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Economic Flutuations And Gender Division of Labour Force

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A Thesis

in

The Department

of

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ABSTRACT

Economic Fluctuations and Gender Division of Labour Force

Mojgan Hosseini

Sociological literature embodies a great deal of research on labour market. The Gender division of labour force, as a sociological aspect of labour market, has been the subject of extensive research in the past few decades. In this thesis we have formulated three questions which have been essentially derived from the literature on this subject. The questions pose possible gender based differences during the economic hardship of the 1980s among three groups of labour force participants, namely, unemployed participants, those who held involuntary part-time work, and those who had to leave their jobs due to family responsibilities. The labour force data for 1980s have been used to examine the questions. Our observations indicate that during the recession of 1983, on the average, men seem to have a higher rate of unemployment than women in the goods-producing sector. While the rate of involuntary part-time work is almost equal for both genders, regardless of sector, during the recession of 1983, the average rate of job leaving is, however, higher for women compared to men. These observations have been discussed from the perspective of Human Capital theory and Feminist theory. Job segregation theory has also been considered, though to a much lesser extent. The data have also been explored for the possible impact of some determinant variables, such as education and occupation, on the observed gender based differences.

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CHAPTER I

WOMEN, WORK AND LABOUR FORCE PARTICIPATOIN

1.1 THE CONTEXT OF LABOUR FORCE PARTICIPATION

Since 1941, women's participation in the labour force has more than doubled. All over Europe and North America the number of working women has rapidly increased. Well over half of the female workers in the countries in the Organization for Economic and Cultural Development (OECD) are now in the paid labour force (Albin and Applbaum, 1988:3). Increasingly, most young women look forward to spending their prime years in paid employment. Today, in Canada women comprise 44% of the labour force, 33% in 1969 and 39% in 1979. Generally speaking, about two-thirds of the increase in female labour force participation is attributable to rising participation rates and the other one-third is due to population trends (Cote, 1990: 90). To be more precise, the population growth rate between 1969 to 1980 is equal to one-third of the rate of change in female labour force participation over the same period. At the same time that these general rates are rising, women's employment is affected by economic cycles of the market. Recessions and expansions differently affect women's and men's employment. It is this part of the labour process that we wish to explore.

The main factors that have increased the availability of potential reserves of female labour are:

1- Demographic changes:

Two incomes became a norm for most middle class families after birth-control technology became safe in the 60s. With less responsibility at home, women started to find their way into the labour market. Furthermore, this new technology encouraged many women to seek higher education and thus changed the way they would plan their families (Jones et al 1990: 7). Transformation in traditional family patterns caused by the higher incidence of divorce and separation have also been influential.

2- Commercialization of domestic work and the increased instability of marriage:

The new technology made domestic work less and less time consuming. It then left women with more time to become involved in outside work. An increase in the number of domestic appliances bought by families, the rising level of indebtedness, particularly for housing needs, and change in consumption patterns accelerated the need for two income families (Rubery, 1988:5).

3- *Economic and educational developments*:

Economic and educational developments have pushed women toward paid employment. Better qualifications, such as higher education, results in higher percentage of employment and better job opportunities which are usually accompanied by higher wages. On the other hand, any increase in employment experience and on-the-job training produce greater rewards in terms of wages and employment opportunities. Thus, because of higher education, women can earn higher pay and seek better jobs, which in turn encourages their participation in the labour market (Duffy& Pupo, 1992:29).

In Canada, the change in the composition of the labour force by gender started dramatically after World War II. These changes, over the last four decades have been quite remarkable. In 1953, 82.9% of men were in the labour force, while the participation rate in the labour force for women was only 23.4%. Four decades later, men's rate declined to 73.4% while women's participation rate had more than doubled.

The increasing rate of women's participation in the labour force indicates that women play a vital economic role in our society (Basset, 1994). The increasing rate of women's participation in the labour force not only has changed the composition of Canadian labour force but the Canadian household as well. The increasing rate of women's participation has led to an increase in the

dominance of two earner families, and as a result of that, an increase in the demand for other child care arrangements. In addition, the growing rate of women's participation in the labour force, increased the pressure for legislative initiatives to implement equal pay and equal opportunity policies, and to provide governement-supported training and labour adjustment programs (Gunderson, M. 1998 :23).

1.2 RESTRUCTURING THE ECONOMY

Beginning in 1951, the Canadian economy underwent a massive industrial shifts, from agriculture and manufacturing to service sector. In 1891, 69% of the Canadian labour force were employed in the goods-producing sector and 31% in the service sector (Krahn & Lowe, 1998:54). By 1951, almost half of the Canadian labour force (47%) were working in service industries. in contrast to the secondary sector which comprised 31% of the total employees in the labour force (Picot,1987:11). Canada's service industries have rapidly grown in recent decades, right now three quarters of the total labour force are employed in this sector (Krahn &Lowe.1998:54). These few percentages indicate that now we are living in a service dominated economy.

According to economist Joseph Schumpeter "industrial restructuring" is the basic feature of capitalism. Joseph Schumpeter stresses:

" the process of 'creative destruction' involved breaking down old ways of running industry and building up more competitive, efficient and high technology alternatives" (Krahn & Lowe, 1998: 26).

The recent transformation in Canadian industry is a good example of this process. Meanwhile we should consider that restructuring has brought some negative outcomes for individuals such as job loss and less job security (Krahn & Lowe,1998:26). Furthermore, the occurrence of some major factors has prepared the ground for a significant decline in the goods-producing sector industries, the expansion of the service sector and consequently an increase in part-time work in the 1980s. These factors can be summarized as follows:

1- *Automated manufacturing:*

Using computer technology in industries has allowed many employers to maintain their level of production with fewer employees (Sherman & Judkins 1995; Menzies 1996)

2- *Emergence of a "Knowledge economy":*

This has involved the expansion of state expenditure in education and encouraging young Canadian to stay in school along with encouraging older labour force participants to upgrade their skills (Krahn &Lowe, 1998:140).

3- *Deindustrialization:*

Factory closures due to overseas competition and the movement of manufacturing bases to low-wage counteries have caused significanct shrinkage in goods-producing sector.

One of the main features of the recession of the 1980s is that unemployment peaked at 11.9% in 1983 (the highest point since the Depression of 1930s) while the average national unemployment percentage was 4% in 1950s, 5% in 1960s, 6.75% in the 1970s, 9.5% in the 1980s (Krahn and Lowe 1998 : 70). This rather high percentage of unemployment during the recession of 1980s can. to some extent, be attributed to the increase in automated manufacturing that distinguishes this period from the 60s and 70s. It should be mentioned that automation creates job in the service sector, though not to the extent that it eliminates job in the goods-producing sector.

In the face of the recession. consumer spending decreases as the percentage of unemployment increases. In order to maintain the same level of profit as before the recession while reducing the cost of production to attract consumer spending. capitalism seek low-wage workers. This then speeds up the movement of manufacturing bases to low-wage areas.

1.3 PART-TIME WORK

The decades of 1970 and 1980 have been marked as a period unusual in the growth of part-time employment in most OECD countries. Traditionally, the increase in part-time jobs has been viewed as a result of expansion of the service sector, in a period of labour shortages. It was mostly married women who were encouraged to take jobs in expanding service sectors (O'Reilly & Fagan, 1998:35). " This development was premised upon such women being second income earners within a male bread winner model of family life in which women combine employment with their primary responsibility for unpaid domestic labour in the household." (Beechey & Perkins, 1987). More recently, part-time work has been promoted as a means of reducing mass unemployment across Europe and increasing the overall employment rate (Delsen, 1993). These proposals, ignore the gender-nature of part-time employment (Meulders, 1995).

Traditionally, part-time workers have been those people who have other income sources, such as a partner or other household member employed full-time, or students who receive grants. Part-time work has not been, therefore a viable option for many of the unemployed within the existing structure of social protection systems in most countries (Doudeijns, 1998).

The majority of part-time workers are concentrated in the service sector. This sector comprises more than 80% of part-time employment in Australia.

Belgium, Canada. Denmark, Finland, Netherlands, New Zealand, the United Kingdom and the United State (Delsen, 1995). In contrast, the proportion of part-time employment in industry varies widely across countries, but is lower than that found in service, ranging from less than 10% in Canada and the United State to more than 20% in Germany and Italy and almost 30% in Japan (OECD, 1983; Delsen, 1995).

Part-time employment in most industries varies on a number of dimensions. Generally, part-time employment could be identified as two major types: secondary and retention. Sometimes, they are distinguished even as 'bad' and 'good' part-time jobs. Secondary or bad part-time employment is characterized by: low skill, low pay, and very few fringe benefits. low productivity and high turnover with few or no opportunities for advancement. Bad part-time jobs constitute a major part of the "secondary market". Further, involuntary part-time work constitutes an integral part of part-time workers. Involuntary part-time workers include workers who are employed as part-time workers but are looking for a full-time job. Secondary part-time workers and involuntary part-time workers appear to raise the most serious problems. since these workers tend to be at economic risk.

Contrary to secondary part-time work. retention part-time work. mostly found in the primary more secure sector of the labour market. tends to be

relatively skilled, with high compensation, high productivity and low turnover. Unlike the low compensation and high flexibility in secondary part-time work, which is very beneficial for managers, in retention part-time employment, managers are the ones who must have flexibility around the workers' schedule. It should be mentioned, that although, many other types of part-time work are identified, however, secondary part-time jobs make up the majority of part-time employment (Tilly, 1996).

Research across a range of advanced industrialized countries, indicates that part-time work is mainly women's work while men are mostly employed full-time or even work over-time. Men are most likely to work part-time when they are attending school, in partial retirement, suffer from heath problems (often related to age), or when they are working involuntary as a part-time worker due to low labour demand (Rosenfeld, 1995:111).

Part-time jobs for the most part in Canada require little skill. Throughout the 1980 to 1993 period, women constituted the majority of involuntary part-time workers: more than double the number of men (250,000). However the percentage of involuntary part-time workers is actually higher for men, particularly between ages 25 and 44 (250,000) (Noreau, 1994).

Variations in the percentages of involuntary part-time work by industry are to some extent, attributed to the characteristics of workers and the nature of jobs

in different industries. Employment in the goods-producing sectors is ¾ male and mostly full-time. On the other hand, the service sector, in which more than half are female, has a large part-time component (Noreau 1994). The more likely the job is in a management position, or is complicated, the less likely the worker is to be part-time.

CHAPTER II

RESEARCH QUESTION AND THEORETICAL PERSPECTIVES

2.1 INTRODUCTION

In this chapter we present our research question. We then propose answers to our question using three different theoretical frameworks, namely the human capital theory, the segregation theory and the feminist theory.

2.2 RESEARCH QUESTION

Before the World War II an overwhelming majority of women were household. After the war, however, due to labour shortage, women pushed into the labour market. Although their role in the labour market has dramatically changed since the war, there are still many questions and concerns about the type of jobs they hold, the impact of economic hardship on their labour force status, and so on. The question that we have put forward in this thesis is as follows:

Question: *In the face of economic fluctuations (recession and expansion) how will the gender division of labour be affected?*

PROPOSED ANSWERS TO THE QUESTION

There are three basic propositions that predict the impact of recession on women's employment: human capital, job segmentation, and feminist theories.

2.3 HUMAN CAPITAL THEORY:

The starting point of human capital theory is that personal qualifications such as education, experience, and preferences such as high wages and a pleasant work environment are determinant factors for an employee to select a job. The fundamental premise of the human capital approach is that better educated individuals are more likely to hold well-paying and higher status jobs (Krahn & Lowe, 1998:112).

The idea of impact of education on productivity introduced by Adam Smith (Woodhall, 1987,1). But it was around 1950s and early 1960s. that the significance of education on earnings and occupational status. were considered as determinant factors in the human capital theory. Many economists (Schults 1961. 1967; Mincer, 1958; Becker 1975) considered education and training as the main tools for acquiring a good job in the labour market. According to this notion. education, training and work experience determine each labour force participant's job prospect. Investing in education and training, i.e. human capital. increases one's employment opportunities and his/her rewards. Investing in human capital

for individuals is, of course, costly in two respects. First, enduring some expenses such as tuition fees, in addition to present themselves in the school on the regular basis. This could prevent some individuals to fully participate in the labour market (Reynolds, 1986, 117). Human capital theory explicitly attributes the pay differentials and job related rewards to the differences in individuals human capital investment. Human capital theory explains these differences and inequalities in terms of preferences and choices made by individuals. Furthermore, human capital theory implies that these inequalities will motivate individuals to pursue more education and training in their own human capital (Van den berg & Smucker 1997).

The basic assumptions of this approach are that both workers and employers are rational and the labour markets function efficiently. According to this perspective, workers, based on their own personal skills, constraints, and preferences, look for the best-paying jobs. Meanwhile, employers try to maximize profits by maximizing productivity and minimizing costs to the greatest extent possible. Because of competition and efficent labour markets, employers pay workers their marginal product (Anker, 1997:316).

