HOMEWORK: AN EMPIRICAL INVESTIGATION

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ABSTRACT

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The present study examined the alternative work schedule of homeworking and its impacts on the organizational behaviour of employees in five organizations in the greater Montreal area. A model was proposed showing the interaction of homeworking and various outcomes. The Karasek Job Strain model was used to provide further focus on a number of outcomes. The sample was drawn from data collected by means of a questionnaire which was constructed using existing measurement tools and some new tools developed for this study. The sample consisted of 173 individuals from 5 high-tech companies for an overall response rate of 32%. Results confirmed the hypothesized relationships of differences between Homeworkers and Non-Homeworkers. However, Homeworking failed to show a moderator effect on strain and stress. In order to substantiate the findings from the survey, interviews of 16 part-time telecommuters were also conducted in one of the five participating firms. A content analysis of these interviews further confirm the findings of the survey. Suggestions for future research and implications for theory and practice are discussed.

ACKNOWLEDGEMENTS

The end of a journey is always a special time of reflection. It is a time to reflect on how one has managed to complete the journey which was started so long ago. My journey would not have been successful without the help of a number of people.

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CHAPTER ONE: INTRODUCTION

This study focused on Homeworking which has and continues to be more important due to new technological developments in computers and communication. Homeworking (also referred to as Telecommuting, Working from home, Telework, Flexiplace, Homework, Virtual Office, and Homelabor) is not a new idea. In fact it has been around for hundreds of years. Prior to the industrial revolution, the majority of people worked at home and attended to family needs as well. Most people worked on the farm and most necessities came off the land. Therefore, Homeworking was the norm and not the exception. With the coming of the industrial revolution, people were centralized in one location to work on assembly lines in order to produce goods. The belief being that mass production of goods would bring economies of scale and provide a good product, at a decent price. For the most part this has held true, but society forgot one thing in the effort to industrialize, the family! The family has been the one which has undergone and continues to undergo some radical changes. As people moved away from the agricultural jobs on the farm, which was usually close to home, and moved into the manufacturing area, the family began to change. People were no longer close to home to take care of family responsibilities at any time of the day. They were now physically removed from the home and this introduced a new dimension to family responsibilities.

Initially, this change in where work was carried out was significant, but was still reasonable because the division of labor in a family was clear. One person (usually the

woman) stayed home to take care of family responsibilities. The other person (usually the man) was considered the bread winner for the family. So the responsibilities seemed to be adequately divided and this (which is referred to as the traditional family setting) was the norm for a long time.

In the last decade, the traditional setting has changed dramatically. More women have entered and continue to enter the work force everyday. This trend has changed and will continue to change the face of the work force and the face of the traditional family for good. Loveman and Gabarro (1991) gave projections which showed that from 1988 to 2000, the net change (difference between workers leaving and entering the work force) of women in the work force will be 62%, while the net change for men will only be 38%. Hence, almost two times more women than men will join the work force by the year 2000. Tables 1 and 2 contain extracts from the 125th and 127th Edition of The Canada Year Book (1992, 1994) and the 112th and 114th Edition of the Statistical Abstract of the U.S. (1992, 1994). They give us a more detailed picture of what has been and will occur in the future in terms of work force participation rates of men and women.

In Table 1 we see that the percentage of Canadian males participating in the work force has gone from 85.2% in 1949 to 74.8% in 1991. Whereas, female participation has gone from 23.6% in 1949 to 58.2% in 1991.

TABLE 1 - History of the Canadian Labor Force Participation of Men and Women

GENDER/YEAR	1949	1959	1969	1974	1979	1984	1989	1991
MALE	85.2	81.0	78.3	78.7	78.5	76.6	76.7	74.8
FEMALE	23.6	26.7	38.0	43.0	49.0	53.6	57.9	58.2

The same trend exists in the U.S. Labor Force. In table 2 we see that the percentage of males participating in the work force has declined from 79.7% in 1970 to 75.2% in 1993 and is projected to decline further to 74.7% by the year 2005. Whereas women have gone from 43.3% participation in 1970 to 57.9% participation in 1993 and projections are that this will increase further to 63.2% by the year 2005. Hence, while women participation would have increased by 20% in a span of 35 years, male participation would have decreased by 4%. One possible reason this decrease in male participation will occur is because more women are getting more jobs as they are accepted into areas which used to be predominately male.

TABLE 2 - History and Projections of the U.S. Civilian Labor Force Participation of Men and Women

GENDER/YEAR	1970	1980	1985	1990	1991	1993	2000	2005
MALE	79.7	77.4	76.3	76.1	75.5	75.2	75.3	74.7
FEMALE	43.3	51.5	54.5	57.5	57.3	57.9	61.6	63.2

With this changing work force, of which dual earner couples constitute 49.2% of the work force (Statistics Canada, 1989), and both women and men being concerned with being able to balance work and a family (Hall, 1990; Hall & Hall, 1979), it has

produced a new challenge in establishing an equilibrium between work, home, social and personal responsibilities. Interestingly, Pleck (1985) found that in two working parent households, the household duties are shared more evenly between the two parents than in a traditional family setting.

Figure 1 shows that employees are trying to accomplish Home, Work, Social and Personal goals all within a finite amount of time. Employees are trying to do things such as spending time with their spouse and children, hold down a job, meet social obligations, and go to school to get training so that they can remain competitive in the fast paced world of work. All of these demands on an employee's time could easily lead to significant pressures on the employee. One would expect that all of these obligations would start to take a toll on the employee which could eventually make their job performance suffer.

From the organizations perspective, in order to remain competitive and keep costs down, organizations have been downsizing and getting lean. In getting lean, organizations are depending on the remaining employees to get the job done. Therefore, the remaining employees are critical to the success of the organization and the organization is conscious of keeping valued employees.

FIGURE 1 - Employee's Time Constraint Predicament

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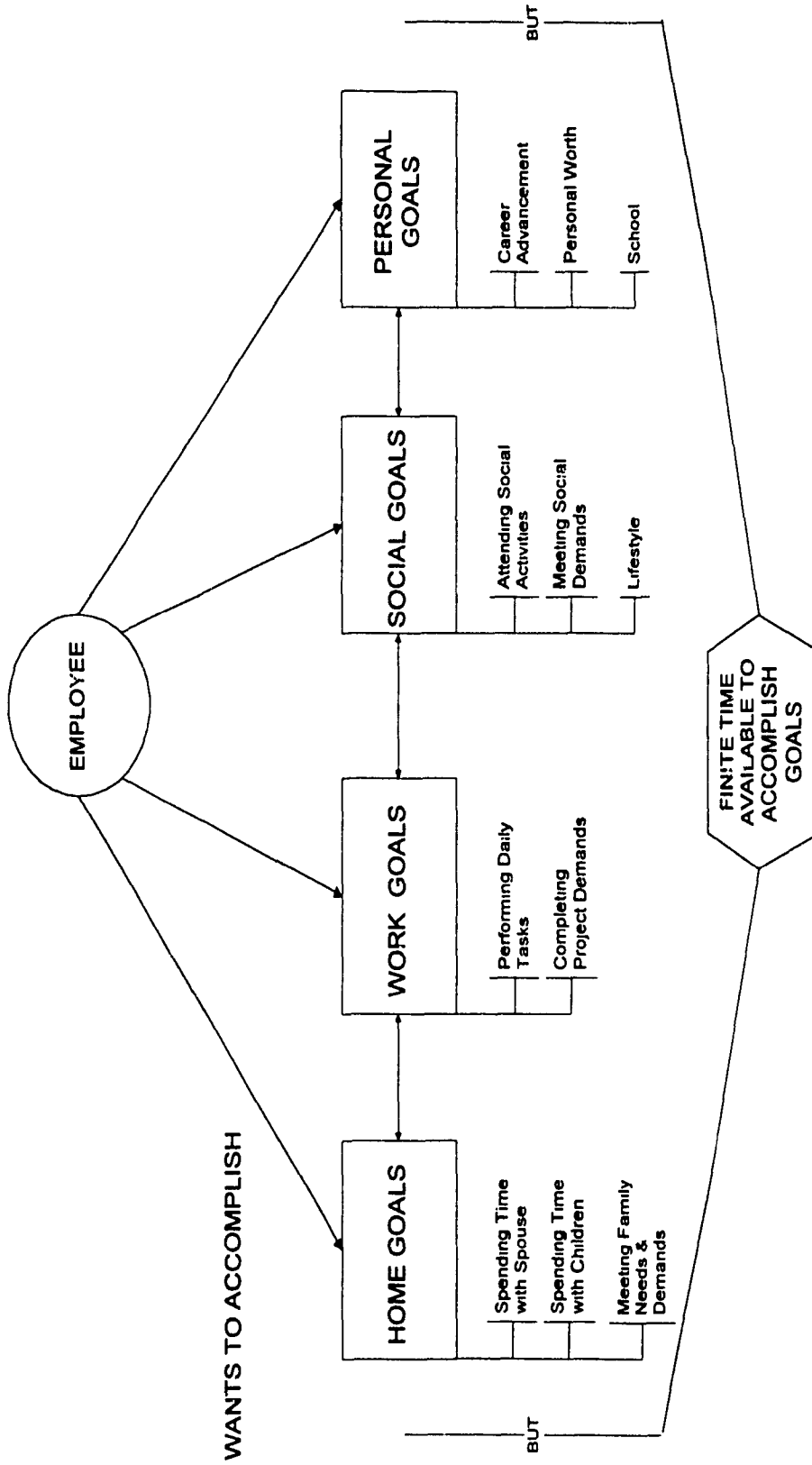
1.1 Revolution in the Making!

Due to all these demands that an employee is facing, being able to schedule his/her

work more easily becomes paramount since work is one of the main components of a

persons life. In a study entitled "The Impact of Work Schedules on the Family", Staines

and Pleck (1983) outlined how schedule control and flexibility in a work schedule were

important to the study of work. This was one of their main recommendations to policy

makers who are setting work schedule guidelines in an effort to improve quality of

family life. This is perhaps why homework has drawn so much interest in the last

decade. Homework seems to provide the ultimate amount of schedule control and

flexibility of the alternative work schedules available.

The other reason why homework has drawn so much interest is because of the

technological advances which have been made in the last fifteen years. During these

years, computers have been introduced into almost every aspect of our lives. The

Personal Computer (PC) penetration in US households went from 24% in 1989 to

26.1% in 1991 (Gelfand, 1992). This consists only of households who buy computers

for recreational or personal use. However, during the same time period, the penetration

of PCs into **home office** households in the US jumped from 37.8% to 47.5% (Gelfand,

1992). These are households which use the computer to run a home office in or use the

computer for work purposes. The U.S. Statistical Abstract (1994) shows that in 1990

15% of homes in the US had a computer.

We see this computer presence in almost every aspect of our lives. Our children now have computer classes in elementary school. High school has also been changed by having computers available in the classrooms. In 1993, 97.4 percent of elementary and secondary schools in the U.S. had personal computers in them (US Statistical Abstract, 1994). It is now unthinkable of being able to get through college or university without a computer. The adoption of the computer in the household has also been found to significantly change peoples behaviour and time allocation patterns (Vitalari, Venkatesh, & Gronhaug, 1985). In the work place, almost all desk related jobs have a computer which is involved to some degree. In the General Social Survey of 1989, Statistics Canada reported that one-third or 4.3 million workers employed at the time of the survey (regardless of job category) used computers to some degree in their job (Lowe, 1991).

In the last couple of decades, we have seen that jobs in general have been affected greatly by a shift of manufacturing jobs to the service sector, downsizing, and automation. The Hudson Institute reports (Johnston & Packer, 1987) that in 1984, The World Bank showed that in Industrial Market Economies like Canada and the U.S., services accounted for 62% of production (GNP). The manufacturing sector constituted 35% of production (GNP) followed by agriculture with only 3%. The U.S. Department of Labor reported in their Occupational Outlook Quarterly (1995) that manufacturing employment decreased by 2.9 million (14%) jobs in the period of 1979-1992. The decrease in manufacturing jobs is projected to level out at 393,000 jobs.

This shift of jobs has occurred in manufacturing industries like steel-making. In one steel manufacturer, the number of employees was 31,005 in 1982. In 1995, half those employees (15,410) are generating the same or more steel than in 1982 (Inland Steel Industries, Inc. Annual Reports, 1991, 1995). The ability to produce more with less has been mainly due to automation and computers. Even though jobs have shifted to the service sector, downsizing has also occurred at the office level for these industries and other service industries.

1.2 The Powers Behind Homework

We can see that the shift from manufacturing to service jobs, downsizing, the increase of women's participation in the work force, combined with the wide spread acceptance of computers has created a fertile environment for the growth of homework.

The shift of jobs from the manufacturing sector to the service sector has meant more office or desk jobs. These are jobs which have the computer as an integral part of their work. Downsizing has meant that less jobs are available and the people who do have jobs have more work to do. They are also under pressure to keep their jobs because there are not as many jobs to go around. A greater number of dual earner couples implies that employees are facing a bigger challenge in dealing with all their responsibilities. Finally, with the increase of computers in the home, it now increases the possibility of bringing work home and working from home.

A number of technological advances have further enhanced the possibility of working at home. First, the growth of what is being called the Information Super Highway (ISH) or the Internet is promising easier access to information. Second, E-mail systems, faster modems, the Internet, Intranet's and Voice Mail systems have made communicating with the office easier. Third, communicating with co-workers has also been enhanced with the ability to talk to your co-workers on the computer itself with programs which allow users to talk by typing and seeing what your co-worker is typing. Fourth, "Document Conferencing" which allows two or more people to work on the same document regardless of where the people are, has made work collaboration from a distance possible. Fifth, a new type of software called Groupware is also promising to take working from afar into a new dimension. It allows people to not only work on the same documents at the same time but also maintain a comprehensive schedule of a persons activities so that calling meetings, conference calls ...etc is made easier. A person could call a meeting without ever having to speak to the attendees required for the meeting. Collaborative working from a distance will be further enhanced with the advancement of "Desktop Conferencing". Desktop conferencing allows people to communicate visually with a person at their desk or wherever they may be. The technology for this exists today although it is still in the developmental stages. The main complaint being that the picture of the person is slow so that a person moves in slow motion. However, given the advances in equipment which are being made

(O'Malley, 1996) and will be made, this promises to be better. Combining this with the Internet will make communication for distributed workers a non-issue.

Hence, we see that homework has come full circle. It was the work schedule of choice before the industrial revolution and now that less manufacturing jobs are available, and employees are facing greater challenges, homework has once again gained in popularity in the service and some manufacturing sectors (eg: programming). As we move further into the Information Age, the economy will generate more jobs which have some part which can be performed from the home. Table 3 shows us that some of the fastest growing occupations in the next decade like Systems analysts and Computer engineers and scientists, are occupations which lend themselves more to homeworking.

TABLE 3 - Job Outlook

Top.20 Declining Occupations 1992-2005		25 Fastest Growing Occupations, 1992-2005	
Occupation	Proj. Employment Decline in Thousands	Occupation	Growth. %
Farmers	-231	Home health aides	138
Sewing machine operators, garment	-162	Human services workers	136
Cleaners and servants, private households	-157	Personal and home care aides	130
		Computer engineers and scientists	112
Farm workers	-133	Systems analysts	110
Typists and word processors	-125	Physical and corrective therapy	
Childcare workers, private household	-123	assistants and aides	93
Computer operators, except		Physical therapists	88
peripheral equipment	-104	Paralegals	86
Packaging and filling machine		Teachers, special education	74
operators and tenders	-71	Medical assistants	71
Inspectors, testers, and		Corrections officers	70
graders, precision	-65	Detectives except public	70
Switchboard operators	-51	Travel agents	66
Telephone and cable TV line		Childcare workers	66
installers and repairers	-40	Radiologic technologists and technicians	63
Textile draw-out and winding		Nursery workers	62
machine operators and tenders	-35	Medical records technicians	61
Bartenders	-32	Operations research analysts	61
Machine forming operators and		Occupational therapists	60
tenders, metal and plastic	-32	Legal secretaries	57
Butchers and meatcutters	-31	Manicurists	54
Billing, posting, and calculating		Producers, directors, actors	
machine operators	-28	and entertainers	54
Central office and PBX installers		Teachers, preschool and kindergarten	54
and repairers	-25	Flight attendant	51
Bank tellers	-24	Speech language pathologists	
Central office operators	-24	and audiologists	51
Electrical and electronic assemblers	-23	Guards	51
Source: Occupational Outlook Quarterly, U.S. Department of Labor. (1995)		Source: Occupational Outlook Quarterly, U.S. Department of Labor. (1995)	

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1.3 Alternative Work Schedules

In response to the changing work force and organizations trying to remain competitive

by retaining good employees, alternative work schedules (AWS) have emerged as a tool

to deal with the demands that the modern employee is facing (Figure 2). The alternative

work schedules which have generated the most interest have been homework,

shiftwork, compressed work week, flextime, and part-time employment (Figure 3).

The basic definition of an **Alternative Work Schedule** (AWS) is a work schedule

which differs from the standard 9 to 5, 5 days a week. This is a very rudimentary

definition but it helps to point out how wide spread AWS's have become. Figure 3

provides a framework for the different flavours of each category of AWS's which exist.

There has been a substantial amount of interest, both from a research and popular press

perspective in these areas (Baba & Jamal, In Press; BNA, 1986; Blyton, 1985; Cohen

& Gadon, 1978; Colquhoun & Rutenfranz, 1980; DeSanctis, 1983; Hedges, 1977;

Gordon, 1983; Jamal & Baba, 1992; Jamal & Badawi, 1995; Kelly, 1985; Mott, Mann,

Quin, & Warwick, 1965; Nollen, 1982; Nollen & Martin, 1978a; Nollen & Martin,

1978b; Pierce, Newstrom, Dunham, & Barber, 1989; Ronen, 1984; Ronen, 1981;

Staines & Pleck, 1983).

Two of the areas shown in Figure 3 would be considered relatively new. Homework

and Part-Time employment have only recently started to generate more interest. Part-

Time employment has become more common place due to the recent recessionary

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times, people choosing free time over money, and loss of jobs as already mentioned. In the last decade, homework has emerged as one of the most revolutionary alternative work schedules. This work schedule seems to provide the most flexibility and control than any of the other work schedules (Caudron, 1992; Filipczak, 1992; Goodrich, 1990; Kinsman, 1991; O'Hara, 1993; Verespej, 1994; Young, 1991). To a certain degree within the context of Homework, flexibility is a subset of control. If a worker has the flexibility to work at home, then he/she has control over when their work is done. Hence, with this increased flexibility and control, homework coulu play a major role in helping an employee manage the situation depicted in Figure 2.

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FIGURE 2 - Need For Alternative Work Schedules (AWS)

EMPLOYEE

FINITE TIME AVAILABLE TO ACCOMPLISH GOALS

HOME GOALS
- Spending Time with Spouse
- Spending Time with Children
- Meeting Family Needs & Demands

WORK GOALS
- Performing Daily Tasks
- Completing Project Demands

SOCIAL GOALS
- Attending Social Activities
- Meeting Social Demands
- Lifestyle

PERSONAL GOALS
- Career Advancement
- Personal Worth
- School

AWS
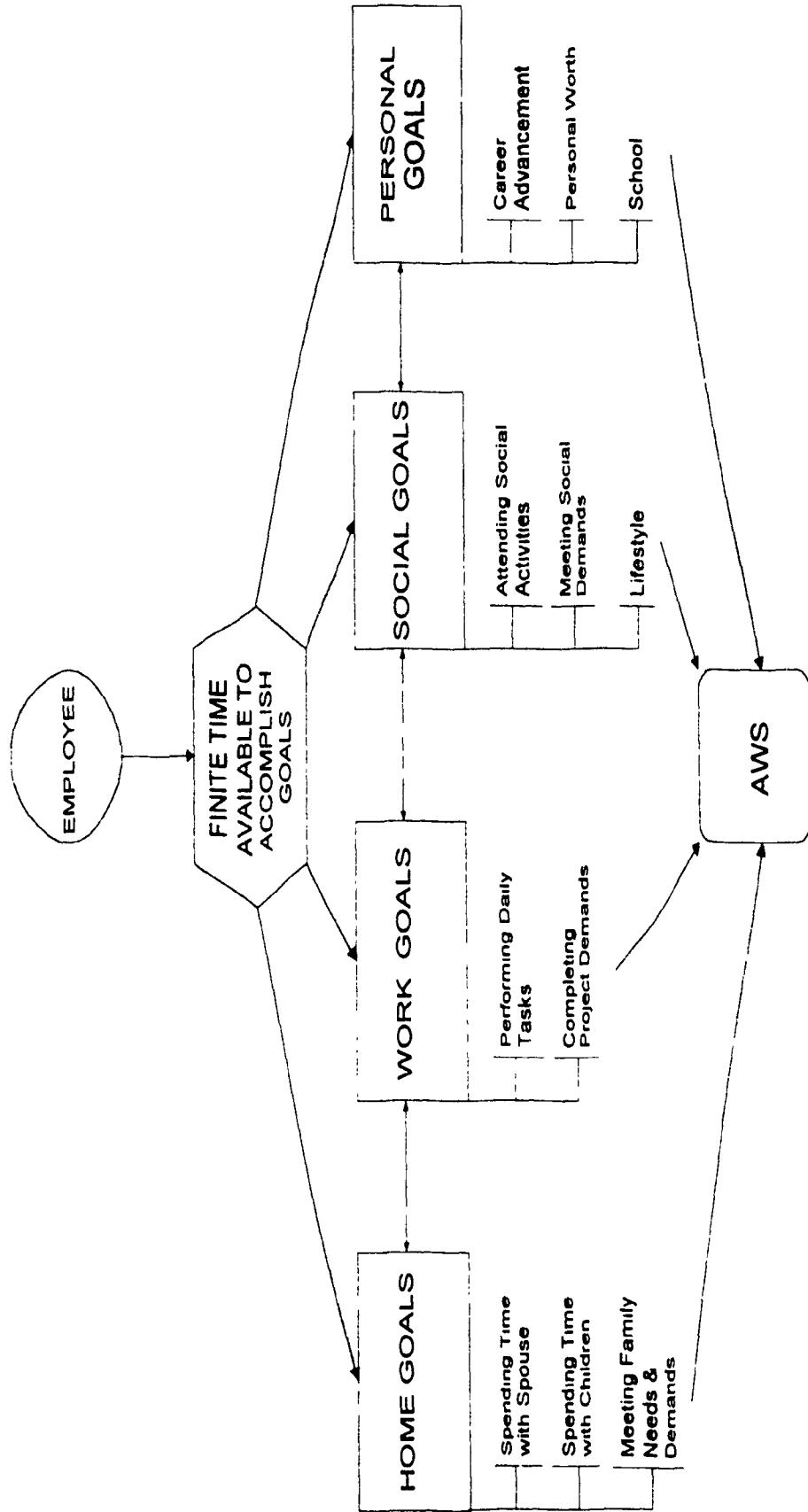
FIGURE 3 - Available Alternative Work Schedules (AWS)

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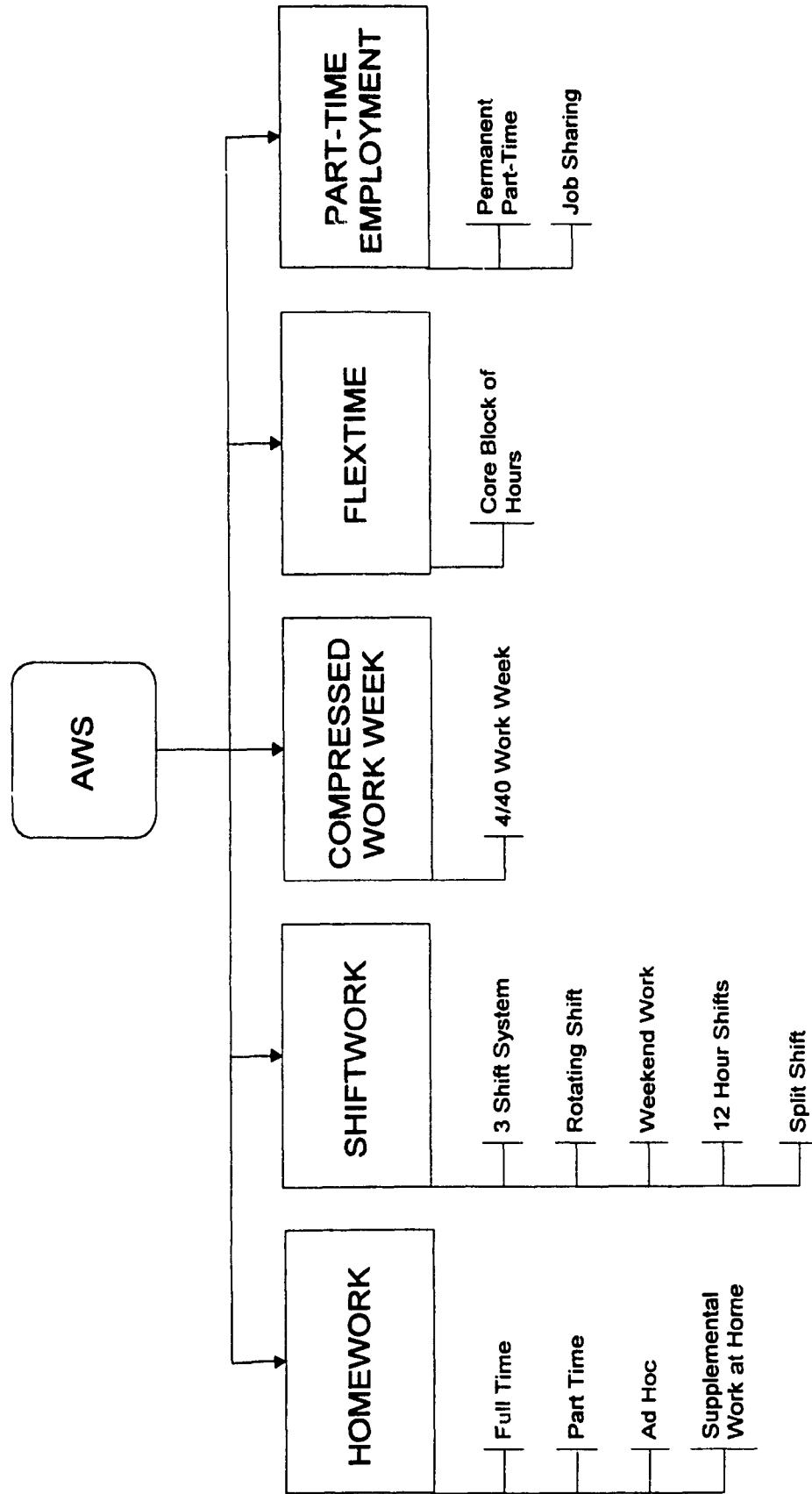
CHAPTER TWO: THE STATE OF THE ART

2.1 What is Homework?

There is a variety of homework which exists across various industries. Homeworking

exists in clothes manufacturing, cooking or baking, among artists and architects, in day

care, and recently office work (See Boris & Daniels, 1989 for a historical perspective).

The focus of this study was on the office homeworker since it is the group which is

growing in large numbers (Johnston & Packer, 1987; Misutka, 1992).

For the office worker, homework consists of the employee performing some or all of

their work from home and going to the office on a periodic basis. There are four

categories of office homework of which this study will focus on three because there

seems to be some consensus that full-time homeworking is harder to implement and be

successful due to a number of factors like worker isolation and the need for social

contact with co-workers (Olson, 1985; Ramsower, 1985). The first category is full-time

homeworking which involves the homeworker spending up to five days a week working

from home and going to the office when it is required for meetings or picking up work.

Second, the part-time homeworker usually works at home 1 to 3 days and spends the

remaining days in the office. Third, the ad-hoc homeworker, is one who works full-

time in an office setting but will on occasion decide to work at home instead of the

office. Finally, the person who does supplemental work at home, is one who works

full-time in an office setting but will on occasion decide to take work home on top of

his/her regular load. One can see that in the last two categories, there is a fine line of distinction in the definition. A homeworker could easily fall into anyone of these categories depending on how flexible the Homeworking arrangement is within the organization.

The office homeworker could in theory be anybody who has a part of their job which can be done independently of their co-worker. This could range from an employee, a supervisor, a manager, or even vice-presidents and presidents. Practically speaking, a person who is responsible for other people would have a harder time homeworking, but it is not impossible.

What motivates an employee to work at home or to take work home? Some of the key factors are; 1) needing to meet a work deadline, 2) having to leave work earlier to attend to other responsibilities (such as family) and taking the work with them so that it may be done later that day at home, 3) trying to do the best possible job in order to enhance the employee's career advancement and 4) according to proponents of homework, the homework environment is more conducive to working without disruptions (Caudron, 1992; Filipczak, 1992; Goodrich, 1990; Kinsman, 1991; O'Hara, 1993; Verespej, 1994; Young, 1991).

With traditional manufacturing jobs like in the steel industry (eg: assembly line work), the idea of a centralized work force made sense because people had one repetitive task

to complete in order to produce the final product. However, with the service jobs of today which involve less routine tasks, more concentration and more creativity, the centralizing of workers makes less sense (Anderson, 1993). With today's technology, people can work more independently because information is at their disposal at the touch of a button. The advance of the Internet, Intranet (an information service available only to employees of a company), and the World Wide Web, makes getting information much easier. Prior to these advances an employee had to rely on other people to obtain information they required. Hence, the work task has become more independent and people can accomplish a greater portion of their work task on their own.

Besides a better work environment, we can see that the popularity of homework with employees also stems from the level of flexibility and control over a work schedule which it offers. It has been shown in a number of alternative work schedule studies and books (Nollen, 1982; Nollen & Martin, 1978a; Nollen & Martin, 1978b; Pierce, Newstrom, Dunham & Barber, 1989; Ronen, 1984; Staines & Pleck, 1983) that the employees ability to choose which schedule they work on, and the ability to change the schedule when there is a need to, leads to greater job satisfaction.

There doesn't seem to be any lack of practitioners either praising homework or warning of some of its perils (Caudron, 1992; Filipczak, 1992; Goodrich, 1990; Kinsman, 1991; O'Hara, 1993; Verespej, 1994; Young, 1991). This level of popularity seems to

indicate that Homework is not a passing fad. It seems to be a growing trend which is

likely to continue in the near future. Canadian Business magazine put the estimate of

Telecommuters in the US at 4 million in 1992 (Misutka, 1992) and some latest figures

put the US telecommuter population at 10 million in 1995 (Caldwell & Gambon, 1996).

The Hudson Institute (Johnston & Packer, 1987) estimates that 90 million people in the

US will be involved with Telework programs by the year 2030. With so much interest

being generated, companies have noticed, but remain cautious until more concrete

benefits are shown.

2.2 Homework Research

A lot has been written about the advantages and disadvantages of homework by

practitioners and some researchers (Table 4). These researchers, as we will see, have

tried to focus on why homework can be successful or unsuccessful. However, there has

been a lack of a serious attempt to ground some of this research in theory and very few

of them have offered any substantial findings.

TABLE 4 - Commonly Cited Advantages and Disadvantages of Homeworking

ADVANTAGES	DISADVANTAGES
Increased productivity.	Employee isolation due to lack of office socializing.
Reduced stress	Unable to directly monitor employees.
Less time spent commuting	Increased opportunity for theft, forgery and untimely disclosures of company information
Less office space required.	Workaholism
Increases an organizations ability to recruit and retain capable employees. The ability to retain employees would lead to reduced hiring and recruiting costs	Hard to maintain a team spirit with dispersed employees
Improved quality of life for the employee due to flexibility of scheduling work	Extra costs to insure equipment which is kept in the employee's home.
Better use of an employee's "productive times" of the day.	Inability of the homeworker to easily communicate with office co-workers and vice-versa.
Higher job commitment, and job satisfaction due to enhanced control.	
Improved communication from having to plan work out in advance with the employees.	

