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CLASS POSITION AND GENDER:
DIFFERENCES IN INCOME RETURNS TO EDUCATION IN CANADA

A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfilment of
the requirements for the degree of
Master of Arts
Department of Sociology

Carleton University

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"CLASS POSITION AND GENDER:
DIFFERENCES IN INCOME RETURNS TO EDUCATION IN CANADA"

submitted by Gail Marie Eno, B.A.
in partial fulfilment of the requirements for
the degree of Master of Arts

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Abstract

Using data from the 1982 Canadian Class Structure Project, the income gap between women and men is investigated in this thesis in an effort to test Wright's (1979) theory of class (defined within the Marxist tradition) and income determination. This theory proposes that the lower levels of income and lower rates of return to education found for women in past research would be largely due to class compositional differences between the sexes.

The regression analysis of full-time employees only reveals that the income gap by gender (in favour of men) does not decrease when class position is held constant (except very slightly within the working class). The findings also indicate that women have greater rates of return to education than men (except in the semi-autonomous class); there is evidence to suggest that this is due to occupational and industrial segregation, differential rates of unionization, and women being more subject to credentialism than men. Sex effects in the income determination process seem to transcend class effects.

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CLASS POSITION AND GENDER:
DIFFERENCES IN INCOME RETURNS TO EDUCATION IN CANADA

Introduction

The existence of income differentials between women and men in Canada is well documented. In 1911, the average income of employed women in Canada was 53 percent of that of men; in 1931, the figure was 60 percent; and, in 1978, it was 58 percent (Phillips and Phillips, 1983:52). According to the figures reported by Statistics Canada for the 1981 Census, women earned, on average, only 53.19 percent of the income earned by men in wages and salary in 1980.¹ Thus, despite public policies [such as Equal Pay for Work of Equal Value (1978), voluntary affirmative action programs (1979), and various retraining programs] and pressure from women's groups, it is evident that the income gap between women and men is very much alive and well.

While the existence of the gap is obvious, the precise causes are not. As noted by Gunderson (1975:132), some of the income differences between women and men arise from occupational segregation, where women are segregated into low-paying jobs. However, even when "extremely narrowly-defined occupations with identical job descriptions" are examined (Gunderson, 1975:132), there is still a significant wage gap. Denton and Hunter (1982) maintain that:

Male-female differentials in earnings derive from one or the other or some combination of differences between the sexes in their average levels of certain earnings-related attributes and differences between them in the processes by which they earn income.
(Denton and Hunter, 1982:28)

This thesis addresses gender differences in income levels which result from

differences in the income attainment process. Of primary concern is the income gap resulting from differences in the overall process of income attainment between the sexes; also of concern are the differential effects on income of one specific variable in this overall process-- education. As documented by Ornstein (1982), past research has demonstrated that education has a strong impact on wages in Canada:

No other variable has a larger influence on wages; education alone explains about ten percent of the variation in annual income and in current wage rates. (Ornstein, 1982:4)

In the study of income attainment, regression models are typically employed which examine the relationship between a variety of earnings-related variables (as independent variables) and income (as the dependent variable). Education has been assigned a major role in these models. Not only has past research found that women receive lower incomes than men as a result of the overall process of income determination (holding constant level of earnings-related attributes), but it also has been well documented that women receive lower returns to increments in education alone (Suter and Miller, 1973; Oaxaca, 1973; Blinder, 1973; Bibb and Form, 1977; Wright, 1979; and Abowitz, 1982). Although the effects of education are only part of the entire process of income determination, there has been a great deal of emphasis on the importance of this particular variable in the overall process (Jencks, et al, 1979; Ornstein, 1982). Human capital theory (originating within neo-classical economics) and the status attainment model (a product of the functionalist perspective on social stratification within the discipline of sociology), the two reigning paradigms in the study of gender differences in income during the 1960s and 1970s, attribute any differences in the rate at which education is

converted into income to either discrimination or differences in productivity.²

In an effort to understand both differences in the levels of income between women and men and differences in the rate of return to education in particular (i.e., the magnitude of change in income resulting from an increment in the level of education) between women and men, Erik Olin Wright (1979) has proposed that such differences can be explained by two basic factors: (1) the process of income determination (and specifically the role of education within that overall process) is mediated by one's location within the class structure (defining class within the Marxist tradition in relational terms and in a manner that considers the nature of contemporary capitalism); and (2) women and men are concentrated in different classes such that the income determination process of women overall is based more upon that associated with the working class (the class in which only lower income levels are attainable and in which lower rates of return to education are experienced); the income determination process of males will, likewise, be based proportionately more upon that which is associated with the managerial/supervisory class (in which higher income levels are attainable and higher rates of return to education are experienced).³ Therefore, according to Wright (1979), the lower levels of income and lower rates of return to education observed in past research for women (relative to men) can be explained in terms of class compositional differences, given that different classes are characterized by different income attainment processes.

Using the 1969 Survey of Working Conditions in the United States, Wright found that within classes, the income gap between women and men

was slightly lower than that observed when class was not controlled for; he also found that the overall lower rate of return to education observed for women was rendered statistically non-significant when class position was controlled for. Abowitz (1982), using the 1973 Canadian Mobility Study, also found that the overall lower rate of return to education observed for women was rendered statistically non-significant when class position was controlled for; she did not find, however, that the gap in mean income between women and men was reduced as a result of controlling for class. Unfortunately, both studies were hampered by data set restrictions which did not permit a precise operationalization of class position.

The purpose of this thesis is to investigate the income gap and differences in the rate of return to education between women and men using Wright's framework. The Canadian Class Structure Data Set (Winter 1982-83), which was specially designed to permit a much more precise operationalization of class position than that allowed by other data sets, will be used to test Wright's theory regarding gender differences in the income attainment process. It should be noted that the precision allowed by this data set with regard to identifying classes and detailed positions within those classes is such that a much more rigorous and meaningful test of Wright's theory can be executed. Briefly stated, four basic propositions are tested in this thesis: (1) within classes, the income gap between women and men will be lower than it is when all classes are considered together; (2) within classes, differences in the rate of return to education between women and men will either disappear or be reduced significantly

from what they are when all classes are considered together;

(3) due to compositional differences between the sexes within major classes, the differences in the level of income for women in different classes will be lower than the differences in the level of income for men in different classes; and (4) due to compositional differences between the sexes within major classes, the differences in the rate of return to education for women in different classes will be lower than the differences in the rate of return to education for men in different classes. Thus, both the income gap (due to differences in the entire process of income determination) and differences in the rate of return to education (one aspect of the entire process of income determination) between women and men are examined here.

If we are to attempt to lessen the income gap between the sexes, it is important that we fully understand any differences in the income attainment process and any structural variables (such as class position) which might mediate this process. If Wright is correct that the gender differences in income can be explained by compositional differences, then policies which concentrate on reducing such differences should be recommended. If Wright's arguments cannot be used to explain a major portion of the income differences between women and men (i.e., sex differences in the income attainment process transcend class differences), then we must focus more closely on differences in specific aspects of the income attainment process. Since it has been demonstrated that education is a very significant variable in this process, any differences in the manner in which women and men translate education into income might lead us to a better understanding of ways in which women might be able to improve their overall incomes vis-a-vis men.

Footnotes

1. Calculated from figures reported in Table 4, Catalogue 92-928 (Volume 1 - National Series), 1981 Census of Canada, Population, Total Income, for the Population 15 Years and Over with Income in 1980.
2. The overall income gap between women and men is a result of differences in the entire process of income determination. The models of income determination typically involve a regression equation which can be used to predict income. These equations may differ between women and men in a variety of ways:
(1) differences in intercept (the value of income when all earnings-related attributes included as independent variables have the value of zero); (2) differences in the slopes of one or more of the independent variables; (3) differences in both intercepts and slopes. Differences in the rate of return to education isolates differences in the slopes of the education variable alone. The value of this slope is the magnitude of change in income for an increment in educational level. Past research has placed a great deal of importance on the effect that education has on income. If the slope of education alone explains a major portion of the variance in overall income, then it is wise to isolate the effects of education and gender differences in these effects to obtain a better understanding of differences in the income attainment process.
3. Wright's conception of class identifies the following classes: large employers, small employers, petty bourgeoisie, managers/supervisors, semi-autonomous wage earners, and workers. The first three groups constitute self-employed persons. Since the nature of their income attainment process is fundamentally different from that of the employee labour force (the last three groups), this group of self-employed persons is not included in this analysis. The relationships between these classes will be explained in Chapter One, as will Wright's specific hypotheses regarding the processes of income determination which characterizes each of them.

CHAPTER ONE

BACKGROUND AND THEORY

Introduction

This chapter is divided into four parts. The first part reviews the background of research into gender differences in the income determination process, and the two paradigms that governed most of this research: human capital theory and the status attainment model. Given past findings that women receive lower incomes and lower rates of return to education than men, Erik Olin Wright's (1979) theory of class and income determination is, in one sense, a response to the inadequacies of the human capital model and the status attainment approach.

The second section of this chapter provides a discussion of Wright's conception of class in a contemporary capitalist society. Since class, as defined by Wright, is a pivotal variable in his attempt to explain these past findings, it is essential to understand the various dimensions of it. Building upon this discussion, the third section of this chapter examines Wright's theory of income determination and the reasons why this theory should help us to understand income inequality. Both these sections are necessary to an understanding of the possible role of class in mediating gender differences in the income determination process.

Finally, the specific propositions for investigation in this thesis are generated in the fourth section of this chapter. In this

section, the explanation proposed by Wright to account for gender differentials in level of income and rate of return to education is discussed, and the research purposes of this thesis are more fully developed.

1.1 Background Theory and Research into Gender Differences in Income

Two popular paradigms used to explain gender differences in income are: human capital theory and the status attainment model. Human capital theory developed within the realm of neo-classical economics. The basic tenet of this approach is that people invest differently in human capital (defined as productivity enhancing activities such as education, on-the-job training, and labour force experience, etc.), developing different productive capacities, and consequently, receiving differential rewards in the labour market. The level of analysis is the individual who is viewed as entering into exchange relations with an employer where her/his wages are equal to her/his marginal productivity. Mincer and Polachek (1974) note that the decision to invest in human capital involves a consideration of forgone earnings (opportunity cost) in one's best alternative occupation (without such human capital investment), as well as any outlay of finances to 'purchase' the opportunity of obtaining this human capital (i.e., tuition, etc.). The returns involve the greater earnings obtained throughout one's working life (beyond what would have been obtained without the investment). Affecting the rate of return on this investment, therefore, is the amount of time spent in the labour force. The shorter the time in the labour force, the lower the overall return to human capital. Thus, individuals make choices about

investing in human capital based upon this trade-off, with anticipated time in the labour force as an influencing factor (Mincer and Polachek, 1974). Due to their often discontinuous nature in the labour force as a result of child rearing and domestic responsibilities, women, according to this model, anticipate spending less time in the labour force than men; thus, there is a much lower incentive to invest in human capital for women than for men. As noted by Boyd and Humphreys (1979:7):

Specifically, in a perfectly competitive market, rates of return to income relevant characteristics should be identical across racial, ethnic or sex-defined populations. If incomes do differ, it is due to the compositional differences between groups with respect to their stock of education, and other income relevant characteristics. (Boyd and Humphreys, 1979:7)

However, research has indicated that women and men do not enjoy the same rate of return to income relevant characteristics. These differences are usually interpreted as discrimination or differences in productivity.¹ Unfortunately, proponents of this approach have not developed a precise theoretical framework regarding the operation of such discrimination (Boyd and Humphreys, 1979).²

The status attainment model is a derivative of the functionalist perspective on social stratification within the discipline of sociology (Boyd and Humphreys, 1979). From this perspective, inequality of rewards is seen as the outcome of society placing greater importance on those activities which are of most benefit to society. Important to this model is the relationship between ascribed and achieved characteristics and the ability of this relationship to account for differential rewards (Boyd and Humphreys, 1979:5). Blau and Duncan, early researchers in this area, examined the relationship between family background,

education, and occupational achievement (Ornstein, 1982:35). Ornstein (1982) maintains that this model is concerned with the strengths of these relationships without any true theory regarding the process by which certain characteristics affect income (or status attainment). Boyd and Humphreys (1979) describe the model as one which has emphasized occupational status attainment, but has been stretched to include income as well. Certain "life cycle events" such as education and first job attainments are seen as "mediating the effects of the family of origin statuses on that of the offspring" (Boyd and Humphreys, 1979:6). The status attainment model, like the human capital theory, assigns a major role to education in the achievement of income (Boyd and Humphreys, 1979; and Ornstein, 1982). The status attainment model views education as a credential or screening device by which individuals are differentially allocated to different occupational statuses and income levels. In contrast, human capital theory assumes that educational differences represent real differences in productivity; people are rewarded for their productivity, according to human capital theory, and not for the importance of the occupational position they hold. However, as Cain (1976:1219) proposes, the viewing of education as a screening device rather than as an indicator of productivity simply redefines the "investment component" of education as an "information" component rather than "denying an investment component" (Cain, 1976:1219). As with human capital theory, the status attainment model contains an implicit assumption that differential rates of return to background factors is a function of discrimination.

Both paradigms are limited in their ability to truly examine the income determination process, however, because they both assume a

homogeneous and competitive market. They do not consider the structure of demand (Boyd and Humphreys, 1979:10) or the social relations of production (Wright, 1979:72-78). As noted by Wright:

. . . in both human capital theory and status attainment theory, individuals with a given set of personal characteristics (particular subjective states and objective resources) enter into exchange relations and, as a result, are sorted into positions and defined by the technical relations of production. Capital and labor meet only in a pure exchange relation. Once workers enter production, they are simply a 'factor of production' performing technical functions. Social relations of production, however conceived, play no explicit role in either theory. (Wright, 1979:73)

In Wright's theory of class and income determination, the social relations of production play a central role, as shall be discussed in Section 1.3.

The deficiencies in these two paradigms, as well as the failure of public policy based upon them, have contributed to the recent trend toward the use of structural frameworks in the study of gender differences in income determination. Wright's theory of class and income determination provides such a structural framework, as does Boyd and Humphreys (1979) investigation using segmented labour markets.

Regardless of which of the two paradigms formed the basis of research, most studies have proposed an earnings function in which income (or wages) is the dependent variable and a host of income-related characteristics act as independent variables. Many studies have attempted to "disaggregate the observed earnings differentials between men and women into discriminatory and non-discriminatory components" (Agarwal, 1982:780). After including what is believed to be all the income-related variables in a multiple regression equation, the remaining intercept gap between women and men is often attributed to discrimination. This practice, as noted by Boyd and Humphreys (1979) and Chiplin and

Sloane (1982:68-70), has at least two major problems: (1) The residual gap may be biased upward due to the possibility that some income-related variables were not included in the equation (the effect of these variables cannot be separated from the effect of 'discrimination'). (2) There is no theoretical framework which specifies the operation of this discrimination.

With regard to the specific effects of education, past research has predominantly indicated that women receive lower rates of return to education than men (i.e., they receive fewer dollars in income for each increment in education than men do). The following is a brief description of such past research. Oaxaca (1973), using 1967 Survey of Economic Opportunity data for the United States, found that men have greater rates of return to education than women (using a population 16 years and over reporting an hourly wage for the week preceeding the survey and controlling for number of children, city size, education, experience, health, hours of work, marital status, migration region, and union membership)(Gunderson and Jain in Sloane, 1980:196; and Lloyd and Niemi, 1979:232-233).

Blinder (1973), using the Michigan Survey Research Center's 'Panel Study of Income Dynamics for the United States'; also found that men had greater rates of return to education than women (using a population of white persons aged 25 and over who had an income in 1967 and controlling for age, region, parents' income, father's education, place of birth, number of siblings, health, local labor market conditions, geographic mobility, seasonal employment)(Gunderson and Jain in Sloane, 1980:196; and Lloyd and Niemi, 1979:232-233).

As well, Miller and Suter (1973) found that women received substantially lower rates of return to education than men using a model that controlled for occupational status, full-time employment, and experience for workers aged 30 to 44 years using data gathered in 1967 in the United States. A host of other researchers, using data from the United States, have turned up these lower rates of return to education for women, including: Hudis (1974), Treiman and Terrell (1975), and Bibb and Form (1977).

With regard to Canadian research, Boyd and Humphreys (1979) examined data collected in the Canadian National Mobility Study supplement to the July 1973 Statistics Canada Labour Force Survey for a population of native born women and men aged 25 to 64 using a segmented labour market framework (all full-time employees working 35 hours or more per week and 40 or more weeks per year in 1972).³ Among the many findings of this study are the following: (1) Overall and in each sector, women receive lower levels of income than men (i.e., when the same level of income-related characteristics are substituted into the income equations for women and men, there remains an overall gap in favour of men for the level of income predicted); (2) overall (in all sectors together) women receive a lower rates of return to education than men (i.e., fewer dollars for each increment in education); however, (3) when industrial sector is controlled for, women continue to receive lower rates of return to education in the periphery (competitive) sector, but actually receive greater rates of return than men to education in the core sector (monopoly)(this is mostly due to the inclusion of the public administration sector where women do quite well).

Other Canadian researchers have found that not only do women receive overall lower levels of income (even when income-related characteristics are held constant), but that they also receive lower rates of return to education than men (Robb, 1978; and Denton and Hunter, 1982).

The bulk of the early studies seemed to indicate that men receive a greater rate of return to education than women. However, some studies in the 1970s and 1980s have reported conflicting results. In 1980, Gunderson and Jain made reference to an unpublished study by Gunderson which examined full-time, full-year wage-earners in Canada. The results of this unpublished study indicated that women receive a greater rate of return to education than men. However, noting that past studies had obtained quite different results, Gunderson and Jain (1980) warned that this unpublished study "should be regarded as highly tentative". (Gunderson and Jain, 1980:196).

The results of the unpublished study to which Gunderson and Jain (1980) had referred were later published in 1982 by Gunderson. Gunderson (1982) found that for education levels below high school completion, males do have higher rates of return to education than females; however, at education levels above high school completion, women have higher rates of return to education. This study used data from the 1971 Census (Public Use Sample Tapes). Holmes (1976) had found similar results also using Canadian data.

Goyder (1981), using the 1973 Canadian Mobility study, found that women displayed higher rates of return to education than men in a model that included education, occupation (Blissen scores), hours worked, career continuity, marital status, number of children, and age as independent variables (with income transformed into its square root

as the dependent variable). Abowitz (1982), using the same data set, found that women displayed lower rates of return to education than men in a model that included education as the only independent variable and in another model that included education, occupational status (Blissen scores), and experience as independent variables. The seemingly contradictory findings from the same data set may be attributable to the use of different independent variables in the model and the use of a different form of the income variable (Goyder transformed income, Abowitz did not).

The importance of these results for this study are threefold:

(1) past research has consistently found that women have lower levels of income than men (even when income-related characteristics are held constant) which require some explanation; (2) past research has indicated that women and men transform education into income at a different rate (this differential rate of return to education points to the possibility that the role of education in the overall income attainment process may be significant to our understanding of differences in the income attainment between women and men); and (3) although most of the past research has indicated that women receive lower rates of return to education than men, there have been studies (all of them Canadian and using data sets from the early 1970s) which have produced conflicting results (this suggests that the Canadian situation may be different from the American one); these inconsistencies demand further research to determine the reliability of past results.

1.2 Wright's Conceptualization of Class Structure

One recent development shows promise in explaining gender differences in income attainment. In his research, Wright (1979) maintains that class location mediates the income attainment process. He charges that human capital theory and the status attainment model have both reduced the income determination process to the subjectivity of individuals. Wright explains that there are actually three dialectically related units of analysis in a Marxist perspective of income determination: (1) social structures; (2) classes; and (3) individuals. Income determination varies between different social structures (modes of production); it varies between different classes; and it varies across individuals. The human capital theory and status attainment model explicitly address only the individual unit of analysis. As Wright argues, however, certain classes place certain limitations upon individuals occupying positions within those classes with respect to the income attainment process. Wright (1979) maintains that the starting point of an analysis of income determination should be the level of social structure:

The fundamental premise of a Marxist theory is that the essential process by which income is determined varies from social structure to social structure. Specifically, it varies across modes of production. The decisive difference between modes of production centers on the mechanism by which dominant classes appropriate surplus labor from direct producers: in classical feudalism, for instance, surplus labor is directly appropriated in the form of labor dues to feudal lords; in capitalism it takes the form of the appropriation of surplus value . . .
(Wright, 1979:61)

For the purposes of his 1979 study, Wright 'held constant' the social structural level by "examining the class processes of income

determination within American capitalism at a particular moment in history" (Wright, 1979:63). Similarly, the level of social structure will be held constant within this study (implicit in this is the assumption that the class processes of income determination within Canadian capitalism at this particular moment in history will be similar to those outlined by Wright).

At this point it is necessary to discuss Wright's conception of class. In the Marxist tradition, Wright explains that classes "constitute common positions within a special kind of contradictory social relationship, social relations of production" (Wright, 1979:20).⁴ First of all, classes are positions and not individuals; they are "empty places" (Wright, 1979:20) occupied by individuals. Secondly, these 'positions' can only be understood in relation to other classes. Thirdly, these 'relations' are contradictory in the sense that the class interests defined by each class (and they can only be defined in relation to each other) are intrinsically opposite. Finally, these contradictory social relations are found within the social organization of production (both of commodities and services).

