the residential community. This has commonly been interpreted as restricting business or trade activity that creates traffic, noise, or noxious odors in residential neighborhoods.⁹ Copies of each county's relevant ordinance appear in Appendix I. Telecommuting as defined in this study does not create traffic but is intended to alleviate it.¹⁰ The noise concerns are insubstantial because equipment that telecommuters might operate in their residences would not likely generate noise levels greater than that of a stereo or television set. As such, the telecommuting activities discussed in this study are very different from conventional business activities in which clients or customers travel to the site of the business.

All counties were contacted as part of this study. An official of the City and County of Honolulu interpreted Honolulu's zoning ordinance as not restricting residents to using their

home for teleworking.¹¹ A Maui County official was of the same opinion.¹² Maui County believes telecommuting would be particularly suited for employees who commute from other islands and to deal with office space problems, but expressed concerns about the increased workers' compensation liability at unsupervised worksites, such as the home. According to that official, the Director of Council Services expressed a concern about the need to retain original documents in the office for certain jobs, such as persons working as transcribers, that would be compatible with the telecommuting model.¹³ This type of concern is typical of employers who have had no experience with telecommuting. Initially, the concern for the safety of the original document may appear to be a barrier but original documents can be copied. Although this may be an additional step procedurally, in the long run it may serve as a precautionary step toward better safeguards for the originals.

No response concerning these issues was made by the County of Hawaii and the County of Kauai.

Beyond local zoning ordinances there are some lease agreements that contain clauses barring any type of business or trade activity which may present a potential barrier. Telecommuters who rent, live in homes on leased land, or live in condominium or cooperative apartments that have this restrictive clause in their leases, condominium rules, or cooperative bylaws, or are bound by covenants of their community may be limited by their agreements from using their home as a workstation. Kamehameha Schools/Bernice Pauahi Bishop Estate (hereafter "Bishop Estate") has just such a lease in existence. See Appendix J. According to officials at Bishop Estate the clause should be interpreted to mean a restriction on business and trade activity as the county zoning ordinances require. See Appendix K. Similar provisions could vary among the hundreds of other lessors and condominium governing bodies.¹⁴

Collective Bargaining Union Concerns

Union opposition is a potential barrier if not handled correctly. Organized labor unions have voiced opposition to telework programs for several reasons. One reason for their opposition to new telework programs offered by employers is that the unions often have not been informed or consulted about the new programs. Unions have reasonably interpreted teleworking programs to be a change in the working condition and therefore within the scope of negotiations under most contracts between employers and the employees unions represent. Unions may object to some telework programs instituted by employers simply because they have not had the opportunity to review the program to ensure that benefits and rights of employees have been maintained.

Unions are obligated to protect the benefits and rights of employees and need to be involved in the process of setting up telework programs. Many of the concerns unions have expressed against teleworking can be eliminated to the extent that a telework program is kept

within the parameters of programs discussed in this study. Encouraging telecommuting programs where employees retain their status as employees and maintain all their benefits and rights clears the initial hurdle in gaining the support of unions. Promoting telework programs that encourage employees to go out on their own and be independent contractors or pay employees on a piecemeal basis invites a nonsupportive environment from unions. These potentially exploitive situations where employees may lose health insurance coverage, workers' compensation insurance, and other benefits should be avoided if union support is being sought by employers.

When teleworking was in its infancy many unions came out publicly against it (see Appendix F for example). As teleworking programs have been refined, unions are becoming more involved in providing good teleworking programs, especially telecommuting programs as defined in this report that are mutually beneficial to both parties.

In Hawaii, the Hawaii Government Employees Association (HGEA) has recognized that good telecommuting programs can return to their union members some of the quality of life that the stress and time of traditional commuting has taken from them. At the same time, the HGEA sees that the employers benefit because telecommuters can be more productive.¹⁵

Summary

There appear to be no existing barriers in the law per se to employers promoting telework programs, particularly telecommuting. There are many potential barriers that can serve to detour organizations from adopting telecommuting programs. Those barriers, including lack of management support, lack of employee participation, undeterminable risk, and potential increase in liability, are barriers that can be addressed through education, and to some extent, through legislation.

ENDNOTES

1. Carol Nolan, Telecommuting Case History, Pacific Bell May 1985-July 1989 (Los Angeles: Pacific Bell, July 1989), evaluation by supervisors' survey.
2. Wendell H. Joice, "Home Based Employment-A Consideration for Public Personnel Management," Public Personnel Management, Vol. 20, No. 1, (Spring 1991) at p. 55.
3. Unpublished comments of employees concerns about a pilot telecommuting program for field auditors in the State Department of Taxation.
4. Supra n. 2, p. 54.
5. In the Matter of Application of GTE Hawaiian Telephone Company, Incorporated, Docket No. 7004, Hawaii Public Utilities Commission, Decision and Order No. 11245 (August 29, 1991).

6. Letter from Henry Tsuyemura, Administrative Director, Public Utilities Commission, State of Hawaii, December 13, 1991, to Samuel B. K. Chang, Director, Legislative Reference Bureau.
7. Ibid.
8. Interview with Robert B. Graham, Director, Department of Data Systems, City and County of Honolulu, August 19, 1991, by Pamela Martin, Researcher, Legislative Reference Bureau.
9. Telephone interview with Jane Howell, Deputy Corporation Council, City and County of Honolulu, May 27, 1991, by Pamela Martin, Researcher, Legislative Reference Bureau.
10. A distinction should be noted here with regard to the scope of this study. The definition this study has assigned to telecommuting specifically excludes independent contractors and entrepreneurs who work out of their home. This latter type of business activity may generate additional traffic due to customers visiting the residence.
11. Howell interview, supra n. 9.
12. Telephone interview with Dave DeLeon, Mayor's Office, County of Maui, September 17, 1991 by Pamela Martin, Researcher, Legislative Reference Bureau.
13. Ibid.
14. Other private lessors were not contacted. An informal survey of apartment managers found that those people who operated a business out of their apartment received exceptionally more mail than those who were solely residents. The increase in volume of mail for those operating businesses caused a regular problem of delivery and storage. This concern appears to be directed toward the independent contractor and as such is beyond the scope of this report.
15. Telephone interview with Guy Tajiri, Hawaii Government Employees Association, Local 152, AFSCME, AFL-CIO, October 24, 1991, by Pamela Martin, Researcher, Legislative Reference Bureau.

Chapter 8

FINDINGS AND RECOMMENDATIONS

On Policies to Encourage Private and Public Employees to Adopt Home-Based Telecommuting, and Barriers Thereto

Findings

1. The State has made a commitment to encourage the use of telecommunications in the State of Hawaii. Projects exemplifying this commitment include the Hawaii Telework Center, the ACCESS network, and Hawaii, Inc.

2. Telework is a relatively unknown concept outside of the population that works regularly in telecommunications. The general population needs to be educated about the benefits telework can offer to the community as well as to the individuals.

3. The Department of Transportation has been the lead agency dealing with telework issues, specifically the Hawaii Telework Center and the Telework Center Task Force. The issues that encompass home-based telecommuting may be broader than the Department of Transportation alone would like to review.

4. Terminology in the telework field is ambiguous and needs to be clarified. Standard definitions need to be adopted to make situations and circumstances of telework more easily defined and understood.

5. Telecommuting, as defined by this study, is a practical concept that alone may not be able to solve the traffic congestion problem, but working in concert with other programs, telecommuting is a part of a viable solution to the traffic congestion problem.

6. The status of the State's role in pursuing advanced systems for the improvement of the technological side of telework is undefined. The Public Utilities Commission presently monitors the operations with regard to tariffs of the telephone and cable franchises but has no directives from the Legislature that empower them to promote or require any of the telecommunications franchises to upgrade the current networking to more state of the art technology.

7. Telecommuting provides an opportunity for employers to increase employee productivity, decrease employee sick leave, increase the labor pool, and improve employee retention.

8. Telecommuting provides an opportunity for employees to increase the flexibility of their work schedules and increase the amount of free time by reducing the amount of time spent commuting.

9. Employers may not want to participate in a telecommuting program if the cost of the program will eat into their profits. Large capital outlays for equipment and modifications to employee's homes to accommodate a workstation are expenses employers may have to be encouraged to pay. Financial incentives for employers to provide workstations in an employee's home would encourage employers to provide the funds for the necessary equipment or modifications, or both.

10. Employers may be hesitant to institute home-telecommuting projects because the law does not specifically address the home workstation issues that arise concerning employer liability. These uncharted waters with undeterminable risks for employers may present barriers to employers instituting telecommuting programs. Employers need to have their limits of liability defined.

11. Employees may be hesitant to participate because they fear that less office visibility may hinder their opportunity for promotion. Without specific guidelines and review procedures built into telecommuting programs to monitor a telecommuter's increase in productivity or advancement in expertise, lack of physical visibility that would decrease the opportunity for promotion may be a barrier. Employees may be forced to decide between a career or telecommuting that would give them more time and an opportunity for a higher quality of life. If seen as a "one or the other" situation, employees may not be willing to sacrifice their career opportunities. Telecommuting programs should provide positive control for that type of possible discrimination.

12. The most common criticism from employees who telecommute is that they feel isolated from the community. This is usually the result of the loss of information that is passed on through face-to-face communication. Telecommuting programs should include alternative methods of communicating, for example, the increased use of electronic mail, video conferencing, and planned meetings where there is opportunity to share ideas and newsworthy items with those employees in the office and all telecommuters.