Some early studies focused on the Telecommunications-Transportation trade-off debate where they looked at the potential benefits that Telecommunications could have on the levels of transportation (Nilles, Carlson, Gray, & Hanneman, 1976; Kraemer, 1982; Kraemer & King, 1982). Researchers then started to look at homework and the homeworker (Carsky, Dolan, & Free, 1991; Christensen, 1987; Duxbury & Haines, 1991; Duxbury, Higgins, & Irving, 1987; Duxbury, Higgins, Lee, & Mills, 1992; Duxbury, Lee, Higgins, & Mills, 1992; Higgins, Duxbury, Lee, & Mills, 1992; Huws, Korte, & Robinson, 1990; Lee, Duxbury, Higgins, & Mills, 1992; Olson, 1989b; Olson, 1985; Olson, 1983; Olson & Primps, 1984; Pratt, 1984; Ramsower, 1985; Smart Valley, 1994; Vitalari, Hamilton, & Ramsower, 1987; Vitalari, Venkatesh, &

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Gronhaug, 1985; Venkatesh & Vitalari, 1992; Yap & Tng, 1990). Of these eighteen studies, one was done for a trade magazine dealing with trends in Telecommuting (Olson, 1985) and another was conducted by eight organizations from Silicone Valley in California in order to measure the success of a telecommuting pilot project (Smart Valley, 1994). The Pratt (1984) study looked at reasons why people did homework. Four studies looked at attitudes towards Telecommuting and alternative work arrangements (Duxbury & Haines, 1991; Duxbury, Higgins, & Irving, 1987; Yap & Tng, 1990; Vitalari, Hamilton, & Ramsower, 1987). Eight studies looked at Homework and family life (Carsky, Dolan, & Free, 1991; Christensen, 1987; Duxbury, Higgins, Lee, & Mills, 1992; Duxbury, Lee, Higgins, & Mills, 1992; Higgins, Duxbury, Lee, & Mills, 1992; Lee, Duxbury, Higgins, & Mills, 1992; Olson & Primps, 1984; Vitalari, Venkatesh, & Gronhaug, 1985). Olson's 1983 study was an exploratory study to uncover some behavioral, organizational, and social issues surrounding telecommuting. Lastly, the Venkatesh and Vitalari (1992) and the Ramsower (1985) studies are probably the most significant works in the area of telecommuting to date. These two studies have a sound theoretical base as it relates to homework in general.

These studies have focused on a number of areas. First, attitudes toward homework have been researched with the premise that homework can be a viable schedule but a persons attitude as well as the organizations attitudes will determine whether it is successful. Second, a major thrust of the research has been in the area of homework and family life. The premise here being that homework can be used to alleviate some of

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the work-family conflict which has become more prominent is recent years. Finally, there have been a number of studies which have looked at the context (eg: home settings, income, children at home, portability of work tasks...), correlates (eg: commuting time, computer ownership...), and outcomes (eg: satisfaction, productivity...) of homework. Summaries of the significant and relevant findings from these studies follow.

2.2.1 Attitudes Towards Homework

Duxbury and Haines (1991) focused on the attitudes of decision makers towards flexible work arrangements in the Canadian federal public sector. The main findings were: 1) that decision makers in the public sector were more likely to be driven by organizational issues than by employee issues when making decisions, and 2) that employees and policy makers who want a decision maker to implement a particular type of work arrangement are better off showing organizational benefits than employee benefits. Their population of federal public sector employees limits the generalizability of the results to some degree.

The Yap and Tng (1990) study focused on attitudes of female computer professionals in Singapore towards telecommuting. The results of their study suggested the following: availability of a room for homework, perception of a high portion of an employee's

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work which can be done at home, a frustrating journey to work, perception of a supervisors attitude towards telecommuting, and the perception of a co-workers attitude towards telecommuting, were all positively correlated to an employee's attitude towards telecommuting. In addition, they also found that the availability of a computer at home, the number of supervisory duties in an employee's job, the amount of programming content in an employee's job, and the amount of commuting time were not correlated with an employee's attitude towards telecommuting. When considering these findings we must take into account some limitations of the study such as the population which was studied (female computer professionals) and the geographical make up of the country (it takes one hour to drive from one end of the island to the other).

Duxbury, Higgins and Irving (1987) looked at attitudes of managers and employees towards telecommuting. Their main conclusion was that managers had a negative attitude towards telecommuting and that employees were neutral towards telecommuting. Although the size of their sample was acceptable (78 managers and 63 employees), how they chose their sample limits their study. They obtained a selective sample of people through a computer club, student contacts who had computers and local corporations. They selected people who were more likely to have access to computers and therefore be good candidates for telecommuting. As a result, they may have introduced a positive bias in their findings.

Vitalari, Hamilton and Ramsower (1987) in studying homework, tried to understand the attitudes and normative beliefs behind the desires and intentions of 60 programmers and analysts. They found that there was little intention to actually work at home even though there was a strong desire to perform homework. This difference between desire and intent was probably due to the fact that the programmers indicated that their organization, and their co-workers would not act favourably towards homework.

2.2.2 Homework and Family Life

In one large study of 21,000 public and private sector employees conducted in the Ottawa area, the researchers set out to explore how people balance work and the family and the use of alternative work arrangements (Clark, 1992; Duxbury, Higgins, Lee, & Mills, 1992; Duxbury, Lee, Higgins, & Mills, 1992; Higgins, Duxbury, Lee, & Mills, 1992; Lee, Duxbury, Higgins, & Mills, 1992). Although no theoretical base was provided, the study does provide us with some information on work and family relationships and some details on working at home.

Higgins, Duxbury, Lee and Mills (1992) found that there were no differences observed between parents and non-parents with respect to the appeal of flex-time or work-at-home. This indicates that work-family conflict does not necessarily involve children. Furthermore, Duxbury, Higgins, Lee and Mills (1992) reported that of the 21,000 employees who participated in their study, over one-third reported high levels of work-family conflict. Lee, Duxbury, Higgins and Mills (1992) also reported that over 9% of

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the women in the study and 3% of the men in the study said that their employer allowed

them to work at home and this helped them balance work and the family. Although this

percentage seems low, it is interesting to note that over 19% of the remaining fathers

listed employers allowing them to work at home as the top option which can help them

balance work and family and 14% of the remaining women did the same. Finally,

Duxbury, Lee, Higgins and Mills (1992) reported that the vast majority of those who

performed overtime on non-work days did it at home.

Carsky, Dolan and Free (1991) proposed a model to examine the effects of women's at

home income generation on the quality of family life and satisfaction. A number of

postulates were put forward by them. One of these postulates was that although we

think that work in the home has a positive influence on the family and the worker, it

has not been empirically studied.

Christensen (1987) looked at women who decide to work at home. She found that

women who work at home are in a traditional family where the husband is the major

breadwinner. She also found that these women do not attend to the children and work at

the same time. They usually work when their husbands can take care of the children.

The sample consisted of fourteen women of which thirteen worked for the same

company and the fourteenth was an independent contractor working on her own.

The Olson and Primps (1984) study looked at working at home and general issues from work and nonwork perspectives which affect this work arrangement. They concluded that working at home will probably not become widespread in the near future. They felt that from management's perspective the loss of control would be too great and would hinder the acceptance of work at home. They mention that computerize performance monitoring will become important in giving some of that control back to the company and should be studied. With the invasion of the computer terminal in the home, employees felt that the lack of separation between work and family was not as clear. It is too easy for the employee to dial in to work to "just see what is happening". This begs the question "How was the separation of work and family done before the industrial revolution when work at home was the norm?" We can suppose that this separation has really only come along because of the industrial revolution and people have forgotten what work was like before this time. However, a number of years later some researchers (Higgins, Duxbury, Lee, & Mills, 1992) have criticized the traditional work schedule for assuming that work and family can be easily separated. Therefore, it seems that peoples attitudes are changing and employees have also come to realize that the separation of work and the family is not simple or even viable in today's society. Lastly, Olson and Primps (1984) also concluded that they cannot dismiss work at home as a viable work option without more research.

Vitalari Venkatesh and Gronhaug (1985) conducted an exploratory study to determine the impact of home computers on time allocation patterns in the household. Although

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their study is not directly related to homework, some of their findings are interesting considering that the study was conducted in 1985 when personal computers were relatively new. Their major conclusion was that there are significant behavior changes which occur when people adopt a personal computer in their homes. They also found that adopters of computers are involved in technical professions, well educated, and have above average incomes. Finally, they found strong normative support for work at home amongst technical occupations and professions.

2.2.3 Context, Correlates, and Outcomes

In the Venkatesh and Vitalari (1992) study they looked at supplemental work at home. They defined supplemental work at home as work which is done above and beyond the regular 9 to 5 shift at the office. They found that people who engaged in this work did so to achieve work related objectives which are not fully attainable in the work environment. The amount of time spent on supplemental work at home was also found to be positively related to the ability to work at one's own pace, portability of work tasks, a telecommunications linkage to work, and household income, but negatively related to commuting time, and the presence of children. They also looked at computer ownership in order to determine if it had any effect on supplemental work at home. When looking at the variable alone, they found that an employee who owned their own computer on average performed twice as much supplemental work at home than non computer owners. However, when looking at the variable in a multivariate framework

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(taking into account more than one variable), this variable did not have any statistically significant effect.

Olson's (1989b) found that Telework increased the number of hours worked on top of the hours worked in the office. Employees chose working at home to increase productivity mainly, but also to ease work-family conflict. A majority of the respondents (85.4%) were either very satisfied or somewhat satisfied with the work at home arrangement. We must keep in mind that the population in this study was selective (subscribers to two computer trade magazines) and the response rate was small (16%).

In 1985 Olson conducted a survey of Datamation (a computer magazine) readers. Her main findings were: 1) the ability to physically see the employees on a daily basis was important and hence telecommuting lost points in this area, 2) it was noted that trying to maintain a company culture was harder to do if employees are telecommuting, and 3) employees preferred a combination of work at home and office work. Even though most of the people surveyed agreed that the advantages outweighed the disadvantages of telecommuting, the author felt that the company culture would be the most significant barrier to telecommuting because she felt that the employee needs to feel a sense of belonging which they get by going to the office.

The Ramsower (1985) study was one of the earliest and has remained the most comprehensive study of telecommuting and its organizational and behavioral effects. Although his population was small (16), his efforts in maintaining a control group along with the study group is a strong point in this study. Ramsower also distinguished between full-time and part-time telecommuters, an important distinction when looking at the effects of telecommuting, since a number of studies have mentioned that a lot of the disadvantages of telecommuting can be overcome or minimized with part-time telecommuting (See Table 4 for a summary of the most commonly cited advantages and disadvantages of homeworking). Ramsower used a combination of interviews and questionnaires for data collection which enhanced the quality of the results.

His findings were as follows: 1) successful full time telecommuters have a strong need to work at home coupled with a rational monetary reason to work, 2) successful part-time telecommuters prefer a quiet, comfortable home in which to work and have a relatively low need to interact socially with their co-workers. In general part-time telecommuting appeared to be only suitable for skilled professional workers who do not miss the social interactions found in the office environment. Overall he concluded that part-time telecommuting would probably become more wide spread than full-time telecommuting.

The Huws, Korte and Robinson (1990) study was conducted to investigate how the work of the teleworker is structured and to evaluate the importance of various factors

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which shape the individual's personal circumstances (family, work, social). In 1987 they surveyed a population of 1282 teleworkers across Europe. Their study did not consist of any statistical analysis but rather they tried to uncover the thoughts and feelings of teleworkers. They concluded that the "determining factor is ... not the technology itself, but the aims and objectives of those social actors with the power and resources to purchase and use (telework) for their own particular ends" (p.219).

The Pratt (1984) study involved interviewing 46 home office workers and 15 employer interviews about the usage of telework. Her study did not involve any statistical analysis but she found that for the employee, the main benefit of telework is that it free's up a significant amount of time. For the employer, the main benefit would be the increased labor pool which is available.

Olson's 1983 study looked at some behavioral, organizational and social issues surrounding homework. Her main conclusions from this study of 32 employees using homework were: 1) jobs which could be performed remotely would be characterized as having minimum physical requirements (low need to actually see co-workers in person in order to perform the work), individual control over work pace, defined deliverables (work is clearly defined and goals set), a need for concentration and a low need for communication, and 2) successful telecommuters were characterized as highly self-motivated and self-disciplined.

Finally, in a longitudinal study which was conducted in Silicone Valley (Smart Valley, 1994), 8 companies combined to put in place a pilot project to introduce telecommuting to a group of workers in each organization. The companies passed out a questionnaire in early 1994 to 184 people and then passed out the same questionnaire to 92 people at the end of 1994. It is not clear in the document available how many of the respondents in the post-telecommuting questionnaire are the same as in the pre-telecommuting questionnaire. Therefore, the longitudinal basis of the results may be questionable. Questionnaires were passed out to telecommuters, managers, and co-workers. Once again no statistical analysis was conducted beyond tracing trends in the responses. The following were the main findings according to the study: 1) telecommuters found telecommuting to be a rewarding work alternative; 2) managers and co-workers are generally supportive of telecommuting; 3) senior and middle management buy-in to the telecommuting effort remained at the top of the list of concerns of all the participants at the end of the pilot project; 4) managers, co-workers and telecommuters all acknowledged improvements in productivity for both the telecommuter and the workgroup; and 5) continuing to address equipment/technology needs would add significant value to the telecommuting effort.

2.2.4 Is Lack of Control Over the Homeworker a Problem?

A number of researchers (Olson, 1985; Olson & Primps, 1984) have raised the point that an organization's lack of control over an employee would be a barrier to homeworking. It was felt that an organization will resist providing the homeworking

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option to employees because of the inability to monitor the employees and in-turn

provide feedback for the "invisible employee". The question commonly asked is "How

can an organization ensure that an employee is working and is doing the job right?"

On the latter question, it has been suggested that it will take a new breed of manager to

manage these employees: a manager who will sit down with his/her employees and set

out the objectives with the employee ahead of time, as in MBO. This new breed of

manager will also first look at the quality of the work being produced (qualitative

results) and not on how much is produced (quantitative results). Furthermore, this

manager will not be concerned with the amount of "face time" spent in the office.

In terms of quieting some of the fears of managers in the first part of the question, it

was suggested by Olson and Primps (1984) that computer monitoring would have to be

studied as a way of giving back to the organization, some of the control which is taken

away when an employee works at home. This of course is assuming that the

homeworker is performing a significant portion of their homework on the computer

(which has been shown to be one of the major reasons for the growth of homework) and

connects to the office on a regular basis.

Researchers (Aiello, 1993; Aiello & Svec, 1993; Griffith, 1993; Fenner, Lerch, &

Kulik, 1993; Nebeker & Tatum, 1993) have responded to this call for research and

some researchers and the popular press (Carayon, 1993b; Irving, Higgins, & Safayeni,

1986; Kallman, 1993) have provided some guidelines on the use of electronic

performance monitoring and the potential effects it may have on the employee. It is felt

that since the majority of office homeworking will be done with a computer,

organizations will consider computer monitoring as a type of control over the

homeworker. However, the organization should be aware of the effects of computer

monitoring before implementing it. A brief synopsis of some of the research findings

are presented here in order to provide some insight into the subject for organizations

considering this option.

It has been estimated that in the US, more than 10 million workers in 1990 were being

monitored with computers (Halpern, 1992). This number will grow as more employees

undertake homeworking and therefore it is important for organizations to be aware of

the effects of computer monitoring. Nebeker and Tatum (1993) found that their study of

database operators failed to find any negative effects from the use of computer

monitoring on work performance, job satisfaction and stress. One important point to

remember in this study is that the employees being monitored were performing a simple

task (data entry).

Aiello and Svec (1993) conducted a laboratory study of students from a university.

They varied the complexity of the task to be accomplished as well as the degree of

control over the computer monitoring which the student had. They concluded that: 1)

with complex tasks an organization should not use computer monitoring and 2) that

before an organization consider introducing computer monitoring, they should be concerned with the general climate (culture) of the company. If employees are mistrustful of their employer to start with, then introducing computer monitoring will only help to increase the level of mistrust in the organization.

Griffith (1993) looked at the effects of computer monitoring and physical presence of a supervisor on job performance and satisfaction of a subject performing a simple task. He found that different performance patterns were elicited. Performance in computer monitoring was higher than when looking at subjects who were monitored by a supervisor. This was attributed to the fact that computer monitoring leaves a certain degree of uncertainty as to when actual monitoring is taking place, whereas the supervisors presence, which varied is seen by the subject and therefore their performance would increase when the supervisor was actually monitoring. Griffith also found that there were no negative effects on individual performance or satisfaction from the usage of computer monitoring. Griffith's contradictory findings to the little existing research in the area was explained by the fact that all the early research was based on hearsay of performance rather than on actual results.

Fenner, Lerch and Kulik (1993) looked at the impact of computerized performance monitoring and prior performance knowledge on performance evaluation. Their main finding showed that prior and current performance levels independently influenced both current and future performance ratings. They concluded that Computer Performance

Monitoring systems may foster evaluation accuracy by permitting supervisors to devise

information search strategies based on facts rather than rely on memory which can

introduce biases.

Therefore, we see that computer monitoring offers some degree of control over the

homeworker and has some promise for organizations who have homeworkers

performing simple tasks. However, it may not be appropriate for the professional

homeworker who performs more complex tasks. For these homeworkers it may be

more appropriate to practice the new management style which practitioners have talked

about.

2.2.5 Summary

As we have seen, most studies have either been limited in their generalizability due to

small samples, one sex only samples, or convenient samples. Regarding flexible work

arrangements, Rodgers (1992) recently observed that "There is, ..., not a great deal of

good information, and the bulk of the data are impressionistic and qualitative. There are

few, if any, rigorous and quantitative studies on the work impacts of flexible schedules"

(p.195). This applies to the homework literature as well. Let us look at two studies as

an example.

Yap and Tng (1990) mentioned attitude theory as a framework but were not really

guided by it in deciding which questions they would study. In addition, there were other

limitations to the study. First, their population of only female computer professionals and second, the very short commuting time due to the geographical make up of their country make their results on telecommuting less generalizable.

Duxbury, Higgins and Irving (1987) focused only on attitudes of people with computers and failed to look at the attitudes of people who did not have computers. An additional point to note is that this study was conducted in 1985 which was still in the early stages of consumers accepting the Personal Computer as something to have in their home. The technology was still relatively new to most consumers and the capability of what personal computers could do was also limited. Therefore, these attitudes require further study.

This is just an example of two studies, but it is representative of most of the other studies (Carsky, Dolan, & Free, 1991; Christensen, 1987; Duxbury & Haines, 1991; Duxbury, Higgins, Lee, & Mills, 1992; Duxbury, Lee, Higgins, & Mills, 1992; Higgins, Duxbury, Lee, & Mills, 1992; Huws, Korte, & Robinson, 1990; Lee, Duxbury, Higgins, & Mills, 1992; Olson, 1989b; Olson, 1985; Olson, 1983; Olson & Primps, 1984; Vitalari, Hamilton, & Ramsower, (1987); Vitalari, Venkatesh, & Gronhaug, 1985). Also, most of these studies which have been done on Homework have small samples with the exception of Huws, Korte and Robinson (1990). This could be because homework is still in it's infancy or because the sampling frame is inappropriate.

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Regardless of these limitations, the literature provides some impetus for further study. The literature has shown us that there are two key areas to homeworking: the type of homeworker, and homeworking and computers.

Type of Homeworker

1) Full-time and part-time homework have similar yet different implications for the organization and the employee. It seems that part-time homework is the work schedule of choice between the two. Part-time homework seems to overcome some of the more serious disadvantages of homework (employee isolation, and maintaining a company culture) and yet provide adequate job decision latitude to help keep job strain at a productive level for the employee.

2) The employee who performs supplemental homeworking seems to have similar and yet different reasons for doing it than a part-time or full-time homeworker. For example, they will perform supplemental work at home to achieve work related objectives which they feel they cannot achieve at work. None the less, it still seems to provide a higher level of decision latitude or control over their job which they like.

3) A successful part-time homeworker seems to have a lower need for social interaction in the office than the person who does not work at home and he/she

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will have some degree of self-discipline. These are just two characteristics of a homeworker, however uncovering more personality characteristics would assist an organization in making a better decision as to who they should offer homework to and getting the most benefit from offering homework.

4) Part-time homeworking seems to be better for professional workers at the organizational level. This shows that although the part-time professional worker has a lower need for social interaction, they still prefer to be in touch with the office on a regular basis.

Homeworking and Computers

1) The home will be affected by the widespread acceptance of the computer. Hence, research which can shed some light on how homework can be used to benefit the employee will be helpful in current and future job designs and re-designs.

2) Computer monitoring seems to answer some of the concerns that organizations have towards homeworking (lack of control and performance evaluation) but may not be suitable for the professional homeworker who performs complex tasks. For the professional homeworker, they are normally given some measure of job decision latitude. The employee has a certain amount of control over their job and they see themselves as professionals who do not

need the constant supervision of their managers during the day. Introducing a

computer monitoring system will take away some of that job control and

probably introduce higher strain into the job. Hence, it seems that organizations

with professional homeworkers will have to implement the new management

style which is based on MBO, evaluating employees on results and not on face

time in the office and also create a company culture which fosters trust in its'

employees.

2.3 Karasek's Job-Strain Model

Homework seems to offer an employee a certain degree of control over their job

because the employee works alone and must decide how the job gets done. When

working at home they cannot always rely on their superior or a co-worker to ask how to

do something. Also, homework offers the employee flexibility and control over their

work schedule. They can decide to work when they have the most energy, and they

have greater flexibility in attending to non-work related issues. This all points to a

higher level of Job Decision Latitude or control over their job.

In order to study the effects of a higher level of job decision latitude on the employee, it

was felt that Karasek's (1979) Job-Strain Model (Figure 4) would be an appropriate

framework. This model has been one of the main driving forces of research on job

decision latitude and it continues to be probably the most influential model in the area

of psychosocial research. It has been elucidated in more than 100 studies (Kristensen,

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1995) and was expanded to a three dimensional model (Karasek & Theorell, 1990) (Figure 5).

Karaseks' original model (Figure 4) basically proposed that a worker who has low job decision latitude (control over his/her job in terms of decision authority, and skill usage) and high job demands (pressure to get things done quickly, work hard...), will experience job strain (depression, job dissatisfaction, life dissatisfaction). In other words if an employee is given high job decision latitude and his/her job demands are high, then they will have an active job. An active job is one where although the job demands are high, the employee feels that he/she is in control of the job due to the high job decision latitude and therefore, less strain is felt. On the other hand the employee with the same level of job demands, but with low decision latitude, will feel that they have less control over their job and therefore, this will lead to unresolved strain for the employee.

FIGURE 4 - Karasek's Job Strain Model (1979)
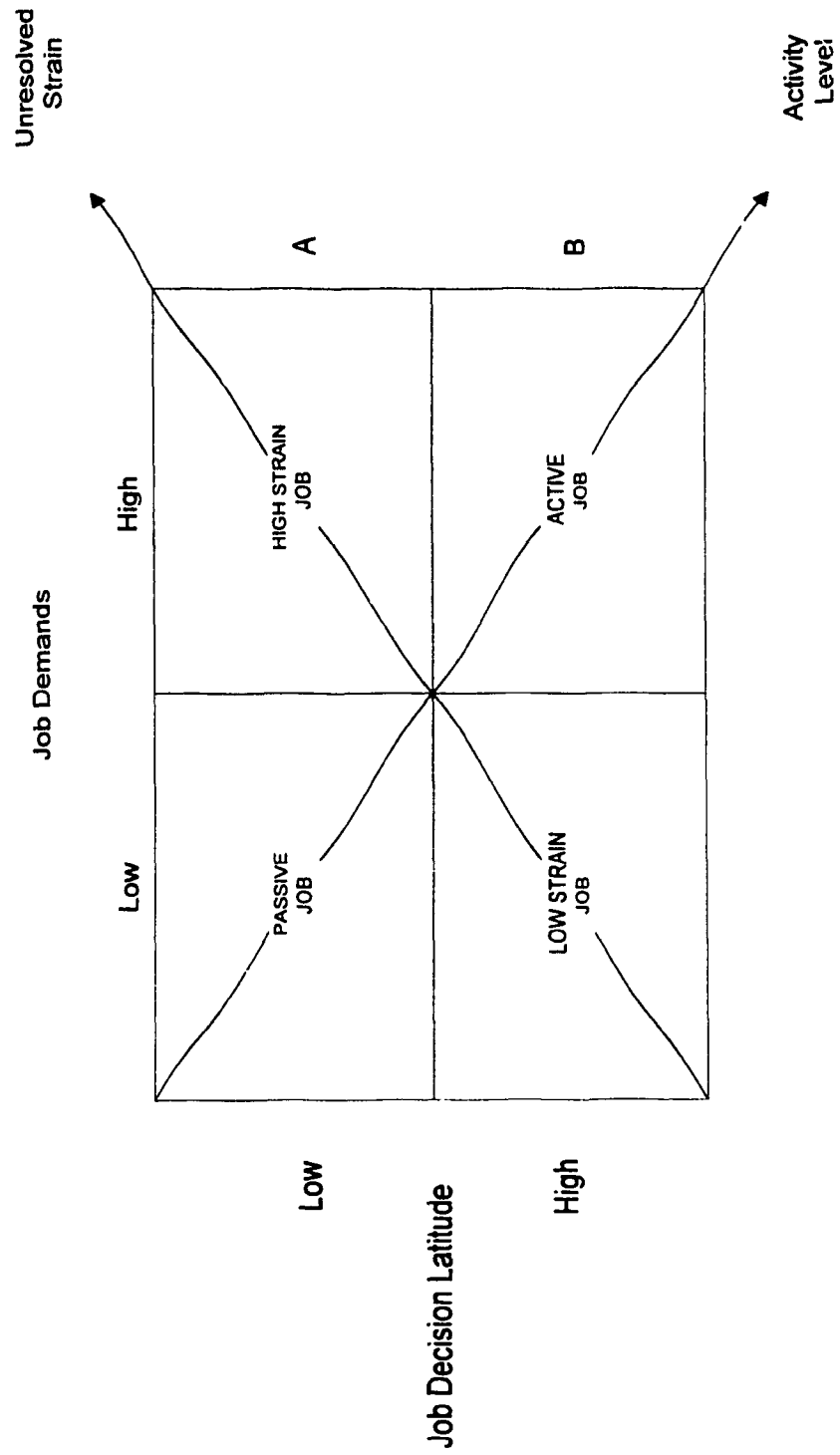
The expansion of Karasek's original job-strain model has developed over a number of years as Karasek and his colleagues and other researchers (Johnson, 1986, Johnson & Hall, 1988) came to realize that the social support dimension was a major component in health and behavioral reactions of employees (Karasek & Theorell, 1990). Karasek recognized that a weakness of the original model was that social relations, both at the group and organizational level, had not been considered. Therefore, the model was expanded to include the support dimension (Figure 5) and most reports on the addition of this dimension to the model have been positive (Astrand, Hanson, & Isacsson, 1989; Johnson, 1986; Johnson & Hall, 198°· Karasek & Theorell, 1990) but, some recent findings have shown that although social support helps in increasing the ability of the model to predict, the buffering effect of social support was not found (Lerner, Levine, Malspeis, & D'Agostino, 1994).

It is beyond the scope of this study to attempt to review all the research which has been done on the model. However, in the research which was reviewed, the model has received more positive than negative support. Nine studies found full or close to full support for the model (Alfredsson, Spetz, & Theorell, 1985; Dwyer & Ganster, 1991; Karasek, 1979; Karasek, Baker, Marxer, Ahlbom, & Theorell, 1981; Karasek, Theorell, Schwartz, Schnall, Pieper, & Michela, 1988; Landesbergis, 1988; Lerner, Levine, Malspeis, & D'Agostino, 1994; Schnall, Pieper, Scwartz, Karasek, Schlussel, Devereux, Ganau, Alderman, Warren, & Pickering, 1990; Westman, 1992). Seven studies found partial support for the model (Alterman, Shekelle, Vernon, & Burau,

1994; Astrand, Shanson, & Isacsson, 1989; Johnson & Hall, 1988; Perrewe & Ganster, 1989; Suadicani, Hein, & Gyntelberg, 1993; Theorell, Perski, Akerstedt, Sigala, Ahlberg-Hulten, Svensson, & Eneroth, 1988; Toropainen, Kandolin, & Mutanen, 1983). Finally, nine studies found no support for the model (Albright, Winkleby, Ragland, Fisher, & Syme, 1992; Carayon, 1993a; Fletcher & Jones, 1993; Hurrell & McLaney, 1989; Payne, Rick, Smith, & Cooper, 1984; Pieper, LaCroix, & Karasek, 1989; Reed, LaCroix, Karasek, Miller, & MacLean, 1989; Spector, 1987; Warr, 1990).

The main conclusion for the studies which have found no support for Karasek is that, although support has been found in general for the effects of job demands, job decision latitude, and social support on job strain, Karasek's original interactive hypothesis that job demands and job decision latitude interact to affect job strain was not supported.

For the studies which found partial support, they usually found support for one part of the population and not another (eg: supported blue collar and did not support for white collar).

The main conclusion which one can draw from the above studies is that there is substantial evidence that providing higher job decision latitude to an employee, can provide him/her with the desired level of control over their job to significantly help in controlling the amount of strain and stress they feel.

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FIGURE 5 - Karasek's Job Strain Model (1990)
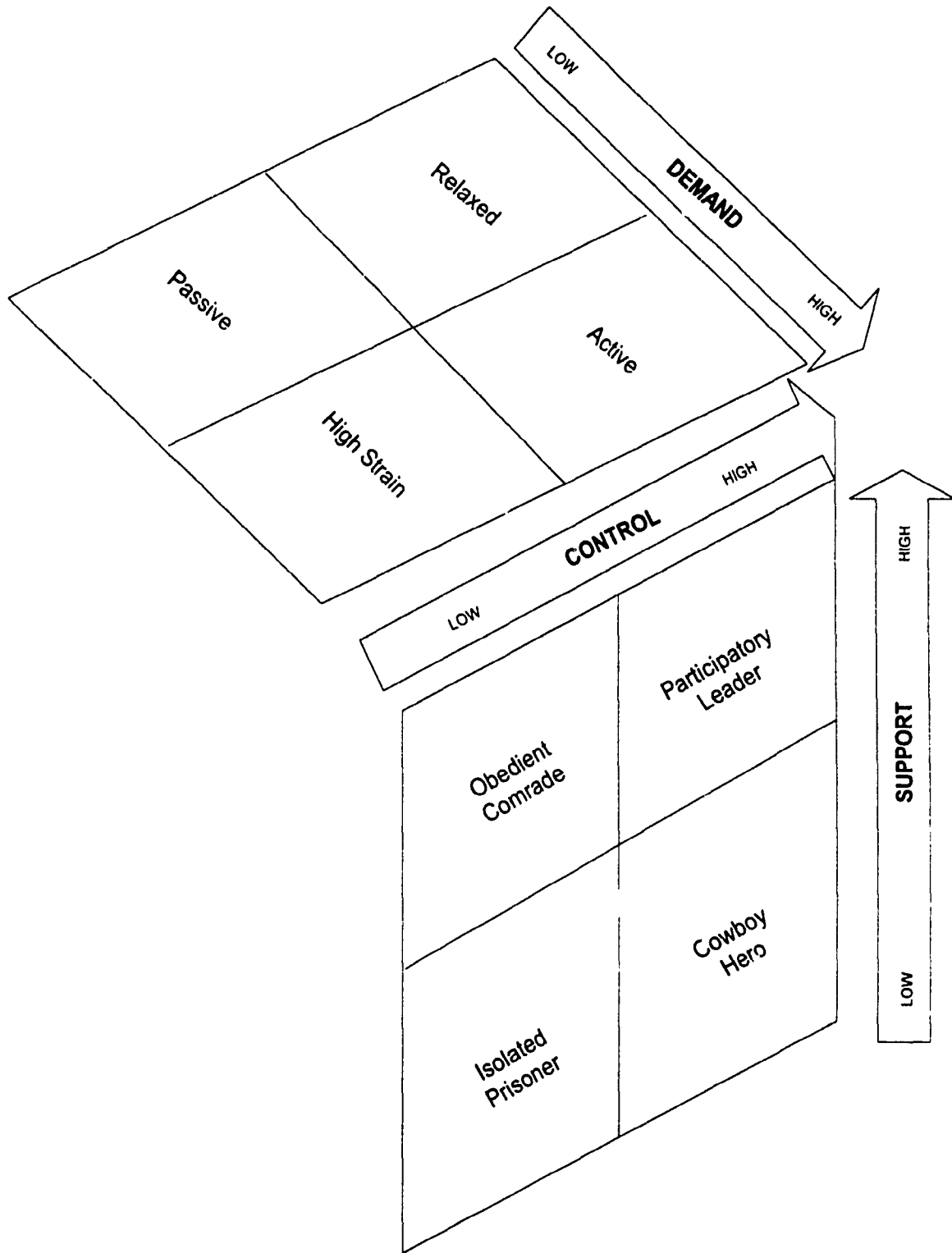
CHAPTER THREE: THEORETICAL FRAMEWORK

3.1 Understanding the Organizational Behaviour of Homeworkers

In order to attempt an understanding of the Organizational Behaviour (OB) of

Homeworkers, it is important to step back and glance at the field of OB in general.