Wright (1979) further explains that, historically, the dimensions of the social relations of production have been changing. These changes are a result of the loss of control over the labour process by the working class, the differentiation of the functions of capital (largely due to the increasing separation of ownership and control in the capitalist class), and the development of complex hierarchies in the authority and control structures of modern capitalist enterprises (Wright, 1979:2-55). The dimensions of social relations of production in modern capitalist societies consists, according to Wright (1979:39-41),

of three general, interdependent processes: (1) the social relations of control over money capital (how much is produced and what is produced) or over investments and resources; (2) the social relations of control over physical capital (how things are produced); and (3) social relations of authority (control over supervision and discipline within the labour process)(Wright, 1979:2-55). Wright explains that:

The fundamental class antagonism between workers and capitalists can be viewed as a polarization of each of these three underlying processes: capitalists control the authority structure as a whole, decide how the physical means of production are to be used, and control the accumulation process. Workers, in contrast, are excluded from control over authority relations, the physical means of production, and the investment process. (Wright, 1979:25)

Further complicating this model are those positions that represent contradictory locations within these basic antagonistic social relations of production (that is, those positions which are like one polar extreme with respect to one process and, at the same time, like another polar extreme with respect to another process). Within the capitalist mode of production, the two basic class locations are the capitalist class and the working class, as already stated. Within the capitalist mode of production, the contradictory class location is the managerial/supervisory class. Occupants of the managerial/supervisory class are similar to capitalists in that they have some degree of control over the physical means of production, over the labour power of others, and, for some, over the investment process and management of resources. Occupants of this contradictory class are, at the same time, similar to workers in that they sell their labour power and do not (in most cases)

enjoy legal ownership of the means of production. The positions within this class will be organized in levels according to the combination of degree of control exercised within the three dimensions of social relations of production. However, these positions must still be thought of as relational and not gradational. Thus, some managers/supervisors will be more similar to capitalists than others, but will still be relevant only in terms of their relation to other classes.

Another complication in this model is the existence of 'contradictory locations between modes of production' (Wright, et al, 1982). It is acknowledged that within societies structured predominantly by the capitalist mode of production there will exist some "noncapitalist forms of production relations" (Wright, et al, 1982:710). Wright, et al, (1982) explain that the 'most obvious example' of such noncapitalist modes of production is that of simple commodity production. The most notable basic class position within this mode of production that will remain is that of the petty bourgeoisie (self-employed direct producers). The contradictory class locations between simple commodity mode of production and the capitalist mode of production are: smaller employers (similar to capitalists in that they own the means of production and buy the labour power of others, only not on such a large scale, and similar to the petty bourgeoisie in that the exploitation of workers and control over their labour process is at a minimum) -and- semi-autonomous wage earners (similar to the working class in that occupants of this position sell their labour power and, yet, similar to the petty bourgeoisie in that such occupants have a fair degree of control over their own labour process. Figure 1 illustrates the relative positions of these classes.

FIGURE 1SocietyCAPITALIST MODE OF
PRODUCTIONSIMPLE COMMODITY
PRODUCTION

BASIC CLASS POSITIONS

Contradictory Class Locations

Source: Wright, Hachen, Costello, and Sprague, 1982:711

1.3 Wright's Theory of Class and Income Determination

Wright (1979) proposes that each class location will be characterized by a unique process of income determination and the range of possible income levels will vary between classes. With regard to the limitations on income posed by location within certain classes, Wright (1979:79-109) predicts, for example, that an individual occupying a working class position, regardless of personal attributes, will never be able to achieve the income level of a large capitalist given the fundamentally different processes by which the two derive income. Within each class, Wright does recognize that individual attributes can have an impact on one's income level attainment, but only within the limits imposed by that class location. Thus, he argues, the basic questions asked by human capital theorists and status attainment researchers only make sense when asked within a specific social structure (such as modern capitalism) and within a specific class position. The different class positions are expected to place restrictions on the possible level of income such that they can be roughly ordered as follows from those with the possibility of having the highest incomes to those having the possibility for only the lowest income levels: (1) large employers; (2) small employers; (3) managers/supervisors (although some managers in the upper levels of the authority structure may have higher possible income levels than some small employers who rely less upon the appropriation of surplus value for their income); (4) semi-autonomous wage earners (particularly those with a high degree of control over their labour process); (5) petty bourgeoisie

(who will be only slightly above the working class); and, finally, (6) workers (who will have the lowest income level possibilities). Employers will find themselves in such an advantaged position since their incomes are derived from the appropriation of surplus value. Managers/supervisors will enjoy high levels of income relative to others who sell their labour power but are located in different class positions since the cost of their labour must include not only the cost of reproducing labour in general, but the cost of reproducing a skill or knowledge level above average requirements (Wright, 1979: 100-102). For the same reasons, managers/supervisors located in the upper levels of the authority hierarchy will also have higher income level possibilities than those located at the lower levels of the authority hierarchy (such as the supervisory component of this class). The semi-autonomous class is expected to be characterized by higher income possibilities than workers (but lower than managers/supervisors) since the cost of reproducing the labour of those located within this class is likely to be higher than the basic cost of reproducing labour (the greater the autonomy, the greater the need to reproduce skilled and/or responsible labour which may cost more than average workers). Wright makes the prediction that income levels will be more similar for those located within the same class position than for those in different class positions (there will be less overall variance in income within classes than for all classes considered together); it is assumed that the overall income determination process will differ between classes (due to some of the reasons just cited). Wright does not speculate on the exact nature of the entire income attainment process

in that he does not specify a long and exhaustive list of independent variables in the earnings function.⁵ He focusses his attention, instead, on the effects of one independent variable which he considers to be of integral importance in the class differences in the income determination process. This variable is educational attainment. While his argument regarding the different ranges for income levels for each class considers the effects of the entire income determination process (which includes both intercept differences and slope differences within the prediction equation), Wright poses an attendant hypothesis regarding rates of return to education (differences in the slope for education). (See Appendix A for a relevant discussion of the distinct nature of these two arguments.)

Wright (1979) predicts that different classes will translate education into income at different rates due to some fundamental differences in the nature of income attainment. He proposes that the rate of return to education should be highest within the managerial/supervisory class (of all classes). The semi-autonomous wage earners should experience a lower rate of return to education, than the managerial/supervisory class, but a higher rate of return than the working class. Education should be relatively unimportant within the capitalist class (unless there is some unforeseen strong relationship between education and the quantity of property controlled). Small employers should, according to Wright, demonstrate a very high rate of return to education after initial investigation. However, this is predicted to be a function of the high composition of both professionals (generally highly educated) who tend to operate in

relatively uncompetitive markets and less well-educated persons involved in very highly competitive markets (such as farming, retail sales, etc.). Once sector and occupational status are controlled for, however, the high rate of return to education for small employers should be reduced overall, (Wright, 1979:105-106).

In order to explain these relative differences in the rate of return to education between classes, Wright employs a two step argument (Wright, 1979:80-91); and Wright and Perrone, 1977:38). The first step in the argument involves the differential methods of social control developed by employers for the occupants of the different class positions (at one extreme is a method of social control based primarily upon reward incentives and at the other extreme is a method based predominantly upon punishment threats). The second step of the argument reveals the link between education and the hierarchy of authority found primarily within the managerial/supervisory class.

First of all, Wright (1979:80-86) reasons that workers can be controlled using fairly 'repressive control mechanisms'. Semi-autonomous workers and, even more so, managers/supervisors are called upon to display 'responsibility and creative behaviour' and not just 'conformity' (Wright, 1979:89). Social control techniques based upon inducements are, according to Wright, necessary to ensure the type of performance required of managers/supervisors⁶ and, to a lesser extent, semi-autonomous wage earners. Among the inducements used to encourage managers/supervisors to behave and perform in a manner that best serves the interests of the employers are 'regular pay increases' as one moves up the authority

hierarchy (the security of this type of internal labour market may itself be considered a type of inducement). The authority hierarchy in the managerial/supervisory class will, therefore, be characterized by "steep income gradients" (Wright and Perrone, 1977:38; and Wright, 1979:80-90). At the heart of this argument is the assumption that occupants of the working class can best serve the interests' of employers through conformity and that job tasks found within this class location will require considerably lower levels of self-motivation and creativity than that required for the proper performance of the job tasks found within the managerial/supervisory class location. Also assumed is that the easiest, least expensive, and most effective (or best combination of the three) method of extracting conformity is through threats of punishment (such as dismissal) rather than promise of reward. An important element in the choice of repressive control mechanisms for occupants of the working class might also be the influence of the reserve army of labour⁷ which accommodates employers more so in control of the working class than in the managerial/supervisory class. It should also be noted that control strategies for the two groups need not necessarily be thought of as dichotomous (either reward or threat). It is expected that employers will combine the two polar mechanisms of control in varying degrees (depending upon the location within the authority hierarchy or the level of skill required within the working class). Overall, the managerial/supervisory class is expected to enjoy a combination which relies more heavily upon rewards than threats (this being more pronounced at the upper levels of the authority hierarchy); it is also expected that the

working class will experience a combination of these mechanisms that relies more heavily upon threats than rewards (this will be more pronounced for unskilled workers). With regard to the situation of semi-autonomous wage earners (about whom Wright is not quite so specific), the very autonomous nature of their work makes them candidates for a combination of control mechanisms that is somewhat more dependent upon rewards than that of the working class (it is assumed that their control mechanisms will be less dependent upon rewards than that of the managerial/supervisory class since they do not require the same degree of identification with the employers' interests as some managers).

In the second step of the argument, it is hypothesized that one's education and position on the ladder within the managerial/supervisory class will be closely associated. This close association is predicated upon several assumptions: (1) Those who climb the ladder to reach higher pay levels are assumed to be more competent, more skilled, and/or possess the required certification. It is assumed that these skills and competencies are produced in the educational system, and that certification is also a product of the education system. (2) Education socializes the individual into adopting attitudes and behaviours most appropriate to these higher positions (for example, professional schools are considered important for the success of the would-be professional not only for the skills learned and credentials received, but because they teach the would-be professional the appropriate way to act and approach her/his work).

Thus, the educational system conditions individuals to act in a manner which is often consistent with the interests of employers, making those with high levels of education ideal candidates for positions in the upper levels of the managerial hierarchy which most require such consistency. (3) The managerial hierarchy can be, in part, legitimated by the educational system "through the meritocratic rule by experts" (Wright and Perrone, 1977:38). Thus, education can act as a screening device, the consequences of which might enhance the likelihood of those with higher educations being promoted to higher levels within the managerial hierarchy.

These two steps of the argument lead to the following deduction: if the managerial/supervisory class is characterized by a hierarchy accompanied by steep income gradients to act as an incentive (for purposes of social control) and, at the same time, more highly educated persons have a tendency to be allocated to higher positions in the managerial/supervisory hierarchy, then higher incomes will accrue to those with higher educations within this class position. Thus, a fairly high rate of return to education should be observed for those located within this class due to the relationships just described. Within the working class, however, these relationships should not exist to the same degree. Due to the more oppressive forms of control which characterize the working class (threats as opposed to rewards), the incentive system with steep income gradients will operate to a much lesser extent, if at all. Implicit in Wright's argument is also the notion that education and advancement within the working class may not enjoy the same close relationship that

they do within the managerial/supervisory class. There may be a lower tendency for the skills required to advance to be those acquired within the educational system (perhaps on-the-job training is more significant to advancement). There may be less of a need to legitimate promotions if promotions are not characterized by the steep gradients of rewards found within the managerial/supervisory class. Since it has been assumed that the appropriate behaviour can be extracted through oppressive control systems, there may be less need to have workers conditioned to adopt employers' interests within the educational system (particularly since it is assumed that the nature of the work performed by workers is such that creativity and self-motivation are not as important as for managers).

In view of this, members of the working class should have lower rates of return to education since it is hypothesized that it plays a much less important role in their income attainment process.

The semi-autonomous wage earners will be located somewhere between the working class and the managerial/supervisory class with respect to this balance between threats of punishment and promise of rewards (characterized by steep income gradients); thus, the link between education and income should also lie in importance somewhere between that observed for the working class and the managerial/supervisory class (Wright, 1979:79-109; and Wright and Perrone, 1977).

1.4 Wright's Theory of Class and Income Determination and the Generation of Propositions Regarding Gender Differences in the Income Determination Process

The implications of the arguments exposed in Section 1.3 for gender differences in incomes result in at least four separate research propositions. In order to arrive at these propositions, however, further discussion of the relationship of Wright's theory of class and income determination to gender differences in income attainment is essential

1.4.1 The Underlying Argument Regarding Gender Differences in Income

Wright has argued that women and men are differentially located throughout the class structure. The income attainment process, should, therefore, differ for women and men largely due to these compositional differences. Since it is assumed that women are more concentrated in the working class than men and less concentrated in the managerial/supervisory class than men, their overall income attainment process should be based proportionately more upon the income attainment process which characterizes the working class; and, therefore, they should appear to have lower income levels and lower rates of return to education overall (since the working class is presumed to have the lowest income level possibilities and the lowest rates of return to education, as explained in Section 1.3). Within classes, however, women and men should display income levels and rates of return to education that are very similar, if not identical. Investigating this prediction using the 1969 Survey of Working Conditions in the United States, Wright (1979:209-221) found that the gap in income levels between women and men (evaluated at the same level of education and other variables included in the prediction equation) was lower in the working class than for all classes; the gap within the managerial supervisory class was only slightly lower than for all classes (indicating only weak support overall).

Regarding differences in the rates of return to education, Wright found:

When class position is held constant, the large differences in returns to education between men and women in the labor force that have so often been noted in the literature disappear. Although it remains to be shown whether this will hold for actual positions within the managerial structure, it is certainly true for the working class as a whole. . . (Wright, 1979:216)

Abowitz (1982), using the Canadian Mobility Study investigated the effects of holding class constant on differences in the mean income levels between women and men (this does not hold constant the level of education or other independent variables).⁸ She found that the mean income levels of women and men were not more similar within classes than in all classes considered together. She did, however, find that the lower rate of return to education initially observed for all women (relative to all men) was rendered not significantly different from that of men when class position was held constant.

Both Wright's (1979) and Abowitz's (1982) studies were hampered by data set restrictions with respect to operationalizing class position. Neither data set, for example, allowed for the separation of semi-autonomous wage earners from those in the working class or for the division of the managerial supervisory class into more detailed levels reflecting the authority hierarchy that is so important in Wright's argument (Wright speculated that the ambiguity of the results for the managerial supervisory class, as noted in the quote above, might be cleared up by a detailed examination of positions within the hierarchy). Now that a data set which was specifically designed for the operationalization of class according to Wright's conception of it is available, it is important to test these arguments again.

Further to Wright's predictions that women and men will have more similar levels of income and rates of return to education within

class positions than they do in all classes considered together, he predicts that the differences in the level of income and rates of return to education between classes for women will be lower than those between classes for men. The supporting argument for these predictions is very similar to the one just discussed. Wright makes the assumption that within class positions women and men will be differentially concentrated. Specifically, within the managerial/supervisory class, it is assumed that women will be located at the lower levels of the authority hierarchy. Women within this class position are more likely than men to be supervisors and less likely to be decision-making managers. As already explained, the income attainment process (and the specific effect of education within that process) will vary to a certain degree within the managerial/supervisory class due to the fact that the combination of control techniques (reward -vs- threat) will vary somewhat for occupants of this class at different levels within the hierarchy (as may the importance of education for the specific job tasks). Wright maintains that since women in the managerial/supervisory class will tend to be clustered at the lower levels, the income differences between female managers/supervisors and female workers will be less marked than those between male managers/supervisors and male workers (since the income attainment process of women managers/supervisors is based proportionately more upon the process which characterizes lower level managers/supervisors). The income differences should be reflected both in terms of level of income and in terms of the rate of return to education.⁹ Wright found general support for this prediction:

. . . the gap in income between white female workers and managers/supervisors is a mere \$57, or less than 1% of the expected income for white female managers. The gap between white male workers and white male managers/supervisors . . . is \$1371, or 15% of the expected income for white male managers/supervisors . . . These results suggest that the class divisions among women are considerably less marked in economic terms than among men. (Wright, 1979:218)

This prediction was also supported by Wright with respect to differences in the rate of return to education between class being less marked for women than for men.¹⁰

In order to formally state the propositions to be tested in this thesis and explain the research purpose more fully, it is essential to formally state the basic assumptions which must be met in order for Wright's arguments regarding gender differentials to have any credence. These assumptions are stated formally in the following sub-section.

1.42 The Assumptions

Since Wright's predictions regarding gender differences in the income attainment process are based upon his assumption regarding class and income determination and his assumption that women and men are differentially located within the class structure, it is essential that these assumptions be supported as follows:

Assumption 1: The level of income between classes should differ considerably. Specifically, managers/supervisors should have higher incomes than semi-autonomous wage earners who should, in turn, have higher incomes than workers.

A strong version of this assumption would involve a case in which the income levels of all three classes differed in the expected order by a considerable amount. A weak version of this assumption would involve

a case in which only two of the classes differed in the expected order or in which the differences between classes were very small (level of income being evaluated for the comparison groups holding constant the values of the independent variables in order to capture only process differences).¹¹

Assumption 2: The rate of return to education between classes should be significantly different. Specifically, managers/supervisors should have higher rates of return to education than semi-autonomous wage earners who should, in turn, have higher rates of return to education than workers.

A strong version of this assumption would involve a case in which the rate of return to education differed significantly for all three classes in the expected order. A weak version of this assumption would involve a case in which only two of the classes (specifically the managers/supervisors and workers) had significantly different rates of return to education in the predicted order.

Assumption 3: The class compositional differences between women and men which are assumed to be at the heart of the overall gender differences in income attainment must be observed. Specifically, women should be more highly concentrated in the working class than men and men should be more highly concentrated in the managerial/supervisory class than women.

If this assumption is not supported (i.e., women and men are similarly distributed throughout the class structure), then any differences observed between women and men could not be directly attributable to class position (but must be a consequence of a process operating above and beyond the effects of class position). This would leave us with no more of an explanation than human capital and status attainment researchers have offered.

Assumption 4: Women and men should be distributed differently within the managerial/supervisory class such that women should be more highly concentrated in the supervisory class than men

(located at the bottom of the authority hierarchy) and men should be more highly concentrated in the decision-makers class than women (at the top of the hierarchy).

If this assumption is not supported then any findings that differences between classes for women are less marked than they are for men could not be directly attributable to differences in the income attainment process within the managerial hierarchy (suggesting that sex differences are operating above and beyond the effects of class position or position within the authority hierarchy).

These four assumptions must be met in order for Wright's predictions regarding gender differences in the income attainment process to have any credibility (based upon his arguments). After testing these assumptions, it is the purpose of this thesis to test the following four propositions based upon the arguments and predictions discussed in Sub-Section 1.41.

1.43 The Propositions

The following four propositions form the basis of this research:

Proposition 1: Any gap in the level of income between women and men overall should disappear when class position is held constant. Specifically, the level of income for female managers/supervisors should be the same as that of male managers/supervisors; the level of income for female semi-autonomous workers should be the same as that of male semi-autonomous workers; and the level of income for female workers should be the same as that of male workers.

The basis for this proposition has already been discussed in Sub-Section 1.41 (gender differences in class composition); however, it should be noted that differences in level of income should be evaluated at a common value for income-related attributes (to ensure that differences are due to process and not attribute levels).

A strong version of this proposition would involve a case in which the gap in income level between women and men (assuming there is a gap) disappeared totally within class positions. A weak version of this proposition would involve a case in which the gap in income level was considerably reduced by holding class position constant.

Proposition 2: Any differences in the rate of return to education between women and men overall should disappear when class position is held constant. Specifically, the rate of return to education should be the same for female managers/supervisors as for male managers/supervisors; the rate of return to education should be the same for female semi-autonomous workers as for male semi-autonomous workers; and the rate of return to education should be the same for female workers as for male workers.

A strong version of this proposition would involve a case in which differences in rates of return to education between women and men within the same class disappear. A weak version of this proposition would involve a case in which either differences in rates of return to education between women and men within the same class were rendered non-significantly different or that Proposition 2 is supported for only two of the three classes mentioned (specifically the managerial/supervisory class and the working class).

It should be noted here that it would be possible to support all four of the assumptions set out in Sub-Section 1.42 and not have either Proposition 1 or Proposition 2 supported. This would suggest that Wright's theory regarding class and income determination is not an adequate explanation of gender differentials as it has been proposed. This would indicate that there is some sort of sex effect which transcends class effects on income determination.

Proposition 3: Differences in the level of income between classes for women should be less marked than those for men. Specifically, the gap in the level of income between female managers/supervisors and female semi-autonomous workers should be less marked than the gap in the level of income between male managers/supervisors and male semi-autonomous workers; the gap in the level of income between female managers/supervisors and female workers should be less marked than the gap in the level of income between male managers/supervisors and male workers; and the gap in the level of income between female semi-autonomous workers and female workers should be less marked than the gap in the level of income between male semi-autonomous workers and male workers. (This, of course, assumes that such gaps exist.)

The basis for this proposition has already been discussed in the latter part of Sub-Section 1.41 (gender differences in concentration within the authority hierarchy and degree of autonomy). It should be noted that differences in level of income should be evaluated at a common value for income-related attributes (to ensure that differences are due to process and not attribute levels).

