



**TELEWORK: A NEW MODE OF GENDERED SEGMENTATION ?
RESULTS FROM A STUDY IN CANADA**

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Biographical note

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Abstract

Telework has been given more and more attention over recent years as a way to reduce urban pollution, as a new mode of work organization and oftentimes as well as a way of balancing work and family. Various authors have held different views on this issue, but a good number of North-American authors have centered their interest on how to make telecommuting function well within a firm, on management tips and issues. There have been relatively few critical studies, and practically no gendered feminist study of the subject, partly due to the fact that most authors concentrate on one professional category and do not have a general view of the telecommuting labour market. Our own research provides a picture of the teleworkers, but goes beyond the general percentages towards a gendered view of the subject. This reveals an interesting fact, which we will call a gendered segmentation of telework or telecommuting.

In this paper, we will present data to support this thesis of a gendered segmentation of telework, by stressing the gendered differences in the type of work done in a context of telework, as well differentiations in tasks, in the autonomy of decision to telecommute, as well as in work organization and conditions of work. We will show that work organization and tasks are differentiated according to gender and we will also determine if men and women see the same advantages and disadvantages in telework or if, as some studies indicate, work-family balancing was really an important objective for women, while men would telecommute for other reasons.



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Telework: a new mode of gendered segmentation ? Results from a Study in Canada

Telework has been given more and more attention over recent years as a way to reduce urban pollution (Benchimol, 1984), as a new mode of work organization (Boivin, Rivard et Aubert 1996), but also finally oftentimes as well as a way of balancing work and family (Duxbury, Higgins and Neufeld 1998 ; Richter and Meshulam 1993). Various authors have held different views on this issue (Cooper, 1996;Kurland and Bailey, 1999) , but a good number of American authors have centered their interest on how to make telecommuting function well within a firm (Goldsborough, 2000), and there have been relatively few critical studies, and practically no gendered feminist study, partly due to the fact that most authors concentrate on one professional category and do not have a general view of the telecommuting labour market. Our own research provides a picture of who are the teleworkers, but goes beyond the general percentages towards a gendered view of the subject. This reveals an interesting fact, which we will call a gendered segmentation of telework or telecommuting.

In this paper, we will present data to support this thesis, indicating who are the teleworkers in terms of sector of activity and also of the type of work they do, but more importantly as concerns the gendered differentiation of tasks, the autonomy of decision to telecommute, as well as work organization and conditions of work. We hypothesized that work organization and tasks are differentiated according to gender (Tremblay and De Sève 1996 ; Tremblay 1995), and we also wanted to see if men and women saw the same advantages and disadvantages in telework or if, as some studies indicate (Felstead and Jewson 2000 ; Duxbury, Higgins and Neufeld 1998), work-family balancing was really an important objective for women, while men would telecommute for other reasons.

1. Litterature review

Telecommuting has been the object of many articles in the popular press, but also of a few scientific studies over recent years (Felstead and Jewson 2000 ; Felstead, Jewson et al. 2000a et 2000b ; Huws, Vermer and Robinson 1990; Cooper, 1996; Kurland and Bailey, 1999; Duxbury, Higgins et Neufeld, 1998; see bibliography). Telework has also attracted interest in Europe (CEE 1991 ; Bangemann 1994), as well as in Canada in more recent years (Statistique Canada 1998 ; Nadwodny 1996 ; Akyeampong et Nadwodny 2001; Tremblay, 2001). However many of these studies treat all forms of « home work » simultaneously, as do the British Felstead and Jewson (2000), and the Canadian studies cited above. Also, very few include the gendered dimension, and when they have, we have not seen the perspective we want to highlight here be mentioned, since as mentioned previously, most studies concentrate on one or a few professional groups or employers for their study.

Our study differs, since it is based on a scientific survey of the Québec population (French part of Canada) as well as on case studies of six organizations and since it takes the gendered dimension into account on various dimensions.

Also, we centered our research on « new » forms of telework based on the use of IT (information technologies) and not on all forms of homework, as did Felstead and Jewson (2000) for example ; the latter book is an excellent synthesis of all work done on homework in general. This newer form of homework, which we prefer to call telework, has attracted



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attention in Europe (CEE 1991 ; Bangemann 1994), in Belgium (Pichault and Grosjean 1998) and in France (Benchimol 1994), and is sometimes also considered in some of the US and British studies mentioned previously (see references cited above), but is rarely the only mode of telework considered in the surveys.

Also, many studies have only tried to determine the number of telecommuters, although this is a difficult endeavour, especially when one wants to compare different countries (Akyeampong 1997 ; Akyeampong and Siroonian 1993 ; Felstead and Jewson 2000). Other works have centered on the management of telecommuters (Katz 1987 ; Goldsborough, 2000, Greengard 1994 ; Pinsonneault 1996; Chapman et al. 1995 ; Bussi eres, L evis and Thomas 1999) and on the factors that contribute to « making it work ». In Qu ebec for example, authors such as St-Onge, Haines and Sevin (2000) highlighted the fact that employer and colleagues' support were essential to the success of telecommuting.