Human capital thoery rely on two basic assumptions:

1- education, training and work experiences could simply determine individual's employment outcome and opportunities.

2- labour markets are so competative in the sense that higher productivity is rewarded by higher pay (Van den berg & Smucker,1997:160).

In short, human capital theorists assume that based on accessible information concerning available jobs, all participants are competing for jobs in a single, open labour market. In turn, based on an assessment of an individual's abilities, employers choose their employees. Explicitly, this theory concentrates more on the supply side of labour markets rather than the demand side (Krahn & Lowe, 1998:111).

According to human capital theory, women rightfully receive lower pay than men because of their lower productivity. Many factors influence the lower level of female human capital. These include:

1- family responsibilities, which cause many women to gain less work experience than men, and

2- early or permanent withdrawal from the labour force because of marriage or family responsibilities, such as childcare.

This, therefore, implies that women would rationally choose occupations with relatively high starting pay, requiring less experience, and relatively low penalties for temporary withdrawal (Anker, 1997:317).

IMPLICATIONS FOR RECESSION AND EXPANSION

This theoretical perspective assumes that for whatever reason lies behind their choices, individuals compete for jobs that match as closely as possible their choices. It further assumes that these choices are reflected in training and skill levels individuals bring to the labour market. If education is taken as a proxy for these attributes, then holding education level constant, changes in women's percentages of employment or unemployment should be the same as men's during both recession and expansionary periods.

2.4 JOB SEGMENTATION THEORIES

Labour market segmentation theories rely on well-established economic thought and neo-classical logic (Anker, 1997:321). Unlike human capital theory, segmentation theory carries this implication that work experience and employment opportunities for the individuals are determined by the segment in which employees work, rather than by personal qualifications, such as education and work experience (Van den Berg & Smucker 1997, 398). The segmentation theory was originally developed in response to empirical findings of the poverty experience of late 1960s. Lack of sufficient justification, for eradicating poverty and inequalities by human capital theory directed many economists' and sociologists' attention to the institutional context of work, particularly

segregation of good jobs and bad jobs (Harrison, 1972; Piore, 1975), where the good jobs are found in the primary sector and bad jobs in the secondary sector. The basic premise of segmentation theory developed in an attempt to emphasize on necessity for equal opportunities to those groups who comprise the residual minorities (specially blacks in large metropolitan centers). The notion of equality of opportunities was a consequence of the war on poverty, which majority of American working population had gone through it (Van Den Berg & Smucker 1997: 389).

According to this theory, labour markets are segmented in certain ways, and it is difficult for workers to pass from one segment to another. These theorists argue that institutions, such as unions and large enterprises, play a pivotal role in the labour market. These institutions are major factors for determining who is hired, fired, and promoted and how much they are paid (Anker, 1997:322).

The labour market segmentation approach assumes that there is not a single, open labour market operating in our society. Each job, good or bad is obtainable, in many different ways. According to this approach women and visible minorities are concentrated in the poorer jobs (Krahn & Lowe, 1998:122).

The segmentation theories basically recognize two independent sectors in the labour market: primary and secondary sectors. As greater security is offered to employees, they, in turn have had to create a pool of less secure workers in an

effort to gain greater flexibility in meeting changing market demands. People in the primary sectors exert considerable control over suppliers and markets and are also able to manipulate their political environment.

In basic terms, primary sectors have some market power and are less competitive, whereas the secondary sectors have less control over their environment and generally face more intense competition. People in the primary sector have relatively high security in their jobs along with relatively higher wages and better fringe benefits. Because of these, they tend to limit competition in the labour markets. Workers in the secondary sector have jobs that are less secure and have fewer benefits. Since male workers have generally more continuous labour market experience and better education than women, they are the major group in this sector. In contrast, jobs in the secondary sector tend to be relatively poor with respect to chances for promotion and working conditions, and they provide little protection or job security. If women tend to be over-represented in the secondary sector, the segmentation theorists attribute this to the assumption of employers that because women are less stable participants in the labour force, they can be relegated to less secure jobs in the secondary sector (Anker, 1997: 322).

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The theories of job segmentation point to the existence of ideological or socially constructed boundaries that serve to reinforce women's socially subordinated position, condition the types of skills that women acquire, and serve to link sexual division in the labour market (Rubery, 1988:83). These theories claim that women, due to social constraints, are limited to choose jobs from the secondary sector, which has less market power and generally faces more intense competition. Therefore in a recession period, based on this theory, one might argue that women are less likely to retain their jobs than men, since they tend to hold those jobs that get affected by recession at a faster pace. On the other hand, during the initial period of economic expansion the percentage of unemployment for women can be expected to drop faster than the percentage for men as more women are willing to seek less permanent jobs during periods of expansion. Unemployment percentages for higher paid, more secure positions will tend to go down at a slower rate. These positions are mostly filled by men.

2.5 FEMINIST THEORIES

Unlike the socio-economic theories such as job segmentation theories and human capital theory which basically highlight the labour market variables (e.g.

industry, skill requirements, education, etc), feminist theories emphasize non-labour market variables.

Feminist theories begin with the notion that women's disadvantaged positions in the labour market stem from a patriarchal system. Women in all societies, feminists argue, are responsible for household work and childcare, while men's responsibility, is primarily devoted to work in the labour market.

Feminist theorists argue that women experience discrimination from males because they represent additional competition for jobs. Further, they argue that employers assume women are less likely to be committed to their work roles and thus they are less likely to offer them better jobs. These factors reduce the incentives for women to even seek permanent employment (Anker, 1997:34).

IMPLICATION FOR RECESSION AND EXPANSION

According to this perspective, one might expect to find that because women are forced into the most vulnerable jobs, it is more likely that, in recession periods, the proportion of workers who are laid off will be higher for women than for men. Further, the participation rate for women will drop more proportionately than for men. That is, proportionately more women than men will stop seeking employment. During expansionary times, the percentage in both participation and employment will increase faster for women than for men.

2.6. DIFFERENT PERSPECTIVES ON WOMEN'S EMPLOYMENT

Differences in the structure of men's and women's employment have always attracted a great deal of attention in the social sciences. Sociological and neo-classical economics theorists discuss the persisting differences in the structure of men's and women's employment, in the light of structural constraints (demand side factors) and the significance of individual choices (supply side) (Crompton & Harris 1998). Sociological explanations have emphasized structural constraints and cultural barriers on women's employment opportunities. In contrast, the neo-classical economists stress the significance of individual choice as a determinant factor on women's employment outcome in the labour market (Crompton & Harris 1998). The former discussion has been endorsed by Crompton, while the latter by Hakim..

Hakim (1991; 1995; 1996) distinguishes two 'qualitatively different' types of working women, the 'committed' and the 'uncommitted'. Committed women give priority to their employment careers and work full-time. Uncommitted women give priority to their home responsibilities and work part-time. The committed women are career-centered, with home responsibilities a second consideration, while the uncommitted women choose to give priority to a marriage career, with work as a secondary activity (Hakim 1996:186). According to Hakim, the uncommitted and committed women make rational choices

according to their human capital investments. The committed women will choose to invest in their employment careers, while the uncommitted women make a rational decision to economize on the effort invested in employment; since this is not their main priority. Hakim, simultaneously holds that some women will switch between groups over their life time. Hakim stresses that women's lack of commitment and job instability is a reflection of their labour market behaviour, since their job is a secondary consideration compared to their home responsibilities. She argues that the child-care problem is not a barrier to women's participation in the labour market and part-time workers are not exploited. This is so, mainly because they have chosen the flexibility of hours associated with part-time work and are satisfied with their employment arrangements (Crompton & Harris 1998).

In response to Hakim, Crompton argues that structural constraints and cultural barriers play a determinant role in women's employment opportunities. She argues that "women's economic action is a reflection of the way in which women actively construct their work-life biographies in terms of their historically available opportunities and constraints" (Crompton & Harris 1998). She suggests that women's economic behavior is not merely the result of their work orientations (or choices), but these choices along with cultural barriers and structural constraints affect women's employment outcomes rather deeply.

Crompton demonstrates, through a cross-national study, that the interaction between choices and constraints will affect both women's employment opportunities and family life cycle (Crompton & Harris 1998).

Crompton, however, argues that these rational choices are rooted in structural constraints, a factor that is ignored in Hakim's rational-choice explanations of women's employment. She suggests that men and women can and do make a choice, however, these choices occur in the context of structural constraints. Crompton through an analysis of two 'Feminizing' occupations, banking and medicine, illustrates how gender identities are formed by the stereotyped occupational structure. Crompton observed, in her analysis, that women doctors are more systematic in the construction of their work-life biographies than women in banking (Crompton & Harris 1998). In her biographical interviews, Crompton found that the experience women achieve in their work environment, can have a major impact on their paid employment and family life. Explaining women's and men's economic outcome, in terms of preferences, choice or work orientation, as major explanatory variables, Crompton argues, are inadequate and misleading. Preferences may shape choices, but do not, contrary to Hakim's assertions, determine them (Hakim 1996:214). According to (Crompton & Harris 1998), women's choices are not necessarily between the committed women or uncommitted women. Some women want both (their work

orientations are multi-stranded), some women choose one (their work orientation is single stranded) and some women without the conscious exercise of choice, remain involved in the labour market and family life. Crompton stresses that employment orientations and orientations to the domestic division of labour, change over the life cycle (Crompton & Harris 1998).

CHAPTER III

RESEARCH HYPOTHESES

3.1 INTRODUCTION

To study the impact of economic fluctuations on the gender division of labour force, three hypotheses have been formulated. In these hypotheses, we aim to explore which gender group is more prone to business cycles, and in turn, how this vulnerability affects their labour force status. The reflection of economic fluctuations on each gender group is measured using the percentages of unemployment in the first hypothesis, percentages of involuntary part-time work in the second hypothesis and finally percentages of job leaving due to family responsibilities in the third hypothesis. Although our approach is not testing formal hypotheses, the creation of each hypothesis is intended to assess the ability of each theoretical framework to explain a set of specific relationships. This will then help us to see some links between our hypotheses and the three theories. The links, in turn, facilitate our search for the theory that can provide the best explanation for our observations reported in Chapter 5.

3.2 HYPOTHESIS # 1

In recession periods, the percentage of employment will be lower for women than men.

In basic terms, a recession period refers to declines in sales and profits. In a recession period the percentage of unemployment is high as employers attempt to reduce operating costs. In slump periods not all sectors are affected to the same extent. Some industries, such as those in the goods-producing sector, are more responsive to economic fluctuations than those in other industries, such as the service sector. Goods-producing sectors are heavily dependent on consumer demand, thus, they generally receive the hardest hit in a recession period. Since male workers are the majority in the goods-producing sector, they are more likely to suffer from unemployment than women. In contrast, industries such as those in the service sector do not contract as much in recession periods. One of the most obvious reasons could be that the demand for their output remains constant or even increases in a recession. Since women are concentrated in the service sectors, such as health and education they are less likely to experience unemployment than men.

3.3 HYPOTHESIS # 2

In a recession period the percentage of involuntary part-time work will be greater for men than for women.

Involuntary part-time work tends to follow the economic cycle. In slump periods, the number of full-time jobs tends to decrease while involuntary part-

time employment increases (Norea, 1994). In addition, the percentage of involuntary part-time work varies by the nature of jobs in different industries. For instance, employment in the goods producing or the primary sector is ¾ male and mostly full-time. In contrast, employment in the service sector is mostly women and has a large part-time component. Hence in the face of recession men often have no choice but to take part-time positions. Also, it is involuntary because they are unable to find full-time work.

3.4 HYPOTHESIS # 3

In recession periods, due to family responsibility and taking care of children women are more likely to leave their jobs than men. Some business firms, in order to recruit more workers or even retain their employees may be forced to institute family support policies. Of course, providing these types of facilities could have positive effects on women's participation in the labour market. In contrast, when the economic cycles slow down, business firms tend to keep the labour costs down, to get rid of excessive costs. Thus, in recession periods it is more likely that family support and family favorable policies will be ignored. Since women are particularly subject to these policies and facilities, they are more likely to leave their jobs and stay at home in order to take care of their own children.

The links between hypotheses and theoretical frameworks

In this research three hypotheses have been formulated and each hypothesis emphasises one determinant variable. In the first two hypotheses the key variables are considered to be economic factors, such as education and job qualifications in the first hypothesis and involuntary part-time work in the second hypothesis, while the third hypothesis accentuates a non-economic factor: job leaving due to family responsibilities. The determinant variables specify the most appropriate theoretical framework for each hypothesis.