A strong version of this hypothesis would be one which involved a case in which this proposition were true for all three comparisons. A weaker version of this proposition would involve a case in which this proposition were supported only for the comparison between managers/supervisors and workers (since Wright's treatment of the role of the semi-autonomous workers in his arguments which led to this proposition was somewhat vague, the failure to support the propositions involving comparisons with the semi-autonomous class would not render the entire proposition untenable).

Proposition 4: Differences in the rate of return to education between classes for women should be less marked than that for men. Specifically, differences in the rate of return to education between female managers/supervisors and female semi-autonomous workers should be less marked than those between male managers/supervisors and male semi-autonomous workers; differences in the rate of return to education between female managers/supervisors and female workers should be less marked than those between

male managers/supervisors and male workers; and differences in the rate of return to education between female semi-autonomous workers and female workers should be less marked than those between male semi-autonomous workers and male workers. (This assumes that such differences exist.)

A strong version of this proposition would be one in which this proposition were true for all three comparisons. A weaker version of this proposition would be one in which this proposition were true only for the comparison between managers/supervisors and workers (as noted for Proposition 3, the role of the semi-autonomous worker in Wright's treatment of the arguments which led to this proposition is somewhat unclear).

There are two other items which require attention before the discussion of the research purpose of this thesis is complete.

1.44 The Class Positions Considered

Capitalists, small employers, and petty bourgeoisie are not included in the comparative analyses which form the basis of this thesis. The exclusion of these self-employed individuals is based primarily upon the fact that there are too few women located within these class positions to allow for meaningful comparisons by gender. In addition, education should not, according to Wright's theory, be significant for this group with respect to income determination (unless there is some connection between education and amount of money capital controlled). This group was also excluded from Wright's analysis of gender differentials. The self-employed classes will be mentioned throughout only as a matter of interest, but not as an aspect of the primary analysis.

6. The term managers/supervisors is used here and throughout (as are workers and semi-autonomous workers) as a short form for the term 'occupants of the managerial/supervisory class position'. The groupings refer to class positions as defined by Wright in relational terms and should not be confused with the occupations that go by the same names (the same occupation may span a variety of classes--although there is likely to be some degree of association between certain occupations and certain classes).
7. As noted in a recent newspaper article, the Canadian Union of Public Employees has argued: "It's much easier to extract wage and benefit concessions from unions and much easier to avoid or weather strikes when 1.5 million jobless are desperately looking for work at any wage". (The Canadian Press in The Ottawa Citizen, 1985:A1)
8. Differences in mean income are a function of both process differences (different equations) and attribute differences.
9. Although Wright neglects to fully bring the semi-autonomous wage earners into this part of the theory, it would appear that this prediction is applicable to this class. Female semi-autonomous wage earners are expected to have less autonomy than their male counterparts and will be more like workers in the income attainment process than the males (it is assumed that the more autonomy required of a worker, the more difficult it is to control the worker using threats; at the same time, education should be increasingly important as level autonomy increases). The position of the semi-autonomous wage earner is couched in relative terms only, not predicting how close the income attainment process will be to the managerial/supervisory class or the working class.
10. Abowitz (1982) did not investigate this.
11. If income-related attributes are not controlled and mean income alone is used to estimate the income gap, the effects of process differences and attribute differences are confounded.
12. The difference in slopes can be tested for significance using the following formula for a t-test:

$$t = \frac{b_1 - b_2}{[S.E._1^2 + S.E._2^2]^{\frac{1}{2}}}$$

where b_1 represents the value of the coefficient for Group 1 and b_2 represents the value of the coefficient for Group 2. $S.E._1$ and $S.E._2$ are the standard errors of these coefficients for Group 1 and Group 2 respectively.

education. As noted by Wright and Perrone (1977:40-41), the equation used to test the effect of education alone on income should, ideally, not include any other variables (particularly those which might be considered a consequence of education (such as occupational status)). The inclusion of such variables would cause the effects of education to be attenuated. A second model will also be used to investigate differences in rates of return. This model, to be referred to as the expanded model, is the same multiple regression prediction equation used to determine gaps in the level of income. The expanded model is of interest in the testing of differences in the rates of return to education in that it might indicate the manner in which other variables mediate the effects of education. Occupational status, in particular, is expected to be a strong mediating variable. It will be interesting to see the strength of the relationship between education and income after controlling for these mediating variables. If, for example, it is found that the rate of return to education is significantly reduced once occupational status is controlled for, it may be that we can draw the conclusion that education is only valuable in the income determination process within a certain class because it has the effect of determining the occupational status of the individual (and the occupational status is the attribute which directly translates into income). If such is the case, then Wright's theory should be remodelled to consider this (this would involve an argument somewhat different from the one exposed in Sub-Section 1.3 which concentrates on differential control mechanisms).

The models to be used to test the four assumptions and four propositions can be represented by the following regression prediction equations:

Simple Model: $Y = a + b_1X_1$

Expanded Model: $Y = a + b_1X_1 + b_2X_2 + b_3X_3$

where 'Y' represents the predicted income, 'a' represents the intercept (value of the 'Y' when all independent variables are zero), 'b₁' represents the rate of return to education (slope), 'X₁' represents education, 'b₂' represents the rate of return to occupational status (slope), 'X₂' represents occupational status, 'b₃' represents the rate of return to labour force experience (slope), 'X₃' represents labour force experience (labour force experience is actually entered as a composite of three variables which will be discussed in Chapter Two).

Propositions 1 and 3 involve the calculation of 'Y' for the various comparison groups substituting into 'X₁', 'X₂', and 'X₃' the grand mean of these variables for all employee classes.

Propositions 2 and 4 involve finding the differences in 'b₁' for the two comparison groups and testing for significance.¹²

Now that the research purpose has been explained, it is necessary to discuss the data and methodological considerations. This discussion is found in Chapter Two.

Footnotes

1. Some researchers have considered the possibility that the same level of human capital investment may not produce the same level of productivity in different individuals. Carliner (1976), for example, in a study of returns to education for Blacks, Anglos, and five Spanish groups, questioned the possibility that certain groups may not benefit as much from the same amount of schooling, making these groups less productive. Assuming that one's income is a function of one's marginal productivity, the lower rate of return observed for these groups is consistent with human capital theory. To my knowledge, however, this line of reasoning has not been proposed for gender differentials.
2. The information for this section was taken from the following sources: Welch, 1977:168; Fanning, 1977:167; England, 1982; Beller, 1982; Burris and Wharton, 1982; Sandell and Shapiro, 1980; Blaug, 1976; Blau and Jusenius, 1976; Boyd and Humphreys, 1979; and Wright, 1979:68-78.
3. For an excellent summary of the literature on segmented labour markets, see Cain (1976).
4. This use of class is distinct from others that have gained popularity in the study of social inequality. For example, class in the Weberian tradition is conceived of as a grouping of people who have common economic life chances as determined by market relations. Class in the functionalist tradition is defined in gradational terms as categories of people who share common positions within the status hierarchy. (For more information on a variety of conceptions of class see: Matras, 1984; Giddens and Mackenzie (eds.), 1982, among others). For competing views of a modern Marxist conception of class see: Wright, 1980; Poulantzas, 1975; Carchedi, 1977; Mackenzie, 1982. Since Wright's theory of class and income determination (the theory being tested in this thesis) is based upon his unique conceptualization and operationalization of class, this thesis examines only his treatment of the concept. This does not preclude the possibility that, in future, structural frameworks based upon the class conceptions of others may provide fruitful avenues of investigation into the source of gender differentials in income (although, as in the past, data set limitations may pose serious problems).
5. Variables other than education in Wright's income attainment models are included mostly as control variables to hold constant income-related attributes. Wright does not provide a detailed theory with regard to the role of these other independent variables as he does with education.

6. The term managers/supervisors is used here and throughout (as are workers and semi-autonomous workers) as a short form for the term 'occupants of the managerial/supervisory class position'. The groupings refer to class positions as defined by Wright in relational terms and should not be confused with the occupations that go by the same names (the same occupation may span a variety of classes--although there is likely to be some degree of association between certain occupations and certain classes).
7. As noted in a recent newspaper article, the Canadian Union of Public Employees has argued: "It's much easier to extract wage and benefit concessions from unions and much easier to avoid or weather strikes when 1.5 million jobless are desperately looking for work at any wage". (The Canadian Press in The Ottawa Citizen, 1985:A1)
8. Differences in mean income are a function of both process differences (different equations) and attribute differences.
9. Although Wright neglects to fully bring the semi-autonomous wage earners into this part of the theory, it would appear that this prediction is applicable to this class. Female semi-autonomous wage earners are expected to have less autonomy than their male counterparts and will be more like workers in the income attainment process than the males (it is assumed that the more autonomy required of a worker, the more difficult it is to control the worker using threats; at the same time, education should be increasingly important as level autonomy increases). The position of the semi-autonomous wage earner is couched in relative terms only, not predicting how close the income attainment process will be to the managerial/supervisory class or the working class.
10. Abowitz (1982) did not investigate this.
11. If income-related attributes are not controlled and mean income alone is used to estimate the income gap, the effects of process differences and attribute differences are confounded.
12. The difference in slopes can be tested for significance using the following formula for a t-test:

$$t = \frac{b_1 - b_2}{[S.E._1^2 + S.E._2^2]^{\frac{1}{2}}}$$

where b_1 represents the value of the coefficient for Group 1 and b_2 represents the value of the coefficient for Group 2. $S.E._1$ and $S.E._2$ are the standard errors of these coefficients for Group 1 and Group 2 respectively.

CHAPTER TWO

DATA AND METHODOLOGICAL CONSIDERATIONS

Introduction

This chapter is divided into four sections. In Section 2.1, the Canadian Class Structure data set is described. In Section 2.2, the variables pertinent to this study are discussed with regard to their importance and their operationalization. This section appears before the section dealing with the population selection process since an understanding of some of the variables is necessary to an understanding of some aspects of the selection process. Section 2.3 describes the selection process. Certain groups have been selected out of this analysis for a variety of reasons. The selection processes and the reasons for them are discussed. Finally, Section 2.4 describes the methods used in the analysis.

2.1 The Data

The data for this study come from the Canadian Class Structure Project, a national survey conducted by Canada Facts (under the supervision of the Department of Sociology/Anthropology, Carleton University) during the fall and winter of 1982-83. Funded by the Social Sciences and Humanities Research Council of Canada, this project is part of an international effort which includes the United States, Great Britain, Sweden, Finland, Italy, Australia, and New Zealand (with projects in the planning stages in France, Germany, Denmark, and the Netherlands). The survey involved personal interviews with approximately 2600 persons across Canada, during which the interviewer completed a questionnaire

designed to tap information on class structure, life chances, and class consciousness in Canada. This survey instrument was a modified version of one developed by Erik Olin Wright (which was extensively pretested prior to its use in the U.S.A. in 1980), and allows for cross-national comparisons (the same basic instrument will be used in all studies). The information tapped by this questionnaire has provided detailed data on the social relations of production, thus allowing for the identification of class positions as defined by Wright.

A multi-stage probability sample in all ten provinces of Canada was used in the collection of these data; this sample was stratified by region and community size. Interviews were completed in 76 percent of the total eligible households (Black and Myles, 1985:7-8). Information was produced for 1785 employed subjects (as well as 649 unemployed, but available for work, subjects and 143 persons engaged in unpaid domestic labour who were not available for work in the paid labour force).

2.2 The Variables

In Chapter One it was mentioned that two regression equations would be used to test the propositions presented: (1) the simple regression of income on education; and (2) an extended model requiring the inclusion of other independent variables. Researchers have included a wide variety of independent variables in the regression equations used to estimate the income attainment process. A review of such research indicates that education, labour force experience, and occupational status are among the most crucial variables in such a model (Chaplin and Sloane, 1982; Gunderson and Jain, 1980; Lloyd and Niemi, 1979; Miller and Suter, 1973; Bibb and Form, 1977; Boyd and

Humphreys, 1979; Denton and Hunter, 1982; Gunderson, 1982; Goyder, 1981; and Abowitz, 1982). In an attempt to develop the most parsimonious model possible, it was decided that education, labour force experience, and occupational status would be entered into the extended model as independent variables. This departs slightly from the extended model used by Wright (1979) in his test of gender differences in the income determination process. Wright's (1979) model consisted of education, age, job tenure (number of years at present job), and occupational status. Wright (1979) used age primarily as a proxy for labour force experience. Many studies are constrained by data set limitations and employ such proxies. Unfortunately, some proxies are more accurate for one sex than they are for the other. Age as a proxy for labour force experience poses just such a problem. Age is a fairly accurate measure of labour force experience for men; however, it fails to capture the labour force discontinuity more often found in females due to domestic and child rearing responsibilities.¹ This has the effect of overestimating the labour force experience of women (this could bias the regression coefficient representing the rate of return to experience downward for women or reduce the significance of this variable altogether). Fortunately, there is enough information in the Canadian Class Structure Data Set to construct a more accurate measure of experience. It was found that the use of experience and tenure in the same model produced the problem of multi-collinearity since there is a high correlation between the two (when both experience and tenure are used, tenure does not appear to be significant in the model while experience does). Tenure was, therefore, excluded from the

expanded model. The following is a discussion of each of the relevant variables separately.

2.21 Income

Income is operationalized using a question in the Canadian Class Structure questionnaire which asks the respondent to indicate her/his "personal income before taxes for 1981". (See Appendix B for a discussion of what concept this question actually measures.)² Unfortunately, the Canadian Class Structure Data Set is weak with respect to the income data in that the only questions which can be used as a measure of personal income offers the respondent a choice of 12 categories as follows:

(1) None	(7) \$20 000 to \$25 000
(2) Under \$5000	(8) \$25 001 to \$35 000
(3) \$5001 to \$7500	(9) \$35 001 to \$50 000
(4) \$7501 to \$10 000	(10) \$50 001 to \$75 000
(5) \$10 001 to \$15 000	(11) \$75 001 to \$100 000
(6) \$15 001 to \$20 000	(12) Over \$100 000

There are several problems with these data that require discussion. First of all, the categories are of unequal intervals and some have a very large range. The expected result of such lengthy and uneven intervals is a pattern of large standard errors (this is evident in the results to a certain extent). With such large standard errors it may be very difficult to obtain statistically significant results (t-values will be smaller, the larger the standard error). The fact that the categories are not all of the same size also presents the potential for heteroscedasticity to enter the model; since the categories grow larger for higher income levels, the residuals can be expected to be

larger at higher income levels. If higher education levels are associated with higher income levels, then the standard error at the higher levels of education may be biased upward by virtue of the larger categories for income, thus posing a threat to one of the assumptions of regression analysis, that the variance in error will be constant over all observations (Chatterjee and Price, 1977: 38-40).³

The second major problem with the income data involves the necessity of recoding the categories such that this variable will be continuous (which best suits the assumptions of regression analysis). Boyd and Humphreys (1979) experienced a similar problem (although the categories they were faced with were smaller and more numerous); using Census data they were able to recode the categories by assigning the median income value of each category as the observed income. Unfortunately, Census data broken into the appropriate categories was not readily available for this study; therefore, the income categories are recoded using the mid-point value of each category. This presents a possible bias with respect to the income of women. It may be the case that women are more concentrated at the lower levels within each category than men. In such a case, the use of the mid-point might overestimate the income of women relative to that of men. Thus, there is a possibility that the rates of return to income-related variables may be somewhat inflated for women.

The lowest and the highest income categories also require some attention. The lowest category included those reporting 'zero' income (although employed during the reference year). Further analysis reveals

that after the various selection processes (to be described in Section 2.3), all those reporting no income were self-employed persons except one male semi-autonomous wage earner. The lack of income for the self-employed does not seem surprising given the nature of the way in which occupants of these class positions derive their income.⁴

Since this group does not enter into the main analysis, this does not present a problem. The one male semi-autonomous wage earner without income was excluded. The other problem category was the highest income level which was open ended (over \$100 000). This category was recoded as \$125 000.⁵ Of the 12 respondents (after all selection processes described in Section 2.3) who have reported a personal income over \$100 000, ten are male and two are female as follows:

Males Over \$100 000

7 Self-Employed

2 Decision-Making Managers

1 Supervisor

Females Over \$100 000

2 Self-Employed

This distribution does not seem surprising. It is representative of two expected patterns: (1) more males than females will attain the highest levels of income; and (2) the highest levels of income are enjoyed proportionately more by the self-employed. The capacity for high ranking decision-making managers to achieve extremely high income levels is also expected (only the one supervisor comes as a surprise). In lieu of estimating a value for this open-ended category, one might exclude respondents in this category altogether. Since most of the individuals in this category are in the excluded self-employed classes and since these respondents do not (for the most part) appear to be anomalies, it was decided not to exclude the individuals in this category.

Another issue must be addressed with respect to income. It is often customary in the analysis of income attainment models to use the natural log of income as the dependent variable. All regression equations were run using both logged and unlogged income data. The use of the natural logarithm does not appear to improve the model overall (in some cases the R^2 value, amount of variance in income explained by the model, increases slightly for some comparison groups and decreases slightly for others); the main effect that logging appears to have is in accommodating extreme outliers (although overall residuals are not improved). Since the use of logarithmic functions presents difficulty in interpretation, the simpler model was chosen. Logging the dependent variable does not appear to suit these particular data or the research purpose. A similar result was found by Boyd and Humphreys (1979):

Although these results appear surprising in light of the voluminous amount of research which examines income attainment as a semi-logarithmic function, it must be remembered that the selection of a full-time employee population and the use of grouped income data minimize the analytical impact of those individuals who have unusual incomes in relation to their human capital skills and occupational statuses. (Boyd and Humphreys, 1979:29)

Wright (1979:249-250) also found that the use of unlogged income was more appropriate for his particular data and better suited to his research purpose.

2.22 Education

The independent variable of main interest in this study is education. The education variable is derived from a question in the Canadian Class Structure questionnaire which asks for the respondent's highest level

of education. These levels range from "no formal schooling" to "completed professional degree" (See Appendix C for details.)

There are usually two main options available when operationalizing education: (1) to use years of education (for example, Blinder, 1973) or estimate years of education from data providing level of education (Boyd and Humphreys, 1979; Gunderson, 1982); or (2) to use level of education (Wright, 1979). Both options have advantages and disadvantages. Years of education is clearly a continuous, interval level variable (which best fits the assumptions of regression analysis); while level of education is an ordinal variable (which presents problems for regression analysis) (Winship and Mare, 1984).

In his analysis, Wright used a strictly ordinal level scale of education which reflects credentials (see Appendix C for this scale). In addition to posing problems with respect to the use of regression analysis with ordinal variables, this scale is also very much a reflection of credentials in the United States. The present study relies upon the scale described in Boyd and Humphreys (1979) and Boyd, et al (1985), which provides a recoding of level of education into an estimate of years of education. Thus, the measure is used to form a continuous, interval level variable (ideal for regression analysis) based, in part, upon credentials. Also available in this data set is information regarding actual years of education. The education variable constructed from level of education using the scale already noted was checked against the information regarding actual years of education reported for reliability.

An interesting pattern seems to occur that makes the choice of estimating years of education from level of education a wise one.

Upper level blue collar workers seem to have a tendency to report a level of education that is somewhat inconsistent with reported years of education in that the level appears to be a bit too high for the number of years reported in many cases. However, further investigation indicates that these respondents also have a greater tendency to have had training outside the formal school system (such as company training programs, apprenticeship programs, etc.). Therefore, the estimate of the actual number of years spent acquiring skills and knowledge for such individuals should be higher than simply the number of years in the formal school system. It appears that such respondents were likely to report completion of "some business or trades training". The scale used to estimate number of years of schooling for this level of education is, in such cases, likely to provide an estimate slightly higher than actual reported years in the school system, but it is likely that in many cases this overestimate is picking up time spent in training outside the school system. It is of interest that this is most characteristic of older respondents (who probably faced educational and training opportunities very different from younger respondents). (See Appendix C for the recoding system used and other details relating to the operationalization of this variable.)

2.23 Occupational Status

As a measure of occupational status, Wright employed Duncan scores (a popular socio-economic index used in the United States).⁶ This study uses the Canadian equivalent of Duncan scores--Blishen scores. The inclusion of this variable provides a control for occupation; it may be possible that 'class effects' are merely a

function of the socio-economic status distribution within classes (Wright maintains that the same occupation can be located within different class positions; although occupational status may affect income within class position, the class position within which it is found sets limitations on the income one is able to achieve).

According to Boyd and Humphreys (1979), the Blishen scores, as indicated by current research, represent the 'perceived socioeconomic goodness' of an occupation.⁷

2.24 Labour Force Experience

Ideally, labour force experience should reflect the amount of time an individual has spent active in the labour force. In the past, the operationalization of this variable has often created problems since many data sets do not provide the type of detailed information required about labour force exits and re-entries. The problems encountered with the use of age as a proxy for education have already been noted in Section 2.2. The Canadian Class Structure Data Set makes available information on the following with regard to time spent active in the labour force: (1) the year the respondent first began working; (2) the amount of time the respondent was unavailable for work (up to a maximum of three possible periods); (3) the number of times the respondent was unemployed; (4) the length of the period of unemployment for those unemployed only once; and (5) for those unemployed more than once, the length of the period of unemployment for the most recent and for the longest period of unemployment. Labour force experience is represented here by a composite measure using all of this information. Ideally, labour

force experience (referred to as 'experience' for short) would be calculated as follows:

$$\text{EXPERIENCE} = (\text{PRESENT YR.}) - (\text{YR. 1ST BEGAN WORK}) - (\text{PERIODS OUT})$$

where 'periods out' would be measured as the sum of all periods of time spent unavailable for work and all periods of time spent unemployed.