Studies on conditions of work and autonomy of persons doing telework are clearly less numerous, although some British studies did look at tasks done by teleworkers (Huws, Werner and Robinson, 1990, Hafer ,1992). Hafer (1992) for example indicated that some tasks could not be done in a telecommuting fashion. Felstead and Jewson (2000) also looked at conditions of work in Britain.

We therefore view our own research and the elements we want to highlight here as contributing an interesting and innovative dimension to the analysis of telework or telecommuting, not the least being the gendered dimension of the analysis. Many studies of work organization do not consider the gendered dimension, considering especially that new forms of work organization tend to be gender indifferent. The seminal work of Kern and Schumann (1989) on new forms of work and the « End of the division of labour » to cite the title of their book written originally in German, does not consider gender to be an important variable in work organization for example.

This article will thus present some results from a research study on telework which was carried out in the year 2000. This article will deal basically with the following questions, differentiated according to gender: Who are the teleworkers (sex, age, main sectors and tasks)? What are the impacts of telework on work organization and working conditions, including in terms of work-family balance since telework is sometimes presented as a solution to problems of reconciling work and family responsibilities. Finally, what is the level of satisfaction among teleworkers and what advantages or disadvantages do women and men see in this mode of work organization ?

2 Methodology of the research

Our research on telecommuting was carried out in three stages. The first stage involved gathering and analyzing existing documents and studies on the topic from Canada, the United States and Europe in order to draw a portrait of telework and its extent in Quebec and elsewhere. In the second stage, we developed a questionnaire and conducted a survey of the Qu ebec population in order to assess the extent of telework in Quebec, but also the specific tasks, satisfaction, advantages and disadvantages for men and women. We thus identified a number of people who were engaged in telework and focused on their experience of telework. It should be noted that until now, no studies have measured the extent of this new form of "telework " (in opposition with "homework" in general, where many women are also found in piecework) nor is there a sufficient body of representative data on the reality of telework as experienced by those involved in it. This is a gap that we fill with



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our survey results. Finally, we carried out case studies in six organizations, interviewing 63 teleworkers, their supervisors and a number of their co-workers.

We had hoped to achieve a certain level of diversity in the case studies. In reality, we mainly studied large and, for the most part, unionized organizations. However, we were able to cover both private and public organizations, teleworkers who have access to advanced technologies, others who use intermediate or average levels of technology as well as organizations with different types of management (rather traditional vs. rather modern participative contexts). In the case studies, we met various organizational actors associated with the telework program, that is, managers (immediate supervisors and those in charge of the program), teleworkers, unions, information technology managers as well as the teleworkers' co-workers. Through these interviews, we were able to gather information on both the individual, organizational and societal aspects of telework as well as on assessments of the telework program. These semi-structured, face-to-face interviews were based on a questionnaire guide. Most of the interviews with the teleworkers themselves took place in their homes. All the interviews were recorded and lasted from one and a half to two hours. A case study was produced for each of the participating organizations based on the analysis of the interviews and the survey results. The data presented here are drawn from these last two stages of the study, that is the survey and case studies.

3 xtent of Telework: A Question of Definition

The lack of a common definition of telework makes it difficult to quantify this phenomenon. In fact, according to the definition retained here, telework may cover diverse forms of electronic outworking either from home or elsewhere. The broader the definition, the greater the estimate of the number of teleworkers in a given country or region. The numerous examples provided by Felstead and Jewson (2000) show that, in effect, the state of knowledge on the extent of telework is difficult to determine because of the multiple definitions used in various studies. Moreover, many studies that provide data on the extent of telework or homeworking were not designed originally to study telework and thus the definitions are sometimes vague. This makes it difficult to determine exactly what type of teleworker is included in the figures.

Although telework often refers to homeworking, various studies also refer to all the other forms of electronic outworking such as mobile work carried out in various locations outside the central office (by sales representatives, technicians, etc.), work by employees from a number of firms through telecentres or telecottages, and work by employees of the same firm in satellite offices. These two latter forms (the telecentre and satellite office) are apparently well developed in certain European countries, especially the English-speaking ones, but they seem to be relatively rare in Quebec.

The status of the teleworker is also poorly defined. The term teleworker may apply to a full-time homeworker, which would include a self-employed worker, but it may also include a part-time travelling teleworker or even a casual teleworker who occasionally works at home. The survey conducted as part of this research allowed us to identify the relative importance of these diverse realities, a topic that we will return to once we have described the state of knowledge on the extent of telework. While bearing in mind these problems in defining telework, which have been analyzed in more detail in Tremblay (2001), let us now examine some of the data on the extent of telework in general.