The first hypothesis is then best explained by the human capital theory, since this perspective implies that education is a key factor for holding a superior job. The second hypothesis is more easily argued using the job segregation theory, mainly because this theory draws our attention to the difference in the conditions of employment between part-time and full-time workers. This difference reflects a form of segmentation in the labour market. This theory explains why women make up the majority of part-time employees in the secondary sector. The third hypothesis is best discussed from the feminist theories. The main issue in this theory revolves around the problem of combining work and family responsibilities (mostly taking care of children) which cause women to hold inferior, low pay and part-time jobs. This theory then brings to our attention some

directions to improve job opportunities for women by implementing equal pay, and providing important facilities such as day care, occupational health and safety legislation for pregnant women.

CHAPTER IV

RESEARCH DESIGN

4.1 METHOD OF GATHERING THE DATA

The three aforementioned hypotheses will be examined through the analysis of secondary data. By doing so, the path will be opened for comparisons across gender and time, recession versus expansion, and groups such as full-time versus part-time, voluntary versus involuntary, service sector versus non-service sector.

The method of analysis taken in this thesis is based on the examination of relationships between variables through cross-tabulation or percentaged tables, by using the computer.

The data I will be using is from the labour force survey. For analyzing the impact of economic cycles on the gender division of the labour force, I have decided to focus on data from the1980s. As announced by Statistics Canada, 1981-83 represented a recessionary and 1987-89 was a recovery and expansion period.

The Canadian labour force survey is the largest continuing household survey conducted by Statistics Canada. It was started in November 1945 and was taken at quarterly intervals until November 1952. It has been conducted monthly since then. The survey covers the civilian, non-institutional population of 14 years of

age from the ten provinces in Canada. It excludes the Yukon, the North West Territories, population living on Indian Reserves and Crown land, inmates of institutional, and members of armed forces. The population in excluded areas accounts for about 2% of the total population of Canada. The labour force survey collects data on the labour market conditions and the demographic characteristics of the working age population of Canada. It provides estimates of the number and characteristics of the employed, unemployed, and persons not in the labour force. The information generated by the survey has expanded considerably over the years with a major re-design of the survey content in 1976 and again in 1977, however, most of the data is historically consistent (Statistics Canada 1998).

4.2 LIST OF VARIABLES AND METHODS OF ANALYSIS

The main purpose of this section is to explain which variables have been chosen, identify their labels, and what the categories are for each variable. In addition, the relationships between variables through cross-tabulation or percentaged tables are examined.

The list of variables are as follows:

1- **Variable** Sex "sex of respondent"

Categories:

1-1 'Male'
1-2 'Female'

2- **Variable** Soc80-21 "Occupation at main job"

Categories:

2-1 'Management/Administrative'
2-2 'Natural science, Engineering and Math'
2-3 'Social science and related'
2-4 'Religion'
2-5 'Teaching and related'
2-6 'Medicine and Health'
2-7 'Artistic/literary/Recreational and related'
2-8 'Clerical and related'
2-9 'Sales'
2-10 'Service'
2-11 'Farming/ Horticultural and husbandry
2-12 'Fishing/Trapping and related
2-13 'Forestry and logging'
2-14 'Mining, Quarrying, including oil and gas'
2-15 'Processing'
2-16 'Machining'
2-17 'Fabricating'
2-18 'Construction'
2-19 'Transport equipment operating'
2-20 'Material handling'
2-21 'Other crafts'

Discussion

Variable SOC80_21, "occupation at main job", has been chosen for the following reasons. First, we wish to see how different occupations would respond to economic fluctuations. Second, this variable is at the core of our discussion. Each of the three theoretical perspectives argue that holding a good job, such as, professional occupation, is contingent on some factors, such as education (human capital theory) and family responsibilities (feminist theory). In addition, we aim to

identify, by controlling those determinant factors, how the percentages for each occupation and gender would vary.

The original categories of this variable have been collapsed into four main categories. This condensation facilitates extracting information and therefore provides a better overall picture. The four main categories of variable SOC80_89 "Occupation at Main Job" are:

(1-2-3-4-5-6) INTO 'professional occupations'
(7-8-9-10) INTO 'clerical & sales occupations'
(11-12-13-14-) INTO ' primary occupations'
(15-16-17-18-19-20-21) INTO ' blue collar occupations'

3-**Variable** SIC80_13 "Industry at main job"

Categories:

3-1 'Agriculture'
3-2 'Other primary'
3-3 'Manufacturing non-durables'
3-4 'Manufacturing durables'
3-5 'Construction'
3-6 'Transportation, Communication & other utilities'
3-7 'Wholesale trade'
3-8 'Retail trade'
3-9 'Finance, insurance and real estate'
3-10 ' Community services'
3-11 'personal service'
3-12 'Business and misc.services'
3-13 'Public Administration'

Discussion

This variable has been chosen to identify the extent and intensity of contraction in each sector by recession and expansion.

The categories of this variable have been condensed, based on their economical nature, into three main sectors:

(1-2) INTO Primary sector
(3-4-5) INTO Secondary sector
(6-7-8-9-10-11-12-13-14) INTO Service sector.

The economic activity of each labour force participant can be classified into three main sectors. First is the primary sector that includes "Forestry", "Mining", "Agriculture" and "Extraction Industries". The secondary sector includes "Manufacturing" and "Construction". In other words, any occupation in which the products of the primary sector are used to produce other materials is considered as the secondary sector.

Finally, the service sector includes services such as education, health service, and public administration, rather than products (Krahn & Lowe, 1998: 54).

We assume that categories with the same economical nature respond similarly to economical fluctuations.

PART-TIME WORK

Based on the Labour Force Survey (LFS), part-time workers are employees who spend less than 30 hours per week at all jobs.

4- **Variable** WHYPTOLD "reason for holding part-time job"

Categories:

4-1 'other reason'

4-2 'illness or disability'

4-3 'personal/family reason'

4-4 'only find part-time job'

4-5 'did not want full-time job'

4-6 'less than 30 hours is full-time'

4-7 'multiple job hur>29'

Discussion

Categories of variable WHYPTOLD "reason for holding part-time job" have been condensed into two main categories. The reason for this condensation is that we were interested in those values that represent involuntary part-time work. In fact, (4-4) "could only find part-time work", based on the Labour Force Survey, is the only category that indicates involuntary part-time work. We have therefor

decided to consider (4-4) as one category and collapse all the other categories into one, named 'INTO Other Reason'

The two main categories of variable WHYPTOLD are:

(0-1-2-3-5-6-7) INTO Other reason
(4) INTO Involuntary part-time workers

The Labour Force Survey identifies two groups of people as voluntary and involuntary part-time workers. Voluntary part-time workers include those people who choose to work part-time due to family responsibility, illness or disability, school attendance or simply because they do not want a full-time job. Involuntary part-time workers comprise employees who would rather work full-time but are unable to find full-time employment. In other words, they are obliged to take part-time positions because the hours offered by employers do not meet their requirements.

5- **Variable** WHYLEFTO "Not employed, reason for leaving"

Categories:

5-0 'Left job, Other reasons'
5-1 'Left job, own illness or disability'
5-2 'Left job, Personal or family responsibility'
5-3 'Left job, going to school'
5-4 'Left job, laid off'
5-5 'Left job, retired'

Discussion

This variable classifies reasons for leaving a job and this is in the core of hypothesis # 3. In this hypothesis we try to identify, those people who have left their jobs solely due to family responsibilities. Since variable WHYLEFTO represents this value, we take value (5-2) "Left job due to personal or family responsibility" as a separate category and collapse the other categories into one category, namely "INTO Other Reason". Then the two main categories of this variable are:

(0-1-3-4-5) INTO Other reason
(2) INTO Left job due to family responsibility

6- **Variable** FLOWUNEM "Flows into unemployment"

Categories:

6-1 'Job losers, temporary layoffs'
6-2 'Job losers, permanent'
6-3 'Job leaver'
6-4 'New entrant'
6-5 'Re-entrant-one year or less'
6-6 'Re-entrant-more than one year'

Discussion

Categories of this variable are condensed into two main categories:

(1-2) INTO Unemployed workers
(3-4-5-6) INTO Missing.

The information provided by this variable is needed to discuss the claims made in Hypothesis #1. In this hypothesis, we want to identify those people who have been laid off either temporarily or permanently. We have therefor decided, for variable "FLOWUNEM", to collapse values (6-1) ' Job losers, temporary lay off and value (6-2) 'Job losers, permanent' into one category which represents the "Unemployed workers" and the other values into another category, namely " Into Others". This approach to measuring unemployment differs slightly from the traditional measure of unemployment as provided by Statistics Canada. Since we are wanting to focus on those who lost their jobs (as opposed to being a 'job leavers'), we have utilized this more precise measure.

7- **Variable** ED76-89 "Highest educational attainment"

Categories:

7-1 '0-8 years'
7-2 "9-10 years"
7-3 '11-13 years'
7-4 'some post secondary'
7-5 'post secondary diploma'
7-6 ' university degree'

Discussion

The categories of this variable have been condensed into four main categories:

(1-2) INTO (0-10) years of education
(3) INTO (11-13) years of education
(4-5) INTO (Some post secondary and post secondary diploma)

(6) INTO (University) Degree

Based on human capital theory, education is a determinant factor for women to hold a better job. That is why, ED76_89 "Education" is one of the key variables in our analysis. The six categories of this variable have been condensed into four main categories mainly to simplify the analysis.

CHAPTER V

TESTING HYPOTHESES

5.1 INTRODUCTION

In this chapter, we are mainly concerned with testing each hypothesis using figures and the attached tables. For testing each hypothesis, two sets of information, the figures and the tables, have been provided. For each hypothesis one figure is considered. The three figures provide information regarding the average difference of relevant variables between women and men and the tables enable us to see some more detailed comparison within each gender group. The tables summarize relevant information incorporated to analyze each hypothesis. Four sets of tables have been made. The first three sets, generated for the main hypotheses, each consist of three tables, one per each sector. The average differences presented in the figures give us an overall idea of possible gender-based differences within each sector among unemployed (Figure #1), involuntary part-time workers (Figure #3), and job leaving due to family responsibilities (Figure #4). Despite the simplification provided by averaging, it should be noted that averaging has its own deficiencies. For example, basing all the arguments on the averages one might lose lots of detailed information provided in the attached tables. That is why, we have also incorporated the more detailed information in

the attached tables in our discussions. Having used average as a measure of central tendency for proportions, one needs to differentiate between two types of zeros, say type 1 and type 2. Type 1 zeros are those zero proportions whose numerator is zero, but the denominator is not, while type 2 are those whose denominator is zero. It is better to remove type 2 zero's before averaging. This becomes a "must" when number of type 2 zero's are very different for men and women. In order to differentiate between these two types of zero's we have reported the denominator of the ratio everywhere the ratio happens to be zero. As seen in the tables number of type two zero's for men and women are either equal or differ by one.

The numbers in each cell represent a conditional probability. For instance, in Table #1 the number 4.2 in the first cell is the unemployment percentage for men in the primary sector with education (0-10) years and a professional job in 1981.This percentage is obtained as follows. The number of unemployed males holding a professional job in the primary sector with education (0-10) years in 1981, divided by the total number of males holding a professional job in the primary sector with education (0-10) years in 1981 x 100.

The advantage of this type of percentage is that it removes the possible impact of overrepresentation of one gender group in a given cell. Having used this type of percentage, we cannot rationalize our hypotheses using the usual argument

given by many researchers, i.e. the overrepresentation of one gender group. We consequently need to rationalize our hypotheses using a different argument that will be thoroughly discussed in the following sections. This has led us to make the last two tables that provide the distribution of total number of full time and part time employees in different sectors for each gender group. The information in these two tables provides evidence that supports our argument.

We have devoted one section to each hypothesis. Our findings have been discussed and analyzed from the perspective of Human Capital Theory, Job Segmentation Theory and Feminists Theory. The main objective is to see which one of these three theories would predict our findings best.

Some researchers have used the word "Rate" to indicate the so-called "Rate of change". In order to avoid any confusion we chose to use "Rate of change" wherever we are to measure how fast the rates has increased or decrease over a period of time.

5.2 HYPOTHESIS # 1

Our first hypothesis states that in recession periods. the percentage of unemployment will be lower for women than men.

To test this hypothesis the variables occupation, years of education. time (years of recession and expansion). and gender have been controlled.