OB has been an area of research which has evolved over the last couple of decades.

Researchers have tried to understand OB through the study of various work attitudes. A

scan of the *Annual Review of Psychology* over the last decade shows how the field has

evolved. In 1987, House and Singh in their review of the OB field felt that power,

leadership, management succession and the decision making areas had not received

adequate attention in prior reviews. In 1988, Ilgen and Klein focused on the cognitive

perspective of OB research because they felt that it represented an area of new and

profound research in the OB area.

O'Reilly in 1991 turned to seeing if the core areas of OB research had made any

substantial shift in the prior decade. He focused on Motivation (Goal Setting, Equity

Theory, Intrinsic Motivation), Work Attitudes (Job Satisfaction, Commitment, Stress,

Affect and Mood), Job Design, Turnover and Absenteeism, and Leadership. He

concluded that "Micro-OB is in a fallow period. Useful micro-OB work is being done,

but more excitement and attention are currently being generated by macro-OB" (p.

445). O'Reilly goes on to say that the most interesting developments in the area of Micro-OB have been with the effect of the context on individuals. In other words, "the composition of units may explain group interaction patterns better than simple demographics can" (p.446). Studies with context in mind have been conducted in the following areas: social-networks, organizational demography, social loafing, group demography and dynamics, person-situation debate and organizational culture.

In 1993, Mowday and Sutton focused mainly on Organizational Context as being a key area of research that is being looked at and requires further research. Finally, in 1995, Wilpert felt that Organizational Culture and Climate, Leadership, Control, Power, and Task Design all remained areas of current research Other areas of current interest which are less main stream are New Technology (NT), employee involvement in decision making, Hazardous Work Systems, Organizational Learning, and Organization-Environment Relations.

As we can see the field of OB is evolving and in order to understand any Organizational Behaviour, especially that of Homeworkers which affects the fundamental make-up of the workplace as it is known today, researchers should look at a wide spectrum of topics. They should look at the fundamentals such as the Work Attitudes (Job Satisfaction, Commitment, Stress, Burnout, and Strain) of the employees. They should look at employee motivation (Goal Setting, Equity Theory, Intrinsic Motivation).

Finally, they should look at Job Design, Leadership, Power, and Control and Organizational Context.

3.2 *What do we Need to Know?*

Chapter two critically reviewed the theoretical and empirical research on Homeworking. As we have seen, the current state of actual research in the area of homework has been sporadic at best and most of the studies have limitations which do not allow us to generalize the results. In fact, there are more questions now than answers.

In an effort to start understanding how homeworking affects the Organizational Behaviour of employees, this study followed a three pronged approach. We looked at Work Attitudes and related issues, the Work Environment, and lastly the Organizational Context. These are all areas which are part of the main stream research being conducted in organizational behaviour (Wilpert, 1995; Mowday & Sutton, 1993; O'Reilly, 1991).

The work attitudes and other related issues which were deemed to be more relevant to the area of homeworking were: Job Satisfaction, Stress, Burnout, Strain, Job Involvement, and Personality. The reason why these were deemed as important was because the idea of homeworking affects the very foundation of the workplace as we have come to know it. With such a fundamental effect, it was felt that all of these building blocks of work related issues should be looked at.

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Since homeworking means taking work home it was felt that looking at the interaction of work and the family was essential in trying to understand the impact of this Alternative Work Schedule on the Work Environment. This study also looked at the Job Demands the homeworker faces, the control and power they have over their jobs in terms of Karasek's (1979) definition of Job Decision Latitude and finally it looked at Social Support both from an organizational and a family perspective. It was felt that these variables were necessary because homeworking puts the homeworker in an environment where they work more alone than before.

Lastly, once again it was felt that because of how homeworking affects the very make up of the workplace, the study needed to look at issues from an Organizational Context point of view as well. The researchers felt that looking at Social Loafing, which is the phenomenon of employees generating less effort when working together than when working alone (O'Reilly, 1991) would be appropriate since homeworking moves the member of a group away from the workplace and into the home. Also, since homeworking means that the worker is no longer in the confines of the office when working, it was felt that Organizational Culture would be important and should be studied.

3.3 The Model

In order to study Homeworking in a more systematic fashion the model in Figure 6 was developed for this study. The basic premise behind the model is as follows: An employee's attitude towards homeworking is affected by both Individual Factors and Organizational Factors. These attitudes will in-turn affect whether an employee chooses to be a homeworker or not. The Individual Factors and Organizational Factors also affect an employees homeworking directly. If the employee decides to be a homeworker then this could potentially affect a number of outcomes for the employee. Hence, the primary objective of this research was to see if any differences existed between Homeworkers and Non-Homeworkers in order to determine some Individual Factors or Organizational Factors which could affect their attitudes towards homeworking and potentially outcomes for the employee.

Next, it was decided that because the existing research seemed to point to the fact that homeworking gives the employee more flexibility and control over their job, we should focus on this area a little more. It was felt that using the Karasek (1979) (Karasek & Theorell, 1990) model as a basis, we could first of all see if the model applies to a high-tech population. The model has been tested on a variety of populations, from bus drivers to office workers to doctors. However, the majority of the studies have been conducted on a blue-collar population. Hence, this study will extend our understanding of the utility of the Karasek model for a white-collar population and in particular, a high-tech population.

Then we set out to see if this model applies within the context of Homeworking. Particularly whether homeworking provides the employee with greater job decision latitude and in-turn helps to reduce job strain as shown in Figure 7. This was looked at since employees are facing ever increasing job demands and Homeworking can potentially help the employee meet these demands. We also looked at whether homeworking would act as a moderator in this model.

We acknowledge that because of the cross-sectional design of the study, it is possible that the influences depicted in these figures could be reciprocal. However, to fully track and document the reciprocal influences, a longitudinal study would have to be performed. As a cross-sectional study, we point out the contexts and correlates of homeworking and speculate about outcomes to facilitate future research.

FIGURE 6 - Theoretical Framework

INDIVIDUAL FACTORS
- Life Stage
- Computer in the Home
- Commute Times
- Personality
- Job Tenure

ATTITUDES
TOWARDS
HOMEWORK

ORGANIZATIONAL
FACTORS
- Availability of Homework
- Company Culture
- Social Loafing
- Job Design
- Job Demands
- Job Decision Latitude
- Organizational Social
  Support for Homeworking

HOMEWORKING

OUTCOMES POTENTIALLY
AFFECTED DIRECTLY AND
INDIRECTLY

Stress
Work - Family Conflict
Job Satisfaction
Burnout
Job Involvement

FIGURE 7 - Homeworking and the Karasek Model
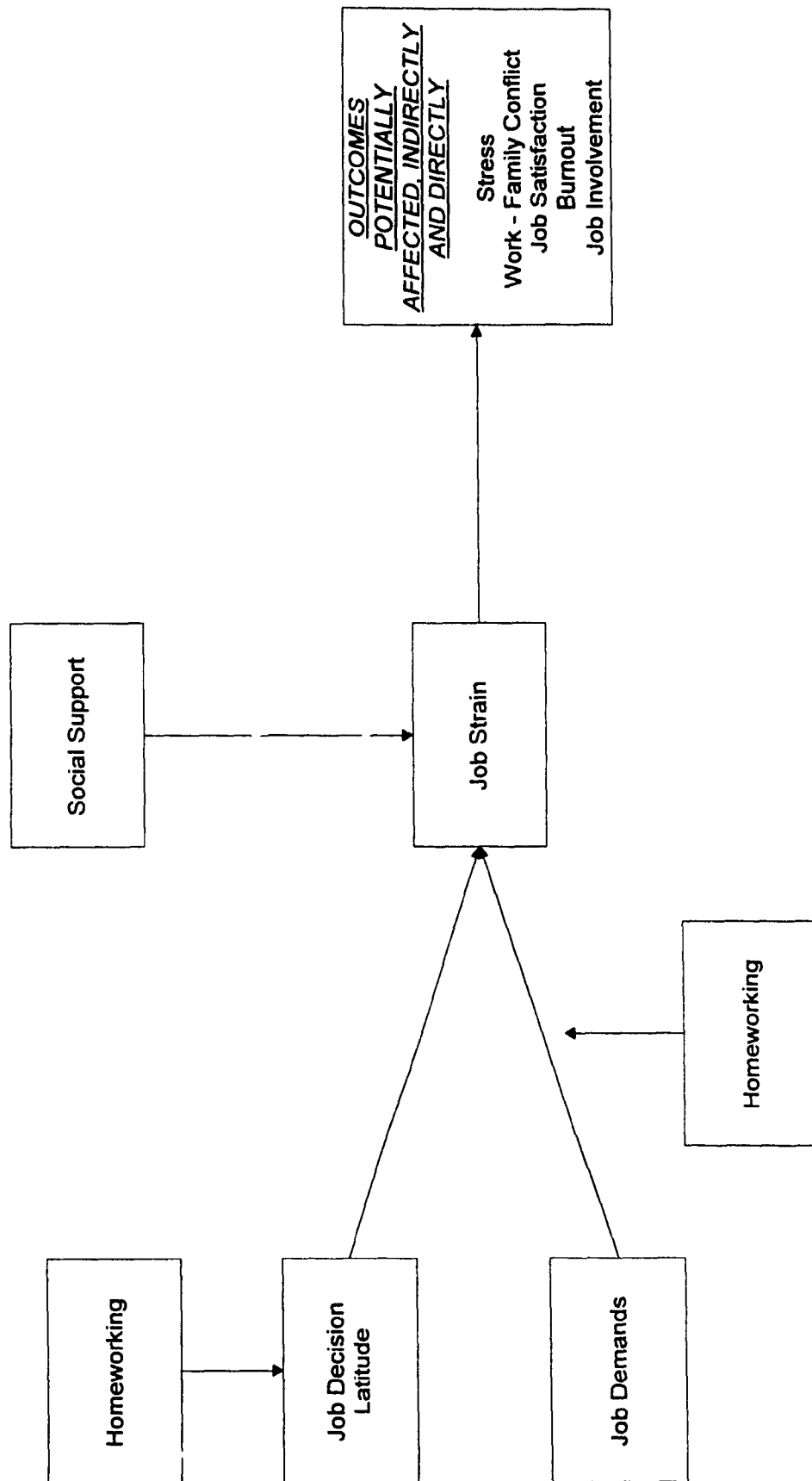
3.4 Hypotheses

In order to make the study as comprehensive as possible three sets of hypotheses were proposed. Also, due to the design of the study, the possibility exists that the relationships of the variables may be bi-directional. The three areas are: Homeworker, Non-Homeworker differences; the Employee Situation, Attitudes and the Work Environment; and lastly, Karasek's Job Strain model, Homeworking and outcomes.

3.4.1 Homeworker, Non-Homeworker Differences

To determine what attitudinal differences Homeworkers and Non-Homeworkers may have, it required looking at a number of variables since attitudes are usually formed from a variety of factors.

First, it seems that having a computer in the home is one of the determining factors (Venkatesh & Vitalari, 1992) which affect whether a person works at home. This would seem to make sense since for the majority of a white-collar workers homeworking is done on the computer.

Next, looking at whether a person's job is conducive to working at home would be an important determinant in an employee's attitude towards homeworking. The employee would think it is futile to imagine homeworking if his/her job cannot be done at home. Yap and Tng (1990) found a positive correlation between an employee's perception that a high portion of their work can be done at home and attitudes towards telecommuting.

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It would also seem that since homeworking involves a certain level of trust between an employer and his employee, the option of homeworking would be made available to employees who have been working for the company for a longer period of time. In other words, a company will have a harder time allowing a new person to work from home than an existing employee. Making an employee work at home would mean giving up some control by the supervisor over the job and giving the employee a higher level of job decision latitude. It may be easier to give this higher control to an existing employee. From this we could suppose that an employee who has been with the company longer, would believe that the option of homeworking would be available to them and hence have a more positive attitude towards homeworking and in-turn be more likely to become a homeworker. No prior research has looked at these questions.

Another factor which could potentially affect an employee's attitude towards homeworking and in-turn whether this employee works at home is whether the organization supports the whole concept of homeworking. It has been said that the support of the organization, co-workers, and supervisors towards homeworking is important for the employee to consider homeworking (Yap & Tng, 1990; Vitalari, Hamilton, & Ramsower, 1987). These people must believe in homeworking and they have to think of it as a viable work alternative. There must be no doubt in the minds of the co-workers and supervisors of a homeworker that an employee who works at home is as much a member of the group as someone in the office. If the people in the office

think that Homeworkers will not pull their weight, then the Homeworker will be viewed as a social loafer. If this support is missing then the whole notion of homeworking could be one of futility in the mind of the employee.

Lastly, it has also been proposed that the reason why an employee performs homeworking is also to fulfill job demands which the employee feels are harder to accomplish in the office (Caudron, 1992; Filipczak, 1992; Goodrich, 1990; Kinsman, 1991; O'Hara, 1993; Venkatesh & Vitalari, 1992; Verespej, 1994; Young, 1991). Therefore, one can suppose that the homeworker will have more job demands than the non-homeworker.

As we have seen many factors could affect an employee's attitude towards homeworking which would then affect who is a Homeworker and who is not. Given the above it is proposed that:

> **HYPOTHESIS 1:** Homeworkers will have a more positive attitude towards homeworking than Non-Homeworkers.

> **HYPOTHESIS 2:** Homeworkers will have jobs which are more conducive to working at home.

HYPOTHESIS 3: Homeworkers will be more likely to have a computer in their home.

HYPOTHESIS 4: Homeworkers will have a greater degree of Job Decision Latitude than Non-Homeworkers.

HYPOTHESIS 5: Homeworkers will have greater job demands than Non-Homeworkers.

HYPOTHESIS 6: Homeworkers will have worked for the company longer than Non-Homeworkers.

HYPOTHESIS 7: Homeworkers will have more organizational Social Support towards homeworking than Non-Homeworkers.

HYPOTHESIS 8: Homeworkers will be seen as social loafers by Non-Homeworkers.

3.4.2 The Employee Situation, Attitudes, and the Work Environment

This next aspect of the study looked at various attitudes, personality, and work environment variables which were brought up in past research and in the popular press

as being relevant to homeworking. These are areas which could affect attitudes towards homeworking and the actual homeworking (Figure 6).

It has been proposed by Cohen and Gadon (1978) that when assessing likely employee responses to work innovations, especially scheduling alternatives, it is valuable to consider the employee's place in the career cycle and their prevailing career anchors as well as their place in the life cycle. This means that if an employer is thinking of offering homeworking to an employee, he/she should consider where they are in their lives in terms of marriage and kids and they should also look at where they are in their career. A new person in a company would usually be less established in their career than someone who has worked for the company for an extended period of time unless of course the new person starting would be someone who has been hired into upper management. Therefore, it is proposed that:

HYPOTHESIS 9: The amount of time an employee spends performing work at home will relate negatively with an employee's life stage.

A persons' life stage will also affect the amount of work-family conflict which they feel. Work-Family conflict has been a popular topic for a number of years (Bailyn, 1992; Burley, 1994; Duxbury & Higgins, 1991; Frone, Russell, & Cooper, 1992a; Frone, Russell, & Cooper, 1992b; Gonyea & Googins, 1992; Hall, 1990; Higgins & Duxbury, 1992; Higgins, Duxbury, & Lee, 1994; Lobel, 1992; Presser, 1989;

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Shellenbarger, 1992; Staines & Pleck, 1984; Staines & Pleck, 1983; Williams & Alliger, 1994) and has gained in interest in recent years due to the job situation described earlier. It also seems to be one of the major driving forces behind the popularity of homework.

As more women have entered the work force it has become harder to balance work and the family. An employee is now constantly battling with how to meet their obligations to the family and work. Sometimes even when the employee has a balance between the two, they constantly worry about if they are spending enough time with the family, or if they are putting in enough hours at work. This concern over allocating time to various activities has been explored by researchers (See Pleck, 1985 for an overview).

Many of the discussions in published works (Hall, 1990; Higgins, Duxbury & Lee, 1994; Presser, 1989; Staines & Pleck, 1983) have been on using other forms of alternative work schedules (eg: compressed work weeks, flexitime...) to help balance this conflict and its impacts. There has been little empirical discussion in these studies about using homework to help alleviate work-family conflict and its' impact on stress. With this in mind, the following hypothesis is proposed:

HYPOTHESIS 10: Having the opportunity to work at home will mitigate the impact of work-family conflict on stress.

One common thread which was found both in the popular press and in research articles as to why Homeworking was becoming more popular was commute times (O'Hara, 1993; Filipczak, 1992; Goodrich, 1990; Misutka, 1992; Wilkes, Frolick & Urwiler, 1994; Venkatesh & Vitalari, 1992; Yap & Tng, 1990; Young, 1991). The popular press suggests that workers are stressed out by the long commute time to work. This in turn affects the workers productivity because the worker does not have as much energy to accomplish the tasks at hand when he/she does get to work. Venkatesh and Vitalari (1992) looked at commute times and the effect it had on supplemental work at home which was done. They found a negative relationship between the two. They concluded that people prefer to stay at work longer and accomplish these tasks rather than commute home (which would tax the employee) and do the tasks as supplemental work at home. Yap and Tng (1990) failed to find any significant relationship between commute times and a person's attitude toward telecommuting. This was attributed to the fact that all the respondents in their study took less than one hour to get to work.

With these contradictory findings in mind, it was felt that commuting time is a good indicator of an employee's attitude towards homework. Contrary to Venkatesh and Vitalari's (1992) belief that a longer commute time will mean that the employee will prefer to stay in the office and complete the tasks, we believe that they have overlooked one important factor - the family. The employee with a spouse, or spouse and children will prefer to go home and get to spend some time with them. If they stay in the office, then it means that they will get home later and not get to spend time with the family.

Homework also gives the employee the option of leaving later in the morning if traffic is really bad for their route to work which will avoid a long and stressful commute time. Another option which homework provides is that it gives them the choice of leaving before the rush hour starts to go home, which avoids a longer commute time and they still get to perform the required tasks.

Fishbein and Ajzen (1975) proposed that a persons belief will form their attitude, which will lead to a certain behavior. Accordingly, if an employee believes that homework will help to reduce their commute time and increase the amount of time they get to spend with the family, then their attitude towards homework will be positive. Hence we propose that:

HYPOTHESIS 11: Commute times will be positively related to attitudes towards homework. That is an employee who has a longer commute time will have a more positive attitude towards homework than employees with shorter commute times.

Articles in the popular press (Alvi & McIntyre, 1993; Caudron, 1992; Goodrich, 1990; Misutka, 1992; Weiss, 1994) have furthermore, continuously reinforced that it takes a certain type of personality to work at home. However, no studies which were found directly studied this question. One study by Dickerson and Gentry (1983) which focused on the characteristics of adopters and non-adopters of home computers

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mentioned that for people to use a home computer for work related activities, it seemed to take a certain personality.

When looking at personality in a study, the five-factor model of Tupes and Christal (1961), which consists of Extroversion or Surgency, Conscientiousness, Agreeableness, Emotional Stability and Culture, is the one which has proven to be consistently valid over the years (Norman, 1963, McCrae & Costa, 1987). For the homeworker the consensus amongst the popular press and researchers seems to be that he/she is one who likes responsibility (Conscientiousness Dimension), likes working autonomously and who takes initiative (Conscientiousness Dimension) in completing tasks. One would also think that the homeworker would be one with a certain degree of self-confidence (Emotional Stability Dimension) since working at home involves working on their own. Furthermore, the homeworker should also show signs of being imaginative and curious (Culture Dimension). The homeworker is curious enough to try working on their own and since they are on their own, they must have a certain degree of imagination in doing their work because there is not always someone around to help in resolving questions which arise.

All of these traits seem to point to people who believe that they are in control of their lives. People who believe that the occurrences which happen to them are their own doing and chance or some external force has nothing to do with it. Rotter, Chance, and

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Phares (1972) called this particular type of person as someone with an internal locus of control. Therefore, we hypothesize that:

HYPOTHESIS 12: A person with an internal locus of control will have a more positive attitude towards homework than the person with an external locus of control.

With this ability to work on their own, it should provide the employee with a greater level of flexibility and in-turn a greater level of job satisfaction. Alternative work schedule studies and books (Nollen, 1982; Nollen & Martin, 1978a; Nollen & Martin, 1978b; Pierce, Newstrom, Dunham & Barber, 1989; Ronen, 1984; Staines & Pleck, 1983) have shown that an employees ability to choose which schedule they work on, and the ability to change the schedule when there is a need to, leads to greater job satisfaction. Hence, we propose that

HYPOTHESIS 13: Homeworking will be positively related to job satisfaction.

In terms of the work environment, since homework is a very different alternative work schedule, some organizations may have difficulty providing this option to their employees. A certain company culture must exist in order for homework to be an accepted practice. What company culture must exist? One thing which defines a company culture as being progressive towards homework is management style of the employees. Homework affects how employees are managed and how work is managed.

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The management style must be different for homeworkers if working at home is to be successful. Managers must be proactive in setting goals with the homeworkers and in making sure that adequate work is assigned. This new management style may be inherent for some managers but for the organization to be successful as a whole with homework, it must be professed from the top, down. It must be part of the companies' culture. Other aspects which identify a good progressive company culture are: management encouraging work at home when possible, management looking at an employee's productivity and not just the amount of time spent in the office.

It is believed that the company culture will set the tone for how homework is viewed by its employees. Having the right company culture is crucial to the success of a homework program (Filipczak, 1992; Rodgers, 1992; Olson, 1985; Olson & Primps, 1984). Accordingly, when employees perceive that their company culture encourages homework, the employee's belief in homework is strengthened and consequently their attitude towards homework will also be positive. With this in mind we propose that:

HYPOTHESIS 14: Employees who see their companies culture as being supportive of homework, will have a positive attitude towards homework.

3.4.3 Karasek's Job Strain Model, Homeworking and Outcomes

As we have seen, today's employee faces a large challenge in balancing all the demands being placed on him/her (Figure 1), demands which if not addressed properly could easily lead to high levels of stress and strain, and possibly depression and burnout. It is theorized in this study that homework is a tool which can be used to help balance these demands (Figure 2). Karasek (1979) has indicated that in order for someone to successfully cope with stress, two factors are key. First, how work is scheduled, and second the timing of work. He went on to predict that if an employee has high job demands and low job decision latitude, the employee will be in a "high strain job" (Figure 4). Later this model was modified to include a new dimension called social support which had been found to be important in further explaining strain (Karasek & Theorell, 1990). Therefore, we hypothesize that:

HYPOTHESIS 15: Job Demands, Job Decision Latitude, and Social Support will predict job strain. That is, job demands will predict job strain in a positive direction. Job decision latitude and social support will predict job strain in a negative direction.

3.4.3.1 Homework and Job Decision Latitude

How could homework provide a higher level of job decision latitude? When employees work at home, they exert greater control over their job because they are able to decide

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to a certain degree when the work will be done, and how it will be done. This higher

level of job decision latitude should help to enrich the job for the employee in certain

areas. Hackman and Oldham (1975, 1980) proposed that for a job to be enriched it

would have to contain five job characteristics; 1) Skill Variety, 2) Task Identity, 3)

Task Significance, 4) Autonomy, and 5) Feedback. By providing the option of working

at home, an organization would help to enrich a job in two of these areas. First, skill

variety would be increased because the employee will be working on their own more.

They will have to make more planning and evaluating decisions which requires a

greater set of skills than if they were to work in the office. Second, autonomy is also

increased because the employee is making more decisions in getting the job done. There

will not always be someone to ask a question when they are not sure on how an aspect

of their job should be done. These two factors should foster more creativity, higher

performance, higher job satisfaction, which should all lead to the employee being

motivated at performing their job. If an organization can provide further support by

identifying tasks clearly, showing how the employee's task is significant for the

organization, and proper feedback, then we have an "active job" (Karasek, 1979) which

has been designed to motivate an employee to work hard and enjoy the work.

Once you have a job which is designed properly and which motivates the employee,

you want to make sure that the employee achieves the proper goals. In order to ensure

that the proper goals are met, a manager, along with the employee should set the goals

to be achieved. It has been shown again and again how setting proper goals with an

employee, leads to superior performance (Locke & Latham, 1990). Goal setting theory (See Locke & Latham, 1990, for a summary of the research) research has provided three main findings: 1) a higher level of difficulty in a goal will lead to higher performance, 2) specific goals will lead to higher performance than "do your best" goals or setting no goals, 3) knowledge of results for an employee will motivate him/her to work harder when this knowledge is used to set higher goals. Since homework involves working on their own and possibly not dealing with their supervisor as frequently as before, it seems imperative that an employee and employer set what goals are expected of the employee ahead of time. This is one key ingredient that is mentioned by the popular press (Brown, 1994; Filipczak, 1992; Good-ich, 1990; Olson, 1983; O'Hara, 1993; Wilkes, Frolick, & Urwiler, 1994; Young, 1991) when outlining what will make a homework program successful A manager who does not manage homeworkers may be able to perform without using goal setting as a part of their managerial duties, even though research shows that they should. However, homework forces the managers to be proactive and set an employee's goals ahead of time so that while an employee is working at home he/she knows to what end they are working towards. Therefore, we see that if a manager of homeworkers fails to set the goals to be achieved with the employee, the employee may be motivated, but may not achieve the goals the organization expected of him or her. This failure to meet these goals may then lead to a future suffering in performance.

Therefore, the principle behind an alternative work schedule like homework is that it

should provide an employee with adequate skill variety, autonomy, flexibility, and job

control to motivate him/her to work hard and be a high performer. In turn the

organization should benefit from the employee's higher performance and lower

turnover which should be a consequence of the employee's satisfaction with his/her job.

With the Karasek model in mind, it would seem that homework would offer the

employee a higher degree of job decision latitude to handle his/her job demands. It is

theorized that this level of control, along with the appropriate social support should

keep job strain at a manageable level (Figure 7) and also help reduce the amount of

stress and burnout.

Empirically, the majority of the studies on the Karasek model which were reviewed for

this study dealt with using the model to predict health related issues such as:

cardiovascular disease, myocardial infarction, blood pressure, health related quality of

life, hypertension, coronary heart disease, mortality, and work related exhaustion.

However, six of the studies dealt with using the model to help predict variables which

are relevant to the field of organizational behaviour. The variables studied were:

employee attendance, satisfaction, occupational stress, stress-strain relationship and

whether organizational level matters, affective reactions and health outcomes, and

employee well-being (Dwyer & Ganster, 1991; Landsbergis, 1988; Perrewe & Ganster, 1989; Spector, 1987; Warr, 1990; Westman, 1992).

In summary, these studies found the following:

1) The occurrence of high job demands and low decision latitude was associated with particularly low employee well-being but there was no difference whether this was looked at in an additive fashion or an interactive fashion (Warr, 1990).

2) Spector (1987) found that there was no support for an interactive effect between job decision latitude and job demands on affective and health outcomes. However, he did find strong relationships between job demands, job decision latitude dimensions of Karasek's model and outcome variables such as job satisfaction, anxiety and frustration.

3) Perrewe and Ganster (1989) found no support for the moderating effect of job decision latitude on the relationship between job demands and job satisfaction. They did find that increasing job decision latitude helped to reduce psychological anxiety and therefore they hypothesize that the stress a person feels could be reduced by increasing job decision latitude.

4) Dwyer and Ganster (1991) found support for the interactive effect of job demands and job decision latitude on employee attendance.

5) In the Landsbergis (1988) study he found that the interaction of job demands and job decision latitude failed to add predictive power to the outcomes of strain and burnout. However, he found support for associations between job characteristics, job strain, burnout and job demands.

6) Lastly, Westman (1992) found that job decision latitude did interact with stress to make its effect less averse for clerks than for managers when looking at role conflict as a stressor but not when looking at role ambiguity as a stressor.

As we have seen the majority of these studies which looked at an interactive effect of the dimensions in Karasek's model have failed to find support. Therefore, focusing only on the interactive effects within the context of homeworking would not be appropriate given past trends in other areas of study. We formulated the following hypotheses with the purpose of studying Karasek's three dimensions in more detail on an individual basis and see the possible effects they may have on outcomes and on how they act within the context of homeworking. Of course to ensure that at least one interactive effect was studied we looked at the possibility that homeworking would moderate the effect of job demands on job strain (Figure 7). It was felt that this was appropriate because of the level of flexibility which homeworking gives an employee in performing the required tasks in their job. Hence the following are proposed:

HYPOTHESIS 16: Job Decision Latitude will be negatively related to strain, stress, and burnout.

HYPOTHESIS 17: Job Decision Latitude will be positively related to job involvement.

HYPOTHESIS 18: Social Support will be negatively related to strain, stress, and burnout.

HYPOTHESIS 19: Opportunity for homework will be negatively related to stress.

HYPOTHESIS 20: Homeworking will be positively related to Job Decision Latitude.

HYPOTHESIS 21: Homeworking will moderate the effects of Job Demands on Strain.

CHAPTER FOUR: METHOD

4.1 Population Studied

4.1.1 Questionnaire Response Rate

Five organizations were used in this study. Table 5 shows the types of organizations

used and the responses received. The intent was to use organizations which had jobs

that could possibly be done at home but not necessarily had any official policy on

homeworking. It was determined that high-tech companies would be more likely to

have jobs which could be done at home.

The sample consisted of office workers in five different organizations in the Greater

Montreal area. The organizations chosen were all high-tech, either in the service or

product they provided or in the equipment that the office workers used to perform their

job.

TABLE 5 - Response Rate

ORGANIZATION	QUESTIONNAIRES DISTRIBUTED	QUESTIONNAIRES RETURNED	RESPONSE RATE
Software Developer	100	61	61%
Telecommunications Service Provider	160	41	25%
Telecommunications Manufacturer	250	50	20%
Telecommunications Researcher	21	16	76%
Pharmaceutical Firm	10	5	50%
TOTALS	541	173	32%

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The low response rate in two of the firms can be attributed to a number of factors. The major factor was that the researchers were not given any choice in the distribution and collection of the questionnaires. This was not the preferred method of the researchers but given the difficulty of finding organizations willing to participate, it was deemed to still be beneficial to include these organizations in the sample. Therefore, after an initial meeting with the person responsible for the Telecommuting program in one organization and the human resource manager in the other, the questionnaires were distributed and collected by the contact. The respondents were asked to fill in the questionnaires at their discretion and return them by a certain date. Although E-Mail reminders were sent and the deadline extended, it failed to boost the response rate significantly.