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A 1994 European Commission survey (CEE, 1994) indicates that the percentage of teleworkers varies from country to country, but they also indicate that this is a problem of definition, some being more restrictive than others.

Table 1. Percentage of teleworkers in various European countries, individuals and organizations' interest in telework

Country	% of teleworkers	Individuals' interest in telework	Organizations interested in developing telework
England	7,4%	43,5%	34,4%
France	7,0%	49,8%	39,3%
Germany	4,8%	40,5%	40,4%
Spain	3,6%	54,65	29,6%
Italy	2,2%	45,4%	41,8%

The European Commission has indicated that it would want the number of teleworkers to increase to 10 million in Europe in order to reduce pollution, urban congestion and other problems related to the development of urban environments. The following table gives the percentage of teleworkers working at least half the time from home, according to another European survey. Here again, we need to stress the fact that definitions are not necessarily identical from one country to another.

Table 2. Percentage of workers aged 15 and over working from home in different European countries*

Country	1992	1993	1994	1995**	1996**
Europe of 12	4,9	4,2	4,6	4,6	4,6
Belgium	11,6	11,3	11,1	10,8	10,1
Denmark	11,0	10,3	11,8	11,0	11,0
France	0,8	2,6	5,5	5,4	5,0
Germany	5,2	5,1	5,1	4,1	5,0
Greece	1,7	2,3	1,8	1,6	1,4
Ireland	20,6	19,5	18,6	18,2	7,1
Italy	5,5	5,1	4,5	4,6	4,6
Luxemburg	5,5	6,9	6,3	6,9	6,1
Holland	5,6	6,4	6,8	6,8	6,8
Portugal	4,4	3,9	4,0	3,7	3,5
Spain	0,8	0,7	0,6	0,6	0,6
Great Britain	7,6	2,7	2,7	2,6	2,6

Source : Alan Felstead and Nick Jewson (2000) : *In Work, at Home*, Londres : Routledge, p56.

*these are persons who spend at least half their working time at home.

** this represents the 15 European countries.

The European average seems rather stable, but there are disparities in the various countries and sudden changes (See Ireland and Great Britain) when definitions are changed.



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In the US, labour force data for 1991 indicated that some 20 million persons worked from home at times, that is some 18,3 % of the labour force. In 1994, other data indicates 8 million teleworkers, with a more restrictive definition. Some more recent estimations indicate that in 2000, some 25 million Americans would do some form of telework or another. Finally, FINDS/SVP indicates that there were 11 million telecommuters in the US in 1997. (see Felstead and Jewson, 2000).

The state of knowledge on the extent of telework in Canada reflects the definitional problems described above. The Labour Force Supplement on work arrangements, carried out in November 1991 gave some indication of the number of telecommuters. The 1991 survey showed that 5.8% of Canadian workers work at home and this figure was confirmed by data from the 1991 Census in which it was found that 6.2% of the employed labour force worked at home. It is interesting to note that the two percentages are similar, which means that the measure is undoubtedly valid, although the definition is rather broad. More recent Labour Force data (2000) indicate that 8 % of Canadian workers do so from home (either full or part time).

The trend is increasing, but with our more limited definition of telework, only approximately 4% of the 10,590 respondents in our Canadian survey said that they were teleworkers in the restricted sense that we had defined, i.e. with use of IT (information technologies). Of those who did, 58.8% were self-employed, 35% were non-unionized employees and 6.6% were unionized employees. Obviously, we used a precise definition of telework, in particular, a definition that excluded people who do not use technological links. It is interesting to note that our survey found that 60% of the teleworkers had been engaged in telework for more than two years, compared to only 11% for less than 6 months and 28% between 6 months and 2 years. These data may provide a clue as to the predictable growth of telework, which has increased 2 percentage points over a decade, and will probably continue to increase in upcoming years.

4. Who Are the Teleworkers?

The survey data relate to those persons who responded to the following screening question designed to identify teleworkers: "By teleworker, we mean a person who carries out paid work at home, mainly by computer; generally this work is transmitted to a client or employer via the Internet or on a diskette." This broad definition includes self-employed workers. However, because our case studies refer only to salaried teleworkers working at home, some of the tables in this article will include only the salaried workers in the survey, that is, 210 true teleworkers in the stricter sense of the term. To better compare the data gathered in our interviews, we will sometimes present available survey data that specifically concern the teleworkers working full-time in their homes.

4.1 Personal Characteristics of Teleworkers

The following portrait emerges from our survey of salaried teleworkers:

- There are more men (58.8%) than women (41.2%)
- Most teleworkers (70%) are between 26 and 45 years old; 41.7% are between 35 and 45 years old;



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- 47% have a spouse and one or more children; 22.7 % have a spouse but no children; 19.4% are single without children;
- 60.6% of teleworkers have a university degree, 25.6 % have a college diploma, and 12.5% have a high school diploma; these percentages are higher than those for the population as a whole.