Furthermore, the industry of main jobs (sectors) has been held constant, since we know that not all sectors contract to the same extent during economic fluctuations. The percentage of unemployment for each gender group when controlling for the level of education, occupation and sector is determined using the following relationship:

Perc. of Unemploy. = (Number of Unemployed People/ LFS) x 100

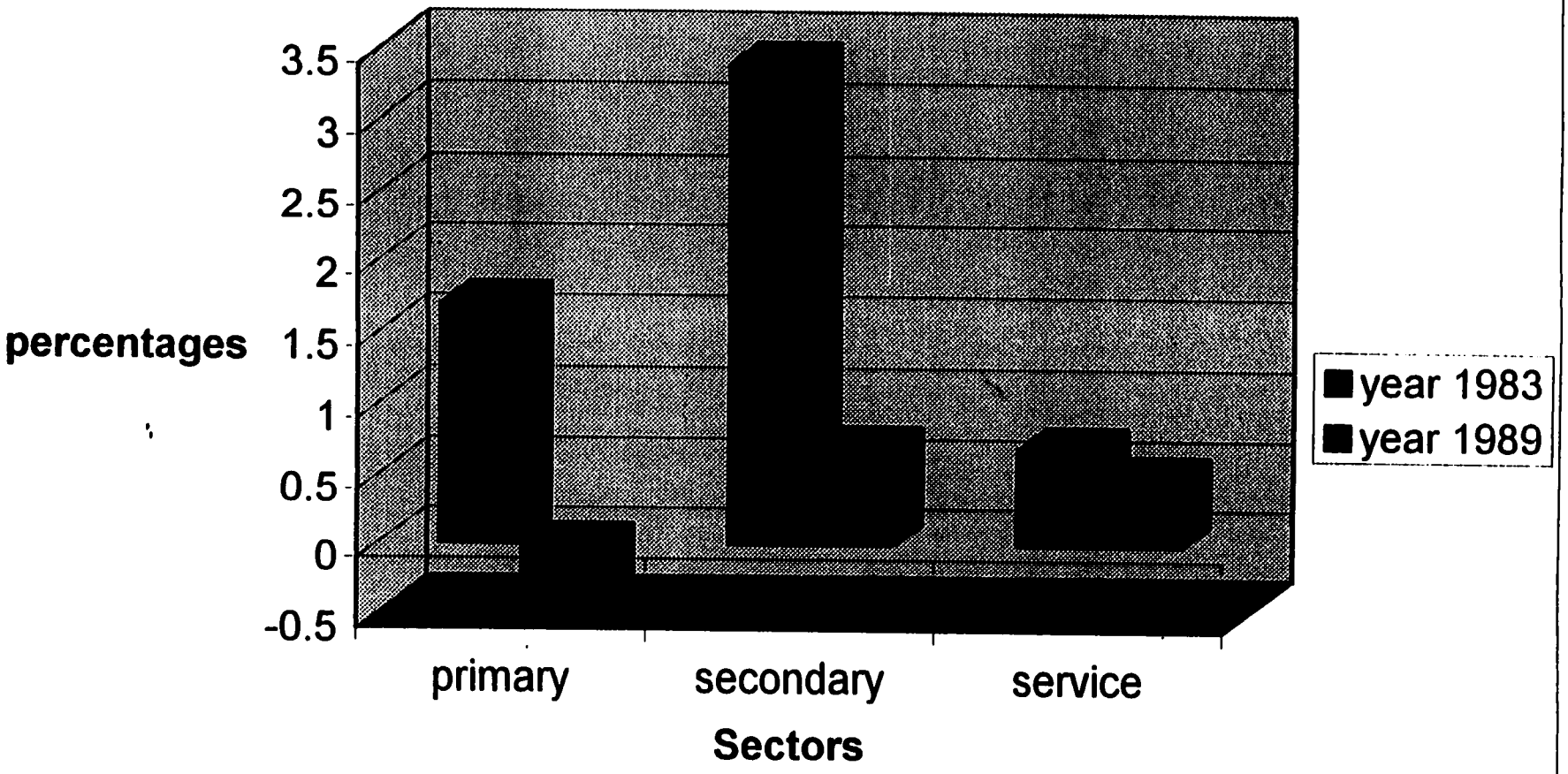
LFS stands for, total participants in the labour force all with the controlled levels of education, occupation and sector. The percentages of unemployment for participants with similar levels of education and occupation for 1981,1983, 1987, and 1989 in primary, secondary and service sectors have been presented in tables (1-1), (1-2) and (1-3) respectively. It should be mentioned that years1983 and 1989 are the main focus for the comparison of unemployment percentage between men and women. The reason for this choice is that 1983 and 1989 are, respectively, the peaks of recession and expansion. We therefore expect to have the most layoffs in 1983 and the least in 1989 for both genders.

Figure #1 indicates The Average Difference in Unemployment Percentages between Men and Women. These percentages are conducted in two steps:

First step: Differencing

- subtracting the unemployment percentages for women from that of men for each cell.

Figure 1: Average (Men-Women) Unemployment Percentage



Second step: Averaging

- adding up the difference for each cell and divided by total number of cells.

Subsequently, the positive value means that the average unemployment percentage for men is higher than that for women, while the negative value means the opposite.

As Figure #1 indicates, this hypothesis is supported, since the average difference in unemployment percentages for men is higher than that of women in the primary and secondary sector, during the recession of 1983. To be more precise, the average unemployment percentage for men in the recession of 1983 was 1.5% higher than women in the primary sector (i.e. Men-Women = 1.5%). 3.4% higher in the secondary sector and 0.5% higher in the service sector.

As this figure shows, the average difference in unemployment percentages in the secondary sector in the 1983 recession was higher than other sectors. This can, to a large extent, be explained by the percentages of full-time workers in the secondary sector. The percentages reported in Table (2-1) indicate that the percentages of full-time workers in the secondary sector are higher than the percentages in the primary and the service sector. On the other hand, during the recession, the number of full-time employees decreases. Therefore, male employees in the secondary sector will have higher percentages of unemployment

and consequently, they will have a wider gap in comparison to their female counterparts.

Based on tables (1-1), (1-2) and (1-3), the following traits for unemployed men and women can be summarized as follows:

1-The highest proportion of unemployed women and men are in primary and blue-collar occupations, with (0-10) and (11-13) years of education. This is true regardless of the sector. On average the percentage of unemployment among employees with (0-10) and (11-13) years of education in primary and blue-collar occupations is 10% while for other employees is 4.5%.

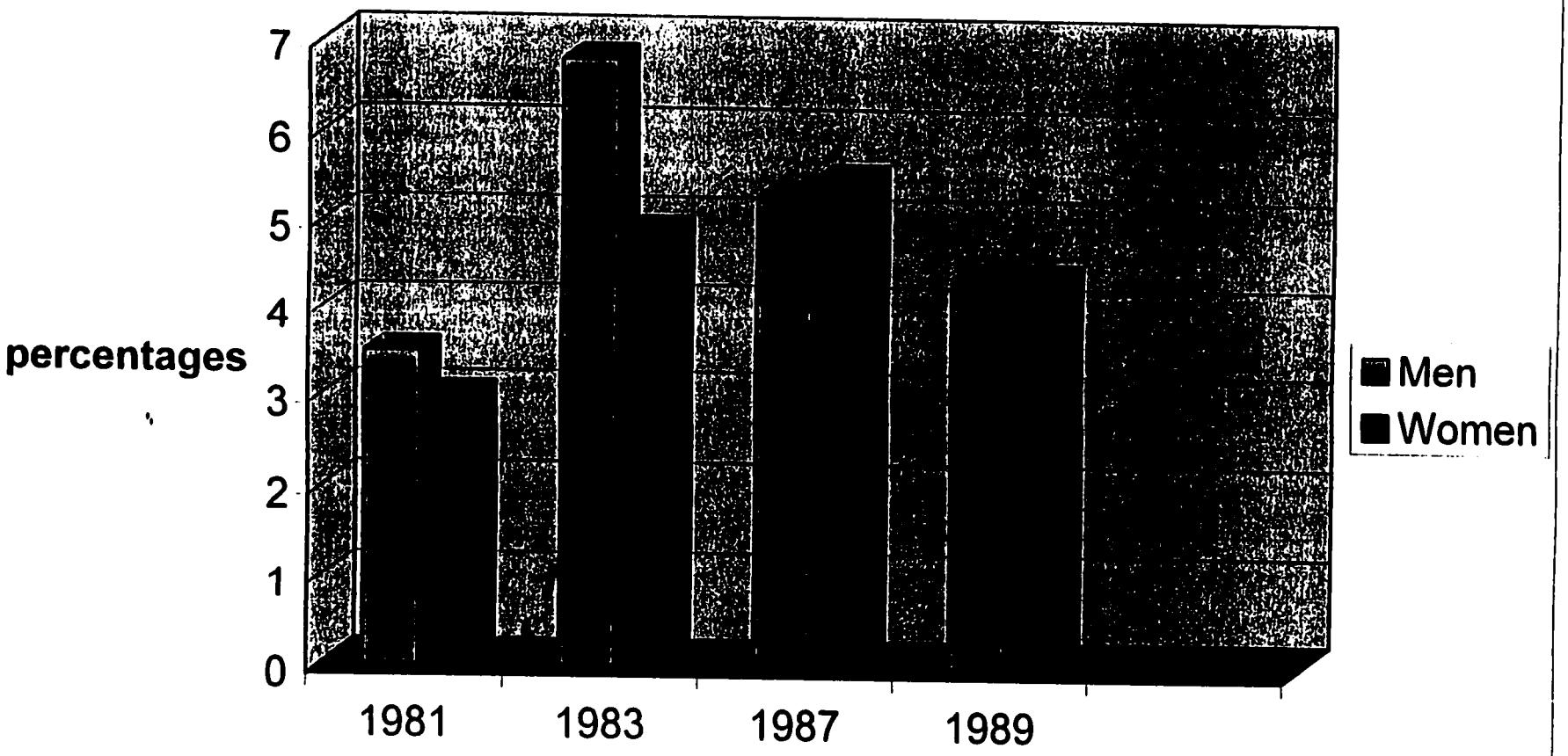
Clerical & sales followed by professional occupations have the lowest unemployment percentages (the average for clerical & sales is 4.9% and for professional occupations is 3.4%) for both men and women in each sector. This could be due to characteristics of these occupations. Professional occupations usually require higher educated employees. Therefore during economic hardship these occupations do not contract as much as primary (on the average the unemployment percentage is 7.1%) or blue-collar occupations (on the average the percentage of unemployment is 7.5%). For instance, in the face of financial shortages in a university or a hospital, it is more likely that cleaning service employees lose their jobs rather than a faculty member or a doctor.

2- As Figure #2 indicates the average percentages of unemployment for men mostly follow the business cycle, this is not so for women. In fact for men the only exceptions are, clerical occupations with secondary diploma education in the primary sector and primary occupations with university degrees in the secondary sector. This means that the percentage of unemployment for women during the expansion of 1987 is still higher than that of the peak of recession 1983. The following table presents the cells for which the percentage of unemployment for women during expansion is higher than their percentage of unemployment during the peak of recession.

Table A: Cells In Which Women's Percentage of Unemployment Does Not Follow Economic Fluctuations

	Occupation	Education	Recession%	Expansion%
Primary	Professional	(Secondary diploma)	2.5	3.3
		(University)	1.4	9.5
	Clerical &Sales	(University)	0	3.8
	Primary	(0-10)	5.3	6.4
		(Secondary diploma)	3.8	4.2
	Blue collar	(0-10)	9.2	9.8
		(11-13)	9.2	23
		(Secondary diploma)	2.9	6.3
Secondary	Professional	(0-10)	1.6	3.8
		(University)	2.3	2.5
	Primary	(0-10)	7	18
		(11-13)	9.3	9.4
		(Secondary diploma)	3.7	6.2
Service	Professional	(0-10)	2.1	2.6
		(11-13)	0.4	2.1
	Primary	(Secondary Diploma)	1.7	4.4

Figure 2: Average Unemployment Percentage For Men and Women



This observation could be partially explained through job characteristics held by men and women. For example, traditionally men are mostly full-time workers and full-time jobs are more sensitive to business cycles than part-time jobs. The fact that the percentages of unemployment for men mostly follow the economic cycle while the percentages for women do not, to a large extent, indicates the influx of non-economic factors on women's unemployment percentages. Feminist theory, in comparison with the human capital theory and the segmentation theory, provides a better explanation for this observation. This theory points to non-economic factors, such as the inferiority of women's position in society due to a patriarchy system.

Part-time employment (particularly involuntarily) tends to follow the business cycle. When economic growth is weak, or during a recession, the number of full-time jobs generally decreases, while part-time employment (involuntary) increases (Noreau, 1994).

In general the hypothesis is supported in most of the cells (39 cells out of 48). In other words, in most cells (except the few cells listed below) in tables (1-1) (1-2) (1-3) men have higher percentages of unemployment compared to women. The following table lists the cells for which Hypothesis #1 is not supported. Each figure in the table below represents where women have higher

percentages of unemployment compared to men with identical education, occupation and sectors.