The software developer allowed researchers to set up four drop off points for the questionnaires which made the study more visible and kept it in the minds of the participants. The initial distribution was followed by two E-Mail reminders.

Although the telecommunications researcher sample was small, the response rate was high because they were commencing a Telecommuting pilot project and the pilot project participants were asked to fill in the questionnaires along with a few more people outside of the project who also used telecommuting. These same people were interviewed prior to filling in the questionnaire (Appendix C).

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4.1.2 Demographic Breakdown

The sample was broken down into 31.8% female and 68.2% male. Their ages ranged from 20 to 68 years of age, with a mean age of 34.8 years (S.D. = 8.6). Their years of work experience ranged from 6 months to 50 years, with a mean of 14.5 years of work experience (S.D. = 14.4). 85% of the sample indicated english as their first language and 15% indicated french. A full demographic breakdown is shown in Table 6.

TABLE 6 - Demographic Breakdown

DEMOGRAPHIC	CATEGORY	TOTAL SAMPLE
SEX	FEMALE	55 (31.8%)
	MALE	118 (68.2%)
MARITAL STATUS	SINGLE	63 (36.4%)
	MARRIED	94 (54.3%)
	DIVORCED/SEPARATED	13 (7.5%)
	COMMON LAW SPOUSE	3 (1.7%)
CHILDREN	YES	70 (40.5%)
	NO	103 (59.5%)
LANGUAGE	ENGLISH	147 (85%)
	FRENCH	26 (15%)
EDUCATION	HIGH SCHOOL	12 (6.9%)
	COLLEGE GRADUATE	36 (20.8%)
	UNIVERSITY	97 (56.1%)
	GRADUATE DEGREE	28 (16.2%)
JOB TYPE	FULL TIME	168 (97.1%)
	PART TIME	5 (2.9%)
JOB STATUS	PERMANENT	163 (94.2%)
	TEMPORARY	10 (5.8%)
WORK SHIFT	DAY	160 (92.5%)
	EVENING	1 (.6%)
	ROTATING	12 (6.9%)

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4.2 Measurement Tools

Data were collected using both a questionnaire and interviews. Refer to Appendix A for

the english questionnaire and Appendix B for the french translation of the

questionnaire. Appendix C contains the core interview questions and transcripts of the

interviews conducted.

The cover letter of the questionnaire gave the participant some background on the study

and its purpose and also tried to convey the importance of the study. The letter stressed

that the results where both confidential and anonymous. It also mentioned that a postage

paid envelope was included but because of the method used to collect the

questionnaires, the postage paid envelopes where only included for the pharmaceutical

firm.

Steps were also taken to ensure that the study was properly authorized. The researchers

met with at least one person in authority from each organization and they either gave

the approval or they checked with upper management to ensure that conducting the

study in the organization was okay.

The interviews were approved by upper management and the participants were asked if

they would want to participate in an interview. All of the people asked, agreed. The

researchers asked their permission 1) tape the interview and the interviewees were given

the opportunity to not answer a question or to stop the recording of the interview if they

deemed the questions of a private nature. None of the interviewees refused to answer any of the questions or asked that the taping cease.

4.2.1 Questionnaire

A number of existing measurement tools were used to measure the variables in this study. The following are the measurement tool's which were used to construct the questionnaire for this study:

- The Job Content Questionnaire (JCQ) by Karasek and his colleagues (1985)
- Ramsower's (1985) Telecommuting and its' organizational and behavioral effects questionnaire
- Bohen and Viveros-Long's (1981) Job-Family Role Strain Scale
- Rotter's (1966) Abbreviated Internal-External Locus of Control Scale (Valecha 1972)
- Maslach and Jackson's Burnout Scale (1981)
- Kanungo's Job Involvement Scale (1982)
- Parker and DeCotis's Stress Scale (1983)
- Jennifer George's Social Loafing Instrument (1992)
- Job Satisfaction Scale (Prince, Personal Communication)

Along with these existing measures a number of questions pertaining to demographics and homeworking were included by the researchers to help answer all the research questions asked. Reverse scoring was used for all of the appropriate questions which required it. This was done so that the total score for a scale clearly indicated the appropriate response level of the person (Eg: A higher response on the job demands scale indicated that the person had higher job demands than someone with a lower response on the scale).

4.2.1.1 Karaseks' Job Content Questionnaire (JCQ)

All of the questions from Karaseks' Job Content Questionnaire (1985) remained as they were asked originally. However, it was felt that Karasek's 4 point scale forced the respondent to be either for or against whatever was being asked. There was no room for the middle ground. Hence, it was decided that making it a 5 point scale would better capture the respondents feeling on the question. Therefore, most of the questions with a 4 point scale were changed to be 5 point scales.

Job Decision Latitude was measured using a 9 item scale (Appendices A and B, questions 146 to 154), where responses were scored on a 5 point scale from Strongly Disagree to Strongly Agree. Sample questions in the scale are: "My job requires that I learn new things" or "My job allows me to make a lot of decisions on my own". A

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higher score indicated higher Job Decision Latitude. The Cronbach Alpha for this scale in this study was .85.

Job Demands were measured using a 5 item scale (Appendices A and B, questions 157 to 161), where responses were scored on a 5 point scale from Strongly Disagree to Strongly Agree. A question in the scale is; "My job requires working very hard". A higher score indicated higher Job Demands. The Cronbach Alpha for this scale in this study was .78.

Social Support was measured using an 8 item scale. The first four questions (Appendices A and B, questions 165 to 168) were comprised of responses to questions which were scored on a 5 point scale from Strongly Disagree to Strongly Agree. The remaining four questions (177 to 180) were scored on a 6 point scale from Strongly Disagree to Strongly Agree and also included a category if the respondent did not have a supervisor. Only two people responded in this category. A higher score indicated higher Social Support. Sample questions are: "People I work with take a personal interest in me" and "My supervisor is concerned about the welfare of those under him or her". The Cronbach Alpha for this scale in this study was .77.

Physical/Psychosomatic Strain was measured using a 4 item scale (Appendices A and B, questions 183 and 188 to 190), where responses were scored on a 4 point scale from Often to Never. A higher score indicated higher Physical/Psychosomatic Strain. This

scale was not modified from Karaseks' original 4 point scale. A sample question which was asked was is: "Have you experienced in the past 12 months, Becoming tired in a very short period of time". The Cronbach Alpha for this scale in this study was .71.

4.2.1.2 Ramsowers Questionnaire

In order to determine who was a homeworker, a question from this questionnaire was used (Appendices A and B. question 24). Anybody answering any category other than the zero category in the "Not During Regular Work Hours" was deemed to be a homeworker. This category was used because the focus of the study was predominately on supplemental work at home and ad-hoc homework. Part-Time homeworkers were also tracked using the "During Regular Work Hours" category of this question but their sample was very small (n = 26). Question 8 which specifically asked whether the person worked at home was not used because it was misinterpreted by the respondents. A significant number of people understood the question to mean whether they worked at home on a full-time basis and answered no to the question. This was ascertained later during conversations with the respondents. These same people answered that they either performed part-time homework during regular working hours and/or supplemental homework not during regular working hours.

In order to measure a person's attitude towards homework one of the scales used was Ramsower's (1985). It was an 11 item scale (Appendices A and B, question 26 the first

11 sub-questions), where responses were scored on a 7 point scale. A higher score indicated a more positive attitude towards homeworking. Respondents were asked questions like "What is the likelihood that working at home would lead to - an increase in your control over starting and ending a unit of work". The Cronbach Alpha for this scale in this study was .73.

Organizational Social Support for Homeworking was measured using a 3 item scale (Appendices A and B, question 28 the first 3 sub-questions), where responses were scored on a 7 point scale. The questions asked whether the respondent felt that their supervisor, co-workers, and their company was for or against them working at home. A higher score indicated more organizational social support for homeworking. The Cronbach Alpha for this scale in this study was .77.

4.2.1.3 Bohen and Viveros-Longs Job-Family Role Strain Scale

Work-Family conflict was measured using Bohen and Viveros-Long's (1981) Job-Family Role Strain scale using a set of questions (Appendices A and B, question 30), where responses were scored on a 6 point scale from Never to Always and a Not Applicable category. A higher score indicated higher work-family conflict. Question 30 was an 11 item scale and was used to measure work-family conflict regardless whether the respondents had children or not. An example of a question from this scale is "My

job keeps me away from my family too much". The Cronbach Alpha for this scale in this study was .74.

Questions 19 and 20 from this questionnaire were used to measure the amount of travel time that a respondent had from home to work and work to home on a given day.

4.2.1.4 Rotter's Abbreviated Internal-External Locus of Control Scale

Locus of Control was measured using the abbreviated 10 item scale from Rotter's Internal-Extrenal Locus of Control Scale (Valecha, 1972) (Appendices A and B, questions 33 to 42). Responses were scored by choosing a statement which the respondent most agreed with. Depending which statement they most agreed with, determined whether they had an internal or external locus of control. A higher score indicated an external locus of control. Respondents were asked whether they agreed with statements like "In the long run people get the respect they deserve in this world". The Cronbach Alpha for this scale in this study was .74.

4.2.1.5 Job Satisfaction Scale

Job Satisfaction was measured using a 13 item scale (Prince, Personal Communication) (Appendices A and B, questions 43 to 55), where responses were scored on a 5 point scale from Highly Dissatisfied to Highly Satisfied. A higher score indicated greater job satisfaction. Respondents were asked whether they were happy with a variety of

aspects of their job like: income, variety of tasks, ...etc. The Cronbach Alpha for this scale in this study was .87.

4.2.1.6 Maslach and Jackson's Burnout Scale

Burnout was measured using the Maslach Burnout Inventory (MBI) developed by Maslach and Jackson (1981). The 22 item scale (Appendices A and B, questions 56 to 77), asked for responses which were scored on a 5 point scale from Never to Every Day. A higher score indicated greater burnout. The Cronbach Alpha for this scale in this study was .87. The three established dimensions of burnout: Emotional Exhaustion (questions 56 to 64), Personal Accomplishment (questions 65 to 72), and Depersonalization (questions 73 to 77) had the following respective Cronbach Alpha's in this study: .87, .79, and .72. An example of questions from each sub-dimension are: "I feel emotionally drained from my work"; "I can easily understand how my people at work feel about things" and "I worry that this job is hardening me emotionally".

4.2.1.7 Kanungo's Job Involvement Scale

Job Involvement was measured using a 9 item scale (Appendices A and B, questions 79 to 87) from Kanungo (1982), where responses were scored on a 5 point scale from Strongly Disagree to Strongly Agree. A higher score indicated greater job involvement. Respondents were asked their level of agreement with questions like "Most of my

interests are centered around my job". The Cronbach Alpha for this scale in this study was .83.

4.2.1.8 Parker and DeCotis's Stress Scale

Stress was measured using the 13 item stress scale developed by Parker and DeCotis (1983) (Appendices A and B, questions 88 to 100). Responses were scored on a 5 point scale from Strongly Disagree to Strongly Agree. A higher score indicated greater stress. An example of a question in this scale is "My job gets to me more than it should". The Cronbach Alpha for this scale in this study was .88.

4.2.1.9 Jennifer George's Social Loafing Instrument

Social Loafing was measured using 9 items from the social loafing scale developed by Jennifer George (1992) (Appendices A and B, questions 118 to 126). Her original scale was modified to fit the context of homeworking by making the questions pertain to homeworkers and adding question 127 to the scale to complete the profile of the homeworker social loafer. Questions varied from "Homeworkers transfer (defer) responsibilities to other co-workers which they should assume" to "Homeworkers contribute less to the organization than non-homeworkers". Responses were scored on a 5 point scale from Strongly Disagree to Strongly Agree. A higher score indicated that the respondent believed that homeworkers were not social loafers. The Cronbach Alpha for this scale in this study was .94.

4.2.1.10 Researcher's Supplemental Questions

Looking at Ramsower's scale to measure attitudes towards working at home it was felt that the scale was not adequate enough to truly capture these attitudes. Therefore, we developed a scale called Baba's Scale of Attitudes towards Working at Home in order to complement Ramsower's scale. The 17 item scale (Appendices A and B, questions 101 to 117) had responses which were scored on a 5 point scale from Strongly Disagree to Strongly Agree. A higher score indicated a more positive attitude towards working at home. An example of scale items are: "Working at home provides more flexibility with work" and "Working at home makes you self-sufficient about your work". The Cronbach Alpha for this scale in this study was .89.

Question 23 was also added by the researchers in order to measure whether the employee felt that their job could be done at home and the second part of the question was used to measure the level of advanced company culture an organization has towards homeworking.

Lastly, questions 3, 4 and 9 were used to formulate a variable called Life Stage. All possible combinations of the three questions were constructed and the respondent slotted into the appropriate category. The categories ranged from: 1 - Married, Children, and on the Job for 2 or more years to 8 - Not Married, No Children, and on the job for under 2 years.

4.2.2 Interviews

Interviews were conducted at one of the Telecommunications researcher which also participated in the questionnaire. This firm was starting a 6 month pilot project on telecommuting when these interviews were conducted. Most of the interviews were conducted in December 1995 but the last three interviews were conducted in February 1996 because these people joined the pilot group a little later due to the lack of availability of ISDN lines (a faster communication line than just a regular phone line) in the area the person lived. The interviews were recorded and were semi-structured. They were conducted in english or french depending on the preference of the interviewee. There were six core questions (See Appendix C) which served as a guide for each interview and it was open to other questions depending on how the interview progressed. Nine interviews were conducted in french and seven in english.

4.2.3 Analytic Strategy

The analytic strategy in this study used various methods due to the comprehensiveness of the study and the lack of previous theoretical research.

First, in order to get an overall picture (response rate, means, standard deviations, medians) of the responses to each question, frequencies and descriptive statistics were used.

Then, the scales which were used to measure the variables were checked for reliability. Internal consistency reliability analysis was conducted for all the relevant scales and also any sub-dimensions which a scale might have. The means, standard deviations and Cronbach alphas (reliability coefficient) were obtained. For scales with established sub-dimensions, factor analysis was carried out to verify their dimensionality. In addition, full psychometric analysis was conducted for the new scale on Attitudes towards Working at Home (Baba, 1996).

The next step in the analysis was the creation of a correlation matrix for all the variables in the study. T-tests were then conducted to assess significant differences between homeworkers and non-homeworkers on the study variables.

Finally, moderated hierarchical regression was carried out for model testing purposes. This has been shown to be a good way of examining the moderating effects of a variable on another relationship (Peters & Champoux, 1979; Sharma, Durand, & Gur-Arie, 1981).

The individual hypotheses were tested as follows: Hypothesis 1 through 8 were tested using a comparison of the means procedure. T-tests were performed on a number of variables to see if differences existed between Homeworkers and Non-Homeworkers (Table7). Hypothesis 9, 11 through 14 and 16 through 20 were tested using Pearson correlation's. A complete correlation matrix of all the variables being tested was

created (Table 8). Finally, Hypothesis 10, 15, and 21 were tested using a moderated

hierarchical regression (Table 9). This was done by first entering the outcome variable

(eg: Job Strain), followed by a predictor variable (eg: Job Demands), and a moderator

variable (eg: Job Decision Latitude). Then the interaction term of the predictor and the

moderator was entered. If the change in the R^2 when entering the interaction term was

significant, then one could conclude that the relationship (Job Demands - Job Strain)

was moderated by the moderator variable (Job Decision Latitude).

In terms of the interviews, a content analysis was performed to determine if the findings

of the questionnaire were supported by the interviews of the part-time telecommuters.

CHAPTER FIVE: RESULTS

Hypothesis 1 through 8 tested various differences between Homeworkers and Non-Homeworkers. The differences which were studied are: attitudes towards homeworking, how conducive jobs are to homeworking, availability of a computer in the home, job decision latitude, job demands, job tenure, organization social support towards homeworking, and social loafing. Hypothesis 9 through 14 looked at The Employee Situation, Attitudes, and The Work Environment. The relationships tested were: homeworking and employee's life stage; opportunity for homework and work-family conflict; commute times of employees and attitudes towards homework; locus of control and attitudes towards homework; homeworking and job satisfaction. Finally, hypothesis 15 through 21 focused on relationships in Karasek's Job Strain model, homeworking and variables from Karasek's model and lastly, variables from Karasek's model and various outcomes. The relationships tested were: job decision latitude and strain, stress, burnout; job decision latitude and job involvement; social support and strain, stress, burnout; opportunity for homework and stress; homeworking and job decision latitude; and lastly, homeworking on job demands and strain.

5.1 Homeworker, Non-Homeworker Differences

5.1.1 Test of Hypothesis 1

The test of this hypothesis found a significant difference (Baba's - t = -2.65, p = .01; Ramsower's t = -2.08, p < .05) between Homeworkers and Non-Homeworkers attitudes towards homeworking. Homeworkers had a more favorable attitude towards homeworking than Non-Homeworkers.

5.1.2 Test of Hypothesis 2

It was found that Homeworkers believed that they had jobs which were more conducive to working at home than Non-Homeworkers (t = 6.31, p < .01). In other words, Homeworkers felt that they could do their job at home, whereas Non-Homeworkers believed that their job could not be done at home. Therefore, this hypothesis was supported.

5.1.3 Test of Hypothesis 3

The study found that Homeworkers were more likely to have a computer in their home than Non-Homeworkers (t = 3.1, p < .01) as was predicted.

5.1.4 Test of Hypothesis 4

The test of this hypothesis revealed that Homeworkers did have a higher level of job decision latitude than Non-Homeworkers (t = -2.93, p < .01). In other words, Homeworkers felt that they had more control over their job than Non-Homeworkers as was predicted.

5.1.5 Test of Hypothesis 5

As predicted, it was found that Homewcrkers reported higher levels of job demands than Non-Homeworkers (t = -2.63, p = .01).

5.1.6 Test of Hypothesis 6

The study found support for the proposal that Homeworkers have worked for the company longer than Non-Homeworkers (t = -2.26, p < .05). Therefore, Homeworkers have greater job tenure than Non-Homeworkers as was predicted.

5.1.7 Test of Hypothesis 7

It was found that Homeworkers had more organizational social support towards homeworking than Non-Homeworkers (t = -3.58, p < .01). Hence, this hypothesis was supported.

5.1.8 Test of Hypothesis 8

This study found that Non-Homeworkers did see Homeworkers as social loafers. In other words, Non-Homeworkers felt that Homeworkers did not pull their weight in the group because they were working at home. Therefore, this hypothesis was supported (t = -2.59, p < .05).

5.2 The Employee Situation, Attitudes, and the Work Environment

5.2.1 Test of Hypothesis 9

It was found that the amount of time spent performing work at home was higher for someone married, with kids, and who has been working for the company for 2 years or more. Hence, this hypothesis was supported (r = -.18, p < .05).

5.2.2 Test of Hypothesis 10

Although the ease of working at home was significant in adding predictive power when trying to predict the amount of stress a person feels (ΔR^2 = .056, p < .01) it did not significantly relieve the effect of work-family conflict on stress (ΔR^2 = .035, n.s.). In other words, when looking at how much stress a person is feeling, the ease of being able to work at home helped to determine how much stress the person was feeling. However, when we looked at whether the ease of working at home helped to alleviate

the stress that a person was feeling due to work-family conflict, we failed to find support. Therefore, this hypothesis was not supported (Table 9).

5.2.3 Test of Hypothesis 11

This hypothesis of commute times was not supported for either of the two attitudes towards working at home scales. Ramsowers' scale almost showed support ($r = .15$, $p = .053$ for Home to Work travel time and $r = .15$, $p = .055$ for Work to Home travel time) but was still not significant. For Baba's Attitudes towards working at home scale there was no support ($r = .13$, n.s. for Home to Work travel time and $r = .12$, n.s. for Work to Home travel time).Therefore, for this sample, commute times failed to affect an employee's attitude towards homework.

5.2.4 Test of Hypothesis 12

This hypothesis failed to show support ($r = .08$, n.s. for Babas' Scale and $r = .04$, n.s. for Ramsowers' scale). Hence, a persons locus of control does not seem to affect a persons attitude towards working at home.

5.2.5 Test of Hypothesis 13

The test showed that homeworking did result in greater job satisfaction. ($r = .22$, $p < .01$). Therefore, this hypothesis was supported.

5.2.6 Test of Hypothesis 14

Support was found for the proposal that how an employee's see their companies' culture

towards homeworking affect the employee's attitude towards working at home.

Therefore, if an employee perceived his/her companies attitude towards homeworking

as positive, the employee also had a positive attitude toward homeworking. Both

working at home attitudinal scales showed support (Ramsower's Scale ($r = .26$, p <

.01), Baba's Scale ($r = .28$, p < .01)).

5.3 Karasek's Job Strain Model, Homeworking and Outcomes

5.3.1 Test of Hypothesis 15

As hypothesized, Job Demands, Job Decision Latitude and Social Support significantly

predicted job strain. In order to test this, a hierarchical regression was performed. In

step one we regressed strain against job demands and this was significant ($R^2 = .072$, p

< .01). Next we entered job decision latitude into the equation and this was still

significant ($\Delta R^2 = .072$, p < .01). Finally, we entered social support in the equation

and this also was supported ($\Delta R^2 = .025$, p < .05). In total 16.9% of the variance in

job strain was explained by these three variables (Table 10).

In terms of the original Karasek model in which he predicted that the interaction

between job demands and job decision latitude would add significantly more predictive

power to determining job strain, this was not supported (Table 10). The same process

as above was repeated in which Job Demands, Job Decision Latitude and then the

interactive term between these two variables was entered one step at a time, but the

interactive term failed to add any significant explained variance in strain ($\Delta R^2 = .004$,

n.s.).

In an effort to see if the new dimension of Social Support which was added to the

Karasek model would lend more predictive power, the same process was followed

where job demands, social support and the interactive term between these two variables

was entered in the regression equation (Table 10). The interactive term also failed to

add significantly to the explained variance in strain ($\Delta R^2 = 0$, n.s.).

5.3.2 Test of Hypothesis 16

This test revealed that as job control (job decision latitude) increased, the burnout ($r = -.24$, $p < .01$) and strain ($r = -.21$, $p < .05$) that the person felt decreased. However,

no similar effect was found for stress ($r = -.01$, n.s.) (Table 8). For the sub-dimensions

of burnout, support was found for the Emotional Exhaustion ($r = -.17$, $p < .05$) and

Personal Accomplishment ($r = -.24$, $p < .01$), but not for the Depersonalization ($r = -.12$, n.s.) sub-dimension. So a person who is given more job decision latitude feels

better about their job emotionally and feels that they have more to give to their job. This person also feels that they have accomplished more with their job. However, we failed to find that a person who is given more control in their job, treats their clients or co-workers better.

5.3.3 Test of Hypothesis 17

As predicted, it was found that as employees were given more control over their job (job decision latitude), it increased their job involvement ($r = .33$, $p < .01$) (Table 8).

5.3.4 Test of Hypothesis 18

This test revealed that as social support increased, strain ($r = -.25$, $p < .01$), stress ($r = -.23$, $p < .01$) and burnout ($r = -.33$, $p < .01$) all decreased. Furthermore, the hypothesis was also supported for the three sub-dimensions of burnout. As social support increased, a person felt less emotional exhaustion ($r = -.26$, $p < .01$), more personal accomplishment ($r = -.25$, $p < .01$), and less depersonalization ($r = -.23$, $p < .01$).

5.3.5 Test of Hypothesis 19

As predicted the opportunity to work at home related to stress in a negative fashion (r = -.23, p < .05). In other words, a person who had the opportunity to work at home showed less stress than the person who could not.

5.3.6 Test of Hypothesis 20

The support found in the test of this hypothesis showed that employees feel that they have more control over their job (job decision latitude) when they work at home (r = .31, p < .01).

5.3.7 Test of Hypothesis 21

This final hypothesis was set out to show if homeworking would moderate the effects of job demands on job strain. It was decided that in order to fully see the effects of homeworking on Karasek's Job Strain model, all of Karasek's dimensions would be used in the regression. Once again a hierarchical moderator regression was used. Social support and job decision latitude were controlled for by entering them first into the equation. Then job demands were entered, followed by the homeworking variable which identified Homeworkers from Non-Homeworkers and finally the interaction term between job demands and the Homeworking variable. Homeworking failed to moderate the effects of job demands on job strain (ΔR^2 = .011, n.s.) (Table 10).

TABLE 7 - Homeworker and Non-Homeworker Differences (T-Test)

Variables of Comparison	Homeworker (n=127)	NonHomeworker (n=46)	t-value
Attitudes Towards working at Home (Baba's Scale)	3.4	3.1	-2.65 $p = 01$
Attitudes Towards working at Home (Ramsower's Scale)	4.97	4.65	-2 08 $p < 05$
Work is conducive to homeworking	1.32	1.78	6.31 $p < 01$
Does the employee have a computer in the home?	1.08	1.3	3.1 $p < 01$
Job Decision Latitude	3.78	3.44	-2.93 $p < 01$
Job Demands	3.45	3.13	-2.63 $p = 01$
Job Tenure	3 87	3.24	-2.26 $p < 05$
Organizational Social Support Towards Homeworking	4.26	3.44	-3.58 $p < 01$
Social Loafing	3 ⁻	3.41	-2.59 $p < 05$

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TABLE 8 - Correlation Matrix

		mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Baba Attitudes	3.33	1.03	**.89**																		
2	Burnout	2.32	.92	-.08	**.87**																	
3	Burnout D.	1.85	.96	-.15	.74	**.72**																
4	Burnout E.	2.47	.94	.05	.81	.43	**.87**															
5	Burnout P.	2.44	.89	-.13	.71	.42	.25	**.79**														
6	Job Decision Latitude	3.69	.92	.09	-.24	-.12	-.17	-.24	**.85**													
7	Homeworking	1.96	.88	.22	-.09	.03	-.04	-.18	.31	--												
8	Opportunity to HW	2.28	1.29	.03	.02	.04	.03	-.02	.11	.07	--											
9	Job Involvement	2.78	1.00	-.10	-.08	-.03	-.06	-.08	.33	.09	-.13	**.83**										
10	Job Satisfaction	3.48	.94	.01	-.39	-.22	-.32	.31	.71	.22	.07	.34	**.87**									
11	Social Support	4.00	.88	.04	-.33	-.23	-.26	-.25	.23	.05	.21	.15	.37	**.77**								
12	Life Stage	4.23	2.51	.01	.11	.07	.07	.10	-.11	-.18	.01	-.01	-.08	.12	--							
13	Ramsower Attitudes	4.88	1.65	.66	-.02	.00	.10	-.17	.12	.20	-.02	.03	.06	.08	-.09	**.73**						
14	Organizational Social Support towards HW	4.04	1.67	.28	.04	-.05	.10	.01	.19	.20	.14	-.07	.04	.07	-.07	.26	**.77**					
15	Locus Of Control	1.59	.46	.08	-.36	-.32	-.27	-.25	.23	.08	.20	-.07	.22	.18	-.18	.04	.12	**.74**				
16	Job Strain	1.94	.83	-.02	.63	.44	.64	.30	-.21	-.10	-.12	-.05	-.24	-.25	.10	.02	.08	-.30	**.71**			
17	Stress	2.67	1.07	-.07	.60	.46	.64	.20	-.01	.01	-.23	.24	-.09	-.23	.01	.03	.08	-.35	.56	**.88**		
18	Commute H - W	33.7	17.1	.13	.03	.03	.00	.05	-.01	-.15	-.07	.10	.03	-.12	-.06	.15	-.19	.03	.04	.01	--	
19	Commute W - H	34.9	17.76	.12	.06	.07	.01	.07	-.02	-.15	-.09	.11	.01	-.18	-.08	.15	-.19	.02	.08	.04	.95	--

n = 173.   r ≥ .17 p < .05.   r ≥ .22 p < .01;   r ≥ .27 p < .001   Cronbach alpha for scales on the diagonal in bold.

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TABLE 9 - Work-Family Conflict Hierarchical Moderator Regressions

OUTCOME PREDICTOR	STRESS		STRAIN		BURNOUT	
	R^2	ΔR^2	R^2	ΔR^2	R^2	ΔR^2
Work- Family Conflict	.233 $p < .01$		.194 $p < .01$		.289 $p < .01$	
Ease of Working at Home	.289 $p < .01$	.056	.209 n.s	.015	.289 n s.	0
WFC X EWH	.315 n.s	.035	.212 n.s	.003	.294 n.s	.005

TABLE 10 - Karasek's Job Strain Model Hierarchical Regressions

OUTCOME / PREDICTOR	STRAIN R^2	ΔR^2
Job Demands	.072 $p < .01$	
Job Decision Latitude	.144 $p < .01$	.072
Social Support	.169 $p < .05$	.025
Job Demands	.072 $p < .01$	
Job Decision Latitude	.144 $p < .01$	.072
JD X JDL	.148 n s	.004
Job Demands	.072 $p < .01$	
Social Support	.12 $p < .01$	.048
JD X SS	.12 n s	0
Social Support	.061 $p < .01$	
Job Decision Latitude	.087 $p < .05$	.026
Job Demands	.169 $p < .01$	.082
Homeworker	.175 n.s	.006
JD X HW	.186 n.s.	.011

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5.4 Interviews

The interviews of the part-time telecommuters in the pilot project generally supported the findings of the questionnaire. Table 11 provides us with a list of the findings from the content analysis conducted. The answers in each category are placed in order of importance from the issue which was mentioned the most in the interviews to the one mentioned the least. The main reason mentioned for choosing to telecommute, was the length of the persons commute to work and home. The main disadvantage of telecommuting was the decreased social interactions with their co-workers. The interviewees also felt that the management style should not really change from the way it was today. Most of the interviewees already worked on their own for a large part of their work before they started to telecommute and they felt that the present management style of planning work ahead of time would have to continue. The key expectation which the telecommuters had from telecommuting was that their productivity would increase and they mentioned lack of appropriate equipment as the greatest barrier to future telecommuting followed by three other issues which were all related to the organization providing support for the telecommuter.

TABLE 11 - Content Analysis of the Interviews Conducted for this Study

Main Reasons for Telecommuting	Disadvantages of Telecommuting	How Should Telecommuters be Managed?
• Commute Time • Flexibility to Manage One's own Time • Better Work Environment • Work-Family Conflict	• Less Social Interactions • Lack of Visibility • Co-Workers view of the amount of work a Homeworker does • More Hours Worked • Less Team Interaction	• Same as Today (Telecommuter already worked on their own most of the time) • Plan Work Ahead of Time • Weekly Status Report • Managers must be open minded • Manage Results

Expectations of Telecommuting	Barriers to Future Telecommuting
• Higher Productivity • More Family Time • Less Interruptions • More Efficiency • Less Stress • More Concentration • More Job Commitment • Higher Job Satisfaction	• Lack of Appropriate Equipment • Top Management's Trust of Telecommuting • Commitment of the Organization towards Telecommuting • Corporate Structure not Ready for Telecommuting

CHAPTER SIX: DISCUSSION

6.1 Results Discussion

As a study which has tried to empirically show the effects of Homeworking in the workplace, this study has some interesting findings which organizations should heed.

6.1.1 Homeworker, Non-Homeworker Differences, The Employee Situation, Attitudes, and The Work Environment

This study has shown that there are significant differences between the person who chooses to work at home and the person who does not. However, the differences are many and are not all due to individual characteristics.

The most important difference which was found is the person's attitude towards homeworking. Homeworkers had a more positive attitude towards working at home than their counterparts who did not work at home. This may seem like an obvious finding but what is not obvious is that these attitudes are mostly formed from attitudes within the organization. In other words, the organizational climate and culture will influence the employee's attitude. This was shown in the support for hypothesis seven. The people who were doing homeworking felt that their organization was supportive of homeworking.