The following profile emerges for the full time teleworkers interviewed for our case studies:

- There is a higher representation of women (60%) than men (40% of the 63 people interviewed) in these teleworkers, who are full time out of the office.
- The majority of teleworkers are between 36 and 45 years old .
- The majority live with a spouse and have children.
- One third have a high school diploma, one third have a college diploma and one third have a university degree; the percentage of interviewees with diplomas or degrees is therefore lower than that of the population of teleworkers identified in our survey, because our case studies were conducted with mainly full time teleworkers and these were administrative or clerical workers;
- The workers interviewed have at least 5 to 10 years' seniority in the organization, particularly because in the organizations studied, a certain level of seniority is often required to be eligible for telework.

Although the majority of salaried teleworkers in our survey are men, this is not true of salaried teleworkers who work exclusively out of their homes. In 67% of the latter cases, these teleworkers are women. It is therefore important to consider these data in relation to the type of job held. It should be recalled that women are over-represented in our case studies precisely because we studied full time teleworkers and the majority of the full time home jobs are those traditionally held by women (telephone operators, clerical workers, etc.). Most often, men hold the autonomous professional jobs and women hold salaried clerical jobs. Thus, our research highlights a pronounced gender-based differentiation of telework jobs in this specific dimension (full time or part time telework) and we will highlight more in the following pages.

On the other hand, the survey and case study data on age and family status are similar. The majority of teleworkers in the case studies are between 35 and 45 years old and live with their spouse and children. The survey showed that individuals engaged in telework belong to this same age group, that is, between 26 and 45 years old, and a high proportion of these are aged between 35 and 45.

4.2. Sectors of activity of telework

Frequency of telecommuting varies from sector to sector, but it is more the type of task done that determines whether telework is possible. Table 3 shows that telework is present in various sectors, since it gives the distribution of sectors in which the respondents to the survey work. These data could unfortunately not be differentiated according to gender, but tasks done by men and women will indicate clearly what women do in telework; while they are in fact in all sectors, they are concentrated in certain types of tasks. (see table 4)



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Table 3. Distribution of teleworkers according to sector

Sectors of activity	%
Public sector(administration, health, education)	24,6
Manufacturing and industrial (transportation, construction, manufacturing)	13,0
Private sector (Financial, business, publicity, sales and others)	58,3
Agricultural sector	2,8
Other	1,4

4.3.Types of tasks and jobs

The studies and articles on telework generally suggest that certain types of tasks lend themselves more to telework than do others (Hafer, 1992). However, our case studies seem to indicate that supervisors think that it is the characteristics of both the individual and the tasks which determine whether or not a situation is suited to telework.

In any event, our survey indicates that the tasks carried out by teleworkers at home have certain elements in common. In the case of individuals who carry out only a part of their work at home (executives and managers), administrative tasks, writing, accounting and other tasks tend to be carried out at home. Many of the other tasks carried out at home are done by computer, in particular tasks related to software and Web site design or computer graphics in the case of men, and to secretarial work, accounting and translation in the case of women (see table 4). There thus appears to be a gendered segmentation of telework tasks done at home.

**Table 4 Distribution of persons*
in telework according to tasks and to gender****

Type of work	Men %	Women %
Accounting	12,3 ----	24,9++++
Software design or testing	10,3++++	1,4----
Website design or testing	8,1 +++	1,9 ---
Infographics or commercial design	11,6++	6,1--
Writing or text entry	27,7	30,5
Secretarial work	0,3----	7,0++++
Éditing	3,2--	7,5++
Translation	1,9----	9,9++++
Administration- management	14,5	11,3
Research on the Internet	11,0++	5,6--

* Here , we have included self employed teleworkers, so that there are 310 men respondents and 213 women.



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** The signs indicate statistical significance, from 0,05 (+ or -) to 0,001 (++++ or ----). This was an open question and we do not show here the very small percentages, with no gendered differences, such as music, consulting or statistical work, which concerned only about 1% of respondents.

We also asked information on professional categories. For teleworkers only, we find 16,2 % of office workers (women), 8,3 % technical personnel (men), 35,2 % professionals (mixed), 37,5 % of managers (mainly men) and less than 1 % for various other categories. If we include self employed, we find 10,3 % office workers, 10,3 % technical, 45,7 % professionals and 26,8 % managers. Others are sales persons, or blue collars, in negligible percentages.

Professionals are therefore the most important category in telework, and all the more so if self-employed are considered. However, office work and technical categories are also important, and the first especially for women. In office work, it is especially work that does not require direct contacts with others, as was noted in the case studies. It is often a mix of secretarial work, sometimes call center type of work.