Table B: Cells Not Supporting Hypothesis #1

	Occupation	Education	Men	Women
Primary	Professional	(0-10)	3.8	10
		(11-13)	6.9	8
	Clerical &sales	(Secondary diploma)	4.4	6.2
		(University)	0/92	3.5
Secondary	Clerical &sales	(Secondary diploma)	.5.4	6.5
Service	Professional	(University)	1.8	2
	Primary	(0-10)	11.9	17
		(University)	4.3	6.4
	Blue collar	(University)	4.2	4.5

The main reason why men comprise the larger proportion of the unemployed compared to women is not, however, due to overrepresentation by their numbers. It is most likely because of the status of the job, i.e. being full-time or part-time. As shown in table (2-1), men have higher percentages of full-time jobs compared to women. This suggests, therefore, that men have higher percentages of unemployment compared to women in the peak of recession, 1983, not because of the concentration of men in this sector, but mainly due to the fact that men

comprise a much higher portion of full-time employees. In addition, the overall percentage of unemployment for men during the recession of 1983 is 6.5%, while the same percentage for women is 2.8%.

A question that naturally arises is "which theory offers the best explanation for these findings?" To answer this question, we view them from the perspective of each of the three theories. We start with human capital theory.

It is evident from the percentages reported in tables (1-1), (1-2), (1-3) and table (2) that the human capital theory can offer an explanation. From the demand side of human capital theory men are more likely to hold full time positions. On the other hand, full time jobs are mostly in goods-producing sector (the primary and the secondary sector). During recessions the goods-producing sector is hit hard. Thus men are more likely to lose their jobs. This theory also suggests that when controlling for education, women should not be in inferior position compared to men in terms of the unemployment percentage. Our findings show that with similar level of education and controlling for other variables, women have lower percentages of unemployment (4.9% on the average) compared to men (6.9% on the average). In other words, with the same level of education, women are not in an inferior position compared to men. We should, however, emphasize that this observation does not imply that women are in a better position compared to men, since women comprise a much higher portion of part-time workers.

There is very little basis of support for feminist theory. In fact, according to feminists women, due to institutional constraints, acquire less experience and are less qualified. They therefore hold low skill and dead end jobs that are mostly part-time. These jobs, due to their nature, are usually among the first jobs to be eliminated by employers during recessions. That is why, this theory predicts a higher percentage of unemployment for women compared to men. This is not, however, the case according to our observations. We can therefore conclude that our observations do not support feminist theory.

To fully discuss these findings from the perspective of segmentation theory, one needs to know the proportion of part-time and full time workers who have lost their jobs. We do not have these proportions. Yet, the percentages reported in Tables (1-1), (1-2), and (1-3) and also Tables (2-1) and (2-2) suggest that there is little support for segmentation theory. This theory argues that regardless of sector and occupation, some workers (mostly part-time workers) who constitute the secondary sector have fewer fringe benefits than other workers (mostly full-time workers) who mostly comprise the primary sector. According to this theory, these jobs in the secondary sector would be more vulnerable to economic fluctuations than those in the primary sector. In other words, in economic downturns, jobs in the secondary sector would bear most shocks of market fluctuations. But our

findings, presented in table (2-1), indicate that men comprise the higher proportion of full-time workers. Therefore, based on our observations, there is little support for segmentation theories. Because men have higher percentages of unemployment compared to women.

5.3 HYPOTHESIS #2

This hypothesis claims that in a recession period the percentage of involuntary part-time work will be greater for men than for women.

Part-time work for some people is an option of choice. They want to work part-time due to personal or family reasons. On the other hand, some other people are forced to work part-time, because they are unable to find full-time jobs. This latter group is considered as involuntary part-time workers.

According to this hypothesis, we should find a higher percentage of involuntary part-time work for men than women, particularly in primary and secondary sectors, since men are more likely to hold a full-time job and also comprise a higher portion of employees in these sectors compared to women.

The percentage of involuntary part-time work for each gender group when controlling for the level of education, occupation and sector, is calculated using the following formula;

R.Invol.pt.w = (N. of Invol. pt.w / Total pt.w) x 100

where R.Invol.pt.w is the percentage of involuntary part time workers, N. of Invol. pt.w is the number of people who could only find part time work (involuntary part-time workers) and Total pt.w is the total part-time workers in the labour force all with the controlled levels of education, occupation and sector.

The percentage of involuntary part-time work for men and women under similar conditions, i.e. same occupation, education, years of recession and expansion and sectors is reported in tables (3-1) (3-2) (3-3). The percentage of involuntary part-time work depends highly upon the business cycle. When economic growth is slow, the percentage of involuntary part-time work tends to increase and as the economy recovers the percentage tends to decrease. The same trend has also been observed by Noreau (1994). Therefore, based on our hypothesis. an increase in the percentage of involuntary part-time work in the recession (1983), and a decrease during the expansion (1989) should be observed for men.

We have considered the "involuntary part-time work" as an independent variable. The main reason for this choice is that it has been hypothesized that the percentage of unemployment is higher for men than women due to their full-time position status. We therefore expect to find a higher percentage of involuntary part-time work for men than women. since an increasing percentage of

involuntary part-time work is highly associated with the decline in full-time position.

Figure #2 presents the Average Difference in the Involuntary Part-time Work Percentage between Women and Men. This percentage is conducted in two steps:

First step: Differencing

- subtracting the Percentage of Involuntary Part-time work for women from that of men for each cell.

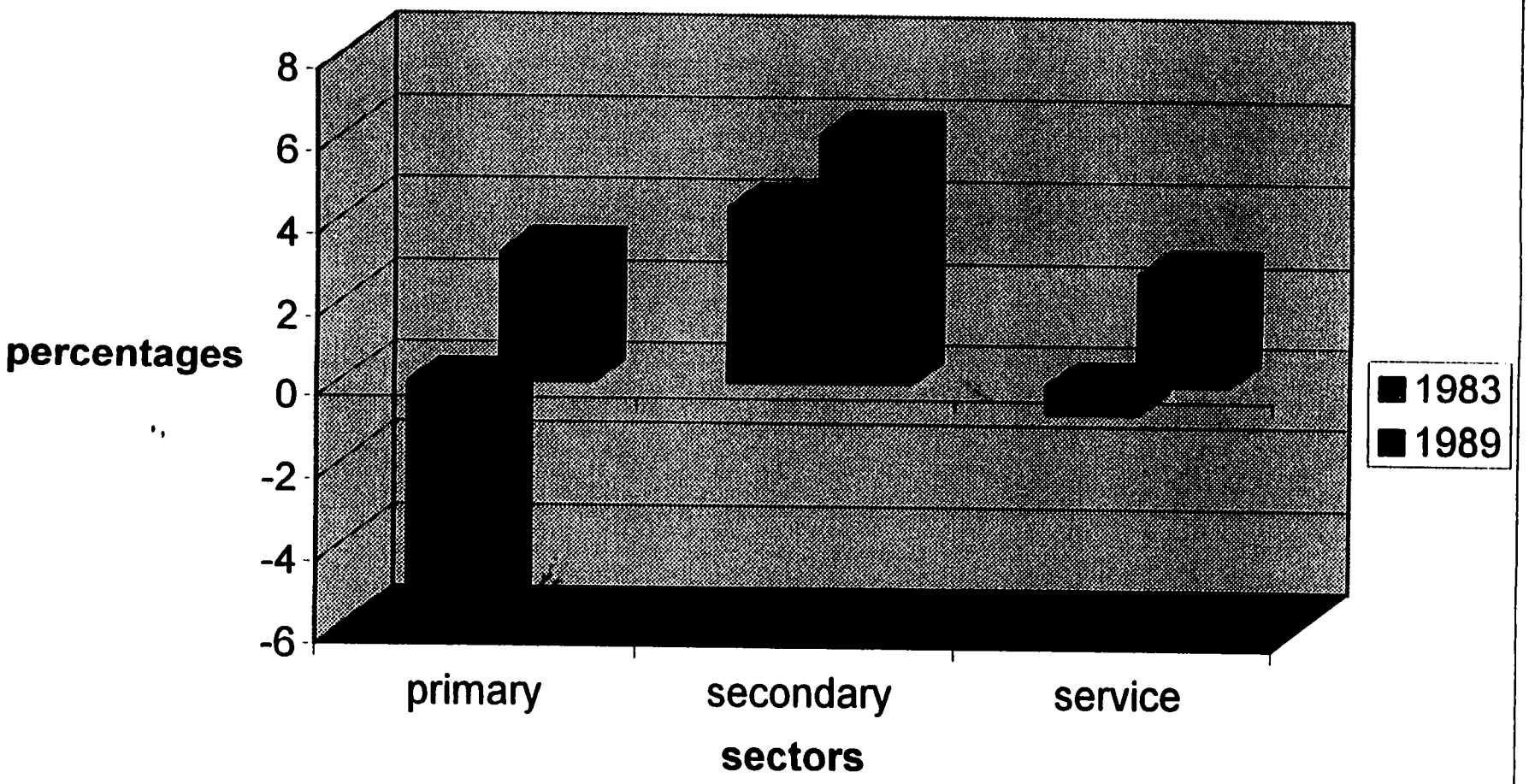
Second step: Averaging

- adding up the differences and dividing by the total number of cells.

Subsequently the positive value means that women on the average have lower percentage of involuntary part-time work compared to men. Negative value means that men on the average have lower percentages of involuntary part-time work than women.

According to our findings, this hypothesis fails to be supported. As Figure #3 indicates, the average percentage is higher for women than men (-5.82% = 11.44%(average for men) – 17.26% (average for women)) in the primary sector during the recession of 1983. Our claim is, however, supported in the secondary sector. In the service sector the average difference is close to zero for the

Figure 3: Average (Men-Women) Involuntary Part-Time Percentage



recession period of 1983. The observed discrepancy in the average percentages for the primary and secondary sectors can be resolved if one combines these two sectors into the so-called "Goods-Producing Sector". Having calculated the average difference of the percentages (Men – Women) for the goods-producing sector, we obtain –0.78% which is similar to that of the service sector, i.e. – 0.72%. These two latter differences show that men and women have, on the average, the same percentage of involuntary part-time work regardless of the sector during the recession of 1983. Although this resolution leads to a consistency between the difference percentages of involuntary part-time work for the goods-producing and service sector, it does not, however, result in any supporting evidence for our hypothesis. We do not, unfortunately, have any explanation why men and women should have the same percentage of involuntary part-time work regardless of sector during recession.

Our observation is, to some extent, consistent with that of Noreau's (Noreau(1994)), though it does not support our hypothesis. Noreau has observed that the overall percentage of involuntary part-time work among women is higher than men, though the highest percentage of involuntary part time employment occurs among men aged 25 to 44.

Figure #3 also indicates that the percentage of involuntary part-time work among men is higher than that among women during expansion. Following we present two argument for this observation.

1. The observed higher percentage of involuntary part-time work among men during expansion can, to a large extent, be attributed to the industrial shifts, by which we mean growth in the service sector. As part-time work comprises a rather large portion of jobs in the service industries, it is conceivable that any growth in the service industries is accompanied by an increase in part-time work. It is also interesting to note that in the past few decades automated production systems (robotics and information technology) have accelerated the expansion of production in the goods-producing sectors without any proportional increase in the demand for more employees (Krahn &Lowe, 1998: 55). On the other hand. as men, seemingly, comprise a higher proportion of full-time work seekers. we will have a higher percentage of men who are forced into part-time work.

2. For the second argument we need to have some knowledge about the number of involuntary and voluntary part-time workers among men and women for both recession and expansion periods. Since our main focus in the following discussion

is the goods-producing sector, we confine our attention to this sector, though one can similarly argue the same observation in the service sector.

The following table presents the number of involuntary and voluntary part-time workers for men and women during recession and expansion.

Table C: Number of Involuntary and Voluntary Part-Time Workers in the Goods-Producing Sector

	Involuntary		Voluntary		Total	
	M	F	M	F	M	F
Rec.	1972	2319	7165	7951	9137	10270
Exp.	1330	1042	5411	6944	6741	7986

Calculating the rate of change for involuntary part-time work among men from recession to expansion we obtain

$$[(1972 - 1330) / 1972] \times 100 = 32\%$$

The same rate for women is almost 55%. The rates of change for voluntary part-time work among men and women are, respectively, 24% and 13%. It is interesting to note that the percentage of involuntary part-time among women decreases much faster from recession to expansion than that for men, while for voluntary part-time it is completely the opposite. The sharp decrease in the percentage of involuntary part-time and relatively slow decrease in the percentage of voluntary part-time from recession to expansion among women compared to

men results in observing a much higher percentage of involuntary part-time for men than women during expansion. This is reflected in Figure #3.

To understand how changes in the number of voluntary part-time workers can change the percentage of involuntary part-time work, we need to note that the denominator of the ratio depends on the number of voluntary part-time workers. It then remains to explain why the percentage of voluntary part-time workers among women decreases slowly compared to men. One plausible explanation is that the main reason for women to become voluntary part-time workers is the existence of institutional constraints on women such as family responsibility and childcare. This is not an economic reason and thus independent of any economic fluctuations.