Furthermore, as hypothesis two showed, homeworkers also felt that their jobs were more conducive to working at home. This was further supported by the part-time

telecommuters in the interviews. A number of them mentioned that their work was either more adaptable to telecommuting or as one person put it; telecommuting "is perfect for the type of work which I do". This is another aspect which is influenced by the organization. The design of the job is important in that, if there are aspects of the job which can possibly be done at home, then it is up to the organization to see this and provide the employee with the opportunity to work at home if the employee meets a set of criteria which are pre-determined by the organization.

As to what these criteria are, well we uncovered a few in this study. Hypothesis three told us that homeworkers were more likely to have a computer in their home. From this we can conclude that an employee with their own computer in their home is a better (but not necessarily the only) candidate for working at home. If an employee does not have a computer in their home and the organization feels that this employee is a good candidate for homeworking, then they may want to consider providing this employee with a computer. Hypothesis six also showed that the homeworkers in this study were people who had been with the company for a number of years. This was further supported by hypothesis nine which showed that people who had been with the company for 2 or more years, were married, and had kids, would perform more work at home. We choose two years as a cut off point because it was felt that in today's world, where the rate of changing a job seems to be faster than it used to be, employees who have stayed with the company for at least two years are showing some signs of stability in their career. Combine this with the fact that they are married and have kids

and we can safely say that on the family side they are at a fairly stable stage. These hypotheses support what Cohen and Gadon (1978) said that when considering work innovations, it is important to consider an employee's place in their career and their place in their life cycle.

Focusing a little further on the family, the work-family conflict hypothesis was not supported but still presents an interesting finding. The results indicate that the ease of working at home was significant in explaining the variance in the amount of stress a person feels. This seems to indicate that the opportunity to work at home may by itself help to reduce the amount of stress a person feels. However, the results show that this same opportunity to work at home did not significantly relieve the effect of work-family conflict on stress as was predicted in the hypothesis. This is probably because employees see the opportunity to work at home as just that, an opportunity. None of the organizations in this sample had a formal policy on working at home. The closest one was the Telecommunications Researcher and even they were just running a pilot project. There was no guarantee that homeworking would become an official policy. Hence, the opportunity to work at home was not concrete enough for them to see it as a relief for any stress they may be feeling from work-family conflict. The content analysis of the interviews also indicate why employees may share this view. Three of the four main barriers to future telecommuting in their organization were related to the organization and how it delt with telecommuting (Table 11). Therefore, organizations should move towards having some kind of official policy instead of just paying "lip

service" to homeworking. Once this is done then we may see that the opportunity to work at home may be more significant in mitigating the effects of work-family conflict on stress for the employee. The official policy will become more important as more fathers are getting involved in taking care of the children (Higgins, Duxbury, & Lee, 1994) and more employees are demanding more flexibility in their jobs (McRae, 1989).

The interviews also showed that the part-time telecommuters who were participating in the pilot project were most likely married and with no children or married and have children Only 4 out of 16 of the telecommuters were not married and had no children. Some of the telecommuters chose to work at home because they felt guilty that they were not spending enough time with the children. One person was torn between her commitment to the organization and her commitment to her children. She used to do overtime without hesitation before the children arrived, but now that she had children it was harder for her. She felt that having the equipment to work at home made it easier to give the company the overtime which it required and still feel good about her children. Therefore, we can surmise that people see homeworking as a way of dealing with work-family conflict.

One aspect of a person which has been brought up in the popular press (Filipczak, 1992; Goodrich, 1990; O'Hara, 1993; Verespej, 1994; Young, 1991), empirical studies (Venkatesh & Vitalari, 1992; Yap & Tng, 1990) and the interviews which were conducted for this study, is the commute time that a worker faces everyday. In the

interviews, 14 out 16 people mentioned the commute to work as one of the reasons for them wanting to telecommute on a part-time basis. It has been suggested (Yap & Tng, 1990) that if a person has a long commute, then that person will have a more positive attitude towards homework. As in the Yap and Tng (1990) study, this was not born out in this study. To explain this, we must look at the average commute time of the sample studied. The mean commute time was 34 minutes from home to work and 35 minutes from work to home. The standard deviation of these commute times was 17 and 18 minutes respectively. Therefore, we can see that the majority of the respondents have a half hour commute going and coming from work. It seems, from these results, that half an hour is an acceptable commute time for this population. At least, the half an hour commute time either way is not enough to sway a person's attitude towards homeworking.

The last characteristic of a person which we tried to uncover in this study in order to determine differences between homeworkers and non-homeworkers was personality. The popular press (Alvi & McIntyre, 1993; Caudron, 1992; Goodrich, 1990; Misutka, 1992; Weiss, 1994) has stressed that it takes a certain type of person to work at home. Our interviews also confirmed that you need a certain type of person. Some of the interviewees said that telecommuting required people who were fairly autonomous or self-driven. As one of the interviewees put it "someone who knows what is expected of them" and is able to meet these expectations. We proposed that someone with an internal locus of control or someone who believes that they are the master of their own

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destiny would have a more positive attitude towards homeworking. Our tests did not reveal any support for this hypothesis. It seems that the locus of control of a person does not seem to have any significant affect on their attitude towards homeworking. This may be a result of the employee feeling that they as an individual can have little direct effect on their ability to work at home if their organization does not permit them to. Therefore, in the eyes of the employee, organizational support for homeworking is seen as being the main determinant of their ability to work at home regardless of what their locus of control may be.

The organization's influence on an employee's attitude towards homeworking was confirmed in hypothesis fourteen. A significant correlation was found between how employees see their companies' culture toward homeworking and their attitude towards homeworking. This indicates that if homeworking is to be successful in an organization, it must be professed from the top down. The amount of importance which homeworkers attach to organizational support towards homeworking was also shown in the content analysis of the interviews. As already mentioned, three of the four main barriers to future telecommuting were organization related according to the interviewees. They listed Top Management's Trust of Telecommuting, Commitment of the Organization towards Telecommuting, and Corporate Structure not Ready for Telecommuting as being main barriers.

We surmise that a lack of this top-down influence is partially responsible for one of the major findings of this study. Support was found for hypothesis eight, which tells us that Non-Homeworkers look at Homeworkers as social loafers. In other words, because the homeworker is not at work where they are visible, they are looked upon as someone who will not pull their weight in the group. From the interviews which were conducted it was confirmed that the Telecommuters felt that they were being looked at as "slacking off" when they worked at home from some of their co-workers. One telecommuter commented that "the employees around me will question my integrity. They will say, is she sleeping... and I know I'm not. I am doing my work". Another telecommuter said that she thought that her co-workers would think that she was out shopping whenever she worked at home.

Therefore, we see that if homeworking is to be taken seriously as an alternative work schedule, corporate management must profess it. If they fail to openly push the usage of the schedule, then employees will also not see it as a viable alternative. This concern over what upper management thought about working at home was also shown in two telecommuting pilot projects. The Smart Valley (1994) pilot project had as one of its main conclusions from the study that all parties involved: telecommuters, co-workers, and managers were concerned with the buy-in of senior and middle management to the telecommuting effort. As was shown, this was also true of the pilot project for the people interviewed for this study. An organization must pay more than just "lip

service" to homeworking. It must truly believe that it is an "available" alternative work schedule!!

6.1.2 Karasek's Job Strain Model, Homeworking and Outcomes

At the start of this study we theorized that homeworking would provide the employee with more control (Job Decision Latitude) over their job and we found support for this in hypothesis twenty We found that as the amount of homeworking increases, an employee feels that they have more control over their job. This was further supported by hypothesis four in which it was found that homeworkers felt that they had more control over their jobs than did non-homeworkers.

This higher job decision latitude seems to contribute to the support for hypothesis thirteen which found that homework was positively related to job satisfaction and hypothesis seventeen which found that job decision latitude was positively related to job involvement. We can speculate that the greater degree of job control is creating a greater sense of ownership for the employee over her/his job and this is contributing to the feeling of greater job satisfaction and job involvement. This is true even though Homeworkers have more job demands than Non-Homeworkers as was found in hypothesis five. Hence, it would appear that if an organization has to increase job demands for an employee, they can help them handle these increased demands by providing them with the ability to work at home. Providing them with the ability to work at home also requires that the organization provide the employee with the proper

equipment if it is required. Not only should this increase their job satisfaction but it should also lead to a higher level of job involvement. This finding is in line with the findings of Dwyer and Ganster (1991) in which they found that workers actually seemed to prefer a greater workload when it was accompanied by high levels of perceived job control.

For this high-tech population, the Karasek model provided some interesting findings. We found that Social Support, Job Decision Latitude and Job Demands did significantly predict Job Strain. For this sample it predicted 16.9% of the variation in job strain. However, in terms of Karasek's original model prediction that the interaction of job decision latitude and job demands cause higher job strain, this failed to show support. This is in line with a number of prior studies which have looked at this model (Albright, Winkleby, Ragland, Fisher, & Syme, 1992; Carayon, 1993a; Fletcher & Jones, 1993; Hurrell & McLaney, 1989, Payne, Rick, Smith, & Cooper, 1984; Pieper, LaCroix & Karasek, 1989; Reed, LaCroix, Karasek, Miller, & MacLean, 1989; Spector, 1987; Warr, 1990). We also looked at the possibility that the new dimension of social support would interact with job demands to affect job strain and this also failed to provide any support. This shows that for this type of population, Karasek's three dimensions help to determine the level of job strain that an employee will feel, but only in a linear fashion as depicted in Figure 7.

In terms of Homeworking, we also failed to find support for the notion that homeworking would moderate the effect of job demands on job strain. This could be due to two factors. First, in this study we looked at homeworking as a dichotomous variable, in which a person either works at home or does not. It may be that homeworking is really a continuous variable instead. In other words, a person will vary the amount of homeworking which they perform depending on the requirements of their job. Our interviews show that this is a possibility. One interviewee said "Sometimes I can spend 10 days at home but then I have to spend 5 days in the office. It depends on what phase of the project I am in". Another interviewee said that her manager initially didn't like the idea of her working at home because he felt that what she was currently working on, was okay to work at home but her job could easily change. Secondly, we believe that this was also due to the fact that none of the organizations which participated had an official policy on homeworking. As was mentioned, the only organization which came close to this was the Telecommunications Researcher and even they where just starting the project. Hence, with homeworking not having an official status and by extension the employees probably not having the perfect equipment to work from home on an extended basis if needed, homeworking failed to moderate the effect between job demands and job strain. This is supported by the fact that of the 173 respondents to our questionnaire, 149 of them had computers in the home. Of these 149, only 69 employees had computers which were owned by the company. Therefore, if we assume that the computers which are given by the company are adequate to perform their work at home it means that only 40% of the respondents had equipment

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which was adequate to perform working at home on an extended basis. Hence, we can see that the employees will only truly see homeworking as a serious avenue in helping them cope with the effects of job demands on job strain when their organization makes homeworking a reality and not just a topic of discussion.

Finally, this study found that both job decision latitude, and social support related negatively with strain and burnout. In terms of stress, social support did relate negatively with stress but job decision latitude failed to. For the employee, this means that having more control over the job can help to alleviate the strain they feel and also reduce the level of burnout that they may be feeling. This is in line with what has been found in prior research (Landsbergis, 1988). Combining this with any social support that the employee can get should help to keep the levels of strain and burnout at a manageable level. In the case of social support it can also help to alleviate the stress an employee will feel.

Looking at stress from a job decision latitude point of view the findings are not as clear. The study failed to find support for a negative relation between job decision latitude and stress. In other words, if employees acquire more control over their job it will not help to alleviate the amount of stress they feel. This goes contrary to some past research in the area (Westman, 1992). It also casts doubt on the speculation of Perrewe and Ganster (1989) that the stress a person feels could be reduced by increasing job decision latitude. We attribute this finding to the fact that this was a high-tech sample.

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They probably had a fair amount of job decision latitude to start with. Therefore, there was not enough variance in the level of job decision latitude to significantly affect stress. This is confirmed in Table 8 which shows that the mean response for this high-tech population on the five point job decision latitude scale was 3.69, with a standard deviation of .92. This is further supported by the content analysis of the interviews. The first issue under how telecommuters should be managed is that they should be managed the same as they already are today. Ten of the sixteen people interviewed said that they were already pretty self-sufficient before they started telecommuting, hence the management style was already pre-set. This also shows that the telecommuters already had a fair amount of job decision latitude even before they started telecommuting. The mean response for homeworkers on the job decision latitude scale was 3.77, with a standard deviation of .86. For non-homeworkers, the mean response was 3.44 with a standard deviation of 1.00.

Lastly, we found support for the notion that the opportunity for homework will be related negatively with stress. This further confirms what was found in the tests done for work-family conflict. This indicates that people who have the opportunity to work at home feel less stress because they know that if they get into a situation where their job demands increase, they have the option of doing their work at home. This option which is available seems to help alleviate some of the stress that an employee feels. Organizations should take note of this finding when they are making decisions on implementing or not implementing a homework policy.

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6.2 FUTURE RESEARCH

The area of homeworking will remain fertile ground for research for a number of years to come. This study was one of the first to develop some theoretical framework for the alternative work schedule of homeworking, but more research is required in order to understand the organizational behaviour of homeworkers.

The single most important thing for future research to look at is to study a larger sample of part-time homeworkers. Although the sample of this study are part-time homeworkers in that they do some work at home, the interviews reveal that there are subtle differences between these two samples. For example, the interviews revealed that when part-time homework was conducted during normal working hours, the homeworker was normally home alone. This seems to differ from our sample which used homeworking as a tool to accomplish tasks even when people were in the house. One can see that there is a fine line between these different types of homeworkers but it must be studied more carefully. Although the interviews of the part-time telecommuters in this study supported the findings of the supplemental and ad-hoc homeworkers, our questionnaire sample of part-time homeworkers was not adequate (n=26) to perform any significant analysis from which we could draw some definitive conclusions.

Future research should also attempt to empirically measure the effects of homeworking on productivity. Our study and population did not allow us to study productivity

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properly. The popular press (Alvi & McIntyre, 1993; Caudron, 1992; Filipczak, 1992; Goodrich, 1990; Hamilton, 1996; O'Hara, 1993; Weiss, 1994; Young, 1991) continues to claim that productivity increases when people work at home, yet no empirical research has been done to the best of our knowledge. The telecommuters who were interviewed mentioned an increase in productivity as the main expectation which they had from the telecommuting pilot project (Table 11). The final results of this pilot project and the Smart Valley (1994) project have claimed productivity increases, but it is all based on asking the telecommuter, co-workers, and their managers by how much they think productivity has increased. This already biases the respondents into believing that there are productivity increases. Therefore, future research must study if there actually is any productivity increases for the homeworker from a number of perspectives. It must look at the productivity of the homeworker, the productivity of the work-group of the homeworker to see if the homeworker not being in the office affects the groups productivity, and the overall productivity of the organization. A precursor to this research is that organizations must have some method of formally measuring productivity instead of just by hearsay. In conducting our research, we found that most of the organizations which participated in this study measured productivity based on the knowledge of the manager or supervisor of the homeworker. Although, in theory the manager or supervisor should know how productive the employee is, there is still room for subjective interpretation. Therefore, if future research can empirically study and show an increase productivity, then this would give organizations a real bottom-line reason to implement homeworking as a true alternative work schedule.

Our model in Figure 6 showed a number of individual factors which could affect

attitudes towards homeworking and homeworking. It also showed a number of possible

outcomes which could be affected by homeworking. In terms of the individual factors,

our study focused on one particular personality variable; locus of control. With the

emphasis which has been put on personality from the popular press, future research

should look at a portfolio of personality variables (Eg: impulsivity, self-monitoring,

negative affectivity, Type A personality) in order to further explore the role of

personality within the homeworking context. In terms of the outcomes, future research

may want to expand these outcomes into other areas like, absenteeism, turnover, and

organizational commitment.

Lastly, our study looked at homeworking as a dichotomous variable. Someone either

worked at home or did not. Our sample did not allow us to look at homeworking as a

continuous variable. Future research should investigate whether homeworking is a

continuous variable and how some of the relationships which have been investigated in

this study may be affected.

In terms of the Karasek model, it proved to be helpful in providing a framework for

studying job control which homeworking seems to give an employee. As in other

studies which have used the Karasek model on heterogeneous populations (Carayon,

1993a; Fletcher & Jones, 1993; Spector 1987; Warr, 1990) and on populations of

white-collar workers, we also failed to find support for the interactive effect of Job Demands and Job Decision Latitude. Our population was not only white-collar but they were workers from high-tech industries. To our knowledge, we did not find other studies which had done research with this type of population. Future research should focus further on how the dimensions from Karaseks' model can help to explain the strain, stress, burnout, and depression that a worker may feel. This should be more fruitful ground for the ideas that Karasek helped to bring to the forefront of research. Future research may also want to focus on how the Karasek model could be revised to accommodate a white-collar population which has been shown to be different from a blue-collar population on which the original model was tested.

6.3 LIMITATIONS OF THE STUDY

Although this study has provided some interesting results, the researchers acknowledge that there are two main limitations to this study. First, this study was primarily a study of supplemental and ad-hoc homeworkers. Although, the interviews of the part-time telecommuters supported the findings of the questionnaire, the results must be confirmed through future empirical research of part-time homeworkers. It may be that homework preferences may differ between the four categories of homework (full-time, part-time, supplemental, and ad-hoc). Secondly, we acknowledge that because of the cross-sectional design of the study, it is possible that the influences depicted in the model (Figure 6) could be reciprocal. However, to fully study the reciprocal influences, a longitudinal study would have to be performed and therefore, we cannot draw any

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definitive conclusions until future research provides longitudinal findings to support the causality alluded to in this study.

6.4 CONCLUSIONS

6.4.1 Beyond Computer Monitoring!

It seems that the homeworking movement will continue to be fuelled by the advances in software and hardware technology. Desktop conferencing (the ability to see who you talk to on your PC) is continuing to make significant head way in improving the communication of the sound and picture of the conversation (O'Malley, 1996). Document conferencing (the ability to work on a document simultaneously with a co-worker no matter where you are) also continues to make head way in what can be done, and the cost of doing it (O'Malley, 1996) is much more affordable. Finally, advances in the software called Groupware (software which controls E-Mail, Scheduling, Group Document Handling, workgroup utilities and development tools, group decision systems and meeting support, information sharing/conferencing products, workflow management and business process design) (Coleman & Marshak, 1994) promises to calm any of the common complaints which both workers in the office and the homeworker have about it being hard to get in touch with office co-workers and vice versa.

Add to this the spread of laptops and cellular phones, and the distributed workforce is a new reality which is here today. The popular press (Bridges, 1994) seems to be

declaring the demise of "the job" the way we know it. People will be working from many places and the home is just one of them. Remote collaboration has become a new aspect of today's "job". Some researchers (Wild & Winniford, 1993) have started to study the concept of remote work collaboration and they have found that good decisions could be made in this type of work environment. Other researchers (Olson, 1989a) have put together a comprehensive guide to technological support for work group collaboration in this new work environment. Organizations must keep this new workplace in mind when designing jobs in the future. Hackman and Oldman (1980) mentioned five key characteristics in job design: skill variety, task identity, task significance, autonomy, and feedback. If these new "jobs" are designed with the proper amounts of skill variety, task identity, task significance, and autonomy, then it should motivate the employee. Combine this with proper feedback and the new "job" can prove to be beneficial for both organizations and employees. Future research in this area can help guide organizations in their design of the new "job".

If the workplace is changing as we know it, then today's manager and future managers will have to learn how to manage a distributed workforce. Business schools will have to start providing courses on how to manage people in this new work place along with some of the existing courses on management. These courses should prove valuable in assisting both existing managers and future managers to manage the "invisibl workforce".

For the organization it means that a paradigm shift is occurring and they should adapt. Implementing homeworking is not an easy task from what we as researchers saw from the pilot project which took place in one of the participating organizations and also the problems facing another of the participating organizations which is trying to get a pilot project off the ground. Nonetheless, more and more companies are taking the plunge as was demonstrated by a conference held in New-York in June of 1995 on the Virtual Office. Businessweek magazine got 396 attendees from across North America to attend this two day conference on the impact and implementation of the Virtual Office (Business Week, 1995). Furthermore, as Appendix D shows, there has been an explosion in the variations of alternative work arrangements which are being explored by organizations due to the technological advances being made.

Wilpert (1995) in his review of the Organizational Behaviour (OB) field recognized the importance of the effect of New Technology on OB. This study was one of the first attempts to see how some of this New Technology is affecting the office worker. From all accounts, the field of Organizational Behaviour promises to be an interesting arena for research in the future.

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SURVEY OF EMPLOYEE ATTITUDES ON WORKING AT HOME

In the last decade technological changes in computers and communication has led to an increased interest in people working at home. This interest has also been fueled by changes in the family with both parents working. However, despite all this interest there has been little concrete research on the use of working at home by organizations. In this study we focus on how working at home is viewed in various sectors of an organization as well as its impact on job performance, productivity, satisfaction, etc. We hope the findings will contribute toward more effective use of working at home in organizations with attendant benefits to both individuals and organizations.

To obtain this information, we need **YOUR** help. You have been chosen to be a participant in this study because you work for an organization which is most likely to consider working at home for its' employees.

Your participation in this study will include the completion of the enclosed questionnaire (30 - 35 minutes). Most questions require only a simple check mark. The study is not a test, and there are no right or wrong answers. However, if the study is to be useful, it is important that you answer each question frankly, honestly, and independently.

Your response to this questionnaire will be **confidential** and **anonymous. It will not be seen by anyone except the researchers**. If you would like a summary of the results, please contact us at the address below by sending us a note separately with your address.

Please return the completed questionnaire in the enclosed postage paid envelope. We hope that you will participate in this study. Thank you for your time.

Yours Truly,

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Please answer each question honestly, frankly, and independently. Remember, all answers are confidential and anonymous. The results will be viewed only by the researchers.

1   What is your present age in years? _____

2.   Are you Female? [ ]   Male? [ ]

3   Marital Status: _____ Single   _____ Married   _____ Divorced /Separated   _____ Widowed

4.   How many children do you have?

     _____ None   _____ Under 5 years old   _____ 5 to 12 years old
     _____ 13 to 17 years old   _____ 18 years and older

5   What is your education? (Highest grade completed)

     _____ High School   _____ College Graduate   _____ University   _____ Graduate Degree

6.   What is your job title? _____

7   What business is your company in (i.e. insurance, manufacturing, etc)?

     _____ - _____

8   Do you work at home?   _____ Yes   _____ No

9.   How long have you been in your <u>present</u> job?

     a. _____ Less than 6 months   b. _____ 6 months - 1 year   c. _____ 1 - 2 years
     d. _____ 2 - 5 years   e _____ 5 - 10 years   f _____ 10 - 15 years
     g _____ over 15 years

10   How many years have you been working altogether? _____

11. How many hours per week do you work at this job on the average? _____

12. What shift do you work?   _____ Day   _____ Evening   _____ Night   _____ Rotating

13   What is your total annual wage or salary from this job?

     _____ < $25,000   _____ $25,001 - $35,000
     _____ $35,001 - $45,000   _____ $45,001 - $55,000
     _____ $55,001 - $65,000   _____ > $65,000

14. How was your performance rated at your last performance review?

Excellent						Poor
1	2	3	4	5	6	7
[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

15. What was your companies average percentage increase last year? _____ %

16. What was your percentage increase last year? _____ %

17   Is your present job   permanent   ☐   or temporary   ☐

18.   Is your present job   full time   ☐   or part time   ☐

19   Under normal conditions, about how long does it usually take you to get from home to work, door to door?

_____ minutes (one-way)

20   Under normal conditions, about how long does it usually take you to get from work to home, door to door?

_____ minutes (one-way)

21   Do you have a computer(s) in your home?   Yes   ☐   No   ☐

If yes, how many? _____

22   Of the computer(s) in your home, is(are) the computer(s)

Owned by you?   ☐   Owned by your company?   ☐   Owned by you and your company?   ☐

23   Can you do your work at home?   Yes   ☐   No   ☐

If Yes, under what conditions can you work at home?

a   I am completely free to choose when I work at home   ☐

b   I can work at home as long as I advise my supervisor at least a day in advance   ☐

c.   I can work at home when it has been pre-arranged and scheduled with my supervisor at least a week in advance   ☐

24.   At present, how many hours per week do you spend working at home

		HOURS PER WEEK						
		0	1-5	6-10	11-15	16-20	21-25	25+
a	During regular work hours?							
b	Not during regular work hours?							

25   When you work at home, do you usually

a   Work in an enclosed room (like an office)   ☐

b   Work in an open area with the rest of the family   ☐

c   Both   ☐

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Please respond to the following questions with respect to your current work situation. Check your response and use the scale positions indicated. If you are uncertain or think that it is neither, or the question does not apply, check scale position 4.

26 Given your current work situation, what is the likelihood that your working at home would lead to the following outcomes?

Extremely Likely   Extremely Unlikely

—◯—◯—◯—◯—◯—◯—◯—
  1   2   3   4   5   6   7

	Extremely Likely 1	2	3	4	5	6	Extremely Unlikely 7
Reduce the frequency of interruptions in your work							
Increase your control over starting and ending a unit of work							
Decrease your contact with your supervisor and co-workers							
Decrease your contact with the people who will use the results of your work							
Decrease your access to reference materials or documentation							
Decrease the time which results from commuting to work							
Decrease the strain which results from commuting to work							
Provide a quiet atmosphere to work in?							
Provide a casual atmosphere to work in?							
Increase the amount of time spent with your family							
Improve your work productivity							
A reduction in absent days from work							
A decrease in your intention to leave the company							

27 Given the nature of your work, how many days per week would you like to stay at home to work?

_____ 0 days   _____ 1 - 2 days   _____ 3 - 4 days   _____ All the time

28 Given your current work situation, to what degree are the following for or against you working at home during the next six months?

For   Against

—◯—◯—◯—◯—◯—◯—◯—
  1   2   3   4   5   6   7

	For 1	2	3	4	5	6	Against 7
a Your supervisor							
b Your co-workers							
c. Your company							
d Your spouse (If applicable)							

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29   On days when you are working at the office, how easy or difficult is it _for you_ to arrange your time to do each of the following? CHECK THE RELEVANT NUMBER FOR EACH ACTIVITY

	Very Easy	Somewhat Easy	Neither Easy nor Difficult	Somewhat Difficult	Very Difficult	Not Applicable
	1	2	3	4	5	6
To avoid the rush hour						
To go to work a little later than usual if you need to						
To go to health care appointments						
To go on errands (e.g , bank, repairs, post office, have car serviced)						
To go shopping (e g , groceries, clothes, drug store)						
To make telephone calls for appointments or services						
To take care of your household chores						
To help or visit neighbours or other friends						
To participate in community activities						
To adjust your work hours to the needs of other family members						
To have meals with your family						
To spend fun or educational time with your family						

30.   Please indicate by circling the relevant number next to each statement _how often you feel_ each of the following

	Always	Most of the time	Some of the time	Rarely	Never	Not Applicable
	1	2	3	4	5	6
My job keeps me away from my family too much						
I feel I have more to do than I can handle comfortably						
I have a good balance between my job and my family time						
I wish I had more time to do things for the family						
I feel physically drained when I get home from work						
I feel emotionally drained when I get home from work						
I feel I have to rush to get everything done each day						

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My time off from work does not match other family members' schedules well						
I feel I don't have enough time for myself						
I worry that other people at work think my family interferes with my job						
I feel more respected than I would if I didn't have a job.						

31. If you have child·en please indicate by checking the relevant number next to each statement **how often you feel** each of the following. **If you do not have children, please go to question 32.**

	Always	Most of the time	Some of the time	Rarely	Never	Not Applicable
	1	2	3	4	5	6
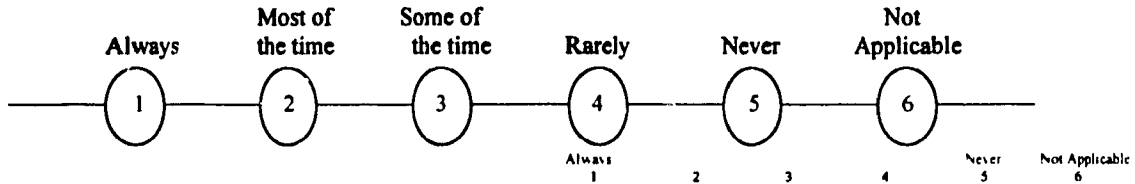
	Always 1	2	3	4	Never 5	Not Applicable 6
I worry whether I should work less and spend more time with my child(ren).						
I am **not** a better parent because I am not with my child(ren) all day						
I **don't** find enough time for the child(ren)						
I worry about how my kid(s) is(are) while I'm working.						
I don't have as much patience with my child(ren) as I would like						
I am **not** comfortable with the arrangements for my child(ren) while I am working						
Making arrangements for my child(ren) while I work involves a lot of effort						
I worry that other people feel I should spend more time with my child(ren)						

32. How much does your job and family life interfere with each other?

Not at all _____   Not too much _____   Somewhat _____   A lot _____

For questions 33 through 42 two statements are given. Please check the box for the statement which you most agree with.

33. ☐ In the long run people get the respect they deserve in this world.

    ☐ Unfortunately, an individual's worth often passes unrecognized no matter how hard (s)he tries

34 ☐ The idea that teachers are unfair to students is nonsense

    ☐ Most students don't realize the extent to which their grades are influenced by accidental happenings.

35. ☐ Becoming a success is a matter of hard work, luck has little or nothing to do with it

    ☐ Getting a good job depends mainly on being in the right place at the right time

36. ☐ The average citizen can have an influence in government decisions.

☐ This world is run by the few people in power, and there is not much the ordinary people can do about it.

37 ☐ In my case getting what I want has little or nothing to do with luck.

☐ Many times we might just as well decide what to do by flipping a coin.

38 ☐ Who gets to be the boss often depends on who was lucky enough to be in the right place first.

☐ Getting people to do the right thing depends upon ability, luck has little or nothing to do with it

39. ☐ Most people don't realize the extent to which their lives are controlled by accidental happenings

☐ There really is no such thing as "luck "

40. ☐ In the long run the bad things that happen to us are balanced by the good ones.

☐ Most misfortunes are the result of lack of ability, ignorance, laziness, or all three

41. ☐ Many times I feel that I have little influence over the things that happen to me

☐ It is impossible for me to believe that chance or luck plays an important role in my life

42 ☐ What happens to me is my own doing

☐ Sometimes I feel that I don't have enough control over the direction my life is taking

Please evaluate the degree to which various aspects of your job are a source of satisfaction to you. Indicate your feelings by checking the appropriate box from the indicated scale. For example, if you feel your income is somewhat satisfying to you, check box number 4 next to that item.

	Highly Dissatisfied 1	2	3	4	Highly Satisfied 5
43 your income					
44. your sense of competence in the job					
45. the amount of appreciation/recognition received from others					
46 the degree of challenge					
47 the variety of tasks					
48 the opportunity for making decisions					
49 the opportunity for learning					
50 the people you work with					
51 being away from the house					
52 the fit between your interests/skills and the job					
53. the opportunity for career growth					
54. the degree of my responsibility					
55. having to do things which are not part of the job					

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Please indicate how often you experience each item, ranging from "1-Never" to "5-Every Day".

		Never 1	2	A Few Times A Year 3	4	Every Day 5
56.	I feel emotionally drained from my work.					
57.	I feel used up at the end of the workday					
58.	I feel fatigued when I get up in the morning and have to face another day on the job.					
59.	Working with people all day is really a strain for me.					
60.	I feel burned out from my work.					
61.	I feel frustrated by my job.					
62	I feel I'm working too hard on my job.					
63	Working with people directly puts too much stress on me.					
64.	I feel like I'm at the end of my rope.					
65.	I can easily understand how my people at work feel about things.					
66.	I deal very effectively with the problems of the people at work.					
67.	I feel I'm positively influencing other people's lives through my work.					
68.	I feel very energetic.					
69.	I can easily create a relaxed atmosphere with the people at work					
70.	I have accomplished many worthwhile things in this job					
71.	I feel exhilarated after working closely with the people at work.					
72.	In my work, I deal with emotional problems very calmly.					
73.	I feel I treat some people as if they were impersonal objects.					
74.	I've become more callous toward other people since I took this job.					
75	I worry that this job is hardening me emotionally					
76.	I don't really care what happens to those I deal with at work.					
77.	I feel customers blame me for some of their problems.					