13. Telecommuting is not limited to a certain level or status of jobs. The success of telecommuting is dependent on the tasks of a job, the working habits of the employee, and the support of the employee's supervisor.

14. Telecommuting is not in direct violation of any federal law, state law, or county ordinance. Telecommuting may violate the "letter of the law" on certain leases, condominium bylaws and rules, or cooperative bylaws that prohibit residents governed by these leases from using their home for any business use at all; however, the "spirit of the law" was not to restrict

the use of the residence from performing clerical type tasks as employees for their employers. Legislation could prohibit leases from banning telecommuting.

15. Current policies in the State's distribution of parking spaces to state employees limit one of the advantages that can result from telecommuting, the possibility of reduced parking costs. The current system does not allow for the sharing of parking spots forcing employees considering telecommuting to either relinquish their parking place or pay to retain a parking place even though it will be used only on days they will not be telecommuting.

Recommendations

1. An expanded Telework Task Force should take an active role in the analysis, promotion, and review of telework and telecommuting programs and issues. The Telework Center Task Force, formed on August 24, 1988,¹ by the Department of Transportation to aid in planning and establishing a telework center demonstration project, should continue to exist and should be legislatively sanctioned but should be modified into an expanded Telework Task Force. The Telework Center Task Force held a workshop on home-based telework in October 1990. As a result of that workshop, a position paper was adopted that renamed the Telework Center Task Force to simply the Telework Task Force. This is a more appropriate name for the task force as it has pursued other areas of interest in the telework field that are beyond the scope of the Hawaii Telework Center.

The Telework Task Force is currently composed of members from the public and private sectors including members from the Department of Transportation, Department of Taxation, Department of Budget and Finance, Department of Accounting and General Services, Department of Communications and Public Administration Program at the University of Hawaii, House Transportation Committee, Hawaiian Telephone, Wang Laboratories, Japan-America Institute of Management Science, and Data-Tel and Power, Inc. The expanded task force should also include members from each of the counties, the Department of Business, Economic Development and Tourism, Department of Labor and Industrial Relations, Department of Personnel Services, Department of Education, and other members from the business community with expertise in the telecommunications field.

The Telework Task Force has developed a list of recommendations as the result of the workshop on Home-Based Telework held on October 12, 1990. No further action has been taken on these recommendations but the Telework Task Force should be encouraged to pursue their recommendations. The Telework Task Force, currently under the authority of the Department of Transportation, should be established under the Department of Business, Economic Development and Tourism. The goals and recommendations of the Telework Task Force all have issues related to business development that would be more appropriately addressed under the Department of Business, Economic Development and Tourism. While telecommuting was started to help alleviate the traffic congestion, it has become obvious that

there are benefits and issues beyond the traffic congestion problem that need to be developed more fully.

The Legislature should appropriate funds for the expanded Telework Task Force to plan and execute a marketing plan that serves to educate both the work force and the general public. If employers were aware of the benefits of home telecommuting they might be encouraged to promote telecommuting within their businesses. Increasing the level of awareness about teleworking and telecommuting could include having a telecommuting week or month. The telecommuting awareness program should reach as wide a population as possible and should include educating school children on the concepts of telecommuting and independent study behavior. Encouraging the teleworking concept from youth will feed the telecommuting system and perpetuate its value.

Determining the role of the State in the development of the advanced electronic networking should be included as a duty of the expanded Telework Task Force. The Public Utilities Commission suggests that a policy decision needs to be made by the Legislature to determine the extent to which the State's role should be in providing this advanced network. It is believed that "the first state that commits to an all-fiber system stands to profit greatly, both through becoming the home to next-generation telecommunications entrepreneurs and by offering fiber-based services to businesses located there."² Issues in this area that should be explored by the Telework Task Force include the appropriateness of providing financial incentives for electronic network development. Examples of possible financial incentives for electronic network development could include appropriations from the general fund. The appropriations would serve to subsidize the cost of such a network or allow broader access to an otherwise unaffordable market-driven development process. The cost of development could be distributed to general ratepayers by establishing an additional tax or service fee (as presently provided for telecommunications devices for the deaf). Additionally, an intermediary rate between the residential rate and commercial rate could be established. This new rate would have to be reasonable to cover costs or there would, again, have to be a sanctioned subsidization of the intermediary telecommuter service by general ratepayers. Analyzing the costs and benefits of these concerns should be a task for the expanded interagency Telework Task Force.

If the State decides to play a major role in the development of an advanced network statewide, this might encourage employers already situated here to set up remote telework stations in employees' homes. Statewide fiber optics may even encourage other employers to relocate their businesses in Hawaii with the confidence of state-of-the-art communications available.

2. The State, as an employer, should set an example for other employers and provide for telecommuting for all state agencies. To accomplish this the State can:

- A. Enact a model telecommuting policy that allows employees in all state agencies to participate in a telecommuting program. Adopt standard definitions for teleworking terminology. Similar legislation has been enacted in the State of California. See Appendix L.
- B. Direct the Department of Personnel Services to develop a model telecommuting program that incorporates the different elements of a telecommuting program including selection processes, evaluation procedures, trouble shooting communications, and effective termination of a telecommuting situation. The model telecommuting program should include procedures that prohibit discrimination in promotions and other employment-related areas against telecommuters and provide adequate communication strategies to safeguard against isolation of telecommuters.

The Legislature should appropriate funds to administer a home-based telecommuting demonstration project.

- C. Provide training to management and employee telecommuters. Training programs that are available now in both City and County of Honolulu and state programs are applicable and can be easily modified to incorporate specific techniques required for successful telecommuting projects.
- D. Modify the rules to obtain and hold a parking stall to accommodate employees who choose to telecommute several days a week. Modifications could include sharing of stalls or temporary release of stalls while telecommuting.

3. The State, as lawmaker, should promote a receptive atmosphere for telecommuting within the regulatory environment by enacting legislation that is favorable to the promotion of telecommuting in the community. Possible legislation could include clarification of employer's and employee's roles and could include providing financial incentives. Specific examples listed below may be suitable items for analysis for the Telework Task Force.

- A. Clarify the telecommuters' status as employees by amending the employment security, workers' compensation, and temporary disability insurance laws to specifically include telecommuters in the definition of employees.
- B. Provide limits as to the liability of employers with respect to injuries incurred by employees and third parties during working hours at the home telework station.
- C. Amend the occupational safety and health law, to specifically provide the limits of responsibility of the employer to provide a "hazard free environment" at the telecommuters' home workstation. Section 396-6, *Hawaii Revised Statutes*, clearly states that an employer is required to provide a "safe and hazard-free"

work environment. It does not directly address the home telework station. Clarification should be made regarding the limited liability of the employer in the uncontrolled work station environment of the home. Authorize the Department of Labor and Industrial Relations to adopt rules concerning standards of home telework stations. Rules under this authority should include a required initial documented inspection by the employer and regular inspections on a quarterly, bi-annual or yearly basis.

- D. Expand the services at the Hawaii Telework Center and future neighborhood telework centers to incorporate public facilities for the use of home telecommuters.
- E. Provide financial incentives for employers and employees to adopt telecommuting programs. A financial incentive that has been previously proposed for employers is offering income tax credits to employers who make capital investments for equipment that allow employees to telecommute.³ Other types of income tax related incentives for employers or employees that would provide financial incentives include expanding the business deduction for business-related mileage driven to include the allowance of a deduction based on the reduction of employee commuter miles traveled as a result of telecommuting. Enacting legislation that aids employees in realizing financial benefits of telecommuting would be a financial incentive to employees. Broadening the definition for a home-office tax deduction to include home telework stations⁴ would balance the increased utility costs an employee may incur as a result of telecommuting. If this type of legislation is enacted at the state level the Legislature should also resolve to encourage Hawaii's congressional delegation to have the Internal Revenue Code be amended to recognize home telework stations as legitimate business uses of the home eligible for deduction on an individual's federal annual income tax return.

Incentives can also be provided for development of homes equipped with a telework station. Incentives can take the form of tax credits for homes built with telework stations similar to the low-income housing credit.

The effect of enacting legislation that offers income tax credits or that expands deductions to earned income on the loss of revenue to the State may be an appropriate item for analysis for the Telework Task Force.

- F. Enact legislation that mandates employers to provide a reduction of employee commuter trips. Legislation requiring the mandatory reduction of employee trips for employers of over 100 employees would affect over 500 employers in Hawaii. This type of legislation has worked in other states but may have a different effect here in Hawaii due to the extensive number of jobs related to the tourism industry,

for example, housekeeping and food and beverage service that are not appropriate for telecommuting. The legislation requiring a reduction in employee commuter trips can include other forms of trip saving activities in addition to telecommuting, for example, taking the bus or ridesharing. This type of legislation has been passed in several states to battle environmental problems related to vehicular pollution.⁵

Summary

There are several actions the State can take to encourage telecommuting by both private and public employers. The barriers that exist are more of perception rather than physical or legal barriers. Education about the benefits of telecommuting should be the priority. Encouraging telecommuting through example is an effective way to support and promote telecommuting. Finally, financial incentives, on top of the benefits of telecommuting itself, presented to employers to institute telecommuting programs will most likely be successful even if held out as a just a "temporary carrot." The literature on telecommuting suggests that once telecommuting has been received into an organization, the organization can find many ways to benefit from its use.