Our argument can be rationalized from the feminist perspective. Due to institutional constraints, such as family responsibilities, women are forced to part-time work regardless of economic situation. This type of part-time work is, however, categorized as voluntary part-time as they are not looking for a full time position.

Our argument is also consistent with the Human Capital (HC) theory. In fact, from the demand side HC theorists argue that women are less likely to stay full -time in the labour force. Thus a large portion of women in the labour force remains voluntary part-time regardless of economic fluctuations.

Comparing the average difference percentages between men and women in the recession of 1983 and the expansion of 1989 for goods-producing and service sector we obtain

Table D: The average (Men-Women) Involuntary Part-Time Percentages

	Recession	Expansion
Goods-Producing sector	-0.78%	4.66%
Service sector	-0.72%	2.84%

As seen there is almost no difference between the percentages for different sectors during recession, though the percentages are clearly different during expansion. This means that sector as an independent variable does not have a significant impact on the involuntary part-time percentage during recessions.

To explore the impact of the other variables on the difference percentage, one can consider, education, occupation or both of these two simultaneously. Since education and occupation seems to be closely related we have decided to consider both education and occupation simultaneously and categorize tables (3-1), (3-2), and (3-3) into the following two categories:

A. *(Secondary or University education) and (Professional or Clerical & Sales occupation)*

B. *(0-10 or 11-13 years of education) and (Primary or Blue collar occupation)*

We subsequently ignore the other categories. Calculating the average percentages of involuntary part-time for men and women during the recession of 1983 we obtained the following table:

Table E: Average Percentages of Involuntary Part-Time Work

	A	B
Men	15.84%	27.93%
Women	23.87%	27.08%

According to Human capital theory, women with post-secondary or university education who hold professional or clerical occupations, are able to become full-time workers (career-centered women according to Hakim), since their education makes them competitive in the labour market. Based on HC theory there should not be any gender-based difference between the percentages of involuntary part-time workers in group A. However, the percentages reported in Table E indicate that qualified women are in an inferior position compared to men since they have a much higher percentage of involuntary part-time during recessions. In other words, in terms of the demand side, employers would rather have male workers

than female, even when the female applicants are qualified. This means that the employers see women as part-time workers regardless of their qualifications. On the other hand, this group of women (career-centered women) is seeking full-time work. They are thus forced to involuntary part-time jobs. However, there is no gender-based difference between the percentages of involuntary part-time workers in group B.

The figures reported in Table 4 gives an interesting indication of the difference between involuntary part-time percentages among qualified men and women in the labour force, although no difference is depicted between less educated men and women with lower level jobs. One important factor for having a high level occupation, such as professional one, is experience. From the feminists' perspective, structural constraints force women to have less continual attachment to the labour force. This then causes lack of enough experience and can consequently leave women in an inferior position compared to men, even though they have the same level of education and occupation.

5.4 HYPOTHESIS #3

The third hypothesis claims that, in recession periods, due to family responsibility and taking care of children women, are more likely to leave their jobs than men.

To examine this hypothesis, the variables years of education, occupation, sectors and years of recession and expansion have been controlled. Based on this hypothesis we expect to find:

1- A higher percentage of job leaving for women than men, particularly at the peak of the 1983 recession in the service sector.

Our rationale for this hypothesis is that the service sector is a female dominated sector. In addition, we hypothesize

2- A declining percentage of job leaving for women in the peak of the 1989 expansion period compared to the 1983 recession period, in the service sector.

The percentage of job leaving due to family responsibilities for each gender group has been calculated using the following formula:

R. Job Leaving = (N. Job leaving due to FR / Total job leaving) x 100

where "R. Job Leaving" stands for the percentage of job leaving, "N. Job leaving due to FR" is the number of people leaving their jobs due to family responsibilities and "Total job leaving" represents the total number people leaving their jobs, when education, occupation, sector and gender have all been controlled at some specific levels. The percentages of job leaving for men and women, under similar conditions, have been presented in tables (4-1) (4-2) (4-3). In addition the Average Difference in the Percentages of Job Leaving Due to Family

Responsibilities has been presented in Figure #4. This percentage is conducted in two steps:

First step: Difference

- subtracting the percentages of Job Leaving due to Family Responsibilities for men from than that of women for each cell.

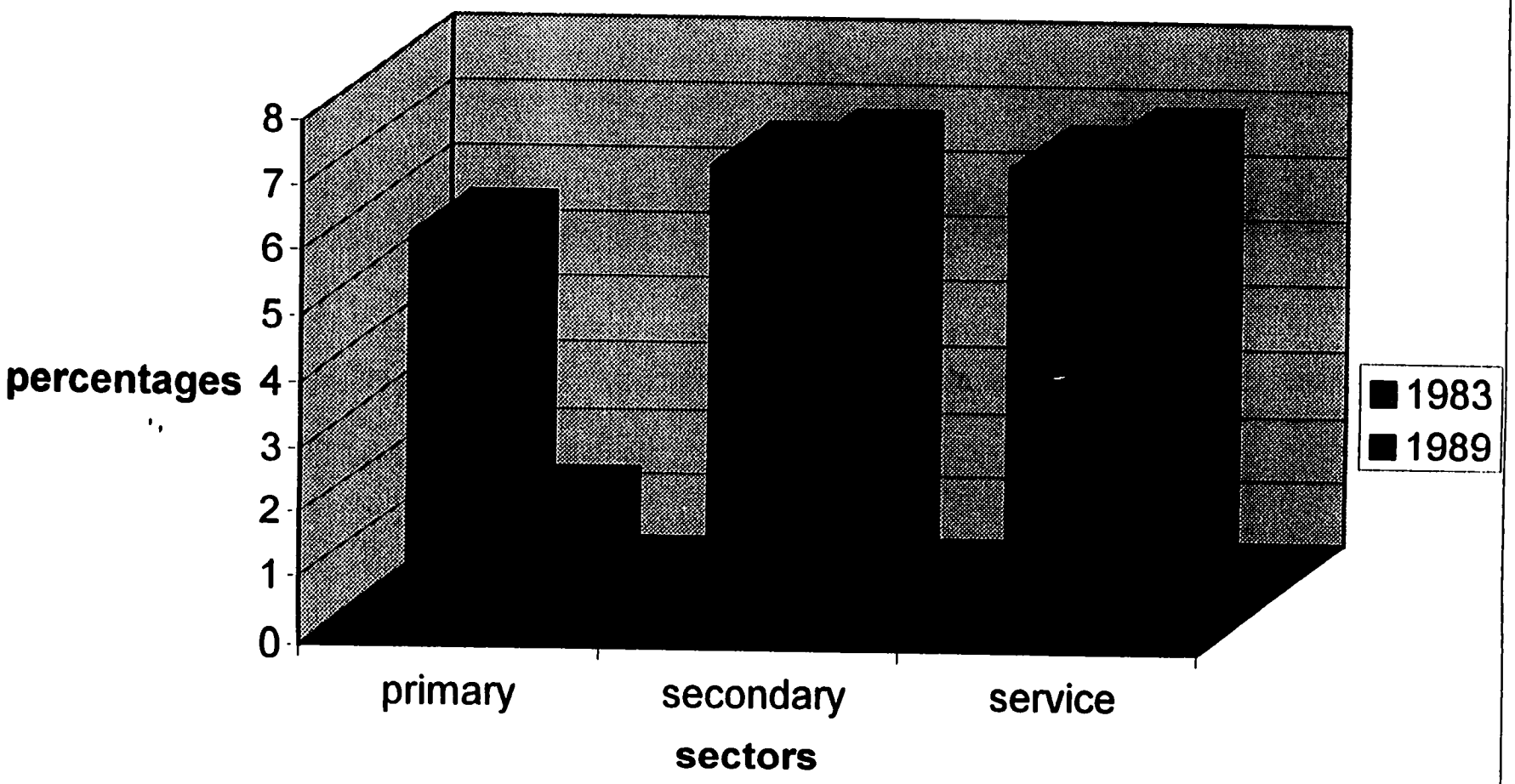
Second step: Averaging

- adding up the differences and dividing by the total number of cells.

A positive value means that the percentage is higher for women, while the negative value indicates a higher percentage for men.

As Figure #4 indicates, this hypothesis is supported because women, on the average, have higher percentages of job leaving due to family responsibilities than men in all three sectors in the recession of 1983. The primary sector, in the recession period, indicates the lowest average difference percentage of job leaving (5.85% compared to the secondary sector 6.95% and the service sector 6.99%). A better comparison can be made if we combine the primary and the secondary sector into the so called "Goods-Producing" sector. We can now see that the percentage of job leaving in both periods of recession and expansion is higher in the service sector. To be more precise, we have, on the average, 6.4% (in the goods producing) compared to 6.99% (in the service sector) during the recession, while the corresponding percentages during the expansion are respectively 4.37%

Figure 4 : Average (Women-Men) Job Leaving Percentage Due to Family Responsibilities



compared to 7.25%. In the expansion of 1989, the service sector indicates a higher average difference in job leaving percentages (7.25%) compared to the goods producing sector (4.37%). It is clear that family responsibilities were likely to be a major obstacle for women to participate in the labour force, particularly during the recession period.

According to our tables women have a much higher percentage of job leaving compared to men, regardless of the economic fluctuations of the 80's. To be more precise, on the average this percentage for women is 7,84% while for men it is 1.25% during recession. The corresponding percentages during expansion are 6.86% for women and 1.53% for men.

Our data also support the second implication stated above. In fact, women seem to have lower percentages of job leaving due to family responsibilities in the expansion period (6.64%) than in the recession (7.97%).

From the perspective of feminist theories, women should have a higher percentage of job leaving due to family responsibilities compared to men. This is so, since feminist theorists suggest women, because of their subordination positions in society and family, are forced into vulnerable jobs. They argue that women will end up taking the most vulnerable and dead-end jobs, due to lack of continuous experience in the labour market.

Part-time jobs, which are mostly held by women, are sensitive to economic fluctuations. Hence in the face of recession, women comprise a higher percentage of involuntary part-time workers and are more likely to leave their jobs due to family responsibility compared to men in the recession period. These factors that are all consequences of the patriarchal system according to feminist theories, will lead women to bear most of the shocks of market fluctuations.

From the supply side, human capital theory argues that women seek paths that can include a mix of employment and family. Women thus comprise a higher percentage of job leaving compared to men, since they are mostly 'home-centered' where their main priority is family responsibility. According to Hakim(1998) these women are 'uncommitted' women who give their priority to their domestic responsibilities and are mostly part-time workers. On the other hand, from the demand side, women are less likely to stay full time and tend to land in flexible positions in terms of hours with relatively easy entry/exit/reentry possibility. They therefore show a higher percentage of job leaving.

CHAPTER VI
CONCLUSION AND FUTURE DIRECTIONS

The impact of economic fluctuations between 1981 and 1989 on the gender division of labor force was argued from three different perspectives. Three hypotheses were first formulated and rationalized. We then discussed them using human capital theory, feminist theory and, to a much lesser extent, segmentation theory. Our analysis using the labour force data collected by Statistics Canada during this period supports the first and the third hypotheses, while our second hypothesis fails to be supported.

To assess the impact of economic fluctuations on the gender division of the labour force, we controlled available related variables in the data set. Statistically speaking, we have calculated conditional probabilities. As a result the total numbers of men and of women in different categories do not have any effect on our result. It should then be emphasized that our method for calculating the probabilities is different from that of some researchers who tried to rationalize the difference between the impact of economic fluctuations on gender division of labor force using total numbers.

During the recession period of 1983, men had a higher percentage of unemployment compared to women. This is most likely due to the concentration

of men in the primary and secondary industrial sectors. As our findings indicate, men had a higher percentage of unemployment in the recession of 1983. This is not, however, because of over representation of men in the primary sector, but mainly due to their full-time job status.

The second hypothesis has not been supported, since the data indicate slightly higher percentage of involuntary part-time work for women than men (opposite to what we had hypothesized). We speculate that it is social factors, such as family responsibilities, which prevent women from achieving a continuous experience in the labour market and hence force them to hold involuntary part-time jobs.

It should be mentioned that there are articles in the literature on involuntary part-time work which have proposed the opposite to our second hypothesis when no variable is controlled (e.g Noreau, 1994). However, the same article (Noreau, 1994) has reported results which confirm our second hypothesis when controlling for age. We have controlled for other factors, such as education, occupation and sector and also calculated our percentages differently. We speculate that controlling for age, in addition to these three variables, one might arrive at the same conclusion as Noreau (1994), though we have not pursued this option.