Error is introduced into the operationalization of labour force experience in this study by the fact that we have incomplete information regarding the exact length of time out of the labour force for some respondents. With regard to the amount of time unavailable for work (since the respondent began working full-time), we are constrained by information regarding a maximum of only three periods. We know nothing about a fourth (fifth, sixth, etc.) possible period out. However, only 1.7 percent of the total sample used in this analysis were unavailable for three periods; this means that information regarding any possible fourth (or more) periods could be unavailable for a maximum of 1.7 percent of the total sample (it is more likely that only a fraction of those unavailable for work three times would have also been unavailable for work for four or more times--thus reducing the possible error for this part of the measure even more). Unfortunately, the amount of known error introduced as a result of unemployment information is slightly larger. Approximately 58.5 percent of the sample entering the analysis have never been unemployed; a further 16.9 percent have been unemployed only once (we have complete information about both of these groups). For those unemployed only twice, we have complete information only for those for whom the longest period

of unemployment was not the latest period of unemployment; approximately 1.6 percent of the total sample entering the analysis fall into this category. Thus, we have complete information for approximately 77 percent of the sample with respect to the amount of time unemployed in total. For those 23 percent for whom we have incomplete information, the measure of years out of the labour force due to unemployment will be biased downward (thus labour force experience will be biased upward).⁸

In order to strengthen the measure of labour force experience, an additional measure is used: the number of times unemployed (derived from Question Number 97A). Incomplete information regarding the exact amount of time unemployed is a problem for those unemployed more than once (or twice in some cases); the greater the number of times unemployed, the greater the error in estimating labour force experience from the information discussed in the preceeding paragraphs. High frequency of unemployment is likely to be a significant factor in the translation of experience into income (for whatever reason a history of repeated periods of unemployment is acquired, it may result in lower rewards in the labour market and may even become more important than the amount of time unemployed at some point). The composite measure of labour force experience in this study is, therefore, constructed as follows:

$$EX = [(REF\ YR) - (YR\ BEGAN\ WORK) - (YRS\ UNAVAIL + YRS\ UNEMPLOY)] + NO.\ TIMES\ UNEMPLOY$$

where 'EX' represents labour force experience; 'REF YR' represents the year experience is calculated from (1982 in this case); 'YR BEGAN WORK' represents the year the respondent first entered the full-time labour force⁹; 'YRS UNAVAIL' represents the number of years the respondent

was unavailable for work in total (fractions of years are also considered); 'YRS UNEMPLOY' represents the number of years the respondent was unemployed in total (fractions of years are also considered); and 'NO. TIMES UNEMPLOYED' represents the number of times the respondent was unemployed (note that the latter measure of frequency is separated from the former measures of duration in this composite measure of labour force experience). The following summarizes the maximum possible known error associated with each component of this measure:

<u>Component</u>	<u>maximum percentage of the sample entering the analysis for which there may be error</u>
Amount of time unavailable for work (years)	1.7 percent
Amount of time unemployed (yrs.)	23 percent

The inclusion of the number of times unemployed into the model appears to improve it in some cases¹⁰

One additional issue related to labour force experience requires discussion. Past research suggests that the benefit of labour force experience decreases over time (more precisely the rate of return decreases over time—additional years of experience may still increase income, but at a decreasing rate). In order to capture the relationship between experience and income more precisely, a decay term may be appropriate in some models (Blinder, 1973 & 1976; Lloyd and Niemi, 1979; Boyd and Humphreys, 1979; Denton and Hunter, 1982). The component of the measure of labour force experience which captures the duration of the time spent in the labour force (i.e., the portion of this composite variable other than the number of times unemployed)

is entered into the expanded model in the following form:

$$\text{EXPERIENCE} + \text{EXPERIENCE}^2$$

where 'experience' represents the total amount of time spent in the labour force and 'experience'² represents the decay term. The results obtained using this form for amount of time spent in the labour force indicate that the inclusion of the quadratic term is warranted. The decay term seems to be particularly necessary for managers/supervisors of both sexes, male semi-autonomous workers, and male workers.¹¹

The total composite measure of labour force experience is entered into the expanded model as follows:

$$\text{EXPERIENCE} + \text{EXPERIENCE}^2 + \text{NUMBER OF TIMES UNEMPLOYED}$$

2.25 Class Position

In Chapter One, Wright's basic concept of class position was discussed. It has already been noted that the strength of the Canadian Class Structure Data Set for this particular study is the fact that the questionnaire was designed specifically to tap the information relevant for the operationalization of class. Four basic groups of class positions can be identified using this data set:

- (1) The Self-Employed: which contains large employers, small employers, and petty bourgeoisie;
- (2) Managers/Supervisors: which contains decision-making managers, advisor managers, and supervisors (all located in contradictory position between large employers and workers;
- (3) Semi-Autonomous Wage-Earners: located in the contradictory position between the petty bourgeoisie and workers; and
- (4) Workers

A detailed explanation of the construction of the class variable can be

As explained in Chapter One, the purpose of this thesis is to test Erik Olin Wright's (1979) hypothesis that gender differences in income levels and the rate of return to education are due to class compositional differences. This requires, first of all, the testing of four basic assumptions, briefly summarized as follows:

Assumption 1: The level of income between classes should differ.

Assumption 2: The rate of return to education should be significantly different between classes.

Assumption 3: Women should be more concentrated in the working class than men; men should be more concentrated in the managerial/supervisory class than women.

Assumption 4: Women should be more concentrated at the lower level of the managerial/supervisory class than men; men should be more concentrated at the higher level of the managerial/supervisory class than women.

In order for Wright's hypothesis regarding gender differences in level of income and rate of return to education to have merit, his basic theory that different class positions are characterized by different income determination processes must be supported; his assumptions that women and men are concentrated in different classes must also be supported.

Once these basic assumptions have been tested, the four main propositions which form the basis of this thesis must be tested.

These four main propositions, briefly summarized, are:

Proposition 1: Any gap in the level of income between women and men overall should disappear when class position is held constant. (This assumes that there will be a gap--based upon past research.)

Proposition 2: Any differences in the rate of return to education between women and men overall should disappear when class position is held constant. (This assumes that there will be a difference--based on past research.)

Advisor managers are identified as those who do not participate directly in the decision-making process, but who provide advice regarding the decision-making process.

Supervisors are identified as those who do not participate in or provide advice on the decision-making process, but who do have authority and are in the formal hierarchy (both decision-makers and advisors will also be in this hierarchy). A series of questions provide information on authority such that two forms of authority can be identified as follows: (1) sanctioning authority (the ability to impose positive or negative sanctions on subordinates); and (2) task authority (coordinates the labour process of subordinates).

Persons who are in the formal hierarchy but have neither sanctioning authority or task authority (and are not decision-makers or advisors) are considered to be nominal supervisors and are not included in this class.

Semi-Autonomous Wage-Earners

The Canadian Class Structure questionnaire was designed so that semi-autonomous wage-earners could be defined on the basis of two criteria: (1) a direct question asking the respondent if she/he has a job in which she/he is "required to design important aspects of" her/his "own work and to put" her/his "ideas into practice" (Question 45 on Employed Questionnaire); and (2) a question asking the respondent to provide an example of how she/he designs her/his own work (Question 46 on Employed Questionnaire). It was felt that the subjective question (Question 45) would distort the number of semi-autonomous workers upwards since many people may think of themselves as having autonomy

when, in fact, they do not. The example (Question 46) was coded by the Canadian Class Structure (Canada) research team on a six point scale for the degree of autonomy expressed in the example given, providing a more objective assessment of the respondent's autonomy.

The combination of these two measures provides the information needed to identify the semi-autonomous wage-earners.

Workers

Workers are defined as the residual category (i.e., all non-missing cases which do not meet the criteria for any of the above-noted classes).

2.3 Population Selections

Certain segments of the sample are excluded from the analysis for a variety of reasons. Only respondents who were employed at the time the questionnaire was executed are included in this analysis. Those who were not employed at the time responded to a slightly different questionnaire, resulting in incomplete information regarding past periods of unemployment and labour force discontinuity. Although some of these unemployed respondents were employed during the reference year (1981), it was not feasible to add them to the analysis due to the incomplete nature of the questions required to construct the labour force experience variable.

Those who began working full-time after the reference year (1981) are excluded, since any information they might have offered regarding employment would not be matched to the income received in 1981, which is the reference year for income.¹²

Only those working 30 hours per week or more were included. This follows Wright's lead. Wright maintains that the unique problems of

part-time work were better avoided. Although Wright (1979) does not elaborate on the precise reason for the exclusion of the part-time workers, it might be conjectured that part-time work would confound the relationship between class and income and between the independent variables and income. Part-time workers might be thought of as a distinct group of workers; the effects of being in this group are likely to transcend the effects of class for the following reasons: (1) part-time workers receive considerably lower wages (per hour) than full-time workers, even in similar occupations (White, 1983:13-14) (this suggests a fundamental difference in the income attainment process for part-time workers and full-time workers, likely even in the same class); (2) the participation of an individual in part-time work is not likely to be an effect of class (women are predominantly over represented among part-time workers and most of them perform such work since it enables them to combine work and domestic responsibilities at home), but rather it is more likely to be an effect of gender (White, 1983); and (3) the type of work performed in the part-time labour market may be quite different from the type of work the same individual would perform in the full-time labour market based on her/his skills, education, and other income-related attributes (since part-time work may be chosen more on the basis of availability than suitability to such attributes)—thus distorting the relationship between some of these attributes and income attainment.

Full-time students are excluded from the analysis since there is likely to be little connection between their employment and their education as they are currently pursuing their education full-time.¹³

In addition to the selections already noted, eight cases were selected out of the analysis. As explained, two separate questions regarding education were asked (one regarding years in the formal school system and one regarding highest level of education attained). It has already been described that for many cases the two measures of education did not appear to be consistent. Further investigation revealed that these inconsistencies, in most cases, appeared to be 'explainable by other factors (such as participation in training programs and apprenticeship programs outside the formal school system). However, at least eight cases appeared to remain unreliable after such investigation. These cases were excluded from the analysis on this basis.

In addition to the selections that were made, it is necessary to briefly discuss the selections that were not made. Approximately 15 percent of the sample selected thus far appear to have changed jobs since the reference year 1981 and the time of the survey (in 1982-83). For this segment of the sample, there is the danger that the employment information (regarding class and hours worked) may not be matched to their reported income for 1981. It seems likely, however, that the respondent's reported job will be very similar to her/his former job (it is unlikely that someone would make a radical change from one class to another such that the income determination process would change significantly, although this is a possibility). This danger of mismatching a portion of the cases with respect to income and information concerning all other variables in the model was weighed against the disadvantages of excluding such a large number of respondents and reducing the sample size to a point where statistical analysis might not be meaningful. Separate regression runs which excluded this segment

of the sample were performed and it was discovered that the same relative results for women and men and for different class positions are found in these runs that are found in the runs which form the basis of this analysis (those which include this segment of the population). It does not appear that the inclusion of this group poses a major threat to validity. (See Appendix D for a note on other selections that were not made but should be discussed.)

Information regarding the attrition of cases resulting from each of these selections is summarized in Table B in Appendix E. The data in this table are weighted to adjust for: deliberate oversampling of certain regions, community sizes (urban -vs- rural), household size, age, and sex. The weighting procedure employed adjusts for the above-noted problems to obtain a more representative sample and then downweights this representative sample back to the original sample size (to prevent inflation of the t-statistics). After the weighting and the selection processes, 930 male respondents and 551 female respondents entered the analysis (this does not account for missing cases which result during the regression of income on the various independent variables; this information will be exposed in Chapter Three).

2.4 Method of Analysis

The method of analysis used in this thesis is regression (both simple regression and multiple regression). The method of listwise deletion of missing data was employed throughout; listwise deletion ensures that "all means, standard deviations, and correlations are based on the same universe" (Nie, et al, 1975:353).

As explained in Chapter One, the purpose of this thesis is to test Erik Olin Wright's (1979) hypothesis that gender differences in income levels and the rate of return to education are due to class compositional differences. This requires, first of all, the testing of four basic assumptions, briefly summarized as follows:

Assumption 1: The level of income between classes should differ.

Assumption 2: The rate of return to education should be significantly different between classes.

Assumption 3: Women should be more concentrated in the working class than men; men should be more concentrated in the managerial/supervisory class than women.

Assumption 4: Women should be more concentrated at the lower level of the managerial/supervisory class than men; men should be more concentrated at the higher level of the managerial/supervisory class than women.

In order for Wright's hypothesis regarding gender differences in level of income and rate of return to education to have merit, his basic theory that different class positions are characterized by different income determination processes must be supported; his assumptions that women and men are concentrated in different classes must also be supported.

Once these basic assumptions have been tested, the four main propositions which form the basis of this thesis must be tested.

These four main propositions, briefly summarized, are:

Proposition 1: Any gap in the level of income between women and men overall should disappear when class position is held constant. (This assumes that there will be a gap--based upon past research.)

Proposition 2: Any differences in the rate of return to education between women and men overall should disappear when class position is held constant. (This assumes that there will be a difference--based on past research.)

Proposition 3: Differences in the level of income between classes for women should be less marked than those for men.

Proposition 4: Differences in the rate of return to education between classes for women should be less marked than that for men.

As noted earlier, only the 'employee labour force' is considered for analysis here. The three basic class positions, therefore, which require comparison are the managerial/supervisory class, the semi-autonomous class, and the working class.

Two regression models are used in the analysis as follows:

The Simple Income Determination Model:

$$\text{INCOME} = a + b_1 \text{ED}$$

The Expanded Income Determination Model:

$$\text{INCOME} = a + b_1 \text{ED} + b_2 \text{OCC} + b_3 \text{EX} + b_4 \text{EX}^2 + b_5 \text{TIMESUNEMPLOYED}$$

where 'ED' represents 'education'; 'OCC' represents 'occupational status' (Blissen score); 'EX' represents 'number of years in the labour force'; 'EX²' represents the decay term for 'number of years in the labour force'; 'TIMESUNEMPLOYED' represents 'the number of times unemployed'; 'b₁, b₂, b₃, b₄, and b₅' represent the slope value (rate of return to the corresponding variables); 'a' represents the intercept.

Assumption 1, Proposition 1, and Proposition 3 are tested by estimating the income level of the appropriate comparison groups (Assumption 1 and Proposition 3 involve comparisons of class within the same sex and Proposition 1 involves comparisons of sex within the same class). Separate regression equations are generated for each comparison group (i.e., female managers/supervisors, male managers/

supervisors, etc.). The gap in the level of income between each comparison group is calculated by substituting into the expanded model the grand mean of the level of each of the independent variables for the employee classes. The values are as follows:

Education: 12.51 years

Blishen Score: 47.70

Experience: 16.58 years

Experience²: 407.96 years²

Times Unemployed: 1.28 times

It is important to evaluate the income gap at the same level of the independent variables in order to isolate differences that result from differential income attainment processes (and not from different levels of income-related attributes).

Assumption 2, Proposition 2, and Proposition 4 are tested by comparing the value of the slopes for education (b_1) for each comparison group using both the simple and the expanded model. The simple model should indicate the basic relationship between education and income; the expanded model should indicate ways in which the effects of education on income are mediated by other variables (these differences are tested for statistical significance using separate t-tests for each comparison).

Assumption 3 and Assumption 4 are tested by examining the percentage distributions of women and men throughout the various class positions.

Chapter 3 reveals the findings for the tests of these four assumptions and four propositions for the three main class positions

managers, supervisors, semi-autonomous wage earners, and workers). Once the initial findings are revealed for each assumption and proposition, the overall story told by the data is discussed. As part of this discussion, additional evidence is examined which helps to explain some of the findings.

Chapter 4 examines the same assumptions and propositions as Chapter 3, but uses greater detail. Chapter 4 introduces the results obtained from utilizing the detailed breakdown of the managerial supervisory class. Within this basic class position, the following three positions within the hierarchy are identified: (1) decision making managers; (2) advisors; and (3) supervisors. The use of these three detailed positions not only sheds some light on the findings in Chapter 3, but it provides a more rigorous test of Wright's hypotheses.

Footnotes

1. Women often either postpone entering the labour force or interrupt their careers in the labour force due to family responsibilities. According to Boyd (1985), this pattern is much less pronounced for younger Canadian women (in their twenties and thirties) than it is for older Canadian women.
2. As noted in Appendix B, the measure of income derived from this question appears to represent money earned from wages and salary (see Appendix B for further details).
3. This problem is particularly evident for the income determination models estimated for the self-employed. Although there is a tendency for the residuals to be higher at higher levels of education in all the models estimated, residual analysis suggests that this is not a severe threat to the assumption of homoscedasticity. (The problem is also less pronounced within class positions.)
4. For some self-employed who derive their income through investments, a zero or even negative income may result in a year during which no return was realized on the investment or a loss was realized. For some, expenses may exceed gross profits in a given year, resulting in no income or even a negative income (or loss).
5. The figure \$125 000 was chosen as an educated guess. Incomes over \$100 000 are likely to be clustered closer to the \$100 000 mark than not. People located in this income bracket are likely to have quite unusual circumstances surrounding the attainment of this income (i.e., president of a major international corporation, etc.).
6. Actually, Wright (1979) used decile scores of the Duncan scores since that was all that was available to him. The actual Blishen points used in this analysis fit regression analysis better in that they are a continuous measure (decile scores would require some sort of recoding in order to be converted from discrete categories to a continuous measure).
7. Boyd and Humphreys (1979) note that the use of occupational status scores in a model containing income as a dependent variable and education as an independent variable has been criticized since the scores are derived from income and educational data. They explain, however, that such criticisms arise from a "confusion of group attributes versus individual characteristics" (Boyd and Humphreys, 1979:24).

8. There does not appear to be an obvious gender pattern for the likelihood that one sex will fall into this group more than the other--thus, both sexes should be equally biased.
9. This ignores any labour force experience that may have been gained through part-time work before the respondent actually entered the full-time work labour force. This may have the effect of underestimating labour force experience. However, it is expected, in many cases, that any such part-time work performed before entering the full-time labour force may have been part-time work performed while attending school full-time. (See footnotes 12.)
10. The addition of the term for times unemployed seems to improve the model for females in the working class in particular. Female workers appear to be penalized for frequency of unemployment. If the term for the number of times the respondent has been unemployed is accompanied by a decay term (number of times unemployed squared), the number of times unemployed becomes a significant variable for managers/supervisors of both sexes (suggesting that after several periods of unemployment, additional periods do not make much difference).
11. Women in the semi-autonomous class and working class have, on average, fewer years in the labour force than men. The lack of significance of the decay term (EXPERIENCE²) for women in these two classes may be due to the possibility that women do not usually reach levels of experience high enough for this decay effect to be detected.
12. It is likely that those included in this group are persons leaving the educational system and entering full-time employment for the first time. As students, these respondents may have earned income from part-time jobs after school and on weekends which accounted for their 1981 income. However, this income is likely to be a function of being a student than being in the class they enter after leaving school. This is somewhat different from the case of those who were in the labour force full-time but changed jobs (there should be a relatively high correlation between former job and present job).
13. See Footnote 12.

CHAPTER THREE

FINDINGS: THE THREE MAIN EMPLOYEE CLASSES (MANAGERS/SUPERVISORS, SEMI-AUTONOMOUS WAGE-EARNERS, AND WORKERS)

Introduction

This chapter is divided into five sections. Section 3.1 provides a brief overview of the data in order to examine differences in mean income between women and men in the three main classes considered in this analysis (and in all these classes considered together).¹ Since differences in mean income can result from differences in both the income attainment process and differences in income-related attributes, it is also important to quickly review how women and men (and different classes) differ with respect to the mean value of the independent variables included in the expanded equation. Does it appear that gender differences in the level of income are due to more than simply differences in the mean value of the income-related attributes? Referring to the supporting table (Table 1), it appears quite likely that differences in the income attainment process are instrumental in the gender differences observed for mean income levels. Thus, a hypothesis (such as Wright's) which is based upon the importance of differences in the income attainment process would appear to be a wise approach.

In Section 3.2, the results from the testing of the four assumptions explained in Chapter One and reviewed in Chapter Two are presented. In view of the fact that Wright's basic assumptions appear to be supported, this section generates a great deal of hope that Wright's framework may provide insight into gender differences in income.

In Section 3.3, the results from the testing of the four propositions explained in Chapter One and reviewed in Chapter Two are presented. In view of the fact that Wright's propositions regarding gender differences in the income attainment process do not, overall, appear to be supported, this section generates a variety of questions as to why these propositions are not, overall, supported (given that the basic assumptions are).

A discussion of the results of the tests of the assumptions and propositions is pursued in Section 3.4. Such a discussion is necessary to draw attention to some of the major issues that are exposed in Sections 3.2 and 3.3. The lack of support for the propositions which form the basis of this thesis requires some explanation (given the support found for the assumptions). A variety of questions are asked with regard to possible explanations for the findings. These questions form the basis of several avenues of investigation which are pursued in this section and are accompanied by additional empirical evidence which may help to shed further light upon the situation.

Finally, Section 3.5 summarizes the results and provides some overall conclusions regarding the utility of Wright's framework in explaining gender differentials in the income attainment process in Canada.

3.1 Overview of the Data

Table 1 summarizes the means and standard deviations of all the variables used in the expanded regression equation. It is clear from this table that an income gap between women and men

TABLE 1

MEANS AND STANDARD DEVIATIONS OF VARIABLES USED IN EXPANDED REGRESSION EQUATION,
BY GENDER BY CLASS POSITION (CANADIANS WORKING 30 HOURS PER WEEK OR MORE)
FOR ALL EMPLOYEE CLASSES*, MANAGERS/SUPERVISORS, SEMI-AUTONOMOUS WAGE EARNERS, AND WORKERS

	All Employee Classes		Managers/Supervisors		Semi-Autonomous Class		Working Class	
	Male	Female	Male	Female	Male	Female	Male	Female
1981 Income	\$26572.83 (14805.45)	\$16856.02 (9311.75)	\$32172.96 (17738.28)	\$21320.24 (11988.34)	\$28609.89 (13844.89)	\$19582.40 (8379.33)	\$20340.62 (8519.93)	\$13921.84 (6945.22)
Education	12.31 (3.39)	12.79 (2.48)	13.06 (3.28)	13.40 (2.55)	13.99 (2.72)	14.11 (2.30)	10.83 (3.18)	12.05 (2.24)
Blishén Points	46.99 (15.18)	48.72 (13.01)	53.37 (14.21)	54.13 (12.86)	55.42 (13.21)	55.86 (11.65)	37.06 (10.68)	43.80 (11.36)
Experience	12.94 (9.39)	12.94 (9.39)	20.85 (12.06)	15.52 (9.15)	16.70 (10.77)	10.35 (7.91)	18.62 (12.76)	12.74 (9.72)
Experience ²	514.55 (560.20)	255.41 (349.89)	579.57 (562.72)	323.86 (367.55)	393.76 (455.61)	169.14 (284.01)	508.95 (592.78)	256.28 (357.28)
Times Unemployed	1.56 (2.85)	.89 (1.91)	1.10 (2.27)	.89 (2.21)	1.25 (2.86)	.70 (.97)	2.12 (3.21)	.97 (2.03)
Weighted N	707	494	1278	1121	1136	198	1294	1275

*This includes managers/supervisors, semi-autonomous wage earners, and workers (excludes large and small employers and petty bourgeoisie).

Source: Canadian Class Structure Data Set

definitely does exist. Within each of the three main classes and in all employee classes considered together, the mean income (1981) for males is considerably higher than that for females (the percentage differences are discussed and summarized in tabular form in Section 3.3). The difference appears to be quite substantial in each case.²

As discussed earlier, the income levels of women and men differ for at least two basic reasons: (1) differences in income-related attributes; and (2) differences in the process by which these attributes are translated into income. It has just been established that the income levels of women and men do differ; it is now necessary to examine differences in income-related attributes between women and men to speculate as to whether these income level differences can be attributed solely to differences in these attributes or whether we must consider differences in the process by which these attributes are translated into income.

The information summarized in Table 1 (row 2) clearly indicates that women actually have higher mean levels of education than men (within every class position and for all employee classes together).³ This difference between women and men with respect to mean level of education is least pronounced in the semi-autonomous class (women and men both have an average of 14 years of education), and most pronounced in the working class (women have an average of just over 12 years of education, men have an average of just under 11 years of education). The gap in the level of mean income in favour of men is, therefore, definitely not due to women being deficient in education.

Similarly, the information summarized in Table 1 (row 3) clearly indicates that women also have a higher mean occupational status score (Blisshen score) than men (within each class position and in all employee classes together). As with education, this difference is least pronounced in the semi-autonomous class (women have an average Blisshen score of 55.86 and men have an average Blisshen score of 55.42) and most pronounced in the working class (women have an average Blisshen score of 43.80 and men have an average Blisshen score of 37.06). Assuming that higher occupational status should be a positive attribute with regard to income attainment (although, as will be discussed in Section 3.4, this may not always be the case), the gap in the level of mean income in favour of men cannot be attributed to women having lower occupational statuses.

With respect to the number of times unemployed, it appears that women also have an advantage over men (Table 1, row 6). Women are consistently unemployed, on average, fewer times than men. Assuming that high frequency of unemployment should be detrimental to income, one cannot attribute differences in average level of income between the sexes to differences in the average number of times unemployed.

The only income-related attribute included in this equation for which women are disadvantaged relative to men in terms of average level is labour force experience (Table 1, row 4). On average, men appear to have between five and six more years in the labour force than women (this seems to be fairly constant throughout class positions).⁴

Since women, on average, seem to be advantaged with respect to the average level of most income-related variables (education, occupational

status, and number of times unemployed) and are disadvantageded with respect to the average level of labour force experience only, it seems most unlikely that the large mean income gaps discussed earlier (Table 1, row 1) could be attributed mostly to differences in income related attributes. This strongly suggests that there are very significant differences in the income attainment processes of women and men.

In addition to the gender differences just discussed, Table 1 also indicates that, as expected, there does appear to be an association of higher educational levels with the managerial/supervisory class (compared with the working class). Perhaps somewhat unexpected is the finding that the highest average education levels are associated with the semi-autonomous workers (from Wright's general background theory, one might have expected the education level of the semi-autonomous workers to be located somewhere between managers/supervisors and workers).

Before proceeding to the testing of the assumptions and propositions, it may be wise to introduce the regression equations that were generated for women and men in each class category (and all employee classes) for both the simple model and the expanded model. Table 2 summarizes the information regarding the simple model (education as the only independent variable); and Table 3 summarizes the information regarding the expanded model. All other tables in this chapter which summarize regression results are calculated from these basic tables. Although specific comparisons are made later (Sections 3.2 and 3.3), there are some interesting general observations that should be made regarding the models. Within both models and within all classes (and all employee classes

overall), more of the variance in income is explained by the independent variables for women than for men (higher R^2 for women). This suggests that the models used to estimate income here may be more useful in predicting the income of women than of men. One implication of this is that other factors not included in the model may be more important in the income determination process of men than of women. The significance of this observation is made clearer in Section 3.4.

An additional observation which demands attention is the value of the intercept coefficients (particularly for women). In many cases the intercept value is an extremely high negative number. Realistically speaking this should not be the case. The intercept represents the value of the dependent variable (income) when all independent variables are equal to zero. According to Table 2, for example, female managers/supervisors without any education are predicted to have a negative income of \$16 409.08. At first glance this appears to be rather curious indeed. However, it should be noted that there are no female managers/supervisors with educations lower than eight years. The mean income by educational level by gender is plotted in Figures 2 to 5 for each of the major class positions (and all employee classes).⁵ Although these graphs are presented with caution, they are quite useful in suggesting the female/male income differences across the educational scale. Each point which is connected on the graph represents a mean income level based upon a different number of cases. Most points which appear to disrupt overall patterns tend to represent means based on very few people. One should not, therefore, take the lines drawn to estimate the pattern formed by these points too seriously when only a few cases are involved.

TABLE 2

SIMPLE MODEL OF INCOME ATTAINMENT (UNSTANDARDIZED REGRESSION COEFFICIENTS AND STANDARD ERRORS)
 BY GENDER FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE FOR
 ALL EMPLOYEE CLASSES, MANAGERS/SUPERVISORS, SEMI-AUTONOMOUS WAGE EARNERS, WORKERS

	Intercept	Education	R ² (Adj. R ²)	N
<u>All Employee Classes</u>				
Males				725
S.E.	6364.00*** (1913.02)	1625.87*** (150.17)	.13951 (.13832)	
t-value	3.321	10.827		
Females				507
S.E.	-7159.14*** (1826.31)	1883.30*** (140.79)	.26162 (.26016)	
t-value	-3.920	13.376		
<u>Managers/Supervisors</u>				
Males				283
S.E.	7166.54 (4056.28)	1904.45*** (301.52)	.12432 (.12121)	
t-value	1.767	6.316		
Females				121
S.E.	-16409.08*** (4682.44)	2818.64*** (343.64)	.36117 (.35581)	
t-value	-3.504	8.202		
<u>Semi-Autonomous</u>				
Males				136
S.E.	3808.80 (5878.08)	1772.63*** (412.47)	.12113 (.11457)	
t-value	.648	4.298		
Females				101
S.E.	838.95 (4330.03)	1346.84*** (305.38)	.16421 (.15577)	
t-value	.194	4.410		

Continued

Cont'd
TABLE 2
SIMPLE MODEL OF INCOME ATTAINMENT (UNSTANDARDIZED REGRESSION COEFFICIENTS AND STANDARD ERRORS)
BY GENDER FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE FOR
ALL EMPLOYEE CLASSES, MANAGERS/SUPERVISORS, *SEMI-AUTONOMOUS WAGE EARNERS, WORKERS

Cont'd	Intercept	Education	R ² (Adj. R ²)	N
Workers				
Males	14992.58*** (1712.34)	468.05** (152.02)	.03024 (.02705)	306
t-value	8.756	3.079		
Females	22.37 (2065.57)	1154.11**** (169.12)	.14174 (.13869)	284
t-value	.011	6.824		

Source: Canadian Class Structure Data Set (Winter 1982-83)

Follows selection process described in Chapter 2 and listwise deletion of missing cases.

Significance levels on a one-tailed test:

*** .001

** .01

(no * means not statistically significant at an acceptable level)

TABLE 3

EXPANDED MODEL OF INCOME ATTAINMENT (UNSTANDARDIZED REGRESSION COEFFICIENTS AND STANDARD ERRORS)
BY GENDER FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE FOR

ALL EMPLOYEE CLASSES, MANAGERS/SUPERVISORS, SEMI-AUTONOMOUS WAGE EARNERS, WORKERS

	Intercept	Education	Exper. ¹	Exper. ²	Times Unemp.	Occ. Status	R ² (Adj. R ²)	N
All Employee Classes								
Males	-9383.22***	829.58***	1000.59***	-15.78***	-65.00	-315.57***	.32759	707
S.E.	(2287.83)	(188.56)	(144.30)	(3.15)	(168.15)	(41.98)	(.22279)	
t-statistic	-4.101	4.400	6.934	-5.013	-.387	7.517		
Females	-16971.29***	1299.41***	715.68***	-13.87***	-354.56*	242.38***	.46044	494
S.E.	(1885.85)	(156.70)	(113.08)	(3.02)	(164.01)	(30.01)	(.45491)	
t-statistic	-8.999	8.293	6.329	-4.588	-2.162	8.075		
Managers/Supervisors								
Males	-15702.51**	1250.48***	1256.67***	19.35**	-583.57	321.98***	.31403	278
S.E.	(4984.22)	(357.21)	(311.35)	(6.60)	(406.45)	(83.98)	(.30142)	
t-statistic	+3.150	3.503	4.036	-2.931	-1.436	3.834		
Females	-32545.36***	2370.09***	1414.50***	-28.88**	-187.22	178.84*	.51137	121
S.E.	(5117.45)	(367.91)	(313.25)	(7.86)	(356.80)	(72.96)	(.49012)	
t-statistic	-6.360	6.442	4.516	-3.673	-5.25	2.451		
Semi-Autonomous Workers								
Males	-7252.06	1179.60*	1860.58***	-34.41***	155.68	29.74	.32188	136
S.E.	(5837.78)	(535.91)	(374.66)	(8.83)	(368.88)	(112.14)	(.29580)	
t-statistic	-1.242	2.201	4.966	-3.896	.422	.265		
Females	-15128.25**	1136.85**	556.16*	-10.48	-976.79	275.04***	.48457	98
S.E.	(4623.26)	(353.08)	(247.29)	(6.74)	(667.41)	(70.51)	(.45656)	
t-statistic	-3.272	3.220	2.249	-1.554	-1.464	3.901		

Continued

TABLE 3

EXPANDED MODEL OF INCOME ATTAINMENT (UNSTANDARDIZED REGRESSION COEFFICIENTS AND STANDARD ERRORS)
BY GENDER FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE FOR
ALL EMPLOYEE CLASSES, MANAGERS/SUPERVISORS, SEMI-AUTONOMOUS WAGE EARNERS, WORKERS

Cont'd	Intercept	Education	Exper.	Exper. ²	Times Unemp.	Occ. Status	R ² (Adj.R ²)	N
Workers								
Males								
S.E.	4683.32 (2495.93)	310.50 (186.10)	559.90*** (130.11)	-9.83*** (2.83)	87.73 (149.21)	180.43*** (51.24)	.14842 (.13363)	294
t-statistic	1.876	1.668	4.303	-3.472	.588	3.521		
Females								
S.E.	-5667.69** (2245.24)	647.64*** (179.42)	305.69* (125.40)	23.46 (3.42)	-443.98** (172.93)	210.28*** (35.74)	.34322 (.33101)	275
t-statistic	-2.524	3.610	2.438	-1.012	-2.567	5.88		

Source: Canadian Class Structure Data Set (Winter 1982-83)

Excludes: Full-time students, those unemployed or not in labour force during 1982-83 survey, those working less than 30 hours per week, those who began work for the first time after 1981, selected unreliable cases as noted in Chapter 2, and listwise deletion of missing cases (weighted).

Note: Experience is a measure of years in the labour force, times unemployed is a measure of the number of times a respondent has been unemployed, education is an estimate of years of education (based upon credentials), and occupational status is measured in Blashen points.

Significance levels on a one-tailed test:

*** .001

** .01

* .03

(no * means not statistically significant at an acceptable level)

FIGURE 2
 MEAN INCOME BY EDUCATIONAL ATTAINMENT BY GENDER FOR ALL CLASSES
 (CANADIANS WORKING 30 HOURS PER WEEK OR MORE)

Source: Canadian Class Structure Data Set (Winter 1982-83)
 Selections noted in Chapter 2

_____ males
 - - - - - females

FIGURE 3

MEAN INCOME BY EDUCATION ATTAINMENT BY GENDER FOR THE MANAGERIAL/SUPERVISORY CLASS
(CANADIANS WORKING 30 HOURS PER WEEK OR MORE)

Source: Canadian Class Structure Data Set (Winter 1982-83)
Selections noted in Chapter 2

(n) number of cases

Males

Females

FIGURE 4

MEAN INCOME BY EDUCATIONAL ATTAINMENT BY GENDER FOR THE SEMI-AUTONOMOUS WAGE EARNERS' CLASS
(CANADIANS WORKING 30 HOURS PER WEEK OR MORE).

Source: Canadian Class Structure Data Set (Winter 1982-83)
Selections noted in Chapter 2

_____ Males
----- Females

(n) number of cases

2

Table 4 summarizes the findings for the test of this assumption. Overall, Wright's general theory, that each class will be characterized by its own income determination process such that income level possibilities will differ between classes, is supported by the data.

For Men: Table 4 (column 1) reveals the gap in mean income for each of the three main class comparisons. The mean income levels of these three classes are different and in the expected order (managers/supervisors > semi-autonomous wage earners > workers). Mean income differences, however, are a function of differences in the income attainment process and differences in the level of income-related attributes. In Section 3.1 it was explained that the three classes do differ in terms of the mean level of education, experience, occupational status, etc. In an effort to isolate the effects of the overall income determination processes, it is important to determine what the gap in income level would be if both groups in the comparison had the same level of education, experience, occupational status, etc. Table 4 (column 2) summarizes the gap in expected income within each class comparison group at the same level of the independent variables in the expanded model (Section 2.4 explained the methodology behind this). It appears that although each class has a different predicted income level, the differences are less pronounced than they were when the gap in the mean income was considered (column 1). For example, the predicted income of male workers is 82.02 percent of that of male managers/supervisors (mean income of male workers is only 63.22 percent of that of male managers/supervisors). This suggests that differences in levels of education, experience, occupational prestige, etc., between

3.2 The Assumptions

In order for Wright's framework to be useful in explaining gender differences in the income attainment process, it must be established that his general theory of class and income determination (i.e., the process of income determination will differ between classes) and his assumptions regarding gender differences in class composition are supported by the data. With respect to gender differences in the level of income and in the rate of return to education, Wright has argued that the lower level of income and lower rate of return to education observed for women in past studies is largely a function of class compositional differences. The overall income determination process of women will be based proportionately more upon the income determination process of the working class (since women are more concentrated here than men). Assuming that Wright's general theory of class and income determination has some credence, the working class is characterized by overall lower income levels and lower rates of return to education than either the managerial/supervisory or semi-autonomous classes. Therefore, the income determination process of women is based proportionately more (than men) upon one which has lower income level possibilities and lower rates of return to education.

Before the propositions regarding gender differences can be tested, it is necessary to test the four main assumptions upon which they are based. The results of the testing of these assumptions are as follows:

Assumption 1: The level of income between classes should differ considerably. Specifically, managers/supervisors should have higher incomes than semi-autonomous wage earners who should, in turn, have higher incomes than workers.

TABLE 4
GAPS IN INCOME BETWEEN CLASS POSITIONS WITHIN SEX CATEGORIES
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

Class Comparisons	Males		Females	
	Mean Gap Difference (1)	Expanded Model Gap (2)	Mean Gap Difference (3)	Expanded Model Gap (4)
Managers/Supervisors - Semi-Autonomous Semi-Autonomous Income as % of Managers/Supervisors' Income	\$ 3563.07	\$ 1573.42	\$1737.84	\$1157.45
	88.93%	94.28%	91.85%	93.22%
Managers/Supervisors - Workers Workers' Income as % of Managers/Supervisors' Income	\$11832.34	\$ 4947.16	\$7398.40	\$1512.87
	63.22%	82.02%	65.30%	91.14%
Semi-Autonomous - Workers Workers' Income as % of Semi-Autonomous Income	\$ 8269.27	\$ 3373.74	\$5660.56	\$ 355.42
	71.10%	86.99%	71.09%	97.77%

Source: Canadian Class Structure Data Set (Winter 1982-83)

Follows selection process described in Chapter 2

^aMean income gap represents the difference in mean income (this will include differences in income level resulting from both differences in the process of income attainment and differences in the level of income-related attributes)

^bIncome gap is calculated from the differences in the incomes predicted using the expanded regression equation and substituting the values of the means of the variable for all employee classes (i.e., evaluated at the grand mean).

[Education = 12.51 years; Blishen Score = 47.70; Experience = 16.58 years; Experience² = 407.96 years; Times Unemployed = 1.28 times]

Table 4 summarizes the findings for the test of this assumption. Overall, Wright's general theory, that each class will be characterized by its own income determination process such that income level possibilities will differ between classes, is supported by the data.

For Men: Table 4 (column 1) reveals the gap in mean income for each of the three main class comparisons. The mean income levels of these three classes are different and in the expected order (managers/supervisors > semi-autonomous wage earners > workers). Mean income differences, however, are a function of differences in the income attainment process and differences in the level of income-related attributes. In Section 3.1 it was explained that the three classes do differ in terms of the mean level of education, experience, occupational status, etc. In an effort to isolate the effects of the overall income determination processes, it is important to determine what the gap in income level would be if both groups in the comparison had the same level of education, experience, occupational status, etc. Table 4 (column 2) summarizes the gap in expected income within each class comparison group at the same level of the independent variables in the expanded model (Section 2.4 explained the methodology behind this). It appears that although each class has a different predicted income level, the differences are less pronounced than they were when the gap in the mean income was considered (column 1). For example, the predicted income of male workers is 82.02 percent of that of male managers/supervisors (mean income of male workers is only 63.22 percent of that of male managers/supervisors). This suggests that differences in levels of education, experience, occupational prestige, etc., between

the classes may be having a considerable effect on the differences in income between different classes; however, even controlling for these differences in the level of income-related attributes, the income gap between the classes still exists, supporting Wright's theory. The findings with regard to the predicted income gap between managers/supervisors and semi-autonomous workers reduces the strength of Assumption 1 to a certain degree. Once the independent variables in the expanded model are controlled for, it appears that semi-autonomous workers have an income that is 94.28 percent of that of managers/supervisors. Wright was somewhat vague with regard to the precise placement of the income level of semi-autonomous workers; he predicted that semi-autonomous workers would have income levels and rates of return to education that were somewhere between the managerial/supervisory class and the working class. For males, it would appear that the semi-autonomous workers are located closer to the managerial/supervisory class than the working class with respect to income levels. The overall findings for males with regard to Assumption 1 are as follows: (1) the income levels of the three main classes do differ; (2) the income level of managers/supervisors > semi-autonomous workers > workers; and (3) the difference between male managers/supervisors and semi-autonomous workers is small (between six and seven percent).⁷

For Women: Table 4 (column 3) reveals the gap in mean income for each of the three main class comparisons. Once again, the mean income levels of these three classes are different and in the expected order (managers/supervisors > semi-autonomous workers > workers).

Controlling for level of the independent variables in the expanded equation reduces the gap between classes for women (Table 4, compare columns 3 and 4) such that there is only about two to nine percent difference in the predicted levels of income for any of the three comparison groups. For the semi-autonomous workers and workers comparison, there is virtually no difference. Overall, there is weak support for Assumption 1 for females.

Assumption 2: The rate of return to education between classes should be significantly different. Specifically, managers/supervisors should have higher rates of return to education than semi-autonomous wage earners who should, in turn, have higher rates of return to education than workers.

Table 5 (simple model), Table 6 (expanded model for men), and Table 7 (expanded model for women) summarize the findings for the test of Assumption 2. Overall, there is support for a weak version of Wright's general theory regarding rates of return to education. For both women and men, the rate of return to education for managers/supervisors is significantly higher than for workers. Although the rate of return to education for semi-autonomous workers is between that observed for managers/supervisors and workers (for both sexes), as predicted by Wright, the difference between the rate of return to the semi-autonomous class is, in most cases, not statistically significant. As noted, in Chapters One and Two, this assumption involves a comparison of the slope differences for education between classes. (In Appendix A the relationship between slope differences and differences in overall income level were outlined.)

TABLE 5

CLASS DIFFERENCES IN RETURNS TO EDUCATION IN THE SIMPLE MODEL
OF INCOME ATTAINMENT (t-VALUE FOR DIFFERENCES IN COEFFICIENTS)
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

Class Comparison	Males		Females	
	Intercept (1)	Education (2)	Intercept (3)	Education (4)
1. Managers/Supervisors - Semi-Autonomous Wage Earners Difference t-value Semi-Autonomous as % of Managers/Superv.	7166.54 3808.80 3357.74	1904.45 1772.63 131.82 .258 93.08%	-16409.08 838.95 -17248.03	2818.64 1346.84 1471.8 3.202** 47.78%
2. Managers/Supervisors - Workers Difference t-value Workers as % of Managers/Supervisors	7166.54 14992.58 -7826.04	1904.45 468.05 1436.40 4.254** 24.58%	-16409.08 22.37 -16386.71	2818.64 1154.11 1664.53 4.346** 40.95%
3. Semi-Autonomous Wage Earners - Workers Difference t-value Workers as % of Semi-Autonomous Wage Earn.	3808.80 14992.58 -11183.78	1772.63 468.05 1304.58 2.968* 26.40%	838.95 22.37 816.58	1346.84 1154.11 492.73 .552 85.69%

Source: Canadian Class Structure Data Set (Winter 1982-83)
Selections noted in Chapter 2

* Significant at .01 level

** Significant at .001 level

TABLE 6
CLASS DIFFERENCES IN RETURNS TO VARIABLES IN THE EXPANDED MODEL OF INCOME ATTAINMENT
(t-VALUE FOR DIFFERENCES IN COEFFICIENTS)
FOR CANADIAN MALES WORKING 30 HOURS PER WEEK OR MORE

	Intercept	Education	Exper.	Exper. ²	Times Unempl.	Occ. Status
1. Managers/Supervisors	-15702.51	1251.48	1256.67	-19.35	-583.57	321.98
Semi-Autonomous	-7252.06	1179.60	1860.58	-34.41	155.68	29.74
Difference	-8450.45	71.88	-603.91	15.06	-739.25	292.24
t-value		ns	ns	ns	ns	-2.086*
Semi-Aut. as % of Man./Super.		94.26%				
2. Managers/Supervisors	-15702.51	1251.48	1256.67	-19.35	-583.57	321.98
Workers	4683.32	310.50	559.90	-9.83	87.73	180.43
Difference	-20385.83	940.98	696.77	-9.52	-671.30	141.55
t-value		2.336*	2.065*	ns	ns	ns
Workers as % of Man./Super.		24.81%				
3. Semi-Autonomous	-7252.06	1179.60	1860.58	-34.41	155.68	29.74
Workers	4683.32	310.50	559.90	-9.83	87.73	180.43
Difference	-11935.38	869.10	1300.68	-24.58	67.95	-150.69
t-value		1.532	3.280*	2.651*	ns	ns
Workers as % of Man./Super.		26.32%				

Source: Canadian Class Structure Data Set (Winter 1982-83)

Follows selection process described in Chapter 2.

* Significant at the .01 level or better

TABLE 7
CLASS DIFFERENCES IN RETURNS TO VARIABLES IN THE EXPANDED MODEL OF INCOME ATTAINMENT
(t-VALUE FOR DIFFERENCES IN COEFFICIENTS)
FOR CANADIAN FEMALES WORKING 30 HOURS PER WEEK OR MORE

	Intercept	Education	Exper.	Exper. ²	Times Unempl.	Occ. Status
1. Managers/Supervisors						
Semi-Autonomous	-32545.36	2370.09	1414.50	-28.88	-187.22	178.84
Difference	-15128.25	1136.85	556.16	-10.48	-976.79	275.04
t-value	-17417.11	1233.24	858.34	-18.40	789.57	-96.20
Semi-Aut. as % of Man./Superv.		2.418*	2.151*	ns	ns	ns
		47.97%				
2. Managers/Supervisors						
Workers	-32545.36	2370.09	1414.50	-28.88	-187.22	178.84
Difference	-5667.69	647.64	305.69	-.46	-443.98	210.28
t-value	-26877.67	1722.45	1108.81	-28.42	256.76	-31.44
Workers as % of Man./Super.		4.208*	3.286*	3.316*	ns	ns
		27.33%				
3. Semi-Autonomous						
Workers	-15128.25	1136.85	556.16	-10.48	-976.79	275.04
Difference	-5667.69	647.64	305.69	-.46	-443.98	210.28
t-value	-9460.56	489.21	250.47	-10.02	-532.81	64.76
Workers as % of Man./Super.		ns	ns	ns	ns	ns
		56.91%				

Source: Canadian Class Structure Data Set (Winter 1982-83)
Follows selection process described in Chapter 2

* Significant at the .01 level or better

For Men: An examination of Table 5 (column 2) reveals that the slope for education is greater for managers/supervisors and semi-autonomous workers than for workers (significantly greater as indicated by the accompanying t-values). According to the simple model, male managers/supervisors receive approximately \$1436 more (per year) for each increment in education than workers do (Table 5, column 2, comparison 2). Although managers/supervisors have greater returns to education than semi-autonomous workers (approximately \$1773 per year per increment), this difference is not statistically significant. Much the same story is told by Table 6 for the expanded model. The addition of the other independent variables has the effect of decreasing the differences in rates of return to education between the classes; however, the difference between managers/supervisors and workers remains statistically significant. In conclusion, a weak version of Assumption 2 is supported for males. The rates of return to education are different and in the order predicted by Wright (managers/supervisors > semi-autonomous workers > workers); however, not all of these differences are statistically significant (differences involving semi-autonomous workers are not, in most cases, significant).

For women: An examination of Table 5 (column 4) reveals that the slope for education is greater for managers/supervisors than for either semi-autonomous workers or workers (significantly greater as indicated by the accompanying t-values). According to the simple model, female managers/supervisors receive approximately \$1665 more (per year) for each increment in education than workers do (Table 5, column 4, comparison 2). Although semi-autonomous workers have greater returns to education than workers (approximately \$493 per

year per increment), this difference is not statistically significant. The expanded model summarized in Table 7 for females, reveals that there is very little difference in the comparisons of rates of return to education between classes after controlling for additional independent variables. In conclusion, Assumption 2 is supported for females (a moderate to weak version). The rates of return to education are different and in the order predicted by Wright (managers/supervisors > semi-autonomous wage earners > workers); however, not all of these differences are statistically significant (differences between semi-autonomous wage earners and workers are not significant).

Assumption 3: The class compositional differences between women and men which are assumed to be at the heart of the overall gender differences in income attainment must be observed. Specifically, women should be more highly concentrated in the working class than men and men should be more highly concentrated in the managerial/supervisory class than women.

Table 8 reveals that women are, indeed, more concentrated in the working class than men (52.38 percent of all women are in the working class compared with 32.63 percent of all men). Table 9 summarizes the percentage distribution of women and men throughout the three main employee class positions only. When the self-employed are excluded (as in Table 9), the concentration differences by sex are slightly less pronounced, but they still exist. Considering the employee classes alone, 56.13 percent of the women are concentrated in the working class compared with 42.20 percent of the men being concentrated here.

TABLE 8

GENDER BY CLASS POSITION
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

<u>Class Position</u>	<u>Males</u>	<u>Females</u>
Self-Employed:		
Large and Small Employers	5.11%	1.33%
Petty Bourgeoisie	<u>16.32%</u>	<u>4.76%</u>
Total Self-Employed	21.42%	6.10%
Managers/Supervisors:		
Decision Makers	16.32%	8.76%
Advisors	2.66%	3.24%
Supervisors	<u>11.88%</u>	<u>10.86%</u>
Total Managers/Supervisors	30.85%	22.86%
Semi-Autonomous Wage Earners	15.09%	18.67%
Workers	<u>32.63%</u>	<u>52.38%</u>
Total	<u>99.99%*</u>	<u>100.01%*</u>
Weighted N	<u>[901]</u>	<u>[525]</u>

TABLE 9

GENDER BY CLASS POSITION
FOR EMPLOYEE CLASSES ONLY
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

<u>Class Position</u>	<u>Males</u>	<u>Females</u>
Managers/Supervisors	39.03%	23.91%
Semi-Autonomous Wage Earners	18.76%	19.96%
Workers	<u>42.20%</u>	<u>56.13%</u>
Total	<u>99.99%*</u>	<u>100.00%</u>
Weighted N	<u>[725]</u>	<u>[506]</u>

Source: Canadian Class Structure Data Set (Winter 1982-83)
 Weighted case numbers after selection process described
 in Chapter Two and after listwise deletion of missing cases
 for all variables in the expanded regression model.

*Errors due to rounding

Both Tables 8 and 9 confirm that men are more concentrated in the managerial/supervisory class than women (30.85 percent of all men are located within this class position compared with 22.86 percent of all women--Table 8). When only the employee classes (Table 9) are considered, these concentration differences are actually more pronounced (39.03 percent of the men are in the managerial/supervisory class compared with 23.91 percent of the women--Table 9).

Assumption 3 is supported by the data. Women are more concentrated than men in the working class, and men are more concentrated than women in the managerial/supervisory class. (See Appendix G for a comparison of these findings with Wright's, 1979, findings and possible implications.)

Assumption 4: Women and men should be distributed differently within the managerial/supervisory class such that women should be more highly concentrated in the supervisory class than men (located at the bottom of the authority hierarchy) and men should be more highly concentrated in the decision-makers' class than women (at the top of the hierarchy).

This assumption is important primarily for Propositions 3 and 4 which predict that class differences for women (both in terms of level of income and rate of return to education) will be less marked than those for men since women are concentrated at the lower levels of the managerial/supervisory hierarchy (having income possibilities based proportionately more upon the lower incomes and lower rates of return found here). Table 10 displays the percentage distribution of women and men throughout the managerial/supervisory class alone (Table 8 summarizes the same information providing the percentage of all women and men located within these detailed managerial/

TABLE 10

GENDER BY POSITION WITHIN MANAGERIAL/SUPERVISORY CLASS
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

	<u>Males</u>	<u>Females</u>
Decision Makers	52.88%	38.33%
Advisors	8.63%	14.17%
Supervisors	<u>38.49%</u>	<u>47.50%</u>
Total Managerial/Supervisory	100.00%	100.0%
	<u>=====</u>	<u>=====</u>
Weighted N	[278]	[120]
	<u>=====</u>	<u>=====</u>

Source: Canadian Class Structure Data Set (Winter 1982-83)
Weighted case numbers after selection process described
in Chapter 2 and after listwise deletion of missing
cases for all variables entered into expanded regression model

supervisory positions; Table 10 provides a clearer picture since it isolates the managerial/supervisory class for closer inspection). The information summarized in Table 10 clearly supports Assumption 4. Women are more highly concentrated at the lower levels of the authority structure than men (i.e., supervisory class) (47.50 percent of all women in the managerial/supervisory class are in supervisory positions compared with 38.49 percent of the men). Men are more highly concentrated at the upper levels of the authority structure than women (i.e., the decision makers' class) (52.88 percent of all men in the managerial/supervisory class are decision makers compared with 38.33 percent of the women).

Conclusions About the Assumptions: In all cases, support is found for the assumptions which form the basis of the propositions to be tested in the next section. The data confirm that Wright's general theory of class and income determination can provide a useful framework for the study of income inequality in general. As predicted by Wright (1979), the income levels and income attainment processes (particularly rates of return to education) of the three main employee classes differ (although not always significantly). In general, it appears that managers/supervisors have higher incomes and higher rates of return to education than either semi-autonomous wage earners or workers; semi-autonomous wage earners have higher levels of income and higher rates of return to education than workers.

As well, the compositional differences predicted by Wright (1979) for the two sexes in the class structure are observed. Based upon these positive findings, there is hope that this framework can help us to

understand gender differences in the income attainment process. The propositions regarding the utility of this class framework in explaining gender differences in income attainment can now be tested.

3.3 The Propositions

The purpose of this research is to test the utility of Wright's framework of class and income determination in explaining the gender inequality in income that has been so well documented in the past. Two basic aspects of gender inequality in income attainment are examined: (1) differences in levels of income (ultimately this aspect of inequality is the motivation behind such a research project); and (2) differences in rates of return to education. As explained in Appendix A, levels of income are a function of many factors. Using the expanded regression model, level of income is predicted by simultaneously considering the effect of each variable (slopes) and unknown factors (intercept). Rate of return to education, however, isolates the effects of education within this whole process of income attainment (slope for education alone); education, as suggested by past research, should be one of the most significant factors in this overall process (and, therefore, warrants special attention).

Wright maintained that the lower levels of income and lower rates of return to education observed for women (vis-a-vis men) in past research can be explained largely by class compositional differences between women and men and his theory of class and income determination. Section 3.2 has established that these compositional differences do exist and that the theory of class and income determination has merit. Given support for these assumptions, can we explain gender inequality

in the income attainment process in these terms? The following provides a presentation of the results of the testing of four propositions (discussed in Chapters One and Two) which seem to indicate that there are large sex effects in the income attainment process which transcend class effects. Although Wright's framework appears to be useful in the understanding of income inequality in general, the data used in this study suggest that it is not quite so useful in explaining gender inequality in income attainment.

Proposition 1: Any gap in the level of income between women and men overall should disappear when class position is held constant. Specifically, the level of income for female managers/supervisors should be the same as that for male managers/supervisors; the level of income for female semi-autonomous workers should be the same as that for male semi-autonomous workers; and the level of income for female workers should be the same as that of male workers.

Wright (1979) has argued that the income levels within classes should be more similar than for all classes considered together. Each class (as explained in Chapter One) should be characterized by its own income determination process; variation within classes should be due mostly to differences in income-related attributes and location within any hierarchies that exist within the class. Ultimately, however, one's class position will impose limits upon one's income level possibilities. Support for this was found in the testing of Assumption 1. It appears that income levels do differ between classes. Since women are more highly concentrated in the working class than men and men more highly concentrated in the managerial/supervisory class than women, one would expect that the overall lower levels of income observed for women may be due to these compositional differences (as explained in Chapter One). Within each class position, one would

expect women and men to have income levels that are more similar than they are when all classes are considered.

Table 11 summarizes the results necessary for testing this proposition. Column 1 (Table 11) shows the income gap calculated by subtracting the mean income for women from the mean income for men (taken from Table 1). The gap in mean income, however, does not control for differences in level of education, experience, occupational prestige, etc. There is some very weak support for Proposition 1 when gap in mean income is considered. The mean income of females in all three employee classes is 63.43 percent of that of their male counterparts. This gap appears to close slightly within each of the three classes (to a maximum of 68.45 percent in the semi-autonomous class). At best, however, the gap is only closed by about five percent (column 1, Table 11).

It is more meaningful to evaluate the gap after controlling for level of education, experience, occupational status, etc. (since it is differences in the income attainment process that are of concern here, not why women and men differ with respect to the level of income-related attributes they possess). Column 2 in Table 11 reveals the income gap that is predicted by using the expanded income model (controlling for education, experience, experience², number of times unemployed, and occupational status); the income gap is evaluated at the value of the mean level of each variable for all employee classes (i.e., the grand mean). In this way, the income gap will not reflect differences in these attributes, just the way in which they are converted to income). The overall income gap (all employee classes)⁸ changes little within the managerial/supervisory class

TABLE 11
GAPS IN INCOME BETWEEN MALES AND FEMALES WITHIN CLASSES
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

<u>Class Position</u>	<u>Sex Diff. in Mean Income</u> (1)	<u>Income Gap^a Expanded Model</u> (2)
All Employee Classes Females as % of Males	\$ 9716.81 63.43%	\$ 9516.90 63.56%
Managers/Supervisors Females as % of Males	\$10852.72 66.27%	\$10440.52 62.04%
Semi-Autonomous Females as % of Males	\$ 9027.49 68.45%	\$10024.55 61.34%
Workers Females as % of Males	\$ 6418.78 68.44%	\$ 7006.23 68.94%

Source: Canadian Class Structure Data Set (Winter 1982-83)

Follows selection process described in Chapter 2

Simple Model: Independent variable = education

Expanded Model: Independent variables = education, experience, experience², times unemployed,
and occupational status (Blishen scores)

^aThe income gaps were evaluated at the grand mean for all employee classes for each of the independent variables.

[Education = 12.51 years; Blishen Score = 47.70; Experience = 16.58 years;
Experience² = 407.96 years; Times Unemployed = 1.28 times]

(in fact, it increases slightly such that the female income is 62.04 percent of that of males) and within the semi-autonomous class (also increases slightly such that the female income is 61.34 percent of the male income). Essentially, one might conclude that controlling for class within the managerial/supervisory class and semi-autonomous classes has no effect on the income gap (holding constant levels of the independent variables). The only class in which there is some support for Proposition 1 is the working class, where the income of women is 68.94 percent of that of men (closing the gap by almost seven percent).⁹ (See Appendix H regarding a caution for these results.)

Proposition 2: Any differences in the rate of return to education between women and men overall should disappear when class position is held constant. Specifically, the rate of return to education should be the same for female managers/supervisors as for male managers/supervisors; the rate of return to education should be the same for female semi-autonomous workers as for male semi-autonomous workers; and the rate of return to education should be the same for female workers as for male workers.

Wright (1979) considers differences in the rate of return to education to be of major interest in the study of differences in the overall income attainment process. As explained in Appendix A, a focus on rates of return to education provides an isolated look at the effect of education alone on income. This involves an examination of slope differences (the magnitude of change in income caused by an increment in education). Past research has indicated that women receive lower rates of return to education than men (as explained in Chapter One); Wright maintains that this is due to class compositional differences

between women and men coupled with his general theory that the rates of return to education will differ significantly between class positions.

Table 12 summarizes the comparisons of gender differences in slopes using the simple model (education as the only independent variable). The most startling result of all is the finding that women, overall and in most classes, display higher rates of return to education than men (although not always statistically significant). This poses somewhat of a dilemma for Wright's argument. The possible explanations for this finding will be discussed in Section 3.4.

The rate of return to education for females as a percentage of that for males is 115.83 percent in all employee classes (difference not significant though), 148 percent within the managerial/supervisory class (significant); and 246.58 percent within the working class (also significant)(Table 12, column 2). Not only do the differences in rate of return not disappear within the managerial/supervisory class and the working class, they actually increase greatly. This is quite contrary to Wright's hypothesis and his findings (1979). Wright found that, although there was somewhat mixed support for the disappearance of differences in the slope for women and men within the managerial/supervisory class, there was overwhelming support for such a disappearance within the working class. The findings of this study indicate that the largest difference is found within the working class. The only class that appears to be consistent with past findings and with Wright's hypothesis is the semi-autonomous class (where females have a rate of return to education that is 75.98 percent of that for males, although this difference is not significant).

TABLE 12

GENDER DIFFERENCES IN RATES OF RETURN TO EDUCATION IN THE SIMPLE
MODEL OF INCOME ATTAINMENT (t-VALUE FOR DIFFERENCES IN COEFFICIENTS)
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

<u>Class Positions</u>	<u>Intercept</u>	<u>Education</u>
<u>All Employee Classes:</u>	(1)	(2)
Males	6364.00**	1625.87**
Females	-7159.14**	1883.30**
Difference in Coefficients	<u>13523.14**</u>	<u>-257.43</u>
t-value	5.113	1.251
Female b_1 as % of Male b_1		115.83%
<u>Managers/Supervisors:</u>		
Males	7166.54	1904.45**
Females	-16409.08**	2818.64**
Difference in Coefficients	<u>-23575.62**</u>	<u>-914.19*</u>
t-value	3.806	2.000
Female b_1 as % of Male b_1		148.00%
<u>Semi-Autonomous Wage Earners:</u>		
Males	3808.80	1772.63**
Females	838.95	1346.84**
Difference in Coefficients	<u>2970.85</u>	<u>425.79</u>
t-value	.407	.830
Female b_1 as % of Male b_1		75.98%
<u>Workers:</u>		
Males	14992.58**	468.05**
Females	22.37	1154.11**
Difference in Coefficients	<u>14970.21**</u>	<u>-686.06**</u>
t-value	5.580	3.017
Female b_1 as a % of Male b_1		246.58%

Source: Canadian Class Structure Data Set (Winter 1982-83)
Follows selection process described in Chapter 2 and list-
wise deletion of missing cases

* Significant at .05 level

** Significant at .01 level or better

At first glance, one wonders-if Wright's findings for the working class may have been distorted by the fact that the semi-autonomous class was included in Wright's reported working class. As noted in Appendix G, the semi-autonomous class and the working class in this study are quite distinct in several ways; collapsing the two classes into one would be most unwise (however, Wright had no choice). Since women receive lower rates of return to education within the semi-autonomous class (although not significantly lower) and higher rates of return to education within the working class (significantly higher), one wonders if the overall effect of combining the two classes would be no difference between women and men overall (thus suggesting one possible explanation for the differences in these findings and Wright's). Since the differences between women and men (in favour of men) in the semi-autonomous class are considerably less than the differences between women and men (in favour of women) in the working class (also the former differences are not significant but the latter are) and male semi-autonomous workers are only 46.26 percent of male workers and female semi-autonomous workers are only 35.64 percent of female workers, it seems most unlikely that this could explain the extreme differences found between the two studies adequately.¹⁰ (One can only speculate as to whether or not the rates of return to education for semi-autonomous workers and workers and the composition of the combination of the two was the same for the 1969 data gathered by Wright and the data in the present study.)

Table 13 summarizes the comparisons of gender differences in slopes using the expanded model. Although women still have higher

TABLE 13
GENDER DIFFERENCES IN RETURNS TO VARIABLES IN THE EXPANDED MODEL OF INCOME ATTAINMENT
(t-VALUE FOR DIFFERENCES IN COEFFICIENTS)
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

	Intercept	Education	Exper.	Exper. ²	Times Unemp.	Occ. Status
<u>All Employee Classes</u>	(1)	(2)	(3)	(4)	(5)	(6)
Males	-9383.22*	829.58*	1000.59*	-15.78*	-65.00	315.57*
Females	-16971.29*	1299.41*	715.68*	-13.87*	-354.56*	242.38*
Diff. in Coefficients	7588.07*	-469.83	284.91	-1.91	289.56	73.19
t-value	4.023	1.916	1.554	.438	1.233	1.418
<u>Managers/Supervisors</u>						
Males	-15702.51*	1251.48*	1256.67*	-19.35*	-583.57	321.98*
Females	-32545.36*	2370.09*	1414.50*	-28.88*	-187.22	178.84*
Diff. in Coefficients	16842.85*	-1118.61*	-157.83	9.53	-396.35	143.14
t-value	2.358	2.181	.357	.929	.733	1.287
<u>Semi-Autonomous Workers</u>						
Males	-7252.06	1179.60*	1860.58*	-34.41*	155.68	29.74
Females	-15128.25*	1136.85*	556.16*	-10.48	-976.79	275.04*
Diff. in Coefficients	7876.19	42.75	1304.42*	-23.93*	1132.47	-245.04
t-value	1.704	.067	2.906	2.154	1.485	1.852
<u>Workers</u>						
Males	4683.32	310.50	559.90*	-9.83*	87.73	180.43*
Females	-5667.69*	647.64*	305.69*	-3.46	-443.98*	210.28*
Diff. in Coefficients	10351.01*	-337.14	254.20	-6.37	531.71*	-29.85
t-value	3.083	1.304	1.407	1.435	2.328	.478

Source: Canadian Class Structure Data Set (Winter 1982-83)

Follows selection process described in Chapter 2 and listwise deletion of missing cases

* Significant at .03 level or better

rates of return to education than men in all employee classes, in the managerial/supervisory class, and in the working class, these differences are only significant for the managerial class (which remains quite similar to the situation found in the simple model, except that the effect of education on income for males appears to be mediated a fair amount by other variables--probably occupational status). The large differences (in favour of women) in slopes within the working class are reduced to a non-significant level; it appears that for both women and men in the working class (particularly women) the effects of education on income are mediated by another variable in the expanded equation--probably occupational status). The differences between female and male semi-autonomous workers are also reduced in the expanded equation (the rate of return to education for women is 96.38 percent of that for men). Overall, a similar, but less pronounced, story is told by the expanded equation as that told by the simple equation. The expanded equations reveal that the effects of education on income are mediated by other variables (probably occupational status) in some cases (particularly for female workers, male workers, and male managers/supervisors). This means that education is, to a degree, affecting income indirectly; education directly affects the occupational status one will achieve, which in turn directly affects the income one will achieve.

In conclusion, Proposition 2 is not supported. The rates of return to education for women and men do not become more similar within classes (than for all employee classes); in fact, quite the opposite case is often encountered.

The findings for the test of Proposition 2 prompt several questions which will be addressed in Section 3.4. (1) Given that Assumption 2 was supported (different classes are characterized by different rates of return to education in general), how is it that the rates of return to education for women and men are more dissimilar within classes than for all employee classes? This strongly suggests that there are sex effects that transcend class effects. (2) How can the greater rates of return to education found for women (except in the semi-autonomous class) be explained in view of the bulk of past research which found that women had lower rates of return to education and interpreted these lower rates largely as a sign of discrimination which was significant in helping to explain the overall lower levels of income for women? (3) What makes the semi-autonomous class so unique that men have higher rates of return to education (not found in the other two classes) than women?

Proposition 3: Differences in the level of income between classes for women should be less marked than those for men. Specifically, the gap in the level of income between female managers/supervisors and female semi-autonomous workers should be less marked than the gap in the level of income between male managers/supervisors and male semi-autonomous workers; the gap in the level of income between female managers/supervisors and female workers should be less marked than the gap in the level of income between male managers/supervisors and male workers; and the gap in the level of income between female semi-autonomous workers and female workers should be less marked than the gap in the level of income between male semi-autonomous workers and male workers.

Wright (1979) maintained that since women and men would be distributed differently within each class (as confirmed in the testing of Assumption 4 for managers/supervisors) such that women will be

located at the lower levels of the managerial/supervisory hierarchy (where income levels are the lowest within this class) and, in the less autonomous positions in the semi-autonomous class (where income levels will be lower within this class), the differences in the level of income between classes for women should be less marked than those for men. His findings (1979) supported this proposition most strongly.

In order to assess the support for this proposition in this study it is necessary to return to Table 4 (page 86) which summarizes the gaps in income between class positions within sex categories. Overall, there does appear to be weak support for this proposition in these data. Wright's findings provided much stronger support.

Table 4 (comparing columns 1 and 3) summarizes the class comparisons for males and females using the gap in mean income (the difference between mean income and the income gap calculated from the expanded prediction equation are explained in Section 3.2). Without controlling for the independent variables used in the expanded model, the gap in mean income between classes appears to be only slightly larger for males than females; for example, male semi-autonomous workers have a mean income that is 88.93 percent of male managers/supervisors, while female semi-autonomous workers have a mean income that is 91.85 percent of female managers/supervisors. The gender differences in this mean income gap are just as slight for the comparison of managers/supervisors with workers and virtually non-existent for semi-autonomous workers with workers. Columns 3 and 4 (Table 4) reveal the information for the income gap predicted by the expanded model (controlling for the independent variables). The differences are slightly more pronounced. For women the percentage gap between managers/supervisors and semi-autonomous

workers is actually very slightly greater than for men (only about one percent difference though). For the other two class comparisons, women do have a smaller gap by about nine to eleven percent (columns 2 and 4 in Table 4).

In conclusion, only weak support is found for Proposition 3 (since the differences in the level of income between one class comparison were totally contrary to that predicted). Chapter Four will reveal some interesting findings which will suggest that the argument behind Propositions 3 and 4 are misleading for these data. (See Appendix H regarding a caution for these results.)

Proposition 4: Differences in rate of return to education between classes for women should be less marked than that for men. Specifically, differences in the rate of return to education between female managers/supervisors and female semi-autonomous workers should be less marked than those between male managers/supervisors and male semi-autonomous workers; differences in the rate of return to education between female managers/supervisors and female workers should be less marked than those between male managers/supervisors and male workers; and differences in the rate of return to education between female semi-autonomous workers and female workers should be less marked than those between male semi-autonomous workers and male workers.

The argument behind this proposition is essentially the same as that posed for Proposition 3 (differential location of women and men within classes, in addition to throughout classes). In order to assess the support for this proposition in this study it is necessary to return to Tables 5 through 7 (pages 90 through 92) which summarize the class differences in returns to education (and other variables) for males and females. Wright (1979) found considerable support for this proposition (the percentage gap between the managerial/supervisory class and workers for males was approximately 60 percent and for females was approximately 17 percent)(Wright, 1979:217).

Table 5 (columns 2 and 4) summarize the relevant information for the differences in slope using the simple model (education only). The findings are mixed. For the comparison of managers/supervisors with semi-autonomous wage earners (comparison 1), the difference in the rate of return to education for males is only about seven percent (and not statistically significant) and for females is almost 52 percent (significant).¹² This completely contradicts the expectations outlined in Proposition 4. For the comparison of managers/supervisors with workers (comparison 2), the difference in the rate of return to education for males is approximately 75 percent and for females is about 59 percent (both significant). This is consistent with the expectations outlined in Proposition 4 (although not nearly as strongly as Wright's findings for the same comparison group). For the comparison of semi-autonomous wage earners with workers (comparison 3), the difference in the rate of return to education for males is approximately 74 percent and for females is only about 14 percent. This indicates much stronger support for Proposition 4. From the information revealed by the simple model, it appears that male managers/supervisors and male semi-autonomous workers are much more alike with respect to the rate of return to education than their female counterparts; at the same time, female semi-autonomous workers and female workers are much more alike than their male counterparts (this suggests that the precise location of the semi-autonomous wage earners between the other two classes differs for women and men, suggesting strong sex affects transcending class effects).

Tables 6 and 7 summarize the relevant information for the differences in slope using the expanded model. With respect to the comparison of the managers/supervisors with the semi-autonomous wage earners, the results are virtually the same as those found in Table 5 (does not support the proposition). Since occupational status mediates the effects of education on female workers' income, the difference in the rate of return to education between managers/supervisors and workers for females increases in the expanded model (Table 7) from the simple model (Table 5) to approximately 73 percent; this is not very different from the difference for their male counterparts in the expanded model (Table 6) which is about 75 percent. Similarly, in the comparison of the semi-autonomous workers with workers, the difference for females is approximately 43 percent (compared with only 14 percent in the simple model--Table 5) and for males is about 74 percent.

In conclusion, support for this proposition is found only in certain class comparisons (managers/supervisors with workers and semi-autonomous workers with workers). This proposition is not supported for the comparison of managers/supervisors with semi-autonomous workers. Also significant appears to be the findings that male semi-autonomous workers are more like male managers than their female counterparts (with respect to rates of return to education), and female semi-autonomous workers are more like female workers than their male counterparts. It should be noted, however, that Chapter Four presents findings which add significantly to our understanding of the mixed support found here for Proposition 4.

Conclusions About the Propositions: Overall, the propositions have, at best, very weak support. The overall gap in level of income between women and men does not decrease within the managerial/supervisory class or the semi-autonomous class (controlling for level of the independent variables); only within the working class does the gap in income between women and men decrease (still leaving a substantial gap of about 31 percent however). The rate of return to education is not only greater for women overall, but actually increases within the working class and the managerial/supervisory class; this completely contradicts the bulk of past research and Wright's hypothesis. The only class for which there is some support for Proposition 2 is the semi-autonomous class. Women display the expected lower rates of return to education in the semi-autonomous class (although not significantly lower). What makes the semi-autonomous class different from the other two main employee classes?

Class differences in level of income for women are only less marked for comparisons of managers/supervisors with workers and semi-autonomous workers with workers (Proposition 3). Differences in the rate of return to education between the managerial/supervisory class and the semi-autonomous class are more marked for men than women (totally contradicting Proposition 4); women do, however, display differences in the rates of return to education that are less marked than men for comparisons of semi-autonomous workers with workers and managers/supervisors with workers (supporting Proposition 4). It appears that male managers/supervisors and male semi-autonomous wage earners are more alike with respect to rates of return to education

than their female counterparts; similarly, female semi-autonomous workers are more like female workers than their male counterparts. Several major issues arise from these findings. Section 3.4 provides a discussion of these issues and introduces some empirical evidence to help shed some light upon the situation.

3.4 Major Issues Arising from the Tests of Propositions

The general lack of support for the four propositions and some unusual findings have generated several questions which must be discussed. Although many questions arise from Sections 3.2 and 3.3, there are four in particular which require some attention if we are to further our understanding of the role of class in gender differences in income determination.

Question 1: Why does the income gap between women and men in all employee classes remain very nearly the same within the semi-autonomous and managerial/supervisory classes?

Given support for Wright's general theory of class and income determination, one would assume that individuals within the same class would be governed by similar income attainment processes; therefore, the income levels for different groups (i.e., women and men) within a class should be more similar than for all classes combined. Although the income levels do differ by class for women and men separately, women appear to experience a similar level of income inequality within the managerial/supervisory class and the semi-autonomous class overall. This inequality appears to be largely due to gender differences in the process of income determination and not to differences in level of education, experience, occupational status, number of times

unemployed (since the gap in income level is evaluated at a common value for these variables). It appears that there are very strong sex effects on the income determination process which transcend the class effects predicted in Wright's theory of class and income determination. Wright (1979), himself, recognized that "sexual discrimination generates substantial income inequality between men and women within classes" (Wright, 1979:219). (See Appendix H.)

Question 2: How can the higher rates of return to education observed for women (in all employee classes and within both the managerial/supervisory class and the working class) be explained in view of the bulk of past research which indicates otherwise, particularly since these findings have typically been interpreted as evidence of discrimination against women?

Although the majority of the studies that have examined rates of return to education for women and men have found that women receive lower rates (as explained in Chapter One), there have been a few that have reported otherwise. As noted in Chapter One, Gunderson (1982), Holmes (1976), and Goyder (1981) have found higher rates of return to education for women using Canadian data. Boyd and Humphreys (1979) also found higher rates of return to education for women within the core (monopoly) sector. What do rates of return to education actually represent? In the past, lower rates of return to education for women have often been interpreted as discrimination (women are not rewarded as much as men per increment in education). In view of the fact that women are obviously disadvantaged with respect to overall income levels, it would seem inappropriate to interpret the lower rate of return to education found for males in this study as discrimination against men in the income attainment process. This necessitates a closer examination of possible explanations for slope differences.

As explained in Appendix A, the rate of return to education is but one aspect of the entire process of income determination. A focus upon the effects of education alone can be very misleading if the two groups being compared rely differently upon the various possible income-related variables in the income attainment process. Three possible interpretations of the differential rates of return to education found here are: (A) males rely more heavily upon income-related attributes other than formal education in the income attainment process than women (due to structural factors such as the type of occupations they perform, the industries in which they are located, and the influence of the unions and/or associations to which they belong); (B) due to discrimination, women may be more subject to credentialism than men; and (C) the recoding of the income categories at the mid-point may have overestimated the income of women relative to that of men (thus, possibly inflating rates of return to income-related attributes). The three interpretations are discussed more thoroughly below and additional empirical evidence is introduced to add to the discussion.

(A) It was noted in Section 3.1 that the estimated income attainment models (both simple and expanded) appear to be better predictors of income for women than men (more of the variance in income is explained for women than for men). One possible implication of this is that there may be some very significant income-related variables not included in the income attainment model for men. For men, factors other than formal education may be more important in the determination of income; for women, it may be that formal education is a very

TABLE 14

OCCUPATIONAL DISTRIBUTION BY GENDER BY CLASS POSITION
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

	Managers/Supervisors		Semi-Autonomous		Workers	
	Male	Female	Male	Female	Male	Female
Upper White Collar	50.9%	52.9%	50.2%	65.5%	8.2%	11.3%
Lower White Collar	12.7%	34.7%	18.7%	25.3%	14.7%	58.3%
Upper Blue Collar	24.4%	9.9%	23.6%	5.3%	28.0%	11.1%
Lower Blue Collar	11.3%	3.3%	7.4%	3.9%	48.8%	19.3%
Farmers	0.1%	0.0%	0.0%	0.0%	0.3%	0.0%
Total	99.4%*	100.8%*	99.9%*	100.0%	100.0%	100.0%
Weighted N	(283)	(121)	(136)	(103)	(311)	(292)

Source: Canadian Class Structure Data Set (Winter 1982-83)

* Rounding Errors

important factor in the determination of income. These differences may be due to occupational concentrations, industrial concentrations, or the effects of worker organizations (such as unions).

Occupational concentration is summarized in Table 14. Within the working class, women are highly concentrated in lower white collar occupations; men are highly concentrated in upper and lower blue collar occupations. This greater tendency for men to be located in blue collar occupations and women to be located in white collar occupations extends, to a lesser degree, to the semi-autonomous and managerial/supervisory classes.¹³ It is quite possible that formal education will be more directly linked to the types of jobs that women perform than those performed by men. The skills required for lower level white collar work (clerical and secretarial positions) are typically those learned in the school system (such as typing, bookkeeping, office procedures, grammar, spelling, etc.)(Hall and McFarlane, 1962:65-66). The skills required for blue collar work, however, may not be those reproduced in the formal school system. For example, operatives (lower level blue collar workers) might rely more upon on-the-job training to produce the skills required by the employer (for example, the operation of firm-specific machinery). Craft workers and other upper level blue collar workers will probably rely more upon skills acquired outside the regular educational system (particularly older people who did not have the benefit of the programs now available at community colleges). Apprenticeship programs and other training programs are likely to be significant for this group. For the employer, possession of such skills on the part of the employee indicates the

likelihood that the job will be performed properly and may provide credentials which can be used to legitimate movement within a hierarchy of jobs (and the rewards associated with such movement). A focus on formal education, therefore, may ignore the significance of training outside the formal school system for certain occupations (men are much more highly concentrated in these occupations than women).

In an effort to assess whether or not women and men differ with respect to training outside the formal school system Tables 15 and 16 were constructed using information contained in the Canadian Class Structure Data Set. Table 15 summarizes information regarding the amount of training (outside formal school system) usually required for the respondent's present job (this does not necessarily mean that the respondent herself/himself has had such training) that exceeds one year. Within all three major classes, males are more likely than females to report that such extra training is necessary for their present job; for those who report that such training is necessary, men are more likely than women to report that such periods of training are necessary (for example, within the managerial/supervisory class 50 percent of the women report that two years training is necessary and only six percent report that six or seven years are necessary; for males within this class, more than 27 percent report that six or seven years are necessary). Table 16 indicates the percentage of women and men (by class) who have actually completed an apprenticeship, full-time program in a company training school lasting six weeks or more, or training in the Canadian Forces leading to qualification in a trade. Once again, men are much more likely than women to have had such training.

TABLE 15

TIME USUALLY REQUIRED FOR ON-THE-JOB TRAINING,
APPRENTICESHIP TRAINING, JOB EXPERIENCE FOR PRESENT JOB
IF OVER ONE YEAR

BY GENDER BY CLASS POSITION FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

	Managers/Supervisors		Semi-Autonomous		Workers	
	Males	Females	Males	Females	Males	Females
12 Months to 23 Months	.3%	4.0%	0.0%	0.0%	0.0%	5.4%
2 Years	17.4%	50.0%	27.3%	51.7%	23.4%	79.3%
3 Years	11.6%	6.0%	15.2%	27.7%	21.6%	9.5%
4 Years	12.3%	8.0%	19.9%	7.0%	38.4%	0.0%
5 Years	23.9%	26.0%	34.7%	7.5%	5.7%	0.0%
6 Years	5.2%	4.0%	1.5%	0.0%	3.0%	0.0%
7 Years	21.9%	2.0%	1.4%	0.0%	2.6%	0.0%
Missing	7.4%	0.0%	0.0%	6.2%	5.1%	5.8%
Total	100.0%	100.0%	100.0%	100.1%	99.8%	100.0%
Weighted N	(155)	(50)	(46)	(23)	(56)	(27)

NOTE: Only a certain percentage in each class reported that such training over a year is necessary.
The percentage by sex in each class reporting that such training over a year is necessary is:

	Managers/Supervisors		Semi-Autonomous		Workers	
	Males	Females	Males	Females	Males	Females
Over 1 Year Extra Training Required	54.8%	41.3%	33.8%	22.3%	18.0%	9.2%

Source: Canadian Class Structure Data Set (Winter 1982-83)

TABLE 16

COMPLETION OF AN APPRENTICESHIP,
FULL-TIME PROGRAM IN A COMPANY TRAINING SCHOOL LASTING SIX WEEKS OR MORE,
OR TRAINING IN THE CANADIAN FORCES LEADING TO QUALIFICATION
IN A TRADE BY GENDER BY CLASS POSITION
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

Completion of Such a Program	Managers/Supervisors		Semi-Autonomous		Workers	
	Males	Females	Males	Females	Males	Females
Yes	23.4%	14.7%	26.4%	6.6%	24.2%	8.5%
No	76.6%	85.3%	73.6%	93.4%	75.8%	91.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Weighted N	(283)	(121)	(136)	(103)	(311)	(292)

Source: Canadian Class Structure Data Set (Winter 1982-83)

This evidence adds support to the argument that formal education may be less important for the kinds of occupations that men perform than it is for the kinds of occupations that women perform within each class (occupational segregation is still present within class-- see Tables K to Q in Appendix F for distribution of women and men in 27 occupational categories for each class). In conclusion, the higher rate of return to education observed for women may simply reflect the greater importance of formal education to the kinds of occupations they perform; similarly, the lower rate of return to education for men may simply reflect that training outside the formal school system may be more important in the kinds of occupations they perform.¹⁴

Industrial concentration is summarized in Table 17. Women and men appear to be concentrated in different industrial sectors. Women within all three classes are more highly concentrated in the state service sector than men (this difference is most pronounced in the working class). Men are more highly concentrated in construction, manufacturing (in most cases), communications and utilities than women. There may be industry effects on the income attainment process. The state sector, for example, may be characterized by an income determination process that is based more upon formal credentials than other sectors (this may be due to an effort to base rewards on some sort of merit scheme using formal educational credentials). Boyd and Humphreys (1979) and Denton and Hunter (1982) concluded that there is greater equality in the income attainment process within the state sector. If the state sector is characterized by an income determination process

TABLE 17
INDUSTRIAL DISTRIBUTION BY GENDER BY CLASS POSITION
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

	Man./Super.		Semi-Autonomous		Workers	
	Male	Female	Male	Female	Male	Female
1 Agriculture	.4%	.8%	0.0%	0.0%	3.7%	0.5%
2 Mining	3.9%	.8%	0.6%	0.9%	2.0%	0.0%
3 Construction	8.5%	.8%	3.6%	0.6%	10.4%	1.3%
4 Durable Mfg.	10.6%	1.6%	10.1%	0.0%	20.4%	4.9%
5 Nondurable Mfg.	13.0%	8.9%	3.2%	6.7%	19.0%	8.0%
6 Comm. & Utilities	10.9%	4.9%	4.6%	2.2%	15.0%	9.8%
7 Wholesale	7.4%	4.9%	5.3%	0.4%	3.9%	3.1%
8 Retail Trade	9.9%	13.0%	8.7%	5.8%	3.5%	9.7%
9 Business Service	7.7%	14.6%	12.3%	19.7%	2.4%	14.7%
10 Personal Service	3.5%	8.9%	4.6%	5.0%	5.6%	9.4%
11 Professional Service	1.8%	1.6%	0.0%	6.6%	0.0%	4.4%
12 State Service	22.5%	39.0%	47.0%	52.2%	14.0%	34.2%
Total	100.1%	99.8%	100.0%	100.1%	99.9%	100.0%
Weighted N	(284)	(123)	(136)	(103)	(311)	(292)

Source: Canadian Class Structure Data Set (Winter 1982-83)

that is based more upon formal education credentials and women are more highly concentrated in this sector than men (and in this sector than in any other), then the overall income determination process for women should be based proportionately more than men's upon formal education credentials.

Unionization rates are summarized in Table 18. The income determination process may be influenced by worker organizations negotiating with employers. The outcome of such negotiations may be that the income determination process will place more emphasis on factors other than formal schooling. Labour force experience and job seniority are likely to be factors that unions will want more emphasis placed upon (in most cases, men have greater returns to experience than women, although the differences are not statistically significant). Table 18 reveals that a greater percentage of men than women enjoy the benefits of a union or collective bargaining agency in each of the three main classes. If unions and collective bargaining agencies have the effect of emphasizing income-related attributes other than formal education in the income determination process, then this could contribute to the findings that men receive lower rates of return to education than women.

(B) The higher rate of return to education for women may also reflect a form of discrimination in the income attainment process. Women may be judged more upon their formal credentials than men even within the same occupation and industry. Women may be more subject to credentialism than men as a result of attitudes toward the relative desirability of women as workers vis-a-vis men. Men may

TABLE 18

UNION OR COLLECTIVE BARGAINING ASSOCIATION AT
PLACE OF WORK BY SEX BY CLASS POSITION

Union or Collective Bargaining Association	Total Man/Sup		Semi-Autonomous		Workers	
	Male	Female	Male	Female	Male	Female
Yes	62.5%	45.5%	61.3%	51.0%	69.1%	52.2%
No	37.5%	54.5%	38.7%	49.0%	30.9%	47.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
N	(283)	(121)	(137)	(104)	(311)	(291)

Note: This uses weighted N

Source: Canadian Class Structure Data Set (Winter 1982-83)

thought of as more capable and may be promoted and rewarded more for their actual job performance and assessed potential than women. According to the theory of statistical discrimination employed in dual labour market theories, women are often differentially allocated to different labour markets based upon the statistical fact of their greater labour force discontinuity (or at least, the employer's acceptance of it). Within this paradigm, women are less likely than men to be considered on the basis of personal characteristics but rather to be considered on the basis of their membership in a group which is perceived to have an undesirable trait. Documented credentials may be one of the few ways of escaping the full effects of this form of discrimination for women. Thus, education would play an important role in the income determination process of women (particularly at the higher levels) relative to other attributes. Men may be judged on a wider complement of income-related attributes (not all of them certifiable); thus, education alone would have less effect overall.

(C) Finally, it should be noted that the use of mid-point dollar values in the recoding of the income variable may have over-estimated the value of the income of women more so than that of men. It was noted in Chapter Two that there is a possibility that this might inflate the rate of return to the independent variables for women. However, the same inflation would be expected for all the independent variables; this is not observed. Although it is not possible to accurately assess how much of a threat this methodological problem poses to the overall validity of the findings,

it seems reasonable to assume that the threat, overall, is minimal (since there does not seem to be a significant inflation of the rates of return to the other independent variables for women).

Question 3: What makes the semi-autonomous class unique with respect to gender differences in rates of return to education?

In Section 3.3 it was reported that men have slightly higher rates of return to education than women (the only class in which this occurs), although the difference is not significant. How is this explained in light of the other findings? First of all, women and men in the semi-autonomous class are much more similar with respect to mean level of education, labour force experience, and occupational status (Table 1) than they are in any other class. Table P in Appendix F (introduced earlier in a footnote) also indicates that the occupational distributions of women and men within the semi-autonomous class are more similar than in any other class (over 26 percent of all men in this class are elementary, secondary, or university teachers and over 31 percent of all women fall into these occupational categories). Building upon the arguments outlined for Question 2, it may be that credentials are very important for the types of occupations both sexes perform within this class. Certification in the formal school system is certainly important for teachers at all levels (the higher the education of the teacher, the higher one might expect the level at which the teacher is employed to be--i.e., elementary, secondary, or university). In addition, if credentials are essential within this class, then there is less room for 'over-credentialism' to be applied to women. In addition, Table 17 indicates that semi-

autonomous workers of both sexes are very highly concentrated in the stated sector (47 percent of male semi-autonomous workers and 52.2 percent of female semi-autonomous workers are located in the state service sector). As explained earlier, location in the state sector may affect the income determination process such that there is an emphasis placed on formal education.

In conclusion, the semi-autonomous wage earners may differ from the other two main employee classes with respect to rates of return to education largely due to the similarity of occupational and industrial concentrations of women and men.

Question 4: Why are the differences in income level between classes not less marked for women and men in the comparison of managers/supervisors and semi-autonomous workers?

It appears that male semi-autonomous workers have income determination processes that are like male managers/supervisors than female semi-autonomous workers are like female managers/supervisors. This could be due to a variety of reasons. This could be due to a difference in the income attainment process of women and men in the semi-autonomous class, the managerial/supervisory class, or both. Since the results of the testing of Proposition 1 indicates that there remains a substantial gap in income attainment between women and men in both the managerial/supervisory class and semi-autonomous class (not different from the overall gap), it appears quite likely that there is a difference in the income attainment process of women and men in both these classes. This reflects an overall sex difference that transcends class effects. Wright's arguments that differences in the gap between classes for women and men would be based upon compositional

appears to have little, if any, grounding in this case.

Although there is some support for Proposition 3 for the comparison of managers/supervisors with workers and semi-autonomous workers with workers, there are some points which require discussion. First of all, Wright's theory behind this prediction is based upon an argument in which it is assumed that between class comparisons would result in comparing women in the managerial/supervisory class who are located at the lower levels of that class with women in the working class; men in the managerial/supervisory class are more likely to be concentrated at the upper levels, thus comparing them with male workers should result in a greater gap than that observed for women. In order to fully support this Proposition, this argument must be tested. Do women located within different levels of the managerial/supervisory hierarchy really have different income levels (i.e., would it make any difference if women weren't concentrated at the lower levels)? This question will be answered in Chapter Four.

Secondly, Wright's arguments seem to de-emphasize the fact that women in the working class may be just as subject to income inequality (being located at the lower levels) as women in the managerial/supervisory hierarchy (despite the lack of well pronounced hierarchical structures).

Thirdly, if women have less pronounced class differences than men, it may be more a factor of the overall effect of sex limiting women to a very narrow range of income possibilities than men than to compositional differences. The theory of class and income determination may simply be a more adequate model for men than women given strong sex effects which operate over and above class effects.

3.5 Conclusions from Findings

Although Wright's general theory of class and income determination is supported by these data (Assumptions 1 and 2) and women are more highly concentrated in the working class than men and men more highly concentrated than women (Assumptions 3 and 4), the four main propositions under investigation here are not, overall, supported. Gaps in income levels within the managerial/supervisory class and the semi-autonomous class (Proposition 1) remain after controlling for class (at the same level of the independent variable tested--See Appendix H for further details); although the gap in the income level between women and men in the working class seems to narrow somewhat (from the overall gap), the remaining gap is still quite substantial indicating powerful sexual inequality which knows no class boundaries.

The gaps in income between classes for female managers/supervisors and semi-autonomous workers is not less marked than that for their male counterparts, casting strong suspicion on Proposition 3. Although the difference in the female class comparisons for managers/supervisors with workers and female semi-autonomous workers with workers are slightly less marked than those for their male counterparts, Chapter Four provides evidence which seriously questions the basis of Proposition 3 as proposed by Wright. Overall, it appears that sex effects on income level attainment transcend class effects.

Not only does the difference in the rate of return to education between women and men increase when class position is controlled for (Proposition 2), but women actually have a greater rate of return to education than men in the managerial/supervisory and working classes.

This greater rate of return, however, should not be interpreted as an income advantage for women; it seems likely that it is due to occupational and industrial segregation, differential rates of unionization, and discriminatory 'over-credentialism' being applied to women. The finding that male semi-autonomous workers have greater rates of return to education than their female counterparts may be a reflection of the greater similarity of occupation, industrial, and union membership distribution and of the overall greater need for credentials within this class (leaving less room for 'over-credentialism').

Although the difference in rates of return to education in a comparison of managers/supervisors with workers and semi-autonomous workers with workers are less marked for women than men (Proposition 4), they are considerably greater for women than men in a comparison of managers/supervisors and semi-autonomous workers. It should be noted that the support found for Proposition 4 for the two class comparisons just noted is largely due to the unusually high rate of return to education for women in the working class (rather than the lower rate of return to women in the managerial/supervisory class as predicted by Wright).¹⁵ It should ~~also~~ be mentioned that occupational status mediates the effects of education for female workers such that the difference between managers/supervisors and workers is approximately the same for both women and men when all the independent variables in the expanded equation are controlled for.

Finally, further investigation is needed into the nature of the managerial hierarchy. Chapter Four explores these results in more depth by calling upon information about three detailed managerial/supervisory class positions: decision makers, advisors, and supervisors. (Also see Appendix H for cautions regarding the results exposed here.)

Footnotes

1. When looking at differences between women and men overall, only the employee labour force was considered. Self-employed individuals were excluded for a variety of reasons. As predicted by Wright (1979), education is not a significant variable in the prediction of income for the self-employed group (large and small employers and petty bourgeoisie). In fact, even the expanded income attainment model used here was a very poor predictor of income. There appears to be a fundamental difference between this group and the employee labour force (as predicted by Wright). Inclusion of this group would likely distort or mask certain patterns common to those who sell their labour power to others. The greater concentration of men than women in these self-employed classes might also mask gender differences. References are made to this group in footnotes as a matter of interest and tables pertaining to these groups are located in Appendix F. Table C (in Appendix F) summarizes the means and standard deviations for this group. The same relative situation with regard to average levels of income and the independent variables is found within these classes as that discussed for the employee labour force. It is interesting to note the extremely high average incomes of the large and small employers (Wright predicted that this group would have the highest income levels by far).
2. Table D in Appendix F summarizes the percentage distribution of women and men by class position within the various income categories (recoded at the mid-point value). This table splits the managerial/supervisory class into three detailed position for greater detail. The information summarized in this table can be used to supplement the results for mean income levels discussed in Chapter 3. A brief overview of this table indicates that in all class women are more concentrated at the lower income levels and less concentrated at the upper income levels (in most cases they are virtually absent from levels of \$62500 and greater). It is also evident in Table D that women are more concentrated at low mid-range levels of income and men are more concentrated at high mid-range levels of income. This is constant across class. With regard to class differences, a brief assessment of Table D indicates that the working class (both sexes) are concentrated more at the lower income levels than the other classes. The highest income levels are found among the decision-makers (at the top of the managerial hierarchy). Next to this group are the semi-autonomous workers (followed by the advisors and supervisors).

3. It is interesting to note that the standard deviation for men is also higher than for women, indicating that men are distributed more throughout a greater range of education levels than women. Table E in Appendix F summarizes the educational distribution of women and men within class positions (splitting the managerial supervisory class into three detailed positions). It appears that while there are more men at the very low levels of education (than women), there are also more men than women at the very high levels of education (except for the managerial classes of decision makers and supervisors). This is quite consistent with past findings that more women than men finish high school, but fewer women pursue post-secondary education than men (Govder, 1981:337; and Boyd, 1982:21).
4. The lower average levels of experience for women might be explained in a variety of ways. One of the most obvious explanations is the fact that women in this sample (after the selection process described in Chapter 2) are, on average, younger than men (by three to four years). Tables F and G in Appendix F summarize some relevant information. Table G indicates the mean age (standard deviation) for women and men within each class position (the managerial supervisory class being split into three detailed categories). Table F summarizes the number of years in present job (this is based on a smaller number of cases since those who changed jobs since 1981 must be excluded for this). Men also appear to have been in their present job a lot longer than women (this is most noticeable in the decision making managers' position--perhaps indicating that women are recent arrivals to this upper level of management). This lower level of tenure may be a reflection of the greater labour force discontinuity of women. The fact that the women in the sample are younger than men, on average, may also be due to the selection process. Older women may be more likely to have been employed part-time or not employed at all (Boyd, 1985, has noted that older women in Canada have longer and more frequent periods out of the labour force than younger women). The lower level of experience found for women may also be, in part, due to the greater labour force discontinuity of women.
5. Tables H and I in Appendix J also summarize this information. For more precision involving the exact value of the mean income and information regarding standard deviation, see Tables H and I.
6. Table J in Appendix F summarizes the regression information for the expanded equation for the self-employed and for all classes (including the self-employed). The expanded regression equations appear to be very poor predictors of income for the self-employed (very low R^2 and most R^2 are not statistically significant). Of some surprise is the significance of education in the model for large and small employers of both sexes (however, the number of cases involved here are so low, especially for women, that these results may not be reliable). This suggests that there may be some connection between education and amount of capital control. Education is not significant for the petty bourgeoisie, for whom the expanded model does not seem to fit at all.

7. The predicted income gap (using expanded regression equation) is totally dependent upon the point at which it is evaluated. The gaps reported in Table 4 are calculated at the grand mean of the independent variables in the employee classes (this follows Wright's work). However, it must be stressed that for some comparisons, this may not be the best point of evaluation. The mean levels of the independent variables for males in the managerial/supervisory class and semi-autonomous class are higher, overall, than the grand mean. A more appropriate point of evaluation would be at higher levels of these variables. Appendix H summarizes three points of evaluation of the income gap: low, medium, and high. At the high level of evaluation (which is more meaningful for this particular comparison), the gap in income between male managers/supervisors and male semi-autonomous workers is actually about 11 to 12 percent (which means they are fairly different).
8. As noted in footnote 1, the self-employed group is eliminated from the primary analysis. In addition to there being too few women located here to allow for meaningful comparisons, the inclusion of these classes does not really make sense theoretically (the income of the self-employed is derived from control over money capital; the problem at hand involves differences in the way women and men are rewarded when they sell their labour power). As noted in footnote 6, the regression models estimated for these classes₂ (Table J in Appendix F) are very poor predictors of income (R^2 not statistically significant). If we examine the income gap for the self-employed and for all classes (including the self-employed), however, some interesting results are found which deserve some attention. Female mean income as a percentage of male mean income (from Table C) for this group is:

Large and Small Employers:	72.42%
Petty Bourgeoisie:	41.00%
All Classes (Employee and Self-Employed):	60.61%

Women appear to be least disadvantaged in the large and small employers' classes; however, since there are only seven women located here (compared with 46 men), these results may not be all that reliable. Women appear to be most disadvantaged in the petty bourgeoisie (even compared with the employee classes). If all classes (employee and self-employed) had been used as the base comparison instead of all employee classes in the presentation of results in Section 3.3, the overall findings would not have changed much (female mean income as a percentage of male mean income for all employee classes is 63.43 percent while it is 60.61 percent for all classes); the difference is mostly attributable to the gross inequality found in the petty bourgeoisie. It would make little sense to calculate the income gap using the expanded model for the self-employed groups since₂ this model explains very little, if any, of the variance in income (R^2 not significant).

9. Appendix H reveals that the same relative results are found by evaluating the gap at the low and high levels of the independent variables.
10. In a case where workers and semi-autonomous workers are considered as one class, the overall relationship between women and men with respect to rate of return to education will be based proportionately

more upon that found in the working class (where women have greater rates of return); in addition, since the difference between the sexes with respect to rates of return to education are much more pronounced in the working class (where women have greater rates), it is expected that the greater rates of return to women in the working class would outweigh the greater rates of return to men in the semi-autonomous class even if the number of workers equaled the number of semi-autonomous workers. Both these arguments considered together suggest that Wright's inability to separate semi-autonomous workers from workers is not at the heart of the differences found in this study and Wright's (1979).

11. It is the inclusion of occupational status and not the experience related variables that causes the reduction in the education coefficient from the simple model to the expanded model. Separate regression equations run on an expanded model not including occupational status revealed that the education coefficient remains virtually unchanged by the addition of the three experience related variables to the simple model alone.
12. The percentage difference between two classes can be calculated in two ways: (1) Taking the value of the difference in slopes between the two classes as a percentage of the value of the slope of the class first named in the comparison (typically the class with the highest slope); and (2) subtracting the percentage shown in the table from 100 (this percentage represents the slope of the class named second in the comparison, typically the lowest slope, as a percentage of the slope of the class named first in the comparison, typically the highest slope).
13. Tables K to Q in Appendix F reveal the distribution of women and men throughout 27 more detailed occupational categories for all detailed class positions (managers/supervisors are split into decision makers, advisors, and supervisors for more detail). Table M (decision makers), Table N (advisors), and Table O (supervisors) reveal that even within these managerial/supervisory positions, men are still fairly concentrated in craft occupations and foremen's jobs and women are still concentrated in secretarial and other clerical occupations. Table P indicates that male and female semi-autonomous workers are highly concentrated in teaching occupations (elementary and secondary school); although the distributions of women and men are not identical within the semi-autonomous class, they are more similar in this class than in any other. Finally, Table Q shows the distributions in the working class; men are highly concentrated in crafts (23.6 percent), transportation (11.4 percent), operatives (13.2 percent), and labourers (15.2 percent), while women are highly concentrated in secretarial (18 percent) and other clerical (34.8 percent) occupations.
14. Although it was noted in Chapter Two that the educational scale chosen (from Boyd and Humphreys, 1979) often seems to pick up some training outside the formal school system (completion of trades schools, etc.), it is doubtful that it could properly reflect the true extent of such training overall.

15. Gunderson (1982) found that for educational levels above high school, women show greater rates of return to education. However, for educational levels below high school, men show greater rates of return to education than women. In an effort to pursue this line of investigation, separate regressions were run for two levels of education: (1) high school or less; and (2) more than high school. Unfortunately the number of cases is often too low to be meaningful and most of the differences found are not significant (too few cases and standard errors too high). For those with high school or less, female managers/supervisors seem to have a much lower rate of return to education than men; in fact, female managers/supervisors have a negative rate of return to education which is not easily explainable or statistically significant (55 women in this group). Female workers in this high school or less group have higher rates of return to education than men (not significant); female semi-autonomous workers have higher rates of return to education than men (men actually have negative rates of return). For those with more than high school, the situation is very similar to the one found in this chapter overall (only differences are not significant). This suggests that the relationships noted in this chapter may apply more to those with higher educations. The graphs of mean income by educational level (Figures 2 to 5) also suggest that in some cases the relationship between income and education may be slightly different at lower levels of education than it is at higher levels. The regression information for these two levels of education is summarized in Table R and Table S in Appendix F.

CHAPTER FOUR.

FINDINGS: A CLOSER LOOK AT MANAGERS/SUPERVISORS (DECISION MAKERS, ADVISORS, AND SUPERVISORS)

Introduction

As explained in Chapter One, Wright's theory of class and income determination assumes that within the managerial/supervisory class there is an authority hierarchy characterized by steep income gradients. In his analysis of gender differences, however, Wright was unable to examine specific positions within this hierarchy (due to data-set limitations); he noted that the utility of his theory in explaining gender differentials for "actual positions within the managerial structure" remained "to be shown" (Wright, 1979:216). The Canadian Class Structure Data Set provides an opportunity to examine these specific positions and add to the findings discussed in Chapter 3. Unfortunately, the case numbers are very low for some groups (male and female advisors in particular) and the findings are presented here with a note of caution. Most of the discussion will center on decision makers and supervisors (the top and bottom of the hierarchy), since the case numbers for both sexes are very low in the advisory positions.¹ However, despite the problems with advisors, the findings for decision makers and supervisors suggest some interesting relationships.

Table 19 summarizes the means (standard deviations) of the variables used in the expanded model for decision makers, advisors, and supervisors (compare with Table 1 in Chapter Three which summarizes the same information for the three main classes).

TABLE 19

MEANS AND STANDARD DEVIATIONS OF VARIABLES USED IN EXPANDED REGRESSION EQUATION,
BY GENDER BY CLASS POSITION (CANADIANS WORKING 30 HOURS PER WEEK OR MORE)
FOR DECISION-MAKING MANAGERS, ADVISOR MANAGERS, AND SUPERVISORS

	Decision Makers		Advisors		Supervisors	
	Male	Female	Male	Female	Male	Female
1981