ENDNOTES

1. Hawaii, Department of Transportation, Report On The Status Of The Anti-Commuting Telework Center Demonstration Project (November 1988), p. 1.
2. Coursey, David. "Battle of the Bandwidth," Infoworld (January 14, 1991), p. 34.
3. See S.B. No. 94, S.D. 2 (1991), H.B. No. 61, H.D. 1 (1991), S.B. No. 2649 (1990), and H.B. No. 3067 (1990) for examples.
4. Wood, Maryrose. "Phoni....", Desktop Communications, March-April 1991, Vol. III, No. 2, pp. 46-48.
5. Arizona Revised Statutes, §49-588.

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HOUSE OF REPRESENTATIVES
SIXTEENTH LEGISLATURE, 1991
STATE OF HAWAII

H.R. NO.

74
H.D. 1

HOUSE RESOLUTION

REQUESTING A STUDY TO ENCOURAGE PUBLIC AND PRIVATE EMPLOYERS TO
ADOPT TELEWORK POLICIES ALLOWING EMPLOYEES TO WORK AT HOME.

WHEREAS, recent technological advances such as telephone answering machines, cellular telephones, home computers, modems, facsimile machines, and photocopying machines now make it possible for many employees to work from their homes; and

WHEREAS, due to these technological advances, more employers and employees are recognizing that work is no longer a question of geography; and

WHEREAS, the rising cost of working and doing business in downtown areas creates added incentives to consider home work stations; and

WHEREAS, Hawaii's low unemployment level has caused a shortage of workers in many areas; and

WHEREAS, employers are being forced to take a new look at their long-time resistance to home-based employees as the shortage of skilled workers increases; and

WHEREAS, there is a growing concern among our citizens about family responsibilities, worsening traffic problems, and improving the quality of life; and

WHEREAS, working at home, or "teleworking," will alleviate many employee concerns, such as traffic congestion, excess driving time, stress and fatigue, high fuel consumption, and parking availability and expenses; and

WHEREAS, for employers, having some staff working off the premises is desirable because it will ease the hiring and retention of valuable and scarce employees and allow increased utilization of elderly and disabled workers; and

WHEREAS, "teleworking" can bring additional job candidates to the market by offering new working options that can entice experienced workers back into the market and create working opportunities for new employees; and

WHEREAS, a number of entrepreneurs and independent consultants on Oahu have already shown that home-based businesses can be operated in full compliance with the county zoning regulations and noise restrictions; now, therefore,

BE IT RESOLVED by the House of Representatives of the Sixteenth Legislature of the State of Hawaii, Regular Session of 1991, that the Legislative Reference Bureau, working in conjunction with the Department of Labor and Industrial Relations, the Department of Personnel Services, and the Mayors of each county, conduct a study to identify any existing or potential barriers that may prohibit employees from working at home; and

BE IT FURTHER RESOLVED that this study recommend policies to address any existing or potential barriers that may discourage public or private employers from offering employees the opportunity to participate in telecommuting programs; and

BE IT FURTHER RESOLVED that the Legislative Reference Bureau report its findings and recommendations to the Legislature at least twenty days before the convening of the Regular Session of 1992; and

BE IT FURTHER RESOLVED that those citizens who currently operate home-based businesses, in compliance with county land use ordinances, be commended for contributing to the development of "teleworking" in the State and setting an example for others; and

BE IT FURTHER RESOLVED that certified copies of this Resolution be transmitted to the Director of the Legislative Reference Bureau, the Director of Personnel Services, the Director of Labor and Industrial Relations, the Mayor and the Chairperson of the Council of each county, the Chamber of Commerce of Hawaii, the Hawaii Federation of Independent Businesses, and Small Business Hawaii.

Appendix B-I

ATTACHMENT A-1

MEMORANDUM OF UNDERSTANDING

This MEMORANDUM OF UNDERSTANDING is entered into this 5th day of August, 1991, by and between the HAWAII GOVERNMENT EMPLOYEES' ASSOCIATION, LOCAL 152, AMERICAN FEDERATION OF STATE, COUNTY AND MUNICIPAL EMPLOYEES, AFL-CIO, hereinafter referred to as the "UNION" and the CITY AND COUNTY OF HONOLULU, hereinafter referred to as the "EMPLOYER", pursuant to Article 4B of the Unit 03 White Collar Non-Supervisory Collective Bargaining Agreement effective September 1, 1991 to and including February 28, 1992.

Witnesseth:

WHEREAS, Article 4B of the Unit 03 White Collar Non-Supervisory Bargaining Unit Agreement provides for changes in conditions of work by mutual consent; and

WHEREAS, certain Unit 03 employees in the City Clerk's Office have agreed in writing on a "Telecommuter's Agreement", attached hereto, to participate in the telecommuting project.

THEREFORE, the Employer and Union in consideration of the terms hereinafter set forth, agree as follows:

Maintenance of Rights and Benefits:

1. Employees shall retain all rights and benefits pertaining to their conditions of employment as contained in the departmental and Civil Service rules and regulations, Unit 03 White Collar Non-Supervisors 1991-1993 Contract Agreement, and Hawaii Revised Statutes, but excluding matters which are not negotiable under Chapter 89, HRS; and except for those conditions which are specified herein.

Work Schedule:

2. Employees shall work a 40-hour weekly schedule. Employees are free to set their own work schedule, however, employees shall be available during core hours of 9:00 a.m. through 11:00 a.m., and 1:30 p.m. through 3:30 p.m., Monday through Friday, for contact by the office or the general public. In addition, employees shall work one day per week at the office.

3. When necessary, employees will report to the office when called in by their supervisor, to attend committee/council meetings and/or do other work that cannot be done at home such as filing, photocopying, etc. These duties are inclusive of the 40 hour work week except when specifically exempted by the supervisor. No travel time or mileage from home to the office or office to home shall be allowed during the 40 hour work week period.
4. Employees will be responsible for attending evening meetings such as public hearings. These meetings are inclusive of the 40 hour work week.
5. All hours worked in excess of eight (8) hours per day or 40 hours per week shall have the prior approval of the supervisor. Employees will be judged on productivity and will be required to fill out a weekly time sheet or other reports to assess work time.

Equipment and Office Furniture:

6. The City will provide employees with a:
 - a. Computer and modem;
 - b. Transcriber;
 - c. Private phone and pay for all costs relating thereto; and
 - d. Work station and chair.
7. All reasonable costs relating to the installation, use and maintenance of City equipment shall be paid by the City.
8. Employees shall be held responsible for the proper use, care, and maintenance of City equipment.
9. Employees shall be held responsible for reasonable safety and security precautions to guard against theft and damage of City property.

10. Employees shall be prohibited from using or allowing others to use City equipment for non-City business.
11. All City equipment remains the property of the City and shall be returned to the City at the end of the project or termination of the Agreement with the employee.

Security:

12. Employees shall be responsible for the proper security of computer access codes and confidential information.

Supplies:

13. Supplies required to complete assigned work at home should be obtained during the employees' scheduled work day at the office.

Training:

14. Training will be provided to employees on how to link work done on remote computers to the office system.
15. Regular meetings between employees and their supervisors are required as part of the ongoing training of employees and evaluation of the project.

Utility Reimbursement:

16. Any substantial increase in electricity cost resulting from work performed for the City shall be reimbursed the employee.

17. Employees shall be responsible for any and all costs relating to homeowner's insurance premiums, tax assessments, and other personal liabilities.

CITY AND COUNTY OF HONOLULU

HAWAII GOVERNMENT EMPLOYEES'
ASSOCIATION, LOCAL 152,
AFSCME, AFL-CIO

By _____
City Clerk

By _____
Its Executive Director

By _____
Director of Civil Service

By _____
Employee

OFFICE OF THE CITY CLERK

TELECOMMUTER'S AGREEMENT

I, _____, hereby volunteer to participate in the telecommuting pilot project for a six (6) month trial period commencing from September 1, 1991 and ending February 28, 1992.

I have read, understand, and agree to comply with all the terms and conditions as set forth in the Memorandum of Understanding. I further understand that such Memorandum is a part of this Agreement.

I understand that either the City or I may terminate this Agreement at anytime at will during the trial period.

Signature

Date

APPROVED:

RAYMOND K. PUA
City Clerk

Appendix B-II

TELECOMMUTER'S AGREEMENT

Telecommuting, the use of telecommunications technology to transport information, rather than people, to and from the workplace, is an arrangement that SCAG may choose to make available to some employees when a mutually beneficial situation exists.

Telecommuting is not a formal, universal employee benefit, but rather an alternate method of meeting the needs of the company. Since it is not assumed that employees have a "right" to telecommute, the arrangement can be terminated any time it is determined that company needs are not being met. Similarly, employees do not have an "obligation" to telecommute and may return to the conventional office arrangement if they wish to withdraw from the telecommuting project.