As concerns time spent working from home, data from table 3 indicates that women (and especially office workers) are the ones who find themselves most often working full time from home. On the contrary, men tend to work from home on a part time basis only, as is highlighted in table 3. It is only young men in the multimedia, web site development and similar jobs who work a higher percentage from home, up to full time.

Table 5. Distribution of salaried teleworkers according to time spent at home and to gender (%)

Time spent at home	Men %	Women %
From 1 to 10 %	17,3 ++	6,7--
From 11 to 20 %	29,1	24,7
From 21 to 30 %	21,3+	12,4-
From 31 to 50 %	13,4	18,0
From 51 to 98 %	11,0	14,6
100 %	7,9---	23,6+++

Our data indicate that in the persons working full time from home, 45 % are office workers, 25,8 % managers, 22,6 % professionals, 3,2 % technical workers and 3,2 % salespersons.

In our case studies, 40 of the 63 persons interviewed were always working from home, mainly in clerical type of office work. The technical and professional workers (mainly men) tended to go to service calls, to clients' offices or to the office once in awhile. Here again, there is a gendered distribution, since women are more frequently full time at home than is the case for men.



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5. The issues of Autonomy and Working Conditions

Felstead and Jewson (2000) note that there are often differences in working conditions between teleworkers and the rest of the organization's employees. This may be surprising and certainly does not seem to apply to unionized environments such as the ones in our case studies. However, since the majority of telework jobs are non-unionized, it is reasonable to ask whether or not Felstead and Jewson's observations for England and other countries that they have studied would hold for Quebec. The following data emerge from our survey:

- 84.3% of the teleworkers are not unionized;
- The majority (59.2%) earn less than CAN\$20,000 annually (about US\$ 14,000)
- 24.5% earn between CAN\$20,000 and CAN\$40,000 annually (14 000 to 28 000 US\$)

The survey results relating to the salaries of teleworkers are somewhat surprising. Despite the fact that the majority of respondents who stated that they were teleworkers are executives or professionals with a university degree, 59.2% stated that they earn an income of less than CAN\$20,000 (or US\$ 14,000). One possible explanation for this is that a quarter of teleworkers are employed in firms with less than 10 employees. This may explain both the low unionization rate as well as the low salary levels of those surveyed. A second explanatory factor may be the number of hours worked per week, on which we do not have precise information since we had to limit the number of questions asked in the telephone survey. All of the individuals interviewed in the case studies work at home on a full-time basis, and their salaries are significantly higher; they also work for large unionized organizations, large high-tech firms or the public sector, organizations in which salaries are generally higher than those in small private firms. Seniority may also be a factor; however we do not have data on this. A final explanatory factor may be the specific occupational category of these teleworkers. In particular, as the following data on income show, secretarial jobs and those in Web site design are generally poorly paid.

- 50 to 60% of teleworkers in the fields of information technology and Web site design, editing and layout earn less than CAN\$10,000 (about US\$ 7,000)
- 66.7% of teleworkers in the secretarial field (women mainly) earn less than CAN \$10,000 (about US\$ 7,000)
- 37% of teleworkers in the management field earn between CAN \$10,000 (about US\$ 7,000) and CAN \$20,000 (about US\$ 14,000) and 22.2% earn between CAN \$20,000 and CAN \$30,000 (about US\$ 21,000) ; this is somewhat surprising for such type of tasks.

A comparison of the salaries reported in the case studies shows that the majority of the clerical teleworkers, most of whom are at the end of their career, earn between CAN \$30,000 and CAN CAN \$40,000 (about US\$ 21 to 28,000) while the executives and professionals earn approximately CAN \$60,000 (about US\$ 42,000). These salaries can be partly explained by the seniority of teleworkers within the organization. On the other hand, an explanation for the low income level of managers in the survey has yet to emerge



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(beyond the idea that these teleworkers may have under-reported their income). We might think that they declared their net income rather than gross income.

5.1. Work Organization and Autonomy of Teleworkers

If we examine telework and homeworking in general, without limiting our analysis to workers who use a computer or electronic link, a quite varied portrait of this work force emerges from the studies on this topic. Few theoretical studies make distinctions between the various categories of outworking. One exception is the study by Felstead and Jewson (2000: 16).

They divide all homeworkers into two groups: employers who work at home (or self-employed workers with employees) and workers (who do not have employees) who work at home. The latter group is subdivided into two groups: those who have a direct link with the final user of their product (for example, self-employed workers on contract) and those who sell their work to a supplier, intermediary or employer. The latter group is again subdivided into two: those who have considerable discretion or autonomy in their work, that is, professionals and executives, and those who have little autonomy or discretion (routine manual or service jobs, such as clerical workers, secretaries, etc.). Our study focused on salaried teleworkers, that is, the latter two groups in the typology and, in fact, the same type of distinction was found according to the degree of autonomy exercised by individuals in their decision to undertake telework and in the tasks that they carry out.