		None at All 1	2	3	4	5	6	Intolerable Amount 7
78.	Rate the amount of stress you generally feel in your job.							

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The following questions relate to some of your feelings towards the job, patterns of work, working at home, and the organization you work for. Please check your response in the appropriate box ranging from "strongly agree" to "strongly disagree" - whichever comes closest to your reaction.

	Strongly Disagree 1	Disagree 2	Neither 3	Agree 4	Strongly Agree 5
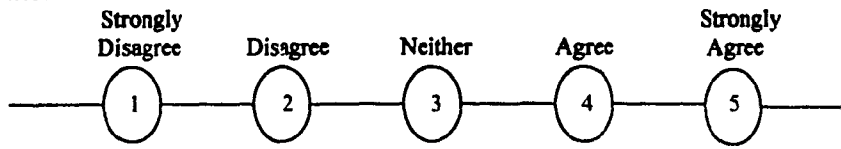
		Strongly Disagree 1	2	3	4	Strongly Agree 5
79.	The most important things that happen to me involve my present job.					
80.	To me, my job is only a small part of who I am.					
81.	I live, eat and breathe my job					
82	Most of my interests are centered around my job					
83.	I have very strong ties with my present job which would be very difficult to break					
84	Usually I feel detached from my job					
85.	Most of my personal life goals are job-oriented					
86	I consider my job to be very central to my existence.					
87.	I like to be absorbed in my job most of the time.					
88.	This job is just too demanding.					
89.	I have often felt fidgety or nervous as a result of my job					
90.	My job gets to me more than it should.					
91.	There are lots of times when my job drives me right up a wall					
92	Sometimes when I think about my job I get a tight feeling in my chest					
93	I feel guilty when I take time off from the job					
94.	I have too much work to do and too little time to do it in					
95.	I sometimes dread the telephone ringing at home because the call might be job related					
96.	I feel like I never have a day off					
97.	Too many employees get burned out by job demands					
98.	I spend so much time at work, I can't see the forest for the trees.					
99.	Working here leaves little time for other activities.					
100.	I frequently get the feeling I am married to my company					
101	People who work at home are more productive than those who work at the office					
102.	Working at home leads to unwanted interference with family life					

#	Item	Strongly Disagree 1	2	3	4	Strongly Agree 5
103.	Working at home provides more flexibility with work					
104.	Working at home allows you to have greater control over your work					
105.	Working at home makes it difficult to structure the work day					
106.	Working at home makes it hard to concentrate on the work					
107.	It takes longer to finish assignments when you work at home					
108.	It is difficult to manage when you have subordinates working at home					
109.	Working at home makes you more self-sufficient about your work					
110.	The pace of work is unpredictable when you work at home					
111	It is difficult to judge the quality of work when you work at home					
112.	Working at home makes it difficult to engage in social activities at the work place					
113.	Working at home makes it difficult to learn the organizational culture					
114	Working at home makes it difficult to access technical support when you need it					
115.	Working at home saves time					
116.	Working at home makes you more efficient than when you work at the office					
117.	Working at home is more satisfying					
118	Homeworkers transfer (defer) responsibilities to other co-workers which they should assume					
119.	Homeworkers put forth less effort on the job when others are around to do the work					
120	Homeworkers spend less time helping clients if other co-workers are around to help them					
121	Homeworkers do not do their share of work					
122	Homeworkers put forth less effort than other members of their work group					
123.	Homeworkers do not do as much housekeeping tasks at work as others do					
124.	Homeworkers leave work to others which they should really complete					
125.	Homeworkers are less likely to help out a client if another co-worker is available to do this					
126.	Homeworkers defer client service activities to other co-workers if they are around to do it					
127.	Homeworkers contribute less to the organization than non-homeworkers					

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		Strongly Disagree 1	2	3	4	Strongly Agree 5
128	I would be very happy to spend the rest of my career with this organization.					
129.	I really feel as if this organization's problems are my own.					
130	I do not feel a strong sense of "belonging" to my organization.					
131	I do not feel "emotionally attached" to this organization.					
132.	I do not feel like "part of the family" at my organization					
133	This organization has a great deal of personal meaning for me					
134	Right now, staying with my organization is a matter of necessity as much as desire					
135.	It would be very hard for me to leave my organization right now, even if I wanted to					
136	Too much of my life would be disrupted if I decided I wanted to leave my organization now					
137.	I feel that I have too few opportunities to consider leaving this organization.					
138.	If I had not already put so much of myself into this organization, I might consider working elsewhere					
139	One of the few negative consequences of leaving this organization would be the scarcity of available alternatives					
140	I do not feel any obligation to remain with my current employer.					
141.	Even if it were to my advantage, I do not feel it would be right to leave my organization now					
142.	I would feel guilty if I left my organization now					
143	This organization deserves my loyalty					
144	I would not leave my organization right now because I have a sense of obligation to the people in it.					
145	I owe a great deal to my organization					
146	My job requires that I learn new things					
147.	My job involves a lot of repetitive work .					
148.	My job requires me to be creative					
149.	My job allows me to make a lot of decisions on my own.					
150.	My job requires a high level of skill					
151.	On my job, I have very little freedom to decide how I do my work					
152	I get to do a variety of different things on my job.					
153.	I have a lot of say about what happens on my job					

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		Strongly Disagree 1	2	3	4	Strongly Agree 5
154.	I have an opportunity to develop my own special abilities					
155	My union or employee association is influential in affecting company policy .					
156.	I have influence over the policies of the union or employee association					
157.	My job requires working very fast					
158.	My job requires working very hard					
159.	I am not asked to do an excessive amount of work					
160.	I have enough time to get the job done					
161.	I am free from conflicting demands that others make					
162.	My job security is good.					
163	My prospects for career development and promotions in my organization are good					
164	In five years, my skills will still be valuable					
165	People I work with are competent in doing their jobs					
166	People I work with take a personal interest in me					
167.	People I work with are friendly					
168.	People I work with are helpful in getting the job done.					

169. How stable is your work? (Check one)

_____ Regular and steady   _____ Seasonal   _____ Frequent layoffs   _____ Both seasonal and frequent layoffs   _____ Other

170. Sometimes people permanently lose jobs they want to keep. How likely is it that during the next couple of years you will lose your present job with your employer?

_____ Not at all likely   _____ Not too likely   _____ Somewhat likely   _____ Very likely

171   How many people are in your work group or unit?

_____ I Work Alone   _____ 2-5 People   _____ 6-10 People   _____ 11-20 People   _____ 20 or more People

172   I have significant influence over decisions in my work group or unit.

_____ I Work Alone   _____ Strongly Disagree   _____ Disagree   _____ Neither Agree Nor Disagree   _____ Agree   _____ Strongly Agree

173. My work group or unit makes decisions democratically.

_____ I Work Alone   _____ Strongly Disagree   _____ Disagree   _____ Neither Agree Nor Disagree   _____ Agree   _____ Strongly Agree

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174   I have at least some chance that my ideas will be considered about company policy
       (e.g., hiring, firing, wage levels, plant closings, new machinery purchases, etc.).
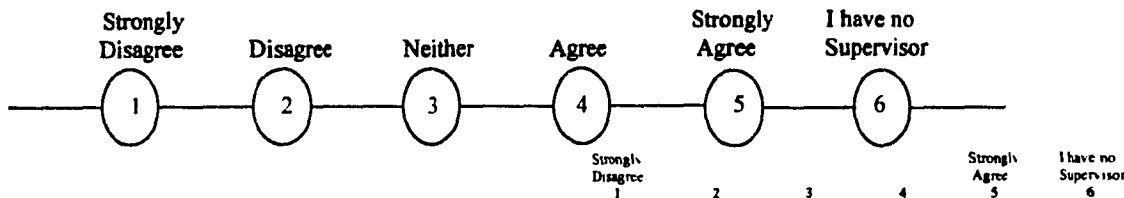
       _____ Strongly Disagree   _____ Disagree   _____ Neither   _____ Agree   _____ Strongly Agree
                                                              Agree Nor
                                                              Disagree

175.   I supervise other people as part of my job.
                          Yes   Yes   Yes   Yes
       _____ No   _____ 1-4 People   _____ 5-10 People   _____ 11-20 People   _____ More Than 20 People

176.   I am a member of a union or employee association.   _____ Yes   _____ No

       Strongly   Strongly   I have no
       Disagree   Disagree   Neither   Agree   Agree   Supervisor
         (1)   (2)   (3)   (4)   (5)   (6)

	Strongly Disagree 1	2	3	4	Strongly Agree 5	I have no Supervisor 6
177 My supervisor is concerned about the welfare of those under him or her.						
178 My supervisor pays attention to what I am saying						
179. My supervisor is helpful in getting the job done .						
180 My supervisor is successful in getting people to work together.						

181   How satisfied are you with your job ?

       _____ Not at All   _____ Not Too   _____ Neither   _____ Somewhat   _____ Very
             Satisfied   Satisfied   Satisfied   Satisfied

182   How likely is it that you will be looking for a new job in the next year?

       _____ Very Likely   _____ Somewhat   _____ Uncertain   _____ Probably Not   _____ Not at All

                DURING THE PAST 12 MONTHS, HAVE YOU EXPERIENCED THE FOLLOWING:
                Often   Sometimes   Rarely   Never
                 (1)   (2)   (3)   (4)
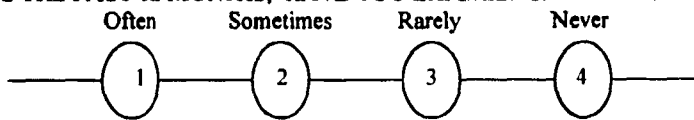
	Often 1	2	3	Never 4
183 Becoming tired in a very short period of time?				
184 Having trouble with aches in the lower back?				
185. Having trouble with aches in the neck or upper back?				
186 Having trouble breathing?				
187 Having trouble with pains, jabs, or a feeling of constriction in your chest?				
188 Having trouble with sweaty hands which feel damp and clammy?				
189 Feeling nervous, fidgety, or tense?				
190 Having trouble with poor appetite?				
191. Having trouble getting to sleep?				
192. Having trouble staying asleep?				

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193   Do you have high blood pressure?

_____ Yes   _____ Borderline   _____ No   _____ Don't Know

**PLEASE CHECK WHICH OF THE WORDS BEST DESCRIBES YOUR LIFE. IF
YOUR LIFE IS SOMEWHERE IN BETWEEN, PLEASE CHECK NUMBER 4.**

194.   Is your life:

1	2	3	4	5	6	7
___ Boring	___	___	___	___	___	___ Interesting
___ Enjoyable	___	___	___	___	___	___ Miserable
___ Worthwhile	___	___	___	___	___	___ Useless
___ Friendly	___	___	___	___	___	___ Lonely
___ Full	___	___	___	___	___	___ Empty
___ Hopeful	___	___	___	___	___	___ Discouraging
___ Rewarding	___	___	___	___	___	___ Disappointing
___ Brings Out the Best in You	___	___	___	___	___	___ Doesn't Give You Much Chance

**Thank you very much for taking the time to complete this questionnaire. The information
which you have provided will help us learn more about working at home and what benefits
it can bring to employees and organizations. We hope this knowledge will be used to design
jobs which will benefit employees and their organizations.**

ENQUÊTE SUR LES ATTITUDES DES EMPLOYÉS À L'ÉGARD DU TRAVAIL À DOMICILE

Au cours de la dernière décennie, l'évolution technologique dans les domaines de l'informatique et des communications a stimulé l'intérêt pour le travail à domicile. Cet intérêt s'est également accentué à la faveur de l'évolution de la famille qui a amené les deux parents sur le marché du travail. Malgré cet intérêt accru, cependant, peu de travaux de recherche ont véritablement porté sur l'adoption du travail à domicile par les organisations. Nous nous intéressons, dans la présente étude, à la façon dont le travail à domicile est envisagé dans les divers secteurs de l'organisation ainsi qu'à l'incidence de cette formule de travail sur le rendement des employés, leur productivité, leur satisfaction et ainsi de suite. Nous espérons que les résultats de nos recherches contribueront à une utilisation plus efficace du travail à domicile dans les organisations et que les gens de même que les organisations bénéficieront ainsi des avantages qui en découlent.

Pour obtenir l'information dont nous avons besoin, **VOTRE** collaboration nous est indispensable. Vous avez donc été sélectionné(e) pour participer à cette étude en votre qualité d'employé d'une organisation fort susceptible d'envisager le travail à domicile, pour son effectif.

Votre participation à cette étude consistera à répondre au questionnaire ci-joint (ce qui devrait exiger de 30 à 35 minutes). Il vous suffira de cocher une case pour répondre à la majorité des questions posées. Il ne s'agit pas d'une épreuve, et il n'y a pas de bonne ou de mauvaise réponse. Pour que les résultats de cette étude   ous soient utiles, il importe cependant que vous répondiez à chaque question avec franchise, honnêteté et libre arbitre.

Vos réponses à ce questionnaire demeureront **confidentielles** et **anonymes. Seuls les chercheurs y auront accès**. Si vous souhaitez obtenir la synthèse des résultats, veuillez communiquer avec nous à l'adresse figurant ci-dessous en nous faisant parvenir sous pli séparé une note à cet effet, accompagnée de votre adresse.

Nous vous prions de retourner votre questionnaire rempli dans l'enveloppe affranchie ci-jointe.

Nous comptons sur votre collaboration et vous remercions du temps que vous voudrez bien nous accorder.

Maurice Mancini
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1. Quel est votre âge actuel, en années ? _____

2. Quel est votre sexe ?   Homme ☐   Femme ☐

3. Situation de famille: Célibataire _____   Marié(e) _____   Divorcé(e)/Séparé(e) _____   Veuve (veuf) _____

4. Combien d'enfants avez-vous?

    _____ Aucun   _____ Moins de 5 ans   _____ 5 à 12 ans
    _____ 13 à 17 ans   _____ 18 ans et plus

5. Quelles sont vos études ? (Indiquez le degré de scolarité le plus élevé)

    _____ Études secondaires   _____ Études collégiales   _____ Études universitaires   _____ Études supérieures

6. Quel est le titre de votre fonction ? _____

7. Quel est le secteur d'activité de l'entreprise pour laquelle vous travaillez (société d'assurance, entreprise manufacturière, etc.)?

    _____

8. Travaillez-vous à domicile ?   _____ Oui   _____ Non

9. Depuis combien de temps occupez-vous vos fonctions actuelles ?

    a. _____ Moins de 6 mois   b. _____ 6 mois à 1 an   c. _____ 1 à 2 ans
    d. _____ 2 à 5 ans   e. _____ 5 à 10 ans   f. _____ 10 à 15 ans
    g. _____ plus de 15 ans

10. Depuis combien d'années travaillez-vous au total ? _____

11. Combien d'heures par semaine travaillez-vous à ce poste en moyenne ? _____

12. Quel est votre quart de travail ?   ___ Jour   _____ Soir   _____ Nuit   _____ Rotation

13. Quel est la rémunération ou le salaire annuel total que vous retirez de ce travail ?

    _____ < 25 000 $ _____ 25 001 $ - 35 000 $
    _____ 35 001 $ - 45 000 $ _____ 45 001 $ - 55 000 $
    _____ 55 001 $ - 65 000 $ _____ > 65 000 $

14. Comment votre rendement a-t-il été noté lors de votre dernière évaluation ?
    Excellent   Laissant
                                                                                                       à désirer

1	2	3	4	5	6	7
☐	☐	☐	☐	☐	☐	☐

15. Quelle a été la hausse salariale moyenne de votre entreprise l'an dernier, en pourcentage ? _____%

16. Quelle a été votre hausse salariale de l'an dernier, en pourcentage ? _____%

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17. Votre emploi actuel est-il   permanent ☐ ou temporai e ? ☐

18. Votre emploi actuel est-il   un emploi à temps plein ☐ ou un emploi à temps partiel ? ☐

19 En temps normal, à peu près cᵣmbien de temps vous faut-il habituellement pour vous rendre du domicile au travail, de votre départ de la maison jusqu'à votre arrivée sur les lieux de travail ?

_____ minutes (un seul trajet)

20. En temps normal, à peu près combien de temps vous faut-il habituellement pour vous rendre du travail au domicile, de votre départ des lieux de travail jusqu'à votre arrivée à la maison ?

_____ minutes (un seul trajet)

21. Avez-vous un ou des ordinateurs à la maison ?   Oui ☐   Non ☐

Si c'est le cas, combien ? _____

22 Le ou les ordinateurs que vous avez à la maison sont-ils :

votre propriété ? ☐   la propriété de votre employeur ? ☐   la propriété de votre employeur et vous ? ☐

23. Pouvez-vous accomplir votre travail à la maison ?   Oui ☐   Non ☐

Le cas échéant, à quelles conditions pouvez-vous travailler à la maison ?

a. Je suis entièrement libre de choisir mon horaire de travail à la maison ☐

b Je peux travailler à la maison à condition de prévenir mon supérieur au moins une journée à l'avance. ☐

c. Je peux travailler à la maison lorsque les dispositions appropriées ont été prises à l'avance avec mon supérieur et que le programme a été aménagé en conséquence au moins une semaine au préalable. ☐

24 À l'heure actuelle, combien d'heures par semaine consacrez-vous au travail à la maison

	HEURES PAR SEMAINE						
	0	1-5	6-10	11-15	16-20	21-25	25+
a. durant les heures régulières de travail ?							
b en dehors des heures régulières de travail ?							

25 Lorsque vous travaillez à la maison, avez-vous l'habitude de

a travailler dans une pièce fermée (comme un bureau) ? ☐

b travailler dans une aire ouverte avec le reste de la famille ? ☐

c. les deux ? ☐

Veuillez répondre aux questions suivantes en ce qui a trait à votre situation d'emploi actuelle. Cochez votre réponse en vous servant de l'échelle proposée. Si vous êtes incertain(e) ou neutre, ou encore si la question est sans objet dans votre cas, cochez la case 4 de l'échelle.

26. Compte tenu de votre situation de travail actuelle, quelle est la probabilité que le fait de travailler à la maison ait ce qui suit pour conséquence ?

Très probable   Très improbable

    ① ─── ② ─── ③ ─── ④ ─── ⑤ ─── ⑥ ─── ⑦

	Très probable 1	2	3	4	5	6	Très improbable 7
Réduction de la fréquence des interruptions dans votre travail.							
Augmentation du contrôle que vous exercez sur le moment où vous commencez et terminez un bloc de travail							
Diminution de vos contacts avec votre supérieur et vos collègues de travail							
Diminution de vos contacts avec les gens qui utilisent les résultats de votre travail							
Accès moins facile aux ouvrages de référence ou à la documentation							
Réduction du temps consacré aux déplacements entre le domicile et le travail.							
Diminution du stress qui résulte des déplacements entre le domicile et le travail.							
Travail dans une atmosphère de calme							
Travail dans une atmosphère de détente.							
Augmentation du temps consacré à votre famille							
Amélioration de votre productivité au travail							
Réduction des jours d'absence au travail.							
Atténuation de votre désir de quitter votre employeur							

27. Compte tenu de la nature de votre travail, combien de jours par semaine aimeriez-vous rester à la maison pour travailler ?

_____ 0 jour   _____ 1 à 2 jours   _____ 3 à 4 jours   _____ Tout le temps

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28. Compte tenu de __votre__ situation de travail actuelle, dans quelle mesure les éléments suivants militent-ils en faveur ou en défaveur du fait que vous travailliez à la maison au cours des six prochains mois ?

En faveur   En défaveur

①——②——③——④——⑤——⑥——⑦

	En faveur 1	2	3	4	5	6	En défaveur 7
a. Votre supérieur							
b. Vos collègues de travail.							
c. L'organisation pour laquelle vous travaillez							
d. Votre conjoint (le cas échéant)							

29 Les jours où vous travaillez au bureau, jusqu'à quel point est-il facile ou difficile __pour vous__ d'aménager votre horaire pour faire ce qui suit ? COCHEZ LE CHIFFRE APPROPRIÉ POUR CHAQUE ACTIVITÉ.

| Très facile	Assez facile	Ni facile ni difficile	Assez difficile	Très difficile	Sans objet
①	②	③	④	⑤	⑥

	Très facile 1	2	3	4	Très difficile 5	Sans objet 6
Éviter les heures d'affluence						
Aller au travail un peu plus tard qu'à l'habitude si besoin est						
Se rendre à des rendez-vous médicaux						
Faire des courses (par exemple, aller à la banque, aller au bureau de poste, faire faire des réparations, faire réparer l'auto)						
Faire des achats (par exemple, à l'épicerie, à la pharmacie, dans les magasins)						
Faire des appels téléphoniques pour prendre des rendez-vous ou obtenir des services						
Faire des travaux ménagers						
Aider ou visiter des __voisins ou d'autres amis__						
Participer à des activités communautaires						
Ajuster vos heures de travail aux besoins des autres membres de la famille						
Prendre vos repas avec votre famille						
Consacrer du temps à des activités de divertissement ou des activités éducatives avec __votre famille__						

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30. Veuillez indiquer, en encerclant le chiffre approprié pour chaque énoncé, à quelle fréquence vous éprouvez chacun des sentiments qui suivent:

	Toujours	La plupart du temps	À certains moments	Rarement	Jamais	Sans objet
	1	2	3	4	5	6
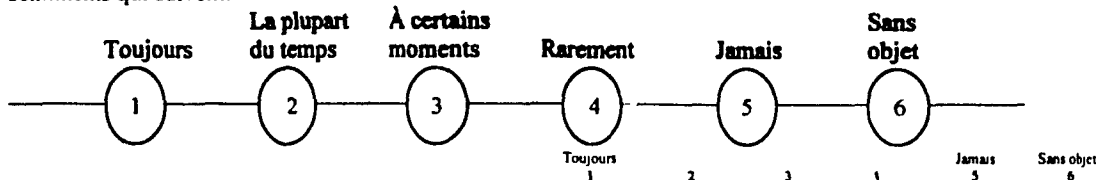
	Toujours 1	2	3	4	Jamais 5	Sans objet 6
Mon travail m'éloigne trop de ma famille						
J'ai l'impression d'avoir plus de travail que je ne peux raisonnablement en accomplir.						
L'équilibre entre le temps que je consacre à mon travail et celui que je consacre à ma famille est bon						
J'aimerais disposer de plus de temps pour m'adonner à des activités avec ma famille						
Je me sens physiquement épuisé(e) lorsque je rentre à la maison après le travail						
Je me sens émotivement épuisé(e) lorsque je rentre à la maison après le travail						
J'ai l'impression de devoir courir pour pouvoir faire tout le travail que je dois faire chaque jour						
Mes périodes libres ne correspondent pas toujours à celles des autres membres de la famille.						
J'ai le sentiment de ne pas avoir suffisamment de temps pour moi-même						
Je crains que les autres employés, à mon travail, s'imaginent que ma famille nuit à l'accomplissement de ma tâche.						
J'ai le sentiment d'inspirer davantage le respect que si je n'avais pas 'emploi						

31 Si vous avez des enfants, veuillez indiquer, en cochant le chiffre approprié à la suite de chaque énoncé, à quelle fréquence vous éprouvez chacun des sentiments suivants Si vous n'avez pas d'enfant, veuillez passer à la question 32

	Toujours	La plupart du temps	À certains moments	Rarement	Jamais	Sans objet
	1	2	3	4	5	6
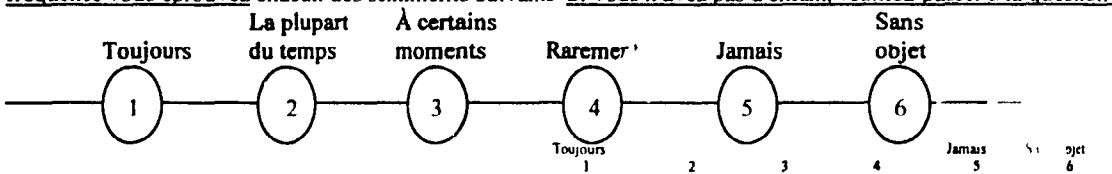
	Toujours 1	2	3	4	Jamais 5	Sans objet 6
Je me demande si je devrais travailler moins et passer davantage de temps avec mon enfant (mes enfants)						
Je ne suis pas un meilleur parent parce que je ne suis pas avec mon enfant (mes enfants) toute la journée.						
Je ne trouve pas suffisamment de temps à consacrer à mon enfant (mes enfants)						
Le bien-être de mon enfant (mes enfants) me préoccupe lorsque je suis au travail.						

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Je n'ai pas autant de patience avec mon enfant (mes enfants) que je le voudrais.

Je ne suis pas satisfait(e) des dispositions relatives à la garde de mon enfant (mes enfants) lorsque je suis au travail

Prendre les dispositions nécessaires relatives à la garde de mon enfant (mes enfants) lorsque je suis au travail est une tâche très exigeante.

Je crains que les gens aient le sentiment que je ne passe pas suffisamment de temps avec mon enfant (mes enfants).

32   Dans quelle mesure votre travail et votre vie de famille interfèrent-ils ?

_____ Pas du tout   _____ Pas trop   _____ Un peu   _____ Beaucoup

Pour les questions 33 à 42, deux énoncés sont proposés. Veuillez cocher la case correspondant à celui qui illustre le mieux vos convictions.

33   ☐ À long terme, les gens obtiennent le respect qu'ils méritent en ce monde.

☐ Malheureusement, il arrive souvent que la valeur d'une personne demeure méconnue, peu importe les efforts qu'elle déploie

34   ☐ L'idée que les professeurs sont injustes envers les étudiants est absurde

☐ La plupart des étudiants ignorent jusqu'à quel point leurs notes sont influencées par des événements accidentels.

35.   ☐ Obtenir le succès est une question de travail ardu, et la chance y est pour peu, sinon pour rien

☐ Ceux qui décrochent les bons emplois sont surtout ceux qui se trouvent au bon endroit au bon moment.

36.   ☐ Le citoyen moyen peut exercer une influence sur les décisions du gouvernement.

☐ Le monde est dirigé par les quelques élus qui détiennent le pouvoir, et il n'y a pas grand-chose que les gens ordinaires puissent y faire

37.   ☐ Si j'obtiens ce que je veux, ce n'est pas à la chance que je le dois ou très peu

☐ Quand il s'agit de prendre une décision, aussi bien tirer à pile ou face, dans bien des cas

38.   ☐ Les postes de direction sont souvent décrochés par ceux qui ont été suffisamment chanceux pour être au bon endroit les premiers

☐ Amener les gens à agir comme il convient est une question d'habileté, et la chance y est pour peu, sinon pour rien

39.   ☐ La plupart des gens ignorent jusqu'à quel point leur vie est régie par des événements accidentels.

☐ Il n'y a vraiment rien comme la " chance "

40.   ☐ À longue échéance, les coups durs qui nous frappent sont compensés par les bonnes choses qui nous arrivent.

☐ La plupart de nos malheurs sont attribuables à nos incapacités, à notre ignorance, à notre paresse ou aux trois

41.   ☐ J'ai bien des fois le sentiment d'avoir peu d'influence sur les choses qui m'arrivent.

☐ Il m'est impossible de croire que la chance joue un rôle important dans ma vie

42. ☐ Je suis l'artisant de ce qui m'arrive.

☐ J'ai parfois le sentiment que je n'exerce pas suffisamment de contrôle sur l'orientation que prend ma vie.

Veuillez évaluer la mesure dans laquelle les divers aspects de votre travail énumérés ci-après sont, pour vous, source de satisfaction Indiquez votre réponse en cochant la case appropriée selon l'échelle proposée. Si, par exemple, vous avez le sentiment que votre revenu est assez satisfaisant, cochez la case numéro 4 correspondant à cet élément.

		Tres insatisfaisant 1	2	3	4	Tres satisfaisant 5
43.	votre revenu					
44	les compétences auxquelles votre travail fait appel					
45.	l'appréciation ou la reconnaissance qui vous est témoignée par les autres					
46.	l'importance des défis qui vous sont proposés					
47.	la variété des tâches					
48.	la possibilité de prendre des décisions					
49.	la possibilité d'apprendre					
50	les gens avec qui vous travaillez					
51.	le fait d'être à l'extérieur de la maison					
52.	la concordance de vos interêts, de vos aptitudes et de votre travail					
53.	les possibilités d'avancement dans votre carrière					
54.	l'importance de vos responsabilités					
55.	le fait d'avoir à accomplir des tâches en dehors de la fonction					

Veuillez indiquer à quelle fréquence vous éprouvez chacun des sentiments qui suivent, en fonction de l'échelle propu. ée, de "1-Jamais" à "5-Chaque jour".

		Jamais 1	2	Quelques fois par année 3	4	Chaque jour 5
56.	Je me sens épuisé(e) par mon travail					
57	Je me sens vidé(e) à la fin de ma journée de travail					
58	Je me sens fatigué(e) lorsque je me lève le matin et que je dois affronter une autre journée de travail.					
59.	Travailler avec des gens toute la journée exige de moi un véritable effort					
60	J'ai le sentiment d'être vidé(e) par mon travail					
61.	J'ai le sentiment d'être frustré(e) par mon travail					
62.	J'ai le sentiment que je donne trop d'énergie à mon travail					
63.	Le fait de travailler avec les gens directement m'occasionne trop de stress					
64.	Je me sens arriver au bout du rouleau.					
65	Je peux facilement comprendre ce qu'éprouvent les gens avec qui je travaille.					

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	Jamais 1	2	Quelques fr·s par année 3	4	Chaque jour 5

66. Je traite très efficacement les problèmes des gens avec qui je travaille

67. J'ai le sentimer' d'influencer positivement la vie des autres par mon travail

68. Je me sens très énergique.

69. Je peux facilement détendre l'atmosphère avec les gens avec qui je travaille

70. J'ai accompli beaucoup de choses valables dans cet emploi.

71. Le fait de travailler en étroite collaboration avec les gens est pour moi un stimulant

72. Dans mon travail, je traite les problèmes émotifs avec beaucoup de calme

73. J'ai le sentiment de traiter certaines personnes comme s'il s'agissait d'objets impersonnels.

74. Je suis devenu(e) plus insensible envers les autres depuis que j'assume ces fonctions

75. Je crains que ce travail ne me durcisse émotivement

76. Je ne me soucie pas vraiment de ce qui arrive à ceux que je côtoie au travail.

77. J'ai le sentiment que les clients m'imputent certains de leurs problèmes

	Absolument aucun 1	2	3	4	5	6	Un stress intolerable 7

78. Évaluez le stress que vous ressentez généralement dans votre travail.

Les questions qui suivent ont trait à certains de vos sentiments à l'égard du travail, des modes de travail, du travail à domicile et de l'organisation pour laquelle vous travaillez. Veuillez cocher la case appropriée, en fonction de l'échelle proposée —
" Fortement en désaccord " à " Fortement d'accord " - selon ce qui correspond le mieux à votre réaction.