When a telecommuting arrangement is implemented, the following conditions will apply:

- o Employee salary, job responsibilities, benefits and company-sponsored insurance coverage will not change due to participation in the telecommuting project.
- o The amount of time the employee is expected to work will not change due to participation in the telecommuting project.
- o For the purpose of defining the employee's job tour period during which the employer has liability for job-related accidents or illnesses and during which worker's compensation laws apply, it is understood that the employee's work hours will conform to a schedule agreed upon by the telecommuter and his/her manager.
- o If a schedule has not otherwise been agreed upon, the employee's work hours while telecommuting are assumed to be the same as before beginning to telecommute.
- o Any changes or extension to the abovementioned schedule with respect to worker's compensation coverage must be reviewed and approved by the employer in advance.
- o Since the employee's home work space will be considered an extension of the company work space, the company's liability for job-related accidents will continue to exist during the understood and approved job tour hours.
- o A designated work space should be maintained by the telecommuter at the alternate work location. Worker's compensation liability will be limited to this work space as opposed to applying to all areas of the home.
- o As this liability will extend to accidents which may occur in the alternate location, the employer retains the right to make on-site inspections of this work area to ensure that safe work conditions exist.

SCAG Telecommuter's Agreement
Page 2

- o On-site visits by the employer may also be made for the purpose of retrieving equipment and other company property in the event of employee illness or termination.
- o Any hardware or software purchased by SCAG remains the property of SCAG and will be returned to SCAG at the conclusion of the pilot. Products developed while telecommuting for SCAG remain the property of SCAG.
- o SCAG-owned software may not be duplicated except as formally authorized.
- o Restricted-access materials (such as payroll) shall not be taken out of the main office or accessed through the computer at a remote location.
- o SCAG equipment in a remote office shall not be used for personal purposes.
- o SCAG will not purchase furniture or answering machines for telecommuters.
- o SCAG will purchase 5 DEC or DEC-compatible terminals/PCs and 3 modems, and lend them to telecommuters on a per-use basis (i.e., terminals are not to remain in the remote office when the employee is at the central office). The SCAG liaison to the CCA Telecommuting Subcommittee will be responsible for checking terminals/PCs and modems in and out.
- o SCAG will not provide custom-calling services, second phone lines, printers, or personal computers to telecommuters.
- o On a case-by-case basis, SCAG will consider partially reimbursing an employee for monthly service charges on a second telephone line and/or custom-calling services. Reimbursement, if approved, will be proportional to the amount telecommuted (one day a week telecommuting gets 1/7th of the bill reimbursed, and so on). This applies only to the service charge; the usage charges for, e.g., a second line, are dealt with below.
- o SCAG will reimburse the telecommuter for VT220-emulation software (i.e. so a personally-owned PC can be made to "look like" a VT220).
- o Supplies required to complete assigned work at the alternate location should be obtained during one of the telecommuter's in-office visits. Out-of-pocket expenses for supplies normally available at SCAG will not be reimbursed.
- o SCAG will not reimburse the employee for supplies such as computer paper, floppy disks, and cables.
- o SCAG will reimburse the telecommuter for 60% of all SCAG-related telephone calls.
- o Expenses not specifically covered above will be dealt with on a case-by-case basis, taking into account the reasonableness of the expense, other expenses reimbursed for the same employee, and the overall budget for the project.

SCAG Telecommuter's Agreement
Page 3

- o The Chief Operating Officer will appoint a three-person committee to review, and approve or disallow, reimbursement requests not specifically covered above. The review board will consist of the SCAG liaison to the CCA Telecommuting Subcommittee, one person from Finance and Budget Services, and one person from Data and Information Services.
- o Telecommuting is not to be viewed as a substitute for child care. Telecommuters with pre-school children are expected to have someone else care for the children during the agreed-upon work hours.
- o Individual tax implications related to the home work space shall be the responsibility of the telecommuter. It is possible, under some circumstances, to deduct expenses of a home office, but a tax expert should be consulted first.

I accept the conditions of this agreement.

employee signature

date

company representative signature

date

Appendix B-III

11/09/90

D R A F T
h: agrmtelc

DEPARTMENT OF INFORMATION SERVICES

Telecommuter Agreement

This is an agreement between the Department of Information Services (employer) and _____ (employee) to begin a mutually beneficial program of employee telecommuting as a flexible work alternative. Participation is voluntary, subject to the approval of the division assistant director, and may be terminated or revised at any time by the employee or the employer, per the conditions in this Agreement.

1. By signature below, employee agrees to abide by the Department of Information Services (DIS) Telecommuting Policy & Procedure, and certifies that he/she understands the provisions addressing:

- . Work hours/accessibility,
- . Use and liability for DIS-owned equipment,
- . Work related injuries, and
- . Establishing a work space.

It is further agreed that:

2. The alternate work site will be: _____.
3. Employee will check the voice messaging system as follows: _____.
4. Employee will remain in contact with his/her supervisor as follows: _____.
5. Telecommuting days/hours will be _____, with core hours of availability and accessibility by phone as follows: _____; DIS office location days/hours will be _____.
6. Employee and supervisor statement of work goals, objectives, anticipated results and evaluation criteria: (attach if more space needed) _____

7. Additional conditions agreed upon by the telecommuter and the supervisor: _____

8. Employee agrees to keep his/her supervisor informed of progress on assignments worked on at the alternate work site, and any problems which may be experienced while telecommuting.
9. Employee agrees to structure his/her time to ensure attendance at required meetings and DIS events as designated by the supervisor.
10. Employee understands and accepts the special responsibility as a telecommuter, to facilitate communication with customers and co-workers who may be inconvenienced by telecommuting. A special effort will be made to stay current on departmental events which affect his/her work that occur on telecommuting days.
11. This telecommuting arrangement shall begin on _____ and continue until ended by the employee or employer. Unless otherwise mutually agreed upon, either party shall provide minimum notice of _____ days prior to the termination of this agreement. Violation of the Telecommuting Policy and Procedure, this Agreement, or initiation of corrective or disciplinary action may cause immediate termination of this Telecommuting Agreement.

I understand and agree to the terms and conditions of this Agreement:

Employee's signature Date

Supervisor's signature Date

Assistant Director's signature Date

Attachment: Telecommuter Application

Distribution: Originals - Personnel File
Copy - Employee
Copy - Supervisor

Appendix C

TELECOMMUTING SCREENING SURVEY FOR EMPLOYEES

NAME _____ Supervisor(s) _____

Position _____

Department _____

1. Based on the characteristics given on the preceding page and your own judgment, does your job permit you to telecommute, at least part of the time?

() yes () no (this completes the questionnaire for you-- thanks!)

2. Do you want to participate in this pilot study?

() yes (go to question 4) () no

3. If not, why not? (Please check any that apply.)

- () I am not willing to meet the conditions for participation.
() Commuting is not a hassle for me.
() I am concerned about visibility for promotions and raises.
() There are too many distractions at home, and a satellite office doesn't interest me.
() I need the stimulation of the office environment in order to work well.
() I am opposed to making telecommuting available to anyone.
() Other (please specify)

(This completes the survey for you -- thanks!)

4. The following three groups of characteristics relate respectively to your work, yourself, and your manager. Please rate each characteristic as either high, medium, or low. If, under the matrix system, you have more than one manager, your response to the "Manager Characteristics" may vary for each manager. For those questions, please place the initials of each manager in the appropriate blanks, answering each question for all your supervisors.

WORK CHARACTERISTICS

	H	M	L
Amount of face-to-face communications required	___	___	___
Ability to "clump" required face-to-face communications into pre-determined time periods	___	___	___
Degree of telephone communications required	___	___	___
Amount of interface with remote data bases	___	___	___

Telecommuting Screening Survey for Employees
Page 2

Amount of time spent working at terminal or PC	___	___	___
Availability of quantitative measures for assessing performance (how many "widgets" produced)	___	___	___
Clarity of objectives for a given work effort	___	___	___
Autonomy	___	___	___
Ability to control and schedule work flow	___	___	___
Amount of in-office reference material required	___	___	___
Amount of physical access to special resources required	___	___	___
Ability to "clump" in-office reference/resource requirements into pre-determined time periods	___	___	___
Amount of concentration required	___	___	___
Need for physical security of data	___	___	___
EMPLOYEE CHARACTERISTICS	H	M	L
Need for supervision, frequent feedback	___	___	___
Quality of organization and planning skills	___	___	___
Self-starting	___	___	___
Importance of office input to work function	___	___	___
Initiative in requesting input when needed	___	___	___
Motivation derived from work itself	___	___	___
Motivation derived from prospect of promotion	___	___	___
Discipline regarding work	___	___	___
Reliability concerning work hours	___	___	___
Discipline with respect to personal issues (eating habits, etc.)	___	___	___
Computer literacy level	___	___	___
Desire/need to be around people	___	___	___
Level of company experience	___	___	___

Telecommuting Screening Survey for Employees
Page 3

Degree of experience in current assignment	___	___	___
Need for scheduling flexibility due to family responsibilities	___	___	___
Potential for friction at home if telecommuting	___	___	___

MANAGER CHARACTERISTICS

	H	M	L
Positive attitude toward telecommuting	___	___	___
Trusts employee's ability to telecommute	___	___	___
Organization and planning skills	___	___	___
Ability to establish clear objectives	___	___	___
Provides formal feedback regularly	___	___	___
Flexibility	___	___	___
Ability to communicate	___	___	___
Product-oriented rather than activity- or process-oriented	___	___	___

5. Considering the nature of your job, how much would you want to telecommute?

- | | |
|------------------------------|--|
| () less than 1 day/month | () 2 days a week |
| () 1 day/month | () 3 days a week |
| () about once every 2 weeks | () 4 days a week |
| () about once a week | () all the time, with weekly visits to the office |

6. What kinds of work would you expect to do while telecommuting? (check as many as apply)

- | | |
|--------------------------------|--------------------------------|
| ___ writing/typing | ___ research |
| ___ word processing | ___ talking on the phone |
| ___ data management/ | ___ sending/reading electronic |
| ___ computer programming | ___ mail |
| ___ administrative (e.g., OWP, | ___ meeting people |
| ___ progress reports) | ___ thinking/planning |
| ___ graphics/layout | ___ other (please specify): |
| ___ reading | _____ |

Telecommuting Screening Survey for Employees
Page 4

7. Given the amount of telecommuting you want to do, and the kinds of work you would do while telecommuting, what equipment/services would you need, and which of those do you currently have? (check as many as apply)

	need	currently have
computer/terminal	()	()
printer	()	()
modem	()	()
additional phone line	()	()
software	()	()
typewriter	()	()
desk, filing space, other furniture	()	()
other (please specify)	()	()
_____	()	()

8. Would you prefer telecommuting

- () all day, or
() only part of the day, in order to commute in non-peak periods, or
() some of both ?