In addition to teleworkers' occupational category, which is often used as an indicator of degree of autonomy, the way in which the decision to do telework is made is an element that can be used to characterize degree of autonomy or discretion. Thus, the possibility of making one's own decision reflects a degree of autonomy, while having to make the decision jointly with an employer reflects a more limited degree of autonomy.

Thus, 48.6% of all the survey respondents made the decision to do telework jointly with their supervisor while 45.8% made the decision on their own. According to the survey results, telework was imposed by employers on only 5.1% of respondents, which is confirmed by the data from our case studies, in which all the subjects had made the decision to do telework voluntarily. It should be noted that telework in the organizations is suggested on a voluntary basis and that the employee must first decide whether or not he or she would like to do telework. On the other hand, in the majority of cases, teleworkers are selected according to a number of criteria such as seniority in the organization, level of performance, type of task and so on; in fact, the final decision rests with the immediate supervisor even when it is said to be a joint decision. The immediate supervisor may in effect refuse to allow a person to opt for telework if he or she thinks that this employee does not have the required skills.

The survey data confirm that executives and professionals have greater autonomy in their decisions regarding telework: 58% of the executives and 47.4% of the professionals made the decision on their own while 85.7% of the clerical workers made the decision jointly with their employer. The data according to gender reflect occupational segregation: 55.9% of men made the decision on their own while 64% of women made the decision jointly.

5.2. Family Status, gender and autonomy

Examination of the family status of the teleworkers in our study reveals that the majority have a spouse and one or more children (47.2%) or are single parents (7.4%); 54.9% of the



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respondents who have a spouse and one or more children made the decision to do telework independently while 62.5% of the single parents made this decision jointly.

Table 5. Type of Decision According to Family Status of Teleworkers(vertical %)

Type of decision	Single parent	Single without child (ren)	Spouse with child(ren)	Spouse without child(ren)	Other cases
Decision imposed by employer	6.3%	7.1%	2.9%	8.2%	2.8%
Personal decision	31.2%	57.1%	54.9%**	24.5%	33.3%
Joint decision, with supervisor's approval required	62.5%	35.7%	41.2%	67.3%***	66.7 %

The case studies confirm that telework is more attractive for those who have a spouse and children because it allows them to reduce their travel time, to be at home later in the morning and earlier in the evening, and thus to achieve a better balance between work and family responsibilities. Along these lines, table 6 indicates the main advantage that teleworkers see in this type of work organization.

Table 6. Advantages of telework, according to gender¹

Main advantage	Men	Women
1. More flexible schedule	29,2%	30,7 %
2. Not having to take transport to work	23,1%	24,9%
3. I am more productive	10,2 %++	4,4%--
4. Stay at home, more with family	5,1%	8,3 %
5. Economies (transportation, clothing, meals...)	5,1 %	5,9 %
6. More tranquility	5,1 %	3,9 %
7. Better quality of work	2,0%	2,9 %

The interviews revealed that fewer single people opt for this form of work, partly because it would result in greater isolation for them. However, single people without children make up 19.4% of all of the teleworkers surveyed (42 out of 216).

¹ Ce sont ici les réponses les plus fréquentes données comme principal avantage au télétravail ; le total ne donne pas 100 % puisque nous n'indiquons pas toutes les autres réponses possibles, dont les taux de citation sont inférieurs à 2 % :



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If we look at the same data according to gender, here is the picture that emerges. These data indicate that women are more often subordinated to their superior's approval than is the case for men.

Table 7 Autonomy in decision according to gender

Type of decision	Men %	Women %
Imposed by the employer	5,5	4,5
Personal decision	55,9++++	31,5----
Supervisor's approval required	37,8----	64,0++++

Of the 216 salaried teleworkers interviewed in the survey, 73.1% stated that they did not have any formal agreement with their employer regarding working conditions. Only 26.4% had signed an agreement. Thus, 80.2% of the executives and managers had not signed an agreement and it is known that the majority of them had simply made the decision on their own. It should be noted that most managers and executives work at home only one day per week (51.8% spend up to 20% of their work time at home). As for professionals, 30.3% have an agreement with their employer, compared with 69.7% who do not. Finally, 28.6% of the clerical employees have an agreement, compared to 71.4% who do not. Thus, telework is mainly based on informal agreements with the supervisor, which presents risks of arbitrary decisions of course, or reversal of the permission to do telework.

These data differ from those collected for our case studies since the great majority of teleworkers interviewed in the case studies were unionized in large firms and had signed an agreement (though some of them could not recall the details of the terms of agreement). The survey results indicate that the larger the firm, the greater the likelihood that the teleworker has an agreement with his or her employer. In fact, 36.8% of the teleworkers who signed an agreement work for a firm with 500 or more employees, 22.8% work for a firm with 10 to 15 employees and 12% work for a firm with between 200 and 500 employees.