It has been argued, in the third hypothesis, that women in the recession period, compared to men, are more likely to leave their jobs due to family

responsibilities. We argue that women, because of lack of disposable income for child-care during recessions, have to stay home to look after children. Therefore. they are more likely to leave their job because of family responsibilities than men are in recession periods. Our findings presented in tables (4-1) (4-2) (4-3), support this hypothesis along with our other assumption that women are less likely to leave their jobs due to family responsibilities in the expansion period compared to the recession period.

The main attempt has been to examine which gender group is more prone to economic fluctuations. As our findings illustrate, each gender group is affected in a different fashion by economic hardship. While men lose their full-time job status. women's percentage of involuntary part-time work increases.

Along with our findings, some general facts about women's labour force status need to be addressed. Canadian women now participate in the labour force in a greater number and for a longer period of time. As a result of that women's share of the full-time work force rose from 27% in 1967 to almost 39% in 1988 (Wannell T. 1990). In addition. during 1970s and 1980s. women started to enter into male-dominated occupations. Veterinary practices. financial management and law were just some of the occupations women have entered to (Hughes. 1995). Furthermore. in the past few decades. we have witnessed an increasing share of women among university graduates. In the early 1960s. women comprised only a

quarter of undergraduates, while in the late 1980s, women received more than half of the undergraduate degrees. The female share of master's degrees increased from 19% in 1961 to 45% in 1989. Women comprised less than one-tenth of earned doctorates in 1961, but about one-third by 1989 (Wannell.T, 1990). Women have now begun to outnumbered men among university students in recent years (see most recent labour force statistics from Statistics Canada).

A study on 1982 university graduates with full-time jobs, identical education background, similar age profile and labour market experience, conducted by Wannell (1990), indicates that the earning gap is smaller among the well-educated group than in the work force as a whole. His data also indicates that female graduates earned less than their male counterparts in most fields and levels of study. His analysis, based on a human capital model of earnings, shows that men should have earned 5% more than women in 1984 and 7% more in 1987 if men and women had been rewarded equally. But the figures show that male graduates earned 15% more than female graduates in 1984 and 22% more in 1987.

It is also worth noting that based on Hughes (1995), women who entered into non-traditional occupations tended to be older, better educated and better remunerated compared to other female workers, while in contrast to their male counterparts they tended to be younger, less likely to have university degrees and less well-paid.

On a final note on this matter, I should mention that the more recent labour force data reveal that unemployment rates among women and men have been converging so that there is now very little difference between the rates (see most recent labour force information from Statistics Canada).

There are many interesting questions in connection with the labour market that emerge from this research.

1. Whether the findings for the 1980s hold for other decades or whether they are specific characteristics of the 1980s. In other words, a longer-term comparison between several different decades would be of value, depending on availability of the data. This would allow us to study the dynamic of the labour force market and its impact on different gender groups over different periods of recession and expansion.

2. How would men fare with unemployment during recessions, since they comprise higher percentage of unemployment compared to their female counterparts?

3. According to our findings, women comprise a slightly higher percentage of involuntary part-time workers compared to their male counter parts during recessions in both the goods-producing and the service sector, while during expansion we observe the opposite. In other words, men show a higher percentage of involuntary part-time than women in both the goods-producing and the service

sector. The question that arises now is how women would be able to put an end to the dominant division of work and family responsibilities. Several options might be considered:

A. Increasing the political pressure for child-care

B. Implementing occupational health and safety legislation for pregnant women, in addition to implementing maternity leave and maternity coverage under employment insurance

C. Implementing equal employment and employment equity

D. Providing protection for part-time and temporary workers and access to educational institutions and

E. Encouraging women to involve themselves in political parties and trade unions. As Jenson (1991) argues in the case of Sweden, this has enabled women to pursue equality in the labour market along with the private domain of family life.

Lastly, we, outline several shortcomings in this research:

1. To test each hypothesis, we controlled several variables that seemed crucial to determine the labour force status of each gender group. One might yet add some more to our list of variables, such as age, immigration status and presence of children. Age seems to be an important factor, particularly for women since

interruptions, such as giving birth and taking care of children, can decrease women's participation rate in the labour market. Age in association with years in the labour force can seemingly be a powerful predictor of unemployment rates, when controlling for sectors and occupational variables. Age is also an important factor when analyzing the effect of education. In fact, the effect of education on employment is seemingly most powerful for labour force entrants. Its impact, however, decreases after the initial years.

Immigration status is important, especially when it comes to language and work experience. Not knowing the official languages (English and French) puts many immigrants in a disadvantaged position and prevents them from participating in the labour market. In addition, not having a work experience in Canada could have a negative impact on their labour force participation. The presence of young children decreases women's participation in the labour market to a large extent.

2. The results obtained and the observations made in this research are all based on the labour force data for the 1980s. We do not know if our results are limited to the 1980s or they also hold for 1970s, 1990s and/or any other decades. Testing our hypotheses and using the labour force data for other decades can be a subject of future research on the dynamics of gender division of the labour market.

REFERENCES

Albin, P. and Applbaum, E. (1998) " The computer rationalization of work, implication for women workers," In "*Feminization of labour force*" Edited by Jenson, Hagen and Reddy. New York, Oxford University press, 1988.

Anker, R. (1997), "Theories of occupational segregation by sex: An Overview", *International labour review*, vol.136, No.3 (Autumn), pp.315-339

Basset, P. (1994) "Declining female labour force participation", *Perspective on Labour and Income*. (Summer), Statistic Canada, Cat. No. 75-001E, pp.36-38

Becker, G.S. (1975) "Human capital: A theoretical analysis wit special reference to education" (2nd edition). Chicago, University of Chicago Press.

Beechey, V. (1997), "Notes on female wage labour in Capitalist production". *Capital and Class*. Autumn, No:3.

Beechey, V. and Perkins. T. (1987). "*A Matter of Hours*". Cambridge. Polity Press.

Beechey, V. and Perkins. T. (1979). "Women and production: a critical analysis of some sociological theories of women's work" In "*Feminism and Materialism*". Edited by: A. Kuhn et al. London. Rutlege and Kegan Paul

Blaug, M. (1985). "Where Are We Now in the Economics of Education?" *Economics of Education Review*. pp. 17-28. Reprinted in "*The Sociology Of*

Labour Markets: Efficiency, Equity, Security." Edited by A. Van den Berg and J. Smucker.

Cote, M. (1990). " The labour force: into the 90s". *Perspective on Labour and Income*. (Spring). Statistics Canada., Cat. No.75-001E, pp.8-15

Crompton, R. and Harris, F. (1998). "Explaining Women's Employment Patterns: 'Orientations to Work' Revisited". *British Journal of Sociology,* Vol. 49, No.1, pp 118-149.

Delsen, L. (1993). "Part-time Employment and the Utilization of Labour Resources." *Labour,* Vol. 7, No.3: 73-91

Doudeijns, M. (1998). "Are Benefits a Disincentive to Work Part-Time?" *In Part-Time Prospects,* Edited by: J. O'Reilly and C. Fagan, Routledge, New York

Duffy, A. & Pupo, N. (1992). " *Part-Time Paradox: connecting gender, work and family*". McClelland & Stewart Inc. The Canadian Publisher.

Gunderson, M. (1998). "Women and the Canadian labour market". *Statistics Canada*, Catalogue No. 96-321-MPE No. 2.

Hakim, C.(1996). "*Key Issues in Women's Work*", London: The Athlone Press Ltd.

Hakim, C.(1995). "Five Feminist Myths About Women Employment". *British Journal of Sociology,* Vol. 46, No.3, pp 429-455.

Hakim, C.(1991). "Grateful Slaves and Self-made Women: Fact and Fantasy in Women's Work Orientations". *European Sociological Review.* Vol. 7, No.2, pp 101-121.

Harrison, B. (1972). "Education, training and the urban ghetto, Baltimore: The Johns Hopkins University Press.

Howes, C. and Singh, A.(1995) " Long-Trends in the World Economy: The Gender Dimension" *World Development*, Vol. 23. No. 11, pp. 1895-1911.

Hughes, K.D. (1995). "Women in non-traditional occupations". *Perspectives on Labour and Income.* Statistics Canada, Cat No. 75-001E, pp.14-19

Jenson. J, Hagen E and Reddy, C (1998). " *Feminization of the labour force: Paradoxes and Promises*" Oxford University Press. New York.

Jones. C., Marsden. L. and Tepperman. L. (1990). "*Lives Of Their Own: The Individualization of Women's Lives*". Studies in Canadian Sociology. Oxford University Press, Toronto, Canada.

Krahn, H. and Lowe. G. (1998). "*Work, Industry and Canadian society*". University of Alberta.

Menzies, H.(1996). "*Whose Brave New World? The Information Highway and the New Economy.* " Toronto: Between the Lines

"Methodology of the Canadian Labour Force Survey"(1998). Statistics Canada, Cat. No. 71-526-XPB.

Meulders, D. (1995). "Reorganization of Work". In *Equal opportunities for women and men*. Edited by: J. Rubery. Brussels: Report for the employment task force of the European Commission DG-V. V/5532/95-EN

Mincer, J. (1958) "Investment in human capital and personal income distribution". *Journal of Political Economy*, 61, pp.281-302.

Noreau, N. (1994). "Involuntary part-timers". *Perspective on Labour and Income*. (Autumn): 28, Statistics Canada, Cat. No. 75-001E, pp.25-30

O'Reilly, J. and Fagan, C. (1998). "*Part-time Prospects*". Routledge. New York.

Picot, W.G.(1987). "The Changing Industrial Mix of Employment 1951-1985". *Canadian Social Trends*, Spring, pp 8-11.

Piore, M. (1975). "Notes for a theory of labour market stratification. In R. Edwards, M. Reich & D.Gordon, *Labour Market Segmentation*. (pp 125-150). Lexington, MA: D.C. Heath.

Reynolds, L. (1986). "*Labour economics and labour relations*" (8th Edition). Englewood Cliffs, NJ: Prentice Hall.

Schultz, T.W. (1961). "Investment in human capital". *American Economic Review*, 51, pp 1-17.

Schultz, T.W. (1967). "*Investment in human capital: The role of education and of research*". New York: Free Press.

Sherman, B. and Judkins, P. (1995). "*Licensed To Work*". London: Cassel.

Rosenfeld & Birkelund, (1995), "Women's part-time work: a cross-national comparison", *European Sociological Review*, Vol, 11, No: 2, September 1995.

Rubry, J.(1988). "*Women and Recession*". London , New York: Rutledge and Kegan Paul.

Tilly, C. (1996). "*Half A Job*". Temple University Press, Philadelphia.

Van den Berg, A. and Smucker, J. (1997). "*The sociology of labour markets: Efficiency, Equity, Security*". Prentice Hall Allyn and Bacon Canada, Ontario.

Wannell, T. (1990). "Male-female earnings gap among recent university graduates". *Perspectives on Labour and Income*. Statistics Canada, Cat. No. 75-001E, pp.19-27

Woodhall, M. (1987). "Economic of education: An overview". In G. Psacharopoulos (Ed.), "*Economics of education: Research and studies*" pp. 1-11. Oxford, Pergamon Press.