9. Do you work from home at all now, or have you done so regularly in the past? (Not counting overtime!)

- () yes () no (go to Question 13)

10. If so, approximately how much?

- | | |
|------------------------------|--|
| () less than 1 day/month | () 2 days a week |
| () 1 day/month | () 3 days a week |
| () about once every 2 weeks | () 4 days a week |
| () about once a week | () all the time, with weekly visits to office |

11. Do/did you work from home

- () all day
() part of the day
() some of both

12. How long have you worked from home?

- | | |
|------------------------|------------------------|
| () more than a year | () 3 - 6 months |
| () 6 months to a year | () less than 3 months |

Telecommuting Screening Survey for Employees
Page 5

13. Do you have children at home all or part of the normal working day?

- ☐ yes, all day
- ☐ yes, for part of the day
- ☐ no

14. Do you have a spouse or other adult at home all or part of the normal working day?

- ☐ yes
- ☐ no

15. Do you have adequate space in the home to dedicate to working?

- ☐ yes
- ☐ no

16. Would you be interested in the possibility of working from a satellite location near your home (e.g., in your local City Hall)?

- ☐ yes
- ☐ no

17. How do you get to work most often?

- | | |
|--|---|
| <input type="checkbox"/> drive alone | <input type="checkbox"/> bus |
| <input type="checkbox"/> carpool driver | <input type="checkbox"/> walk |
| <input type="checkbox"/> carpool passenger | <input type="checkbox"/> other (please specify) _____ |
| <input type="checkbox"/> vanpool | |

18. What is your total commute time (to and from work)? _____ mins.

19. In your opinion, after reviewing the information provided, do you consider yourself a suitable candidate for telecommuting?

- ☐ yes
- ☐ no
- ☐ need more information (please specify) _____

Comments:

Appendix D

TELECOMMUTING SCREENING SURVEY FOR MANAGERS

NAME _____

Names of employees under your direct supervision (including clerical):

_____	_____
_____	_____
_____	_____
_____	_____

1. How would you rate your predisposition toward the concept of telecommuting at SCAG?

<input type="checkbox"/> very skeptical of success	<input type="checkbox"/> no opinion about success
<input type="checkbox"/> moderately skeptical of success	<input type="checkbox"/> moderately confident of success
<input type="checkbox"/> very confident of success	
2. Based on the characteristics given on the preceding page and your own judgment, is the work done by any of your staff suitable for telecommuting, at least part of the time?
☐ yes ☐ no (this completes the questionnaire for you-- thanks!)
3. Do you want to participate in this pilot study, as a manager of telecommuters?
☐ yes (go to question 5) ☐ no
4. If not, why not? (Please check any that apply.)

<input type="checkbox"/> I am not willing to meet the conditions for participation.
<input type="checkbox"/> I am opposed to making telecommuting available to anyone.
<input type="checkbox"/> I believe the incentive to "goof off" while telecommuting would be too strong.
<input type="checkbox"/> I don't want to have to defend the decision that some of my staff are allowed to telecommute, while others are not.
<input type="checkbox"/> I believe there's no good way of assessing productivity changes due to telecommuting.
<input type="checkbox"/> It is not fair to the employees not permitted to telecommute.
<input type="checkbox"/> Other (please specify)

(This completes the survey for you -- thanks!)

Telecommuting Screening Survey for Managers
Page 2

5. After discussing the telecommuting pilot with each of your staff whose jobs permit it, which ones are interested in participating in the study? (Initials will suffice)

<u> </u>	Interested in participating
<u> </u>	Not interested in participating
<u> </u>	Job does not permit participation

The rest of the survey needs to be completed for each of your employees who are interested in participation in the pilot study. (If there is only one such employee, you can skip to question 6). Some questions, such as those dealing with your management style, will probably have the same answers for each employee. In this case, please place a check or "X" in the most appropriate blank.

Some questions, however, will inevitably have different answers for different employees. In these cases, please put the initials of each employee in the appropriate blanks.

For example, if you have 3 interested employees, with initials U.V., W.X., and Y.Z., your response to the first question below might look like this:

	H	M	L
"Amount of face-to-face communications required"	<u> </u>	<u>UV, WX</u>	<u>YZ</u>

6. The following three groups of characteristics relate respectively to the work, the employee, and the manager. Please rate each characteristic as either high, medium, or low.

WORK CHARACTERISTICS

K CHARACTERISTICS	H	M	L
Amount of face-to-face communications required	_____	_____	_____
Ability to "clump" required face-to-face communications into pre-determined time periods	_____	_____	_____
Degree of telephone communications required	_____	_____	_____
Amount of interface with remote data bases	_____	_____	_____
Amount of time spent working at terminal or PC	_____	_____	_____
Availability of quantitative measures for assessing performance (how many "widgets" produced)	_____	_____	_____
Clarity of objectives for a given work effort	_____	_____	_____
Autonomy	_____	_____	_____
Ability to control and schedule work flow	_____	_____	_____

Telecommuting Screening Survey for Managers
Page 3

Amount of in-office reference material required	_____	_____	_____
Amount of physical access to special resources required	_____	_____	_____
Ability to "clump" in-office reference/resource requirements into pre-determined time periods	_____	_____	_____
Amount of concentration required	_____	_____	_____
Need for physical security of data	_____	_____	_____
EMPLOYEE CHARACTERISTICS	H	M	L
Need for supervision, frequent feedback	_____	_____	_____
Quality of organization and planning skills	_____	_____	_____
Self-starting	_____	_____	_____
Importance of office input to work function	_____	_____	_____
Initiative in requesting input when needed	_____	_____	_____
Motivation derived from work itself	_____	_____	_____
Discipline regarding work	_____	_____	_____
Reliability concerning work hours	_____	_____	_____
Computer literacy level	_____	_____	_____
Level of company experience	_____	_____	_____
Degree of experience in current assignment	_____	_____	_____
MANAGER CHARACTERISTICS	H	M	L
Positive attitude toward telecommuting	_____	_____	_____
Trust employee's ability to telecommute	_____	_____	_____
Organization and planning skills	_____	_____	_____
Ability to establish clear objectives	_____	_____	_____
Provide formal feedback regularly	_____	_____	_____
Flexibility	_____	_____	_____

Telecommuting Screening Survey for Managers
Page 4

- | | H | M | L |
|--|-------|-------|-------|
| Ability to communicate | _____ | _____ | _____ |
| Product-oriented rather than activity- or process-oriented | _____ | _____ | _____ |
7. Considering the nature of your staff's work, what is the maximum amount you would want each of them to telecommute?
- | | |
|--------------------------------|---|
| _____ less than 1 day/month | _____ 2 days a week |
| _____ 1 day/month | _____ 3 days a week |
| _____ about once every 2 weeks | _____ 4 days a week |
| _____ about once a week | _____ all the time, with weekly office visits |
8. What kinds of work would you expect your staff to do while telecommuting?
- | | |
|--|-------------------------------------|
| _____ writing/typing | _____ research |
| _____ word processing | _____ talking on the phone |
| _____ data management/ | _____ sending/receiving |
| _____ computer programming | _____ electronic mail |
| _____ administrative (e.g., OWP, progress reports) | _____ meeting people |
| _____ graphics/layout | _____ thinking/planning |
| _____ reading | _____ other (please specify): _____ |
9. Given the nature of your staff's work, what equipment would each one need in order to telecommute the amount you proposed for them in Question 7?
- | | |
|-----------------------------|------------------------------|
| _____ computer/terminal | _____ typewriter |
| _____ printer | _____ desk, filing space, |
| _____ modem | _____ other furniture |
| _____ additional phone line | _____ other (please specify) |
| _____ software | _____ |
10. Would you prefer that your staff telecommute
- | | |
|--|--|
| _____ all day, | |
| _____ only part of the day, in order to commute in non-peak periods, | |
| _____ some of both, or | |
| _____ no preference | |
11. Do any of your staff work from home at all now? (Not counting overtime!)
- _____ yes _____ no (go to Question 14)

Telecommuting Screening Survey for Managers
Page 5

12. If so, how much?

_____	less than 1 day/month	_____	2 days a week
_____	1 day/month	_____	3 days a week
_____	about once every 2 weeks	_____	4 days a week
_____	about once a week	_____	all the time, with weekly office visits

13. Do they work from home

_____	all day
_____	part of the day
_____	some of both

14. Please rate each of your interested staff in terms of your willingness to let them telecommute:

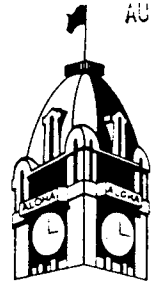
_____	not at all willing
_____	have reservations, but willing on a trial basis
_____	completely willing

Comments:

Appendix E

HAWAII INSURANCE BUREAU, INC.