Fortement en désaccord (1) — En désaccord (2) — Ni en accord ni en désaccord (3) — D'accord (4) — Fortement d'accord (5)
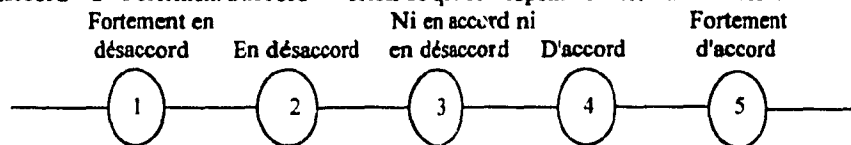
	Fortement en desaccord 1	2	3	4	Fortement d accord 5

79. Les choses les plus importantes qui m'arrivent sont liés à mon emploi actuel.

80. Mon travail n'est, pour moi, qu'une petite partie de ce que je suis

81. Ma vie est entièrement centrée sur mon travail

82. La plupart de mes intérêts sont liés à mon travail

83. J'ai avec mon traval des liens très solides qu'il serait extrêmement difficile de briser

84. J'éprouve habituellement du détachement à l'endroit de mon travail.

85. La plupart de mes objectifs personnels dans la vie sont axés sur le travail.

86. Je considère que mon travail est tout à fait essentiel à mon existence.

	Fortement en désaccord 1	2	3	4	Fortement d'accord 5
87. J'aime être absorbé(e) par mon travail la plupart du temps					
88. Mon travail est carrément trop exigeant					
89. J'ai souvent ressenti de l'agitation ou de la nervosité à cause de mon travail.					
90. Mon travail me touche plus qu'il ne le devrait					
91 Il arrive très souvent que mon travail m'impatiente au plus haut point					
92. Parfois, quand je songe à mon travail, j'éprouve une sensation de serrement dans la poitrine					
93. Je me sens coupable lorsque je prends congé de mon travail.					
94. J'ai trop de travail à faire et trop peu de temps pour l'accomplir					
95 J'appréhende parfois la sonnerie du téléphone à la maison, craignant qu'il ne s'agisse d'un appel relatif au travail.					
96 J'ai l'impression de ne jamais avoir de journée de congé.					
97. Trop d'employés sont épuisés par les exigences de leur travail.					
98. Je consacre tellement de temps à mon travail que je n'en vois plus clair					
99. Travailler ici laisse peu de temps pour d'autres activités.					
100. J'ai souvent le sentiment que je suis marié à mon employeur					
101 Les gens qui travaillent à la maison sont plus productifs que ceux qui travaillent au bureau					
102. Le travail à la maison interfère avec la vie de famille, ce qui n'est pas souhaitable					
103 Le fait de travailler à la maison permet plus de souplesse dans le travail					
104 Le fait de travailler à la maison vous permet d'exercer un plus grand contrôle sur votre travail.					
105 Le travail à domicile complique l'organisation d'une journée de travail					
106. Il est difficile de se concentrer sur sa tâche lorsqu'on travaille à la maison					
107. Il faut davantage de temps pour accomplir les tâches qui nous incombent lorsqu'on travaille à la maison					
108. Il est difficile de diriger lorsqu'on a des subordonnés qui travaillent à la maison					
109 Le fait de travailler à la maison vous rend davantage autosuffisant relativement au travail.					
110. Le rythme de travail est imprévisible lorsqu'on travaille à la maison					
111. Il est difficile de juger de la qualité du travail accompli à domicile					

112   Il est diff..ile de participer à des activités sociales en milieu de travail lorsqu'on travaille à la maison

113.   Il est difficile d'assimiler la culture de l'organisation lorsqu'on travaille à la maison

114.   Il est difficile d'avoir accès au soutien technique nécessaire lorsqu'on travaille à la maison

115   Le travail à domicile permet d'épargner du temps

116.   Vous êtes plus efficient lorsque vous travaillez à la maison que lorsque vous travaillez au bureau

117.   Le fait de travailler à la maison est plus satisfaisant

118.   Les employés qui travaillent à domicile transfèrent les responsabilités qu'ils devraient assumer à leurs collègues de travail (c'est-à-dire qu'ils s'en remettent à eux).

119   Les employés qui travaillent à domicile déploient moins d'effort au travail et comptent sur ceux qui travaillent sur place pour s'acquitter des tâches

120   Les employés qui travaillent à domicile consacrent moins de temps à aider les clients et comptent sur leurs collègues de travail qui sont sur place pour s'en charger

121   Les employés qui travaillent à domicile ne font pas leur part de travail

122.   Les employés qui travaillent à domicile déploient moins d'effort que les autres membres de leur groupe de travail.

123.   Les employés qui travaillent à domicile n'assument pas autant de tâches d'entretien au travail que les autres

124.   Les employés qui travaillent à domicile laissent à d'autres le soin d'accomplir des tâches qui, en réalité, leur incombent

125   Les employés qui travaillent à domicile sont moins susceptibles de résoudre le problème d'un client si un autre collègue est en mesure de le faire

126   Les employés qui travaillent à domicile s'en remettent à leurs collègues de travail qui sont sur place pour assurer le service à la clientèle

127.   Les employés qui travaillent à domicile contribuent moins à l'organisation que les autres employés.

128   Je serais très heureux(se) de travailler dans cette organisation pour le reste de ma carrière.

129.   J'ai vraiment le sentiment que les problèmes de cette organisation sont les miens.

130.   Je n'éprouve pas un fort sentiments d'" appartenance " à mon organisation

131   Je ne me sens pas " émotivement attaché(e) " à cette organisation

132.   Je n'ai pas l'impression de " faire partie de la famille " dans mon organisation.

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		Fortement en desaccord 1	2	3	4	Fortement d'accord 5
133.	Cette organisation signifie énormément pour moi.					
134	Actuellement, je reste dans mon organisation par nécessité autant que par désir.					
135	Il serait actuellement très difficile pour moi de quitter mon organisation, même si je le voulais					
136.	Ma vie serait trop perturbée si je décidais de quitter mon organisation actuellement					
137	J'ai l'impression d'avoir trop peu d'occasions d'envisager de quitter cette organisation.					
138	Si je ne m'étais pas déjà investi autant dans cette organisation, je pourrais envisager de travailler ailleurs					
139	Parmi les quelques conséquences négatives que supposerait mon départ de cette organisation figure la rareté des autres choix envisageables					
140.	Je ne me sens aucune obligation de demeurer chez mon employeur actuel					
141	Même si cela était à mon avantage, je n'ai pas l'impression que j'aurais raison de quitter mon organisation maintenant.					
142	Je me sentirais coupable de quitter mon organisation maintenant					
143.	Cette organisation mérite que je lui sois fidèle					
144.	Je ne quitterais pas mon organisation actuellement parce que j'ai le sens de mes obligations à l'égard des personnes qui la composent					
145	Je dois beaucoup à mon organisation					
146	Mon travail exige que j'acquière de nouvelles connaissances.					
147	Mon travail exige beaucoup de tâches répétitives.					
148.	Mon emploi exige de la créativité					
149.	Mon emploi me permet de prendre beaucoup de décisions de mon propre chef.					
150.	Mon emploi exige un niveau élevé de compétence					
151.	À mon travail, j'ai très peu de liberté pour décider de quelle façon j'accomplis ma tâche					
152.	Je fais toute une variété de choses différentes dans mon travail.					
153.	J'ai mon mot à dire dans à peu près tout ce qui se passe à mon travail.					
154.	J'ai la possibilité de développer mes aptitude s personnelles					
155	Mon syndicat ou l'association des employés joue un rôle important dans les décisions relatives à la politique de l'entreprise.					
156.	J'ai de l'influence sur les politiques du syndicat ou de l'association des employés.					
157.	Mon travail exige beaucoup de rapidité					

	Fortement en désaccord 1	2	3	4	Fortement d'accord 5
158 Mon travail exige beaucoup d'efforts					
159 On n'exige pas de moi une quantité de travail excessive.					
160 J'ai suffisamment de temps pour faire en sorte que le travail soit fait.					
161. Je ne suis pas lié(e) par les demandes conflictuelles que formulent les autres.					
162 J'ai une bonne sécurité d'emploi.					
163. Mes perspectives d'avancement de carrière et de promotion dans mon organisation sont bonnes.					
164. Dans cinq ans, mes compétences seront toujours valables					
165 Les gens avec qui je travaille sont compétents dans leur travail.					
166 Les gens avec qui je travaille s'intéressent personnellement à moi					
167 Les gens avec qui je travaille sont bienveillants					
168 Les gens avec qui je travaille contribuent à faire en sorte que le travail se fasse					

169   Quel est le degré de stabilité de votre emploi ? (Veuillez cocher une réponse)

_____ Régulier et   _____ Saisonnier   _____ Sujet aux   _____ À la fois saisonnier   _____ Autre
stable   licenciements   et sujet aux
                                                                      fréquents   licenciements fréquents

170   Il arrive que certaines personnes perdent pour de bon des emplois qu'elles souhaitent garder. Quelle est la probabilité qu'au cours des deux prochaines années environ, vous perdiez votre emploi actuel chez de votre employeur?

_____ Très improbable   _____ Assez peu probable   _____ Relativement probable   _____ Très probable

171   Votre groupe ou votre unité de travail compte combien de personnes ?

_____ Je travaille   _____ 2 à 5   _____ 6 à 10   _____ 11 à 20   _____ 20 personnes
seul(e)   personnes   personnes   personnes   ou plus

172   J'ai une influence appréciable sur les décisions prises à l'intérieur de mon groupe ou de mon unité de travail

_____ Je travaille _____ Fortement en _____ En _____ Ni d'accord _____ D'accord _____ Fortement
seul(e)   désaccord   désaccord   ni en   d'accord
                                                     désaccord

173   Mon groupe ou mon unité de travail prend ses décisions démocratiquement

_____ Je travaille _____ Fortement en _____ En _____ Ni d'accord _____ D'accord _____ Fortement
seul(e)   désaccord   désaccord   ni en   d'accord
                                                     désaccord

174.   J'ai au moins certaines chances que mes idées soient prises en compte relativement à la politique de l'entreprise (par exemple, dans les domaines de l'embauchage, des mises à pied, des niveaux de rémunération, des fermetures d'usine, des achats de nouveau matériel, etc.)
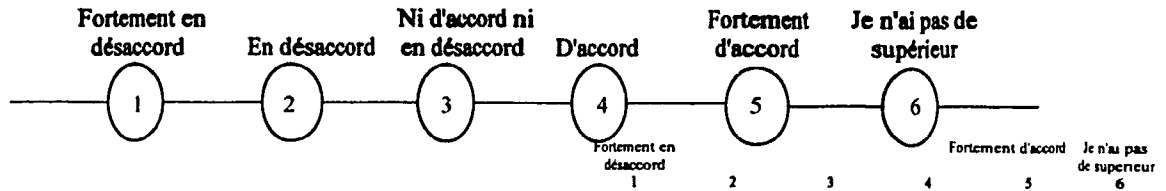
_____ Fortement en   _____ En   _____ Ni d'accord   _____ D'accord   _____ Fortement
désaccord   désaccord   ni en   d'accord
                                             désaccord

161

175. Je supervise d'autres employés dans le cadre de mon travail.

_____ Aucun _____ 1 à 4 _____ 5 à 10 _____ 11 à 20 _____ Plus de 20
              employés   employés   employés   employés

176. Je suis membre d'un syndicat ou d'une association d'employés. _____ Oui _____ Non

Les questions qui suivent ont trait à certains de vos sentiments à l'égard de la nature de la supervision exercée dans votre organisation. Veuillez cocher la case appropriée, en fonction de l'échelle proposée — " Fortement en désaccord " à " Fortement d'accord " — selon ce qui correspond le mieux à votre réaction.

|	Fortement en désaccord 1	En désaccord 2	Ni d'accord ni en désaccord 3	D'accord 4	Fortement d'accord 5	Je n'ai pas de supérieur 6
177. Mon supérieur se préoccupe du bien-être des employés qui relèvent de lui.						
178. Mon supérieur s'intéresse à ce que je dis						
179 Mon supérieur contribue à faire en sorte que le travail se fasse.						
180 Mon supérieur réussit à faire en sorte que les gens travaillent en collaboration						

181. Dans quelle mesure êtes-vous satisfait(e) de votre travail ?

_____ Totalement   _____ Assez   _____ Ni satisfait(e)   _____ Assez   _____ Très satisfait(e)
        insatisfait(e)   insatisfait(e)   ni insatisfait(e)   satisfait(e)

182. Quelle est la probabilité que vous cherchiez un autre emploi au cours de l'année qui vient ?

_____ Très probable _____ Quelque peu _____ Incertain _____ Assez   _____ Tout à fait
                              probable   improbable   improbable

Au cours des 12 derniers mois, avez vous vécu les situations suivantes
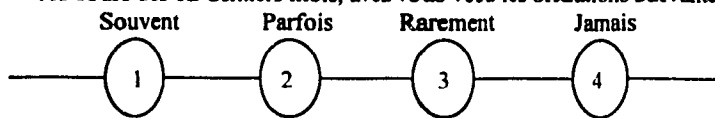
	Souvent 1	Parfois 2	Rarement 3	Jamais 4
183. Ressentir de la fatigue après un court laps de temps ?				
184. Éprouver des douleurs au bas du dos ?				
185 Éprouver des douleurs dans le cou ou le haut du dos ?				
186. Éprouver des difficultés respiratoires ?				
187. Éprouver des malaises, des sensations de piqûre ou une impression de serrement dans la poitrine ?				
188. Éprouver des problèmes de transpiration et avoir les mains moites ?				
189. Éprouver de la nervosité, de l'agitation ou de la tension ?				
190. Éprouver des troubles de l'appétit ?				
191. Éprouver de la difficulté à dormir ?				

		Souvent 1	2	3	Jamais 4

192.   Éprouver de la difficulté à rester éveillé(e) ?

193.   Est-ce que votre pression sanguine est élevée ?

_____ Oui   _____ À la limite   _____ Non   _____ Je ne sais pas

VEUILLEZ COCHER CELUI DES ADJECTIFS SUIVANTS QUI DÉCRIT LE MIEUX VOTRE VIE. SI VOUS ÊTES INDÉCIS(E), COCHEZ LE NUMÉRO 4.

194.   Votre vie est-elle.

1	2	3	4	5	6	7	
Ennuyeuse	—	—	—	—	—	—	Intéressante
Agréable	—	—	—	—	—	—	Misérable
Valable	—	—	—	—	—	—	Inutile
Entourée	—	—	—	—	—	—	Isolée
Remplie	—	—	—	—	—	—	Vide
Encourageante	—	—	—	—	—	—	écourageante
Satisfaisante	—	—	—	—	—	—	Décevante
Stimulante	—	—	—	—	—	—	Sans trop d'intérêt

Merci beaucoup d'avoir bien voulu prendre le temps de remplir ce questionnaire. L'information que vous nous avez ainsi communiquée nous aidera à en apprendre plus sur le travail à domicile et sur les avantages qu'il est susceptibles de présenter pour les employés et les organisations. Nous souhaitons que ces renseignements permettent la conception d'emplois qui seront intéressants pour les employés et pour leurs organisations.

APPENDIX C: INTERVIEWS

The following is the six core questions used in the interviews as well as the transcripts from the 16 interviews conducted in December 1995 and February 1996.

HOMEWORKING CORE INTERVIEW QUESTIONS

1) Did you choose to be a homeworker candidate or where you chosen by the company?

2) What were the reasons for being a candidate for homework?

3) What are your expectations for homeworking in terms of your job? Your family life?

4) How do you think homeworkers should be managed?

5) Do you believe that homeworking offers different things to different people?
   (Eg: Married - unmarried, children - no children...)

6) Do you believe that homeworking is going to revolutionize the way we work and live in the future or will it be of limited use to a certain segment of the population?

INTERVIEW 1: (MALE)

1) I was the one that was interested in it and I saw some of the postings for it and I approached my manager and asked him if it would be okay and he said sure it would be worth a try at least.

INTERVIEWER Did your manager do some analysis of your job or was it obvious that your job could be done at home?

INTERVIEWEE We kind of spoke about it together and we got an idea of what would be some of the disadvantages of me being away but this was something which the pilot project is their to test out and see how we can adapt to different situations. So we did a basic analysis of some of the problems we may run into but we hope that we can work around it.

INTERVIEWER So you approached your manager for this and he agreed.

INTERVIEWEE Yes

2) In my case there is only one real reason and that is the commuting time. Especially now that it is cold, traffic is terrible. The weather has added an extra 10 to 15 minutes to the commute time.

INTERVIEWER How long is your commuting time?

INTERVIEWEE On the average on a good morning it is about 25 minutes. On a bad morning it takes 40 minutes to get to work.

INTERVIEWER So you are looking at, at least _n hour a day just to commute to work?

INTERVIEWEE That's right.

INTERVIEWER So commuting time was the main reason.

INTERVIEWEE That is correct.

3) First its going to hopefully make my job more efficient because if you just take away those two hours on which you concentrate on getting to work and you dedicate these two hours towards your work, right there you have increased your efficiency by two hours. Less stress, for example in the morning you get into to work and you are stressed out because of traffic so it takes you a few minutes to get into the work grove. That is the main thing. Another thing is a lot of times I find that during the day there is a lot of interruptions and some of them are not really work related. So some of those interruptions are not going to be there any more. Again everything is leading towards making things more efficient.

INTERVIEWER So in essence you are really pointing towards being more productive?

INTERVIEWEE Exactly.

INTERVIEWER What about your family life?

INTERVIEWEE Right now I don't see any impact on my family life. I am not married.

4) Well it is different because your manager is not there to sort of keep an eye on you but the thing is that sort of responsibility in the telecommuter should become visible and that is they should take on the responsibility and be able to carry out their tasks without having a manager behind them making sure that the job gets done. So in a way it does impose a lot more responsibility on the employee but then again that gives them a sense of they are the ones who have to decide certain things, they have control on their job and their tasks. So the only thing I see on management's side is that they should make the extra effort to realize that the person is no longer on location and therefore maybe return calls or for example if the call is coming in maybe answer that call because it might be important and it might not be that easy to get in touch with the person.

INTERVIEWER Your company has E-mail and V-mail?

INTERVIEWEE Yes we have all the regular means of communication.

INTERVIEWER So using E-Mail and V-Mail it will facilitate some of that communication?

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<u>INTERVIEWER</u> Exactly

<u>INTERVIEWER</u> Your company doesn't have video or desk-top conferencing?

<u>INTERVIEWEE</u> Right now they haven't spoken about it.

<u>INTERVIEWER</u> So in terms of the person being managed would you also think that planning work ahead of time will help?

<u>INTERVIEWEE</u> Oh yeah, definitely. You definitely have to do that because for example if you are three days at home, you have to make sure that the two days which you are in the office, you make sure that those meetings are planned for those days and make sure that if you have to talk to someone person to person you make sure that you plan it on those days. There is some planning which must be done in advance.

<u>INTERVIEWER</u> So you will be working a usual three days at home?

<u>INTERVIEWEE</u> I will probably be doing a Monday, Tuesday, Thursday schedule for home, but we haven't set the days officially yet. But it will be a regular schedule for a six month schedule. Or at least we will try to keep it as regular as possible unless their is some emergency meeting which I need to attend.

5) Sure I believe that it makes a difference. If you are married and have kids which have to be brought to school in the morning you have that flexibility of bringing them and coming back home and continuing your work. In the evening's especially for example if a kid finishes at 3:00 P.M., you have that flexibility of just getting up go pick up the kid and bring him home and you can continue working. So it is very flexible in that way.

<u>INTERVIEWER</u> What about, again I am going to get back to the impact on family life. For example for yourself you said that their was no impact but for the person that is married or does have kids, what is your belief on the impact on them?

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INTERVIEWEE Well I guess it depends a lot on the per: in themselves. Obviously they would have to set some sort of rules. If the kids are home during they day, they have to tell the kids that you are working and pretend that I am not here during certain hours. Depending on the person they might get somewhat carried away with the work and they might be working even more than they would regularly do at work. They could be working more hours.

INTERVIEWER Do you think that you are going to be working more hours?

INTERVIEWEE I've noticed that not necessarily working more hours consecutively. but I have noticed that when I occasionally work at home I would stop at a certain time and then maybe start over again at night maybe just for an hour to clear up some minor details. I see myself putting in a little more than usual but I think of it in a positive way because it helps to clear up these little details.

INTERVIEWER I guess you are also thinking of it in terms of career advancement. You are not paid overtime here because my understanding is that they are management like positions.

INTERVIEWEE That is correct.

6) I think it will be limited because the people that will take part in these programs you will require a certain amount of responsibility from them. I am not sure that everyone is willing to put in the effort or is able to discipline themselves to perform their tasks away from their work area. They might be influenced by family, so on and so forth. It might not be applicable to everyone. I would have to say that in general it is an excellent program because it does remove some stress and offer more flexibility to employee and I think that a lot of companies are heading towards telecommuting maybe even for financial reasons. I am not sure but I definitely see positi` `hings coming out of this.

INTERVIEWER So you believe that it will be of limited appeal.

<u>INTERVIEWEE</u> It will be limited because it also takes a certain amount of trust in the employees. I think maybe my employer trusts its' employees more than other companies because they feel that they have a certain discipline.

INTERVIEW 2: (FEMALE)

1) I chose to be a homeworker.

2) Mostly because I have 2 kids and working overtime is a big difficulty so during the day is fine, I didn't mind working here during the day its just when I am required to do overtime, it's not very easy for me to stay after five. So the fact that I have the whole set up at home is now incredibly easy to provide the overtime, so I have a much bigger commitment now to the organization than I did before. For example, weekends were always difficult also and now there is no problem because there is always someone that can take care of the kids at home while I'm there working, so if somebody needs me, you know... So there is a much, it is much more flexible. I have had the stuff (equipment)at home for a week now that it was functional and it is so much more flexible.

It's just that I can concentrate on my work without feeling guilty about the family. There was always this feeling of guilt when I was not there on the weekend. The kids are under 4, both of them. So when you go away on the weekends, there is always that feeling of guilt of not being with them. So when I am there, even though I am working at least I feel they are present. So you try this balancing act.

I want to work but there is also my family that is a priority. So you try to balance it.

INTERVIEWER So your main reason is the balancing of family and work?

INTERVIEWEE The balancing act is much easier.

INTERVIEWER So you had a work-family conflict occurring?

INTERVIEWEE It's just that I want to put in, I have a big commitment to the organization, it's just that now that I have children, it was much different before that, there was no qualms. But now that I have children it is much more difficult for me. So now it is so easy, I wish I could have the equipment forever. We will see how it works out.

3) First, in terms of how it will help my job is what I just explained. I'll be able to have a bigger commitment towards the organization in terms of time. If anybody asks me to do any tests on the weekend, there is no problem now. It is not like it was before, okay I have to find a baby sitter...

The only thing that I am afraid of the telecommuting is that, I don't know maybe it's just that I am over sensitive to the employees around me. It's just that I find that the employees around me will question my integrity. They will say, is she sleeping, is she... and I know I'm not. I am doing my work, it's just that you wonder what the people at work think about the person that is working at home. I mean I never have qualms about other people working at home but you never know about other people. And plus, it is not going to be one day every two weeks, because people in my group often work at home for a day or two. But starting January it is going to be three days a week so that's a big portion of the week. So I don't know how people in my group will react to that.

INTERVIEWER Have people in the group been explained this homeworking?

INTERVIEWEE Everybody knows that I will be doing it in January. It could go off very well and everybody could have a very positive attitude towards it but don't forget I am at home, in the comfort of my home. There is not that stress. There is another thing about working at home is that you can concentrate. You will get your phonecalls because people still have to call you but you could have that concentrated effort. I think you could get a lot more done at home than you could at the office because there is not always (those interruptions). Also, the environment is not as stressed because right now we have dating. We have a milestone next Friday, so right now you feel a lot of stress around the office. Yesterday I worked at home, I didn't feel that stress because I was at home but I got my work done.

INTERVIEWER In terms of your job you feel that having a bigger commitment, down the line this will lead to career advancement and so on...

INTERVIEWEE Yes. That's the thing, I'm hoping, I know that working at home will make me more productive, just in terms that I will have more time to work. Now that I am at home I could just sit and work any time that I feel like it. There is definitely a

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bigger commitment. I just hope that the lack of visibility at the office will not stop me from growing in the company, because I want to grow in the company. That's the whole idea, I want to be more committed to the company. I don't wanna always stay there because I am not visible for what I am doing. I want to make sure that what I am doing is visible. So that's the only fear. There's another fear, that what I do is not going to be very visible because I am at home. So people don't see me, and you know that when people don't see you they forget about you.

INTERVIEWER What about your family life. What are your expectations for this telecommuting. How is it going to impact you family life?

INTERVIEWEE Well my kids don't stay home during the day. So they won't even feel it. My kids won't feel that I am working at home, it's as if I am going to work. Because I still have to drop them off at a persons house and pick them up at night. So their routine won't change. The only routines that will change is that during the weekend when I am working from the house, they have to understand that I have to work. So, either my husband will have to take them out or.. I have already found that working from the house when they are home is difficult so my husband has managed to take them out. They are kids, they want to play on the computer, they want to push the buttons..

INTERVIEWER So do you have an enclosed room?

INTERVIEWEE Yeah, it is a closed room. An extra room.

4) Well the way that I have been managed here, I mean my boss pretty much gives me a big chunk of work and lets us do it. I don't think that mode will change. I don't think there will much difference in the way I am managed now and the way I will be managed in the future.

INTERVIEWER I guess you already have a certain amount of responsibility in your job so that's why telecommuting is good.

INTERVIEWEE Exactly, I don't have to be here all the time to ask somebody for work. I have a big chunk that I am responsible for and I know I have to do it.

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5) I don't think being married is a big issue, children is a big issue. Because married, your spouse can take care of themselves, but children, especially kids my age cannot take care of themselves so you have to be home. They expect you to be there. If I did not have children, I don't think telecommuting would be a necessity. Otherwise it is very hard for me to put in the overtime that I am expected at some crunches of the year. If I had no children I could be just as committed without the telecommuting as with.

6) I think that at some point telecommuting will be a new way of working. There are a lot of positives in Telecommuting: you are in the comfort of your own home, you can get a lot more accomplished because you are not forever in meetings so people have to schedule the meetings when you are there. People don't just call meetings on the fly so there are four hours in a day wasted.

One negative I see is the lack of social interaction. I will miss having lunch with the people I work. I will miss some of that on the fly design...

INTERVIEW 3: (MALE-FRENCH INTERVIEW)

1) I choose to do telecommuting.

2) First of it is perfect for the type of work which I do. I have certain aspects of my job which are more adept to a working environment which is more calm. Therefore, at home I have less distractions and less noise. A more calm environment.

Also, the commute to work is another reason. I was also curious as to what it would be like to do telecommuting and see to what degree I am capable to be disciplined to do the work and I think I am capable of doing it because in my group in general we have a management style which uses minimal supervision which is what we want.

3) Well with the type of jobs which they have chosen to participate in this pilot project it will mean more productivity. I will have less distractions, less people who will bother me so from this perspective it will probably be more productive. It will dir·inish my interactions with my co-workers. This will be one down-side to telecommuting. It will also make the work hours more flexible. It probably will reduce the amount of stress as well when coming to work because I have to go by downtown every day and it is always jammed.

In terms of family, well I don't have any family at home or any kids. It is more to take advantage of the flex-time, which will give me greater flexibility in managing my hours according to my needs.

4) I believe that especially in the beginning management must be more open. I will definitely see my manager less but with the type of work we do our manager does more co-ordination and coaching than micro management. I work in planning so I also work for other managers of other projects. The way it works is that if a project comes along my manager will ask if I have time to take on this new project.

Therefore, the management style will not change since the style which is used now is appropriate for telecommuting.

5) It is different for different people. For example, for people with kids it will be easier to attend to appointments for the kids. For anybody who is married, it will be easier to meet family commitments. For myself who has no family or kids it won't change much.

6) I believe that it will be more for a certain segment of the population. People are afraid to lose contact with other people and that they lose exposure in the office. So overall it depends on the amount of commitment of the employer. If the employer is vocal about the project and voices its positive opinion for it, then people will realize that the loss of exposure is then not as important to the employer when it comes to evaluation time. It will not render the employee less valuable if they do work at home. But now it is still perceived as a trial project and nothing more. In the short and medium terms homeworking will remain a very specialized project. In the long term it may change. I have a job which is very suited for telecommuting but some jobs are not and therefore some employees will see that for them it is impossible. For these reasons I believe that it will take a cultural change at both the employers and employees level in order for it to become more wide spread.

This trial project will have a great impact on whether telecommuting will become more widespread in this company. If people see that in the pilot project we have made significant gains in terms of our work and ourselves and we don't become invisible then people may reconsider. People are also concerned about having enough discipline to do the work If people in the office see that we in the pilot project increase our productivity and we are taking advantage of the benefits of working at home, then more people will be interested.

INTERVIEWER At home you work in an enclosed room.

INTERVIEWEE Yes I do.

INTERVIEW 4: (MALE - FRENCH INTERVIEW)

1) I chose to be a homeworker and it was voluntary because they were asking for volunteers to participate.

2) There are a couple of reasons. First, I find it is more comfort ble at home. We don't need to get into the car to come to work in the morning which is appreciated in the winter. In essence there is less waste of time. There are surely some disadvantages but the key reasons I chose it is because it is a working environment which is more flexible.

3) For my job I believe it will be more efficient. There are a number of reasons like: you are less inclined to get up a take a walk because there is only so far you can go in your home. There is less of a chance of meeting somebody and start talking. I can smoke when I want to.

It is easier to concentrate on your job because there is no noise around you or any discussions which start to take place. The phone calls will remain the same but this is the only interruptions you can get. You don't get someone coming over to your desk to pay you a visit or paying someone next to you a visit.

On the negative side, you lose the social contact with your co-workers. So I see that the day I come to work it is an important day. I am less efficient when I come to the office, and to be honest I spend most of this day to do my PR. All the PR I would of done during the week, I squeeze into this one day. By PR I mean you have to go see people for your work and then once the work is done, you chat about other things at the same time. You need to keep this social contact alive. I don't think that this time is a loss of time because you need this social contact.

In terms of family, I live by myself so I don't see any big change there.

4) Well, I don't see a big difference with the environment which presently exists at work. My boss has always been someone who doesn't sit in back of you to watch you. We know what we are supposed to do and we do it. So there won't be a big change for me. You need to do a little more planning of your work when you need someone's assistance but on a daily basis if what I am doing does not affect someone directly, then nothing will change.

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5) Someone who has his wife at home with the kids will have to be more disciplined in doing his job. I think it is easier if you live alone. I think I would still have done tele-ommuting even if I was married and had kids. But my environment would have to be more structured and rigid.

INTERVIEWER You do your telecommuting in an enclosed room?

INTERVIEWEE Yes in an enclosed room.

6) I think you will always have people who will never want to do telecommuting. It is a big decision to work at home. It affects a lot of things. Especially, the people who live with you. So I don't think that it will become everybody working at home unless a company forces them. I think it will become more widespread, of course it will depend on the results of our project. If the people in the project like it, then it will be great publicity for others and I know that there were people who didn't want .o jump in at the start. They want to wait and see what happens.

INTERVIEW 5: (FEMALE)

1) I chose to be a homeworker and it was voluntary.

2) I chose it because I live on the south shore so I have to cross bridges. I don't get stuck in traffic now because I leave late, so I avoid the rush hour. But I don't enjoy that because my day ends late and there are a lot of activities outside of work that I want to get started earlier.

INTERVIEWER So the commuting time is a reason.

INTERVIEWEE Yes and I also wanted to try it to see if I'd like it. Eventually I want to live farther out because I am into horseback riding and I have a couple of horses. I would eventually like to buy a house and keep them at my house. And that is something which would be possible if I worker at home.

3) Well I have heard that your productivity increases and I am hoping that's the case. So far I think that that will be the case.

INTERVIEWER Are you doing some homeworking now?

INTERVIEWEE Just like a day or two so that I can get used to it and the people in my group used to it.

INTERVIEWER How are the people in your team reacting to it so far?

INTERVIEWEE Because we do a lot of individual work, I don't think they even noticed it.

INTERVIEWER So in essence as long as your part of the work is done, the team won't mind?

INTERVIEWEE Yes.

INTERVIEWER You haven't gotten negative feelings from your co-workers?

INTERVIEWEE Well when I first asked my manager, he was kind of negative. He didn't really like the idea because he felt that what I am currently doing is okay to work at home but my job can easily change, because we are doing planning and it can easily change in three months and I may need to interact a lot with people, so I may need to be here a lot. But my manager was willing to try it.