Generally, these agreements clearly describe the conditions in which the telework must be carried out and may include work schedules, security measures to be adopted to safeguard the confidentiality of information and data as well as the conditions for returning to work in the office. Generally speaking, they do not contravene the collective agreements, except in certain cases where the teleworker may be required to maintain a level of productivity that is equal to or higher than that required of workers in the office. Given that most of the professionals and executives in the case studies do telework on an occasional or part-time basis under conditions that do not appear to be as strict, they generally do not sign a specific agreement.

5.3. Work organization and autonomy

Some authors (amongst which Felstead and Jewson, 2000) have also raised the possibility that telework can create a differentiation of tasks between those who work in the office and those who work at home. Indeed, our case studies revealed a number of interesting factors regarding the content of work and its evolution in the context of telework. For example, the findings from our interviews indicated that most teleworkers (two-thirds of



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the 63 people interviewed) basically do the same work at home as they do in the office. However, it should be noted that the tasks of 20 of the 63 teleworkers (or a third) in the three different organizations were changed.

Different situations were observed, including certain cases in which the content of the work carried out is less prestigious, in the sense that the teleworkers work with a less prestigious market segment than those who still work in the office (for example, the former work with individual as opposed to business customers). In other cases, the content of work is less varied since the telework tasks to be carried out must be more defined. These two situations are rather negative in terms of the content of tasks and the possibility of developing new skills and knowledge. On the other hand, several of those interviewed thought that they had more autonomy in solving problems that arise while working and have even been able to acquire new skills and knowledge since they have had to manage on their own at home whereas at the office they might have consulted a co-worker. Also, some of the teleworkers dropped certain less interesting tasks, such as printing and sorting of documents, since they transmit their documents by e-mail to the office where these tasks are carried out by the workers located there, which sometimes results in conflicts between teleworkers and office workers. Thus, the differentiation of work content is clearly an important factor to consider when developing telework.

Since there are rarely specific agreements in this regard, changes sometimes occur “naturally,” without a specific decision having been made to change tasks in one direction or another (diversification or standardization of tasks, deskilling or reskilling). However, it must certainly be considered since both the teleworkers and those who remain in the office may either complain about such changes or welcome them, depending on the case.

In broader social terms, these aspects should be considered because of the increasing attention given these days to concepts such as the learning organization, the importance of challenges and training for maintaining the motivation of individuals at work, and developing innovation and creativity within the organization. This suggests that these factors should always be examined before proceeding with a telework project.

As regards work organization, our case studies indicate that teleworkers (women in call centers especially) generally feel that they have a fair degree of freedom in their work, even though some of them may be monitored from a distance through the computerized systems that they use to carry out the work. In fact, although the practice appears to be infrequent, the connect time of a number of respondents is monitored.

What is especially important to retain from this section of our article is that our results clearly show that working conditions, autonomy and discretion in work, as in the decision to do telework, are differentiated according to occupational category and gender. Female teleworkers are more concentrated in accounting, translation, word processing and secretarial work and the decision to do telework more often has to be made jointly with their supervisor. In contrast, male teleworkers are more concentrated in executive, management, professional and technical positions and they are more likely to have made the decision to do telework on their own. This confirms that, like the labour market in general, the telework market is segmented. Since many of the studies on telework examine only one occupational category or one firm, this particular aspect of teleworking has not been highlighted, most research centering on the advantages for teleworkers (see table 5) of for the firm (reduction of office space and costs for example).



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6. Disadvantages of telework and sources of dissatisfaction

We mentioned the main advantages of telework in table 6. Although one quarter of respondents saw no disadvantage to telework, some disadvantages have been identified in the case studies and the phone survey.

Our case studies showed that the greatest source of dissatisfaction among teleworkers is related to technology. Several mentioned the slowness of computer systems and telephone lines and cumbersome security measures, even though this security aspect was considered to have improved over the years. However, this situation hampers the performance of teleworkers and may lead to a surplus of work for those located in the office. The teleworkers also expressed some dissatisfaction, although to a lesser degree, with their supervision and training. Several thought that there should be specific training for teleworkers, including training in time management, work organization, and in computer and communications systems.

6.1. Disadvantages of telework

Respondents to the survey most often mentioned the lack of co-workers and isolation (15.4% and 10% of respondents) as disadvantages, followed by the risk of working more (9%), the difficulty of motivating themselves (6%) and work-family conflict (5%). However, it should be noted that 26% of respondents thought that there were no inconveniences in teleworking, compared to 20% of the full-time home teleworkers, 24% of whom thought that not having co-workers was a disadvantage.

If we differentiate according to gender, we find that women are somewhat more inclined to find the absence of colleagues a disadvantage, and to have difficulty in disciplining themselves to work (7 % only however) but overall, the percentages are similar.