700 Bishop Street, Suite 509 Honolulu, Hawaii 96813
P.O. Box 4500 Honolulu, Hawaii 96812-4500
Telephone: (808) 531-2771
FAX#: (808) 536-3516



AUG 30 1991

August 29, 1991

Mr. Samuel B.K. Chang
Director
LEGISLATIVE REFERENCE BUREAU
STATE OF HAWAII
State Capitol
Honolulu, Hawaii 96813

Patrick T. Welsh, CPCU
President

Kathleen B. Sansone
Senior Vice President

Frances H. B. Kanuha
Treasurer &
Corporate Secretary

Dear Mr. Chang:

Re: Telecommunication Employees

By analogy, telecommunication employees may be assign to the same classification as a clerical office employee - Code 8810, provided they meet the qualifications of the following rule in the Hawaii Classification & Interpretation Manual.

Rule IV B.2. states "Clerical Office Employees - Code 8810 are employees engaged exclusively in bookkeeping, in record keeping, in correspondence, or in other office work where books and other records are kept or correspondence is conducted. This classification applies only to employees who work in areas physically separated from other operations by structural partitions and in which work of clerical office employees as defined in this rule is performed exclusively. If such an employee has any other duty, the total payroll of that employee shall be assigned to the highest rated classification of operations to which the employee is exposed."

Sincerely,

Glenn S. Kinoshita

Glenn S. Kinoshita
Senior Workers Compensation Inspector

gsk

AFL-CIO Resolution on Computer Homework

WHEREAS, There is a growing trend among companies, especially in the insurance and financial industries, to have employees with computer terminals work at home instead of the office. By 1990, the Bureau of Labor Statistics predicts that computer occupations will increase nearly three times as fast as the expected rate of growth for all occupations in the economy. Computer employment will grow by 70 percent in manufacturing, 70 percent in wholesale and retail trade, and more than 100 percent in hospital, educational, and computer services fields. While most of the growth will be in the office computer occupations, many of these positions could be transferred into the home.

WHEREAS, Homework has historically led to worker exploitation. In the early part of this century, jewelry manufacturers were abusing homeworkers to such an extent that state and federal governments began to regulate them and banned homework in seven industries, including the jewelry industry. Unsafe working conditions and flagrant violations of minimum wage and overtime standards and child labor laws were prevalent in these industries, and the potential for the same problems to arise in computer homework is tremendous.

WHEREAS, The piecework nature of computer work increases the risk of employee exploitation. The worker is under constant surveillance by supervisors through the terminal, and it is a short step from evaluating workers by output to paying them by output. Workers will undoubtedly be ineligible for health and pension plans, and they will be isolated in their homes, making union organizing and other concerted activity difficult.

WHEREAS, Leaving the home computer industry unregulated will have a devastating impact on the well-being, wages, hours, and working conditions of home workers. Moreover, enforcement of wage, hour, and safety standards in the home is absolutely impossible; therefore, be it

RESOLVED, That the AFL-CIO calls for an early ban on computer homework by the Department of Labor as a measure of protection for those workers entering the market for the fastest-growing occupation in the United States.

Adopted by the 15th Constitutional Convention of the AFL-CIO, Hollywood, Florida, October 3-6, 1983.

TELECOMMUTING PROGRAMS AND CONTACTS

Organization	Status*	Approximate Number of Participants**	Duration	Other Comments	Contact Name
AT&T (S. California)	ongoing	160	1989-	non-union only	Ms. Janice Ingrassia 333 S. Beaudry Ave, 12th Fl Los Angeles, CA 90017 213-481-9922
CalTrans San Diego	begin 7-1-90	25	1990-91		Ms. Pat Arrick 2829 Juan Street San Diego, CA 92101 619-237-6040
City of Glendale	planning	undecided	1990-		Ms. Rebecca Granite-Johnson 633 E. Broadway, RM 202 Glendale, CA 91206 818-956-3961
City of Los Angeles	implem.	500	1990-92		Mr. Wally Siembab 120 S. San Pedro Street Suite 600 Los Angeles, CA 90012 213-485-7963

TELECOMMUTING PROGRAMS AND CONTACTS-CONTINUED

Organization	Status*	Approximate Number of Participants**	Duration	Other Comments	Contact Name
City of San Diego	implem.	7-90 thru 12-90	4 departments: Water Utilities, Purchasing, Bldg. Inspect., Park & Rec.		Ms. Helene Cweren E & D Dept. / TDM 122 First Avenue, MS510 San Diego, CA 92101 619-696-3342
City Of Santa Barbara	implem.	through 12-90	Work at home, Union and non-union		Ms. Jane Ferry 123 East Anapamu Santa Barbara, CA 93103 805-568-3046
County of Los Angeles	ongoing	250	1989-	union & non-union	Ms. Margery Gould 222 N. Grand, Rm 585 Los Angeles, CA 90012 213-974-2632 Ms. Nancy Apeles 222 N. Grand, Rm 585 Los Angeles, CA 90012 213-974-2637

TELECOMMUTING PROGRAMS AND CONTACTS-CONTINUED

Organization	Status*	Approximate Number of Participants**	Duration	Other Comments	Contact Name
Federal Government	planning/implem.	26 in 4 agencies	1990-91 (1 year)	any agency eligible	Mr. Tom Cowley Classification & Pay Policy Div US GSA 18th & F Streets, NW Washington, DC 20405 202-501-1580 FTS 241-1580
HomeFed Bank	implem.	12	8-90 through 1-91	exempt employees only	Ms. Amy Perkins 707 Broadway, Ste. 800 San Diego, CA 92101 619-699-7433
Minnesota Dept. Of Transportation	preliminary planning	unknown	pilots begin 12-91	public & private sectors	Mr. Jim Wright 120 Transportation Building St. Paul, MN 55155 612-297-7328
Orange County Transit	planning	30	1990-		Ms. Melanie Guinn 11222 Acacia Parkway Garden Grove, CA 92642-3005 714-638-9000 ext 3420

TELECOMMUTING PROGRAMS AND CONTACTS-CONTINUED

Organization	Status*	Approximate Number of Participants**	Duration	Other Comments	Contact Name
Pacific Bell	ongoing	1000	1985-	non-union only	Ms. Carol Nolan 1010 Wilshire Bl., Rm 1300 Los Angeles, CA 90017 213-975-7495
South Coast Air Quality Management District	implem.	30	1990-	participation to double in fiscal year 1990	Ms. Sarah Siwek 9150 Flair Drive El Monte, CA 91731 818-572-6184
Southern California Association of Governments	ongoing	10	1986-		Mr. Tom Brady 818 West Seventh Street 12th Floor Los Angeles, CA 90017 213-236-1881
State of California	ongoing	150	1988-		Mr. David Fleming 601 Sequoia Pacific Bl. Sacramento, CA 95814-0282 916-324-1739

TELECOMMUTING PROGRAMS AND CONTACTS-CONTINUED

Organization	Status*	Approximate Number of Participants**	Duration	Other Comments	Contact Name
State of Hawaii	ongoing	17	1989	public & private sectors, neighborhood work centers	Mr. Ed Uchida 600 Kapiolani Bl, Rm 306 Honolulu, HI 96813 808-548-6526
State of Washington	planning	300	1990-91 (2 years)	public & private sectors, neighborhood work centers	Ms. Dee Christenson 809 Legion Way SE, FA-11 Olympia, WA 98504-1211 206-586-5084

In addition to the programs listed here, telecommuting projects are in the planning stages in the State of Minnesota (public and private sectors), City of San Diego (California), County of San Diego, the State of Arizona, and elsewhere.

- **planning:** under serious consideration, already approved, policies being developed
implementation: Implementation (selection, training) is in process
ongoing: telecommuting has begun

- **For existing programs, this is the approximate number of telecommuters at present. In most cases, this number is growing over time.**

Appendix H

OFFICE OF THE CITY CLERK

TELECOMMUTING PROPOSAL July 9, 1991

STATEMENT OF PURPOSE

Telecommuting is the use of telecommunications technology to transport information, rather than people, to and from the workplace.

In developing a telecommuting program for the Office of the City Clerk, consideration was given to the concept of working at home, as opposed to working from a center close to home. Properly planned, telecommuting can be a viable work option for employees. Some of the components considered while addressing this project were:

- . Support of management and employees;
- . Determining the types of jobs most amenable to telecommuting;
- . An implementation plan;
- . Selection of employees appropriate for this project;
- . Assessing the direct and indirect costs and benefits of this project; and
- . Setting forth in writing specific conditions to be agreed upon by Department of Civil Service, Hawaii Government Employees Association, Office of City Clerk and telecommuters.

DURATION OF PROJECT

This program will be in effect for a six (6) month trial period. Target start date is September 1, 1991.