INTERVIEWER What are your expectations with telecommuting and   ' mily life?

INTERVIEWEE I don't think that it will be affected at all.

INTERVIEWER In a negative or positive way?

INTERVIEWEE It may be positive in a way because if I am not spending my time travelling and I am getting my outside activities done, because they don't involve my family, sooner then I will be able to spend more time with my family.

4) I don't think there is really much difference from when you are in the office and when you are at home. Because it is not like your manager hangs over your shoulder and checks to see if you are working. For me, whether you are in the office or at home, you could still be not working.

INTERVIEWER So right with your manager you set your goals and set deadlines as to when the work needs to be done?

INTERVIEWEE Yes. 1 think the thing that will be affected more will be the team interaction because you are not there as often and like people will often just come up to you to ask you questions and because you are not there, they won't think of picking ␣ₚ the phone and asking you. They will probably go to someone else.

I think it would probably be difficult if you where on a new team and if there was more than one person telecommuting, it would make it difficult to come together as a team. Right now I am the only one on my team.

5) I am sure it does.

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<u>INTERVIEWER</u> What will it offer for you?

<u>INTERVIEWEE</u> I am virtually married and I have no kids. That's why I don't think it will make much difference because if we are both working, we are working.

6) I think it will be of limited use. Because a lot of jobs don't lend themselves to this kind of isolation. I am sure that even here a lot of the managers wouldn't be able to do it because they are constantly in meetings.

<u>INTERVIEWER</u> Your homeworking area, is that in an enclosed room?

<u>INTERVIEWEE</u> Yes it is.

INTERVIEW 6: (MALE - FRENCH INTERVIEW)

1) I voluntarily choose to be a homeworker.

2) I was curious and I like to try new things.

INTERVIEWER There are no personal reasons, or any particular benefits you are looking for?

INTERVIEWEE Well I hope to be more productive by working at home because I have less travelling to do and I will be able to work more hours since my work is more accessible at night and weekends.

INTERVIEWER So you believe you will work more hours?

INTERVIEWEE Yes, I will

INTERVIEWER Does it worry you that you will do more hours?

INTERVIEWEE No I am not concerned because I am interested in the work and I find it challenging.

3) In my job we have a lot of what we can call batch jobs which will take between 4 and 6 hours. So I want to work at home to see if I can do more of these jobs in a day or in a week. Because I can see the results of my work and then move on to the next batch job. In the office it is difficult. Sometimes you have to wait for the next morning and this reduces the number of jobs you can do in a week

Therefore, I hope that by working at home I can increase my productivity in this way.

INTERVIEWER So your work is very adaptable to telecommuting?

INTERVIEWEE Yes it is

INTERVIEWER What are your expectations in terms of telecommuting and family life or social life?

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INTERVIEWEE I don't think that working at home will change it. My wife agrees with me working at home. Also, I know when to stop working.

INTERVIEWER Did you talk to your wife about this project before deciding to work at home?

INTERVIEWEE Yes I did, I asked her if it would bother her because sometimes she stays home in the day and she said that it wouldn't bother her.

4) I believe that the homeworker should be more closely monitored because there is a risk that you have someone who cannot discipline themselves to work and they will waste a lot of time. Not because the person is less of a performer or disciplined but because he is not in an environment where he can ask for advice easily and he will get less feedback from his co-workers. So maybe on a weekly basis a report should be produced for what was accomplished during the week. This will perhaps help in reducing the number of times that an employee will go off in the wrong direction.

5) Certainly, I find that it is different for everybody. There are some who have children and don't want to leave them with strangers. Others it is because of the commute time which is too long. For me it is the ability to gain exposure to the a greater number of job experiences during the week without necessarily investing more hours.

6) I think it will be limited to a certain segment of the population. It will be good for certain people in certain types of work. I hope that we will always have the choice of doing both (office and home work) at the same time. We should have the choice for example to work at home one night and come to work the next day. I could have done it before this project but I did not have the best equipment. Now with the equipment I have in been given in my room is more practical.

INTERVIEW 7: (MALE - FRENCH INTERVIEW BY PHONE)
(NOTE: THIS PERSON IS THE MANAGER OF INTERVIEWEE NUMBER 3)

1) I choose to be a homeworker.

2) To save time in traffic. I thought that it would be more efficient for my job. To give it a try and see how it would work. It is more the work efficiency that I was looking for and saving the travelling time, instead of being stuck two hours in traffic. This gives me more time to get more work done instead of being in traffic.

3) Well first of all I hope I will be able to do my job as well as at the office. I also hope that it will improve my work. Especially that I am a manager, I get interrupted frequently. By working at home I have more control over these interruptions. I am able to look through my messages in a given half hour and do other things after that. Instead of being interrupted every 10 or 15 minutes.

INTERVIEWER Now you are a manager of one of the earlier interviewees. How do you think it is working now on a part-time basis?

INTERVIEWEE Well it is a special set-up. We have to be synchronized with our group meetings, but I don't think that it will cause any problems. Up to now it is working well. He has just started and I have started to.

INTERVIEWER So you will be doing more goal setting with his work and your work and what you expect of him?

INTERVIEWEE Well it won't change a lot because the people I have are very mature and we don't meet everyday to discuss what they will be doing during the week. I don't think my relationship with him will change from what it is today.

 INTERVIEWER What are your expectations with working at home and it's effects on your family and social life?

INTERVIEWEE Well it will bring some change because my family is at home. I have three kids who are at home. On the family side it will improve things because I spend

more that with them. I have dinner with them and I am at home earlier because I don't have one hour of commuting to do at night time. On the other hand you have to be able to block out the kids when they are playing or crying.

INTERVIEWER Are you concerned that maybe you work too much at home or more than you would have worked if you where at the office?

INTERVIEWEE It is certainly a risk because it makes working easier but I was already pretty well set up before this. I just upgraded my equipment and I brought my files home.

4) It depends on the positions of the telecommuter. You need people who are already fairly autonomous and self-driven. They are able to do there work and know what to do next. When you have these criteria which are met and the employee also already is a good performer, then things are fairly easy because you have the means to meet on a fairly regular basis. I don't foresee changing how I manage the telecommuters in my group. Sometimes, even in the office we talk over the phone anyways. We don't always see each other. So now we will talk more on the phone than face to face.

For telecommuting to work well you need people who work well and the manager has confidence in them that the work will be well done at home.

5) Yes, it brings different challenges. On the social side, I won't really be affected because I still have my family at home and therefore I have some human contact. It helps in having this contact instead of being all alone sitting by myself.

INTERVIEWER Now you have a closed office?

INTERVIEWEE Yes.

6) I don't think that it will be for everybody. But it will be used enough. Like I mentioned it takes a certain type of employee. An employee with a certain level of performance, the manager has to be confident in the employee to do homeworking. However, I believe that there is a good size population which it could apply to.

It will change how we work. Right now the corporate structure is not yet ready to have people working at home. There are a lot of meetings where we don't have a designated number that we could call because we are at home. Also, if meetings are being held with a homeworker, there is no facility available to provide any material which is needed or handed out at this meeting.

INTERVIEWER So you need desktop conferencing?

INTERVIEWEE Yes, or at least some rooms with a camera.

INTERVIEW 8: (MALE)

1) I volunteered.

2) Basically it is to work quietly. Here in the cubicles you have a lot of noise. Sometimes the phones ringing in the background, meetings taking place on the other side of the partition. I sit right next to my manager and the secretary is right there. There is a lot of noise. This prevents me from doing a part of my job. When you are reading, coding or designing, I need quiet. Some piece of my job involves talking on the phone.

This is my main concern. It is not because I live far or because of kids. Also, to have flexibility in the hours.

3) Well I expect to be happier, more job satisfaction. Basically to be able to do more on certain job aspects and to do it better. In terms of family, I don't think it is going to have any effect. I don't live with any family so it is not an issue. Socially, it won't affect it either.

4) You need a lot of communication with your manager. Right now if I am in the office some days I won't necessarily talk to my manager. I will see him and greet him but that is it. In our group we have weekly status meetings, I still come to the office for that. If I work at home I think I will have to talk to my manager every day even if it is just to say hi. To make sure that he knows what I am doing, and to make sure I know what is going on. Sometimes they may meet and decide something and forget to tell me. If I were in the office I could join in but since I am not here then this won't happen.

INTERVIEWER Is it going to be radically different then what you do today?

INTERVIEWEE I don't think so. I think we will still talk as we do today to plan things. We will increase the frequency but not the duration of the talks.

5) Yes definitely.

INTERVIEWER What do you think it offers differently for different people?

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INTERVIEWEE Well some people may have kids, so they may want to take care of the kids in the morning while their spouse is at work and vice versa. Some people that commute, won't have to suffer the agony of this.

6) There are many jobs which need to be done in the workplace. Given right now the job I am doing, most of the time I can do it at home, but sometimes I have to be in the office because of the equipment.

INTERVIEWER So you need certain equipment that you just can't have at home or it is too expensive?

INTERVIEWEE I can use it in some way from home but it's just not convenient at all. Sometimes I can spend 10 days at home but then I have to spend 5 days in the office. It depends on what phase of the project I am in. It is not like a 9 to 5 job. Some phases you are doing a lot of writing and then in others you need to have a lot of meetings. I hope that they take this into consideration in the planning. When we do lose our desk at the end, permanently, they will have those desks where you can drop in.

INTERVIEWER So you think that not everybody is going to be able to do this telecommuting in the future?

INTERVIEWEE Places like our company I think that a lot of people will be able to do it, at least to some extent. The technology is still not quite right but it is getting there.

INTERVIEWER At home are you working in a closed room or do you just have a work area?

INTERVIEWEE It is not a closed room but a reserved area separate from the living quarters.

INTERVIEW 9: (MALE - FRENCH INTERVIEW)

1) I choose to be one.

2) The main reason is to see if I am capable to work at home because in the future I would like to buy a house approximately one hour from Montreal and work from home several days a week and come to Montreal for the meetings. The goal is to leave Montreal but to continue working.

3) It will give me more time to work. In our working environment here we are interrupted every half hour by a question, which makes it difficult to concentrate on something for a long time. So I hope to improve my productivity.

INTERVIEWER How will it affect your family and social lives?

INTERVIEWEE My family life has already been affected by it because I have already worked a few days at home and my spouse is studying and it has happened that we are both in the apartment in the same room. So some friction has occurred because we are both in a small room.

Socially, there will be less interaction with my co-workers so I will compensate by more phone calls, and more regular meetings to remain synchronized with them.

4) They should be managed on results.

INTERVIEWER So what you are saying is that if you can do the work here or at home then there should be no difference in the management style?

INTERVIEWEE Exactly.

5) I imagine that for people with kids it helps to avoid the race to bring the kids to the day care. Also when the kids are sick it probably avoids them missing a day at work.

For myself I have already mentioned what it offered me.

6) I believe that any job in the service sector can be done at home. Right now there is a good portion of the working population which is working in the service sector. All these people could potentially work at home.

In the long-term it will help to reduce the working population of downtown areas like Montreal. However, apart from that it won't be a big revolution. It will probably mean that people will stay home more which would lead to better family ties, but I don't see any great revolution.

INTERVIEW 10: (MALE)

1) I voluntarily applied for it and I was selected.

2) For me I always lose some amounts of time in the morning commuting to work and I lose time in the evening. So I thought that with the type of job I have everything is automated through software and the computer. If I can save this time in the morning and afternoon, I am going to be more productive in my work. At the same time because I am at home I feel I have more flexibility with my time and the environment I am working. Also, it is a change. If you have the freedom to work at home and to work at the office it gives you a sense of balance with a change in environment Which I think that this change motivates people more.

3) I think I will be more productive. I am using my time more efficiently during the day to obtain my work objectives. I also thought that it would give me the chance to use the technology more. When you are at home and you know that the only way you can communicate is with the phone and the computer, you are more dependent on the telephone and the computer, and E-mail...

For the family I find that it helps because when something happens at home, and nobody is at home during the day, I am already there. It shouldn't have any sort of negative impact. This remains to be seen. If I see a negative impact on my family, I will definitely stop it.

INTERVIEWER When you work at home you have an enclosed room?

INTERVIEWEE Yes I have a small office.

4) I think that the managing should be as usual. It shouldn't have any difference. Usually you don't meet your manager everyday. You meet as appropriate and necessary. So if you will work at home three days and two days at the office, you have these two days to see the manager. Otherwise you can still communicate easily through E-mail and V-mail. It shouldn't have an impact.

5) I think it completely depends on the personality of the person and the environment the person is living in at home and the people he is dealing with at home. Your personal

life, and attitude has a direct impact on the results of this project. If you are a person who is self contained and you are more into yourself and you don't want to communicate with others then I find that this type of project is not good for you because it encourages you to be more isolated and you lose the minimal touch which you have at your work. So this is not appropriate for these people. One thing that the people monitoring this project, they should a feeling about the people who telecommute and their personality.

Now, you could have two children at home but you are a person who can balance communicating with the children and your wife and your work. So it depends on the persons personality.

6) Definitely. One of the reasons that I am in that project is because I always had an ambition even five, six years ago I thought that if one day people will have the choice to work at home and at the office, this would be a desirable scenario for everyone. I know that this project is more than that because they want the people to work more at home than at the office. This will be the trend for the future. It's going to be that you will be more efficient at your job that you can even dedicate some time to your personal life. Usually if someone comes to work for 7 or 8 hours they are productive for 5 hours maybe. The rest of the hours go to talking with people. It is hard to concentrate for 7 or 8 hours in a row. At home if you are efficient you can do the same job in 4 hours. The rest you can allocate to your family or other things. We should be using the technology to give more time to society to develop themselves. To give them the chance to spend the time for themselves.

INTERVIEW 11: (MALE - FRENCH INTERVIEW)

1) Something which I asked for a number of years ago. Therefore, I chose.

2) On of the main reasons is my commute time. I live on the south shore and if I take the public transport it will take me two hours to go and come to work. If I take the car it takes me from one to one and a quarter hours. These times are both during rush hour. If I would live closer I don't think I would have participated.

The other reasons are well, you are home with the family, but the main reason is the commute time.

3) I don't think it will change much in my job. I think it will improve my productivity to some extent because there is less distractions The equipment which we have installed now is just like being in the office except for the phones it is a little more difficult and we will need to use these phones to communicate. So I think it will make communication in the group a little more difficult. However, this may just be a question of getting used to it. Today we are not used to working with people who are physically present. Sometimes you also pick up something by just listening to a conversation accidentally when a small group starts discussing something. So I don't see any fundamental change in my job.

INTERVIEWER Do you think that there will be an impact on the family or social side of your life?

INTERVIEWEE Well obviously there is a social side to coming to work which will disappear to some extent. On the other hand on the family side I think that there can be a positive impact here. So we lose from one side but we gain on the other.

4) I don't really have a clear idea. I thought about how I can have an interaction with my manager. How we will communicate between each other so that he knows what I am doing and I know what I am supposed to be doing. We haven't set out a method yet like a call every morning or a piece of E-mail. Even here I don't see a big change, because our work is fairly autonomous. I know overall what I have to develop in a module, so I could go weeks without any interaction with my manager. We do see each other and he asks me how I am doing but there is no daily requirement to talk to him.

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However, they are asking us to come here regularly so there will be at least a weekly meeting.

5) I would think so. I think there will be people who will choose telecommuting because they can concentrate better. There will be people like me where it will be due to commute time. And the family too. It depends on the type of person.

6) For sure telecommuting doesn't apply to a lot of positions. Like my neighbour who is a bus driver, he cannot do it. It will always be limited to work which is fairly autonomous. Not in manufacturing jobs. Within the groups which can do it, it will become very important. We see that the traffic congestion is not going away. It also gives more flexibility, for example if my wife wants to go cut her hair and the baby sleeps from 1 to 3, if she puts him to sleep before she leaves all I have to do is listen if the baby wakes up.

INTERVIEWER You work in an enclosed room.

INTERVIEWEE Yes it is enclosed.

INTERVIEW 12: (MALE)

1) I applied and I was chosen.

2) To save travel time is the main reason. Also, the type of work I am doing allows me to work off hours without coming to work. Sometimes we may have an emergency (program doesn't work) at work and I can deal with that more effectively at home.

3) I don't think it will change anything in the way I am doing my job because I am quit independent in my work. Therefore where I work does not change how I work. I heard that working at home you reduce your visibility at work. But that is important only for people planning on going on the management track, where they need to have more visibility and contacts with other people. In my case my career development aim is to go on the technical track so it doesn't bother me that I will have reduced visibility.

My job will only change in that I can contribute more.

In terms of family my wife likes it because I am home more. So I have more presence at home. And I actually help during the day with small things around the house.

Socially, I do miss the people at work. This is why I intend to keep two days at the office.

4) My manager knows what I am working on and he knows his expectations and my expectations match his. So as long as I meet my objectives, I guess it is fine. We set the goals ahead of time so he knows what he expects from me. As long as I deliver he won't mind where I work.

5) In my personal opinion, the main part is to save commuting time. Socially, I don't socialize a lot outside work and I don't think I will become a workaholic by working at home. If you are a workaholic then working at home may have a major impact on a persons life.

INTERVIEWER When you work at home you have an enclosed room?

INTERVIEWEE Yes, the room is set up as an office.

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6) I believe that it will apply to certain sectors, for example a software development company like ours. Companies in the service sector. Other companies which have to meet the companies face to face, it won't change. There are some people here who will never telecommute, like the software designer who needs a lot of equipment which is not easy to set up in the home.

INTERVIEW 13: (FEMALE - FRENCH INTERVIEW)

1) I was the one who chose.

2) My first reason is the travelling time. I have about an hour and a half of travelling time a day. So I was wondering whether I could use this hour and a half to work or to do overtime but you gain this hour and a half right away. So I saw this as a way to better my quality of life. I have a child and I need these hours. I also discovered with the few days I have tried it that I have less interruptions. It is easier to remain concentrated. I was also intrigued by the technology.

3) Like I said earlier, I have the feeling it will be more calm working at home. I have nobody at home during the working hours. I think that I will be more concentrated when starting a job or analyzing something. Also, where I was sitting at the office I was next to the printer and you get a lot of people who stopped while picking something up.

INTERVIEWER Do you think that homeworking will impact your family and social life?

INTERVIEWEE It depends on the person and their situation. In my case when my little one gets home, I have to make dinner and give her a bath, I don't have any time to think of work. Then when she goes to bed I will have trouble doing it because I am too tired. I may do it occasionally but not usually.

Socially, I have a lot of friends who have asked me questions and who envy me. They see the positives. I will still see them on a regular basis. With work it will change. I have done it a few days and people around me will ask when will you work? People seem to look at it as a professional relationship on the days I am here instead of as a co-worker. I get the impression that people prefer the face to face contact than talking on the phone.

4) I don't know. I think you need to choose candidates who are better suited for this type of work. I think that there are people who require supervision more than others. Therefore, they need to be identified. For myself I am very structured and my work must take place between Monday and Friday. Someone who has no family could decide to work at night or weekend.

INTERVIEWER How does your manager manage you today?

INTERVIEWEE Every week we make a report and say what we did the week before and what we plan on doing the next week. This is what we do every Monday.

INTERVIEWER Do you think that this is adequate for a telecommuter or do we need more or less than this?

INTERVIEWEE It depends on the person and the job they do. There have been people in programming who do their best work after dinner and stop programming in the middle of the night and they are happy.

5) Well I think that someone with kids they will benefit from the saving in travelling time. Some people will lose social contact due to their work. In terms of couples without kids, again it depends on the couple and the person and what he puts more importance on, work or family?

INTERVIEWER Do you work in a closed room at home?

INTERVIEWEE I presently work in the dinning room which is empty but is not enclosed. It could be a problem because last week my little one was sick and my spouse stayed home with her so I came to work here instead of staying home on a day when I had planned to stay home. I hope to set up a place in the basement at some point.

6) You work because you need money but you also work because you need to see people. To stay home alone, I am not sure that even I will like it. I feel that people prefer to see the person especially if they know that it is still possible to see them. It will be more restricted in usage. I still need to see people.

INTERVIEW 14: (FEMALE)

1) I chose to be a telecommuter.

2) In the beginning I was hesitant to become a homeworker. I didn't know whether I wanted to work at home for 3 or 4 days because you would be socially isolated from your co-workers. Then I thought of the advantages and that I would still be communicating by phone. I don't have to go through traffic. I live on the south shore and you have to battle the bridge every morning. My personal reason was my daughter. I feel guilty waking her up to give her the bottle and dragging her outside. Then I thought well I can try it out and if I don't like it, I could always come back to work here.

INTERVIEWER: So the main reasons are, the commute time, the family, and you wanted to try it out to see what it would be like.

INTERVIEWEE: I thought it would also be convenient to have an ISDN line in the house and to work at home because let's say any time during the day or weekend's when you have this inspiration you could go downstairs and work away for a little while. It's convenient to know that you don't have to travel when you want to work.

INTERVIEWER: You do programming in your job correct.

INTERVIEWEE: That's correct.

3) I find you will be more productive because you will have less interruptions. That's the main advantage. You can concentrate more.

INTERVIEWER: This is the advantage towards your job. What about your family? Do you have any expectations?

INTERVIEWEE: Well the only advantage is that my daughter could sleep in and I don't have to wake her up to bring her to the sitter. Convenience is the main thing. You also eat better I think and you spend less on clothes.

4) We discussed this with my manager already. There should be more communication. He would be phoning at least once a week to find out what is going on and how things are going. In our group we have a supervisor and we have decided on weekly status reports so that we know what other members are doing. Even though we are at home we are encouraged to return the calls rather quickly.

For the people in the office they should be encouraged to phone the homeworker even though they are not in the office. From a management point of view they have to support you in the sense that yes they are at home but feel free to phone them. They have to encourage co-workers to call you.

5) I think travelling is that main point for anybody. The costs you save here and also from having lunch. I guess it is monetary.

Also, convenience. Let's say they don't want to work at a certain time but they will work later on during the evening. More flexibility with their work schedule.

6) I think it will go off well. But like in my case it I am having trouble getting an ISDN line. So I think it is also up to the telecommunication companies to provide that service quickly. If they can provide the service in a timely fashion, I think they will encourage more people to work at home. I think it will go off well because the company will not have to pay for that office space, since you don't have a permanent spot. I guess it will be cost efficient for the company. We will run out of space eventually as the company grows.

INTERVIEWER: Do you think there has to be some change in the way people think in the company?

INTERVIEWEE: Oh yes! I think there will have to be a lot of flexibility and peoples attitude towards homeworking because when you first think of the project, my point of view was that people where thinking that I was not at home, I am out shopping. People's attitudes must change because even though we are not physically there we are working.

INTERVIEWER: Do you think this companies attitude has changed or is it still in transition? With respect to top management.

INTERVIEWEE: I think they are cautious. They will see what happens. Even though this is a pilot project, I think they will continue on.

INTERVIEWER: What about your co-workers. How do they feel?

INTERVIEWEE: I think they are well. They people in my team are all telecommuting. I don't here any complaints.

INTERVIEW 15 (MALE - FRENCH INTERVIEW)

1) I chose.

2) I had this idea in back of my mind. This would save me from travelling to work. I think this is the big advantage. Also, it gives you flexibility to say on week-ends the weather is no good and you know you have work to do, you can do it.

When I first heard of the project I thought that I would wait and see what would happen. But then I heard that they didn't get as many applicants as they expected and so I decided to apply.

INTERVIEWER: No when you say that you can work whenever you want, are you not worried that you will work too much?

INTERVIEWEE: Yes, but I am very disciplined and so far I haven't had a problem. I do the same hours as when I am in the office.

3) Well, I expect that I will be more productive for the company. By being more up to date in your everyday work you also have the chance of doing other things which could help your job.

For my family I expect that I will have more time to spend with them. The time I waste in traffic, I will spend with the family.

4) The same as it is in the office. Of course there is some differences. For examples, meetings have to be scheduled ahead of time. You just can't call a meeting. It is a question of changing habits. I think I am lucky because my supervisor is flexible and open minded.

5) I think the same advantages will be applicable for everybody. Of course people with kids may see it as a bigger advantage.

6) For sure! There will always be people who will not try homeworking because there job does not allow it. But I believe that a good 80% of people could do part of their job at home.

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INTERVIEWER: When you work at home, you work in an enclosed room?

INTERVIEWEE: Yes a room like this one.

INTERVIEW 16 (MALE - FRENCH INTERVIEW)
1) I chose.

2) To have more time for myself. I spend two hours a day commuting to work. SO even at 3 days a week, I am already saving 6 hours. This is the main reason. There are disadvantages but this advantage alone outweighs them.

INTERVIEWER: Do you have any examples of disadvantages?

INTERVIEWEE: Well I am group leader, and the control of my team is harder. The influence which you have on a group is also reduced. You also are less visible by not being in the office. People sometimes think that I am not working when I am not in the office and they even apologize when they call my extension and they realize I am working from home. There is also the social aspect which is reduced.

INTERVIEWER: So this one advantage outweighs the cost of all these disadvantages?

INTERVIEWEE: Definitely. There are also other advantages. The hours of work are more flexible at home as well.

3) Well I expect that I will be more productive. Also, I expect that the quality of my work is better because I am able to concentrate more.

On the family side, I will spend more time with them.

4) It is a good question because I am group leader and I have two people in my group who work at home. So I am on both sides of this. For my group I have instituted weekly status reports. My manager had no problem with me working at home. I don't think that the management style has to change drastically, it just requires a better method of keeping track of the work people are doing so that you could see and hopefully avoid a problem in the work being done. A good work management tool is required to keep track of what is going on in the project.

5) Yes it does. I think in general working at home offers a working environment with less distractions. For somebody who is not married, or doesn't have kids I don't see a big advantage. I think commute time will apply to almost everybody.

I worked at home for a one week period after my wife gave birth and I found that the same work which would have taken me 60-65 hours to do in the office, I did in 50 hours at home.

6) I think that it could be for everybody and maybe it should be for everybody. The main thing which is keeping a lot of people from working at home is paper. When the need for paper is going to be removed, I think most people can work from home. Some jobs require copies of documents, or faxes... It is also a question of equipment. Once better equipment is given to more people then more jobs can be done from home.

APPENDIX D: NEW ALTERNATIVE WORK ARRANGEMENTS DUE TO TECHNOLOGICAL ADVANCES

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                        │  Alternative Working │
                        │     Arrangements     │
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              ┌────────────────────┼────────────────────┐
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    │ Remote Telecenter │  │   Telecommuting  │  │  Virtual Office  │
    └──────────────────┘  └──────────────────┘  └──────────────────┘
                    ┌──────────────┼──────────────┐
          ┌──────────────┐  ┌──────────────┐  ┌──────────────┐
          │ Free Address │  │   Hoteling   │  │ Shared Space │
          └──────────────┘  └──────────────┘  └──────────────┘
                            ┌───────────┴───────────┐
                    ┌──────────────┐        ┌──────────────────┐
                    │ Group Address│        │ Activity Settings│
                    └──────────────┘        └──────────────────┘
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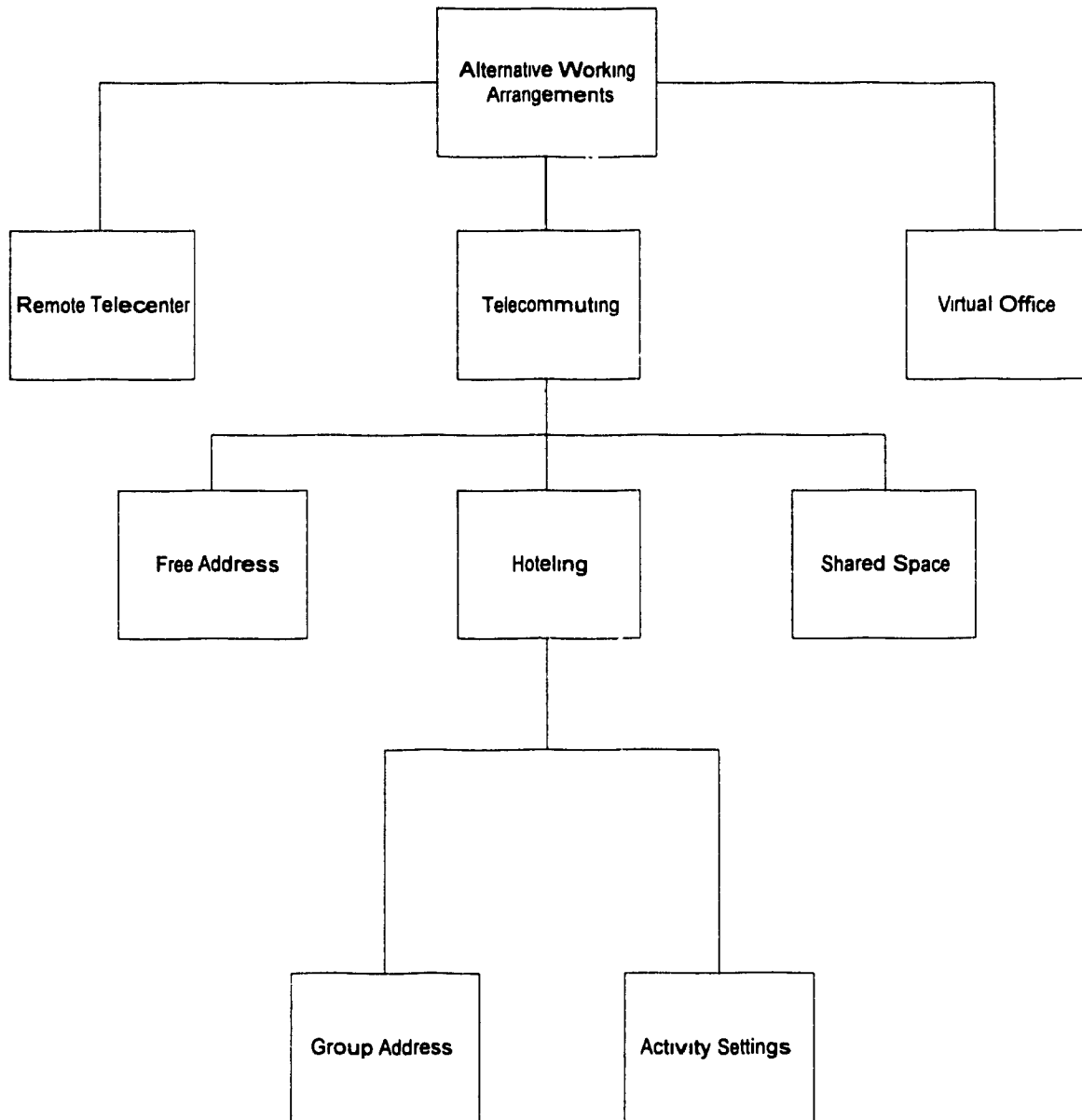
Definitions of Alternative Working Arrangements

- Remote Telecenter → Office is located away from the main office, usually closer to the clients and the employees have access to all technology and support required.

- Virtual Office → This enables the employee to work from anywhere whether it is in the office or outside. The employee uses a laptop and connects to the main office either through the usage of a modem if off-site or having areas in the main office which are designated as a virtual office. When the employee comes into the main office, a co-ordinator provides the employee with a free working area. Employees then connect their laptop to the main network and all calls are directed to the designated work area. If the employee is off-site, calls are also redirected to wherever the employee is working using a cellular phone or their home phone if at home.

- Telecommuting → This is a combination of office work and homeworking.

- Free Address → Office workspace is shared, based on a first come first serve basis.

- Hoteling → The employee works at home but has a reserved workspace in the office which he/she uses on a regular basis.

- Shared Space → Two or more employees sharing a single, assigned workspace in the office.

- Group Address → A group has a designated work space for a period of time.

- Activity Settings → A variety of work settings that is shared amongst employees to support diverse individual or group activities.