Table 8. Disadvantages of telework according to gender

Disadvantages	Men	Women
1. Absence of colleagues	14,2%	17,1%
2. Isolation	10,5%	10,2 %
3. Work more or too much	10,1%	9,3%
4. Difficulty to motivate or discipline oneself	4,7%	7,3 %
5. Conflict between work and family	5,7%	3,9 %
6. Computer or IT are slower than at the office	2,4 %	2,4 %
7. No disadvantage	27,7%	24,4%

6.2. Work intensification and productivity

Also, the intensification of work linked, depending on the case, to tighter and tighter deadlines, a more aggressive search for clients and the development of new activities, is increasingly motivating employees to seek working conditions that are less stressful than those prevailing in the office. In this context, telework is sometimes seen as an attractive option. As we observed in our case studies and as Vandercammen (1996) points out, for some, the improvement of working conditions is not so much a matter of reducing work time, but of “de-intensifying” work. Indeed, studies show that many workers, particularly women office workers, are not in a position to reduce their working time when it would result



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in a proportional reduction in salary. Telework thus appears to be a way to avoid workplace stress, or at a minimum, to reduce it without incurring a salary loss.

Our case study findings nevertheless showed that telework had intensified work as well, but in a less noisy or more pleasant work environment which, according to the teleworkers interviewed in the case studies, helped them produce more in the same amount of time. Indeed, they pointed out that the impression of a heavier work load did not always come from an additional burden imposed by the employer, even though several employers did, in fact, require a higher level of productivity. Conversely, the impression of a reduced work load at home, in their opinion, was due to a work environment that was more conducive to a higher level of production.

Moreover, the individualization of service provided by teleworkers sometimes leads firms to introduce productivity and performance standards that are different from those applied to other employees in the central office. Our interviews revealed that, in fact, firms required performance levels that were 10 to 20% higher than those required of other employees and that teleworkers agreed to these conditions despite warnings from their unions. As was mentioned above, it seems that they consider this an acceptable price to pay to have a more pleasant work environment, to escape the office and bureaucracy, and to reduce travel time and time spent in traffic jams.

Conclusion

This section will conclude on the views of teleworkers and the risks associated with telework.

In Canada, as in many other countries, there is no legislation to cover the specific case of telework or to ensure that the working conditions or productivity requirements of teleworkers are the same as those of other employees. This situation could result in a gradual polarization of workers. As was mentioned above, this polarization may be particularly harmful for women by creating less attractive work content and working conditions, as well as more isolation, since they are often full time at home (see table 5).

Felstead and Jewson (2000) report on studies that indicate that there is currently a differentiation between teleworkers and other employees; this did not emerge clearly in our study, although we did find gender differences and changes in work content of one third of teleworkers.

It was mentioned above that certain organizations differentiate between the tasks offered to teleworkers and those offered to employees located at the firm. This can be justified for all sorts of reasons (confidential data, the need for team work or for more regular monitoring of certain tasks, etc.), but the risk of task differentiation is certainly high. It was observed that in certain organizations, the teleworkers carry out more long-term, complex and interesting tasks while in other cases, their tasks were simpler, more repetitive and easier to measure.

In this sense, telework reflects what is happening on the labour market more generally, that is, the increasing segmentation or division between a core of stable, well-paid jobs and non-standard jobs that are often precarious and poorly-paid. This is one of the potential consequences of telework of which the state and society should be aware. As we noted in the paper, this segmentation or division is also observed along gendered lines, particularly as concerns the decision to telework and autonomy in work.



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The risks of the job becoming more precarious should also be considered in a context in which the salary and working conditions of many new self-employed workers are inferior to those of workers who previously had comparable positions in the firm. There have been evolutions in some sectors of the labour market, for example translators and accountants, where more and more are being hired as self-employed rather than employees, thus cutting out social benefits and reducing wage stability. Here again, a high percentage of women are concerned by this development since these are sectors where women teleworkers are numerous (as we saw in table 3) and where self employed seem to be concentrated.

Finally, it must be noted that new information and communication technologies may accelerate the use of sub-contracting and self-employment outside the firm. The absence of protection from governments for this category of workers may result in them being abused. Even if there is a high proportion of teleworkers among professionals and white-collar workers, office workers are more likely to find themselves in a less advantageous position for negotiating their working conditions. Many authors² fear that telework will be used to exploit a less skilled work force. It should therefore be recommended that the unions and the state, in particular its departments and statistical agencies concerned with employment, pay close attention to developments in this area because of the effects for individuals, but also because of the macro-economic effects of a deterioration of working conditions, particularly wage conditions (reduction of demand, economic slowdown, etc.).

² Chapman *et al.*, 1995, Christensen, 1992, Huws 1994, Olson 1988, Pratt 1984.



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