IMPLEMENTATION PLAN

<u>1991</u>	<u>Activity</u>
Month of June	Prepare draft of goals, objectives and standards for pilot project. Management to discuss report and select participating employees.
Early July	Submit report to Council Chair for his review and approval.
Mid-July	Consult with Civil Service Department and HGEA, and obtain concurrence.
Early August	Announcement of program to be made to Councilmembers, staff and general public. Establish task force to evaluate program requirements and effectiveness. Develop supervisor and employee evaluation forms.
Mid-August	Participating employees to sign agreement. Equipment to be placed in employees' homes. Inventory form to be signed. Training sessions to be held.
September 1	Start of pilot project.
December 1	Task force to evaluate project and recommend changes as applicable.

1992

February 28	End of pilot project. Task force to survey/evaluate project and prepare report.
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OBJECTIVE OF PROGRAM

The primary goal of this program is to reduce traffic congestion into and within the primary urban center generally described as being from Kalihi to Hawaii Kai, which in turn would result in fuel savings and improvement to air quality.

With this release from the stress of driving, the employee, working in the comfort of his/her own home, would have better concentration on the job, increased flexibility and autonomy, and increased family interaction due to work flexibility.

Long term benefits include reduced costs with respect to overhead, office space, and lowered absenteeism rates. Additionally, this program would be an incentive in recruiting and retaining employees.

OBJECTIVE OF PILOT PROJECT

The objective of a six-month pilot project is to obtain firsthand experience with the benefits, disadvantages and other issues associated with telecommuting.

MEMORANDUM OF UNDERSTANDING AND ATTACHED TELECOMMUTER'S AGREEMENT

A Memorandum of Understanding (Attachment A-1) and Telecommuter's Agreement (Attachment A-2) have been prepared covering the following issues:

RESPONSIBILITIES OF THE EMPLOYER

Equipment:

1. The City and County of Honolulu (hereinafter referred to as the "City") will provide standard equipment to the employee including a computer, transcriber, modem, and private phone. When not telecommuting, the equipment will remain in the participating employee's home.
2. All reasonable costs relating to the installation, use, and maintenance of City equipment shall be paid by the City.

Training/Education:

1. Training will be provided to employees on how to link work done on remote computers to the office system.

2. Regular meetings between each employee and his/her supervisor shall be required as part of the ongoing training and evaluation of the program.

The Office of the City Clerk would like to state that management be given the flexibility to make adjustments in work schedules and assignments on an as needed basis during the six-month trial period.

RESPONSIBILITIES OF THE TELECOMMUTER

Participants must sign a "Telecommuter's Agreement" (Attachment A-2) agreeing to the following terms and conditions:

1. A 40-hour work week schedule;
2. Being available during core hours, of 9:00 a.m. to 11:00 a.m., and 1:30 p.m. to 3:30 p.m., Monday through Friday, for contact by the office or the general public;
3. Reporting to the work site at least one agreed upon day per week for conferences with supervisor, staff meetings, picking up supplies, and maintenance of ties with the work unit.
4. Filling out and turning in to supervisor on a weekly basis time sheets (Attachment C) indicating hours of work;
5. Responsibility for proper care and maintenance of City equipment including reasonable security precautions against theft and damage;
6. Participants shall be prohibited from using or allowing others to use City equipment for non-City business.
7. Responsibility for proper security of computer access codes and confidential information.

EMPLOYEE SELECTION CRITERIA

Two employees from the Council Assistance Division were approached and have agreed to participate in the pilot project. This, however, will not preclude other motivated employees and self-starters from participating strictly on a voluntary basis in this project. Permitting these employees to participate will be considered as the success of this pilot project is evaluated.

Criteria to evaluate applicant for participation are:

1. Demonstrated ability to work with computers, and ability to resolve computer equipment and software problems independently;
2. Demonstrated ability to work independently with minimum supervision;
3. Home environment that allows for working at home, i.e., zoning, condo by-laws;
4. Available desk space in an approved area of the house dedicated to the exclusive use of the telecommuting project which is accessible to visits by the supervisor.
5. Management of dependent care and/or personal responsibilities to allow for successful completion of job responsibilities.
6. Availability during agreed upon work hours.

They should have as supervisors individuals who have:

1. The ability to establish clear objectives and to communicate well;
2. High organization skills; and
3. A positive attitude toward letting the employee telecommute.

WORK ASSIGNMENTS

Specific work assignments for the two participants are shown on Attachment B.

EVALUATION

Periodic evaluations over the six-month period will be conducted involving management and employee to monitor the impacts of telecommuting. At the end of the pilot period, supervisor and employee will be surveyed to:

1. Determine whether work production levels were maintained or increased;
2. Determine types of jobs and situations most amenable to telecommuting;
3. Determine possible reassignments in job tasks;
4. Evaluate the effectiveness of supervising telecommuters;
5. Determine impacts on productivity, morale and absenteeism;
6. Determine whether the employee:
 - a. Realized savings in gas and vehicle maintenance costs;
 - b. Gained valuable time by not having to commute daily;
 - c. Experienced less stress associated with commuting;
 - d. Realized savings on clothing and meals.
7. Determine whether there was greater family interaction;
8. Establish legally sound policies on liability in the areas of workers' compensation and equipment servicing and security;
9. Assess telecommuting costs encumbered by the City;
10. Determine usage of the City's network system.

Appendix I-I

REVISED ORDINANCES OF THE CITY AND COUNTY OF HONOLULU, LAND USE SUPPLEMENT

3.140-1 Home Occupations: Standards and Prohibited Uses.

The purpose of this Subsection is to permit home occupations as an accessory use to dwelling units under the following restrictions and standards:

- A. Home occupations shall be incidental and subordinate to the principal use of the site as a residence and shall not change the character and external appearance of the dwelling.
- B. Only household members shall be employed under the home occupation.
- C. There shall be no exterior sign that shows the building is used for anything but residential use. There shall be no exterior displays or advertisements.
- D. There shall be no outdoor storage of materials or supplies.
- E. Indoor storage of materials and supplies shall be enclosed and shall not exceed 250 cubic feet or 20 percent of the total floor area, whichever is less.
- F. Articles sold on the premises shall be limited to those produced by the home occupation and to instructional materials pertinent to the home occupation.
- G. Home occupations which depend on client visits, including group instruction, shall provide one parking space per five clients on the premises at one time. This shall be in addition to parking required for dwelling use. Residents of multi-family buildings may fulfill the requirement by the use of guest parking with the approval of the building owner (management) or condominium association.
- H. Activities which exceed the allowable noise levels as set forth in Chapter 43, Title 11, Department of Health Administrative Rules, as amended, must be conducted in fully enclosed, noise-attenuated structures.
- I. The following activities are not permitted as home occupations:
 - 1. Automobile repair and painting, except that repair and painting of vehicles owned by household members for purposes of maintenance shall be permitted, provided that the number of vehicles repaired or painted shall not exceed 5 per year.
 - 2. Contractor's storage yards.
 - 3. Care, treatment or boarding of animals in exchange for money, goods or services. The occasional boarding and the occasional grooming of animals not exceeding five animals per day shall be permitted as home occupations, provided the limit on the number of dogs stated in Subsection 3.140-2.0. below is maintained.
 - 4. Those on-premise activities and uses which are only permitted in the industrial districts.
 - 5. Use of dwellings or lots as a headquarters for the assembly of employees for instructions or other purposes, or to be dispatched for work to other locations.

Appendix I-II

MAUI COUNTY CODE (See Asterisk)

Chapter 19.08

RESIDENTIAL DISTRICTS

Sections:

19.08.010	Generally.
19.08.020	Permitted uses.
19.08.030	Special uses.
19.08.040	Area regulations.
19.08.050	Height regulations.
19.08.060	Yards.

19.08.010 Generally.

Areas for single-family dwellings are established to provide for harmonious residential neighborhood without the detraction of commercial and industrial activities. (Prior code § 8-1.4(a))

19.08.020 Permitted uses.

Within residential districts, the following uses shall be permitted:

- A. Single-family dwellings;
- B. Greenhouses, flower and truck gardens and nurseries; provided, that there shall be no retailing or transacting of business on the premises;
- C. Parks and playgrounds, noncommercial; certain commercial amusement and refreshment sale activities may be permitted when under supervision of the government agency in charge of the park or playground;
- D. Schools, elementary, intermediate, high and colleges, publicly or privately owned, which may include on-campus dormitories;
- E. Buildings or premises used by the federal, State, or county governments for public purposes;
- F. Accessory buildings located on the same lot, the use of which is customary and incidental, usual and necessary to that of the main building or to the use of the land;
- G. An accessory dwelling may be permitted where the area of the lot on which the main house is located is seven thousand five hundred square feet or more. Chapter 19.35 of this article, pertaining to accessory dwellings, shall be applicable to any accessory dwelling;
- H. Child care homes, day care homes, nurseries, preschool kindergartens, babysitting services, and other like facilities located in private homes used for child care services serving six or fewer children in number at any one time. (Ord. 2030 § 3, 1991; Ord. 1956 § 1, 1990; Ord. 1269 § 6, 1982; prior code § 8-1.4(b))

19.08.030 Special uses.

The following are declared special uses, and approval

of the appropriate planning commission shall be obtained:

- A. Churches together with accessory buildings;
- B. Day care centers, child care homes, day care homes, nurseries, preschool kindergartens, babysitting services, and other like facilities used for child care services serving more than six children in number at any one time;
- C. Hospitals; provided, that written consent of seventy-five percent of the property owners within five hundred feet from the property to be used for such purpose has been obtained;
- D. Nursing or convalescent homes and domiciliary facilities operated and maintained to provide nursing or supporting care;
- E. Housing for the aged, operated by governmental or nonprofit organizations; provided, that the normal population density is not increased more than ten percent;
- F. Housing for low and moderate income families, operated by governmental or nonprofit organizations; provided, that the normal dwelling unit density is not increased more than ten percent;
- G. Public utilities substations, which are not and will not be hazardous or a nuisance to the surrounding areas;
- H. Certain domestic type businesses in the home, provided there will be no detrimental or nuisance effect upon the neighbors. Such businesses shall be normal functions of the home, such as baking, sewing and piano playing;
- I. Residential planned developments only. (Ord. 1956 § 2, 1990: prior code § 8-1.4(c))

19.08.040 Area regulations.

- A. The minimum lot area shall be six thousand square feet in R-1 residential districts, seven thousand five hundred square feet in R-2 residential districts, and ten thousand square feet in R-3 residential districts. The minimum lot width shall be sixty feet for R-1, sixty-five feet for R-2, and seventy feet for R-3. There may be more than one single-family dwelling on any lot when the minimum lot area of six thousand square feet in R-1, seven thousand five hundred square feet in R-2, and ten thousand square feet in R-3 is provided for each dwelling unit.
- B. Subject to approval of the commission, mixture of lot sizes may be permitted within any residential district; provided, however, that the minimum lot size shall not be less than six thousand square feet, and that the overall project density shall not exceed that permitted within the district. Where the subdivision or project is designed to meet the needs of low or moderate income families, and adequate provisions are provided to insure owner-occupancy and the control or limitation of speculation, the commission may permit an increase in density not to exceed ten percent. (Ord. 784 § 1, 1974: prior code § 8-1.4(d))

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Appendix I-III

KAUAI COUNTY CODE (See Asterisk)

8-1.5

(60) "Guest House" means a building used for dwelling purposes by guests with a floor area of no more than five hundred (500) square feet that contains no kitchen and is located on a parcel of at least nine thousand (9,000) square feet that contains one (1) or more dwelling units.

(61) "Height-Building". See appropriate Chapter provisions.

(62) "Height, Fence or Screen" means the vertical distance measured from the ground level to the top of the fence. For the purpose of applying height regulations, the average height of the fence along any unbroken run may be used provided the height at any point is not more than ten percent (10%) greater than that normally permitted.

(63) "Height, Wall" means the vertical distance to the wall plate measured from the ground level at the bottom of the wall.

(64) "Historic Resource" means any property, area, place, district, building, structure, site, neighborhood, scenic viewplane or other object having special historical, cultural, architectural or aesthetic value to the County of Kauai.

* (65) "Home Business" means any use customarily conducted entirely within a dwelling and carried on solely by the inhabitants thereof, in connection with which there are: no display from the outside of the building; no mechanical equipment used except as is normally used for domestic or household purposes; and no selling of any commodity on the premises; which use is clearly incidental and secondary to the use of the dwelling for dwelling purpose and does not change the character thereof. The office, studio, or occupational room of an architect, artist, engineer, lawyer or other similar professional person; business conducted entirely by phone or by mail (not involving frequent bulk shipments); and an office for "homework" of a person in businesses elsewhere; all shall be permitted as home businesses except that no activity involving, encouraging, or depending upon frequent visits by the public and no shop or clinic of any type shall be deemed to be a home business.

(66) "Horizontal Property Regime" means the forms of development defined in the Horizontal Property Act, Chapter 514A, H.R.S.

(67) "Hospital" means any building or portion thereof to which persons may be admitted for overnight stay or longer and which is used for diagnosis, care or treatment of human illness or infirmity or which provides care during and after pregnancy.

(68) "Hotel" means any building containing six (6) or more rooms intended or designed to be used, or

Appendix I-IV
HAWAII COUNTY CODE

Sec. 25-4

(29) "Home occupation" means any use which:

(A) Is clearly incidental and secondary to the use of a dwelling for dwelling purposes and does not change the character of the dwelling;

(B) Is customarily conducted entirely within a dwelling;

(C) Is customarily carried on solely by the inhabitants of the dwelling;

(D) Involves no display visible from outside the building;

(E) Involves no use of mechanical equipment except that which is normally used for domestic or household purposes; and

(F) Involves no selling of any commodity on the premises;
and includes:

(A) The office, studio, or occupational room of an architect, engineer, lawyer, or other similar professional person;

(B) Any business conducted entirely by phone or mail and not involving frequent bulk shipments; and

(C) An office for doing homework of a person in business elsewhere;

but excludes:

(A) Activities involving, encouraging, or depending upon frequent visits by the public; and

(B) Any shop or clinic of any type.

Appendix J

Excerpt from a Bishop Estate Lease

Covenant:

"...

8. RESIDENTIAL USE. Lessee will use and allow the use of said premises only for residential purposes, and will not at any time during said term erect, place, maintain or allow on said premises more than one single-family dwelling (exclusive of outbuildings), nor keep or allow to be kept on said premises any livestock, poultry or rabbits, nor use or allow the use of any building or structure on said premises as a tenements house, rooming house or apartment house or for or in connection with the carrying on of any business or trade whatsoever..."

Appendix K

KAWAIAHAO PLAZA
567 South King Street
Suite 200
P O Box 3466
Honolulu, Hawaii 96801
Telephone (808) 523-6200
Fax (808) 537-4214

KAMEHAMEHA SCHOOLS / BERNICE PAUAHI BISHOP ESTATE

May 16, 1990

Mr. Keve Papp, Coordinator
Telework Communications
State Dept. of Transportation
869 Punchbowl Street
Honolulu, HI 96813-5097

Dear Mr. Papp,

This letter responds to your request of April 17 regarding residential leases issued by Kamehameha Schools/Bernice Pauahi Bishop Estate (KS/BE).

After conferring with members of our land management staff and legal counsel, it was determined that the intent of any lease restrictions relating to business activities on residential property was to preserve the appearance and ambiance of the residential setting. KS/BE would generally have no problem with activities that do not interfere with or disrupt this setting. (I am assuming you are also reviewing all relevant County ordinances governing business operations in residential areas.)

While our staff is not very familiar with how computer/information-related home work stations would actually operate, our initial impression is that such activities would not compromise the residential setting. As long as the operations do not generate noxious by-products, such as loud noises, fumes, excessive waste materials, etc., and if they do not increase traffic in their respective neighborhoods, then KS/BE would not likely oppose such ventures. However, before full support can be assured, our land managers would need to review the proposed operations to make sure they (the operations) do not violate any of the terms of the lease contracts between KS/BE and its lessees.

Your interest in KS/BE policy as it relates to your plan is much appreciated. I'm sure the world will be hearing more about the electronic work-at-home concept, and if we can be of any further help in this regard please do not hesitate to call me at 523-6369.

Sincerely,



K. Kekoa Paulsen, specialist
Media/Public Relations Dept.

Appendix L

CHAPTER 3

State Employee Telecommuting Program

[Added Stats 1990 ch 1389 § 1.]

§ 14200. "Telecommuting"

§ 14201. Incorporation of telecommuting work option as element of transportation management program

§ 14202. Establishment and duties of overseeing unit in Department of General Services

§ 14203. Evaluation of telecommuting programs

§ 14200. "Telecommuting"

As used in this chapter, "telecommuting" means the partial or total substitution of computers or telecommunication technologies, or both, for the commute to work by employees residing in California.

Added Stats 1990 ch 1389 § 1 (AB 2963).

Development of Model Telecommuting Plan: Gov C § 14628.

§ 14201. Incorporation of telecommuting work option as element of transportation management program

Every state agency, including every board and commission, may incorporate the telecommuting work option as an element of its transportation management programs, which are designed to reduce the number of commute trips by state employees.

Agencies that participated in the experimental studies described in Section 15276 may continue and expand those telecommuting programs in accordance with the policy, procedures, and guidelines developed by the Department of General Services in conjunction with those participating agencies. Those agencies not having participated in the initial experimental studies described in Section 15276 may comply with the policy, procedures, and guidelines developed by the Department of General Services in conjunction with a multiagency group that participated in those studies.

Added Stats 1990 ch 1389 § 1 (AB 2963).

§ 14202. Establishment and duties of overseeing unit in Department of General Services

The Department of General Services shall establish a unit for the purpose of overseeing telecommuting programs established pursuant to this chapter. This unit shall do all of the following:

(a) Coordinate and facilitate the interagency exchange of information regarding the state's telecommuting program, and establish and lead a multiagency telecommuting advisory group for these purposes.

(b) Develop and update policy, procedures, and guidelines to assist agencies in the planning and implementation of telecommuting programs.

(c) Assist state agencies in requesting the siting of satellite work stations and develop procedures to track the needs of agencies and identify potential office locations.

Added Stats 1990 ch 1389 § 1 (AB 2963).

§ 14203. Evaluation of telecommuting programs

Each state agency shall evaluate its telecommuting program. The Department of General Services shall establish criteria for evaluating the state's telecommuting program and recommend modifications, if necessary.

Added Stats 1990 ch 1389 § 1 (AB 2963).