Table (1-1)

Unemployment rates for the Primary sector by Gender, Education, Occupation and selected years

Gender / Occupation	EDU (0-10) Y		EDU(11-13)Y		EDU(Secondip)		EDU(Univ)		1981 **1983** 1987 **1989**
	M	F	M	F	M	F	M	F	
Professional	4.2	0/602	2.2	1.2	0.6	0.6	0.9	1	
	3.8	10	6.9	8	2.6	2.6	1.8	1.1	
	4.1	6.4	5.8	3.3	3.1	3.1	1.9	1.1	
	3.3	0.78	5.1	0.7	2.5	3.3	1.4	9.5	
Clerical	3.4	1.7	2	2.8	1.2	2.1	1.9	0/937	
	11	3	11	3.1	4.4	6.2	0/92	3.5	
	6.5	4.6	7.7	4.6	2.9	4	0.9	1.7	
	8.5	2.1	7.3	2.6	6.1	1.3	0/74	3.8	
Primary	4.1	3.4	4.7	2.5	2.6	2.8	2.5	2.6	
	6.6	5.3	7.9	4.2	5.5	3.8	2.6	1.9	
	5.5	4	5.9	4.7	3.8	2.7	3.6	4.7	
	5.8	6.4	5.1	4.6	3.1	4.2	3	0.5	
Blue collar	7.5	2.8	4.5	9.5	3.7	5	1	4.1	
	12	9.2	12	9.2	9.4	2.9	3.3	0/1	
	9.7	21	8.3	6.3	5.2	4.4	3.5	0/8	
	5.3	9.8	6.3	23	2.2	6.3	4.5	0/11	

Table (1-2)

Unemployment rates for the Secondary sector by Gender, Education, Occupation, and selected years

Gender / Occupation	EDU(0-10) Y		EDU(11-13)		EDU(Postsecond)		EDU(univ)		1981 **1983** 1987 **1989**
	M	F	M	F	M	F	M	F	
Professional	1.3	2.1	1.2	1.8	1.3	2.7	0.5	2.8	
	3.9	1.62	4.6	3.5	3.8	3.7	3.7	2.3	
	2.1	3.3	1.8	3.8	1.9	1.6	1.6	3.6	
	2.9	3.8	2.4	1.5	2	3	1.8	2.5	
Clerical& Sales	3.8	3.7	3.7	2.5	2	2.7	1.6	4.6	
	6.3	5.1	6.8	5.9	5.4	6.5	5.6	4.6	
	5.7	5.8	5.1	4.6	3.7	4.8	2.9	2.7	
	4.2	5.1	3.9	3.1	2.6	3.1	3.3	0.8	
Primary	12	5.4	10	3.3	5.2	6.3	11.4	6	
	15	7	24	9.3	8.1	3.7	10	0/7	
	15.9	15	13.6	7.2	11.5	4.9	0/44	0	
	10	18	12.9	9.4	7.9	6.2	14	0/10	
Blue collar	7.4	6.6	6	6.8	4.5	4.4	3.6	1.4	
	12.6	8.3	12.2	8.9	10	10	8.6	6	
	10	9.1	8.6	8.8	6.5	5.9	6.8	6.7	
	7.5	5.4	5.7	5.7	4.6	5.2	3.7	4.6	

Table (1-3)

Unemployment rates for the Service sector by Gender, Education, Occupation and selected years

Gender / Occupation	EDU(0-10)Y		EDU(11-13)Y		EDU(Secondip)		EDU(Univ)		1981 **1983** 1987 **1989**
	M	F	M	F	M	F	M	F	
Professional	1.9	1.7	2.1	1.2	1.4	1.3	0.6	1.2	
	4	2.1	3.6	0.4	2.9	2.2	1.8	2	
	3.9	3.4	2.9	2.9	2.2	2.2	1.1	2.8	
	3.3	2.6	1.9	2.1	1.6	1.8	0.9	1.6	
Clerical&Sales	3.4	2.5	2.3	2.1	1.6	1.6	1.2	2.4	
	4.6	3.8	4.7	4.2	4.4	3.6	3.5	2.3	
	4.2	3.7	3.8	3.4	3.1	3.2	2.2	2.5	
	4.3	3.2	2.7	2.5	2.1	2.1	1.7	1.7	
Primary	7.3	6.3	7	2.9	5.6	1.3	0/950	0/286	
	11.9	17	10.7	10	7.4	1.7	4.3	6.4	
	11.2	9.1	10	13	7.5	6	3.4	29	
	7.1	11.1	7.4	6.1	5.6	4.4	7.4	4	
Blue collar	4.5	3.8	4	3.4	2.2	2.1	2.9	5.6	
	7.9	5.5	7.2	7.2	6	4.6	4.2	4.5	
	7.3	6.3	6	4.5	3.8	4.1	4.5	4	
	5.2	3	3.6	3.8	2.7	4.7	3.3	0.9	

Table (2-1)

Percentage of Full- Time Workers by Gender, Sector and Years

Year \ Gender	Primary sector		secondary sector		service sector	
	M	F	M	F	M	F
1981	76.5	46.7	83.6	70.9	78.2	56.8
1983	71.9	45.5	77.2	69	76	56.4
1987	75	46	78	63.3	75.9	55.1
1989	75.5	48.4	83.1	72.5	77.9	52.2

Table (2-2)

Percentages of Part-Time Workers by Gender, Sector and Years

Gender \ Year	primary sector		secondary sector		service sector	
	M	F	M	F	M	F
1981	6.8	28.5	2.1	8.5	9.6	24.6
1983	7.6	28.9	2.6	9	9.5	24.4
1987	8	30.7	2.8	10.3	9.7	25.3
1989	7.3	29.6	2.5	9.3	10.2	23.9

Table (3-1)

Involuntary Part-time Rates for the Primary Sector by Gender, Education, Occupation and Selected years

Gender / Occupation	EDU(0-10)Y		EDU(11-13) Y		EDU(Secodip)Y		EDU(Univ)		1981 **1983** 1987 **1989**
	M	F	M	F	M	F	M	F	
Professional	30	14.9	0/60	2.6	0/108	1.3	5.9	9.1	
	0/2	33.3	0/2	18.2	0/4	15.4	0/9	27.3	
	3	28.6	10	6.3	19	23.4	12.5	7.4	
	14.3	0/47	0/3	27.3	55.5	6.4	0/15	0/24	
Clerical& Sales	40	0.1	41.1	6.2	0/147	5.1	0/0	8.4	
	25	20.1	28.6	17.7	0/14	15.9	0/2	17.7	
	27.6	9.4	77	8.1	33.3	7.5	0/0	3.6	
	29.4	9.8	0	10.1	11.8	4.3	06	15.9	
Primary	7.9	5.3	7.4	4.6	9.7	4.5	5.3	1.8	
	10.9	15.7	12.3	14.6	10.2	15.6	11.5	10.4	
	9.3	6.8	11.31	4.9	7.9	2.6	8.5	2.2	
	8.1	10.8	12.1	6.2	9.5	6.4	1.3	1.8	
Blue collar	23	17.9	15.5	4.7	0/160	4.2	0/29	0/0	
	40.9	35.5	25	18.7	18.7	0/4	0/0	0/0	
	39.3	18.9	62.7	14.2	38.5	0/12	0/0	0/0	
	50	23.8	27.2	20	40	20	0/0	0/0	

Table (3-2)

Involuntary Part-Time Rates for the Secondary Sector by Gender, Education, Occupation and Selected Years

Gender / Occupation	EDU(0-10) Y		EDU(11-13)Y		EDU(Secondip)		EDU(Univ)		1981 **1983** 1987 **1989**
	M	F	M	F	M	F	M	F	
Professional	9.2	3.2	14.7	3.3	10.5	9.9	14.2	13	
	34	42	35.2	22.1	28.9	35.1	18.5	17.3	
	26.5	25.6	20.6	8.3	17.4	15.2	16.6	15.7	
	22.4	17	4	4.9	10.3	10	12.5	10	
Clerical& Sales	15.3	11.2	22.5	8.8	12.9	10	13.9	5.8	
	17.7	22.5	20.1	29	32.5	25	15.4	19.1	
	39.5	20.3	24.3	17.2	24.4	25.8	66.6	20.2	
	17.5	13.2	10.6	12.5	15.5	10.7	17.2	8	
Primary	24.7	19.5	22.7	51.8	26.9	8.5	0/16	0/5	
	35	50	27.3	0/2	50	50	44.4	0/2	
	58.5	100	4.2	55	41.1	25	20	0/0	
	35	14.3	53.3	0/7	25.9	42.8	0/5	0/0	
Blue collar	31.8	31.9	24.6	20.5	18.5	17.5	39.8	7.3	
	30.5	35.9	34.7	34.2	30.2	28.3	26.1	26.8	
	46	55.8	49	40.5	49	36.9	39	13.9	
	35.1	39	30.2	26.2	25.3	22	18.6	4	

Table (3-3)

Involuntary Part-time Rates for the Service Sector by Gender, Education, Occupation and Selected years

Gender / Occupation	EDU(0-10) Y		EDU(11-13)Y		EDU(Secondip)		EDU(Univ)		1981 **1983** 1987 **1989**
	M	F	M	F	M	F	M	F	
Professional	14.4	20.9	20.9	14	16.9	12.9	13.1	13.6	
	21.8	29.5	20	30.6	20	28.7	20.9	27.8	
	24.1	24.9	30.7	29.3	21.5	24	22.4	24.1	
	15.8	32.6	25.5	24.9	19	19.6	19.7	19.9	
Clerical& Sales	14.9	23.9	16.2	17.3	15.8	16.3	22.8	15.7	
	20.7	29.9	22.3	31.5	25	29	28.9	28.2	
	19.7	28.2	25.1	30.7	25.5	27.7	31.4	22.7	
	15.2	21.7	19.1	21.5	16	20.5	26.3	15	
Primary	27	19.1	20.9	44.7	0/91	20	26.7	100	
	33	16.3	32.5	43.2	52.5	42.8	72.7	50	
	35.3	47.5	39.4	58.6	64.5	28.6	61.5	0/2	
	31.5	28.3	29.8	27.6	43.2	25	7.1	0 2	
Blue collar	23.1	15	23.8	16.1	17.4	17	16.6	2.6	
	28.4	30	24.7	30.8	25.8	30.9	32.9	14	
	33.1	20	36.8	27.6	37.2	30.7	51	24.6	
	26.9	24.2	22.9	22.8	25.5	17.4	26.7	3.8	

Table (4-1)

Job Leaving Rates due to Family Responsibilities for the Primary Sector by Gender. Education. Occupation and Selected Years

Gender / Occupation	EDU(0-10)Y		EDU(11-13)Y		EDU(Secondip)		EDU(Univ)		1981 **1983** **1989**
	M	F	M	F	M	F	M	F	
Professional	0/396	18.6	0/764	22.7	0/1178	15.5	0/732	17.2	
	20	0/13	0/107	9.6	0/151	10.9	1	0/10	
	0/43	0/9	0/80	0/31	2.1	3.9	0/57	0/42	
Clericl&Sales	1.2	7.2	0.8	20	1.7	6.6	0/116	0/128	
	1.2	8.4	1.5	6.6	0/71	3.1	0/3	21	
	0/84	5.3	20.4	10.5	0/27	10.7	0/11	0/18	
Primary	1	9	1.6	8.5	1.4	11.6	0/1076	3.8	
	0.5	5.6	0.4	6	0.5	5.8	0/69	18	
	0.7	4.8	1.1	4.5	0.1	2.3	0	0.4	
Blue collar	0.5	11.6	1.1	6.4	1.9	1.8	0/51	0/39	
	0/787	12	0.7	13.9	1.5	8.3	0/13	0/1	
	0.5	7.4	1.8	2.3	0/93	0/12	0/8	0	

*1987 data needed for this table were missing

Table (4-2)

Job Leaving rates Due to Family Responsibilities for the Secondary sector by Gender, Education,Occupation and selected years

Gender / Occupation	EDU(0-10)Y		EDU(11-13)Y		EDU(Secondip)		EDU(Univ)		1981 **1983** **1989**
	M	F	M	F	M	F	M	F	
Professional	0/1574 2 0/173	0/546 3.2 5.1	1.4 0/558 0/323	31.8 5 13.5	1.9 0/804 0.9	10.5 10.9 7.9	1.2 2.8 3.5	14.2 18.7 17.6	
Cerical& Sales	2.9 0.7 1.6	17.1 10.3 2.4	2.3 0.6 0.3	22.1 10.8 13.6	2 0.1 0/446	14.2 7.3 17.4	2.9 0/167 5.4	4.4 25.2 14.8	
Primary	0.2 0.5 2.5	14.9 0/36 0/29	0.9 0/416 0.4	25.6 0/44 0/23	0.2 1 0/215	0/29 2.1 0/29	0/308 3.7 0/29	0/162 0/2 0/10	
Blue collar	1 0.3 1.4	12.5 6.8 7.9	1.7 1 0.9	12.7 7 11	0.6 0.6 1.8	6.3 6.4 10.1	7.4 1.7 1	13.3 12.5 12.8	

- 1987 data needed for this table were missing

Table (4-3)

Job Leaving Rates due to Family Responsibilities for the Service Sector by Gender, Education, Occupation and Selected years

Occupation \ Gender	EDU(0-10)Y		EDU(11-13)Y		EDU(Secondip)		EDU(Univ)		1981 **1983** **1989**
	M	F	M	F	M	F	M	F	
Professional	1.1	7.9	1.8	17.5	2.1	17.2	2.3	25.5	
	1.4	9.8	1.3	10.4	1.7	12.3	1.8	15.2	
	1.5	10	1.4	0.1	1.3	10.7	2.6	15.6	
Clerical& Sales	2.9	12.1	2	18	2	12.7	3.5	19.8	
	2	9	1. 5	11.8	1.6	10	2.5	13.8	
	2	10	2.4	14.6	1.8	11.9	2.4	19	
Primary	0.8	15	0/2989	3	0/1149	2	0/191	4.9	
	0.4	0.8	0.1	0.5	0.2	6.5	0/29	0/21	
	0.7	1.4	1.3	3.4	0/343	3.14	0/38	0 2	
Blue collar	1.6	11.9	1.6	17.8	1.2	21.9	9	27.5	
	0.3	9.8	0.8	7.1	0.9	8.2	0.9	2.1	
	1.6	11.5	2.3	14.6	1.8	12.8	3.7	5.9	

*1987 data needed for this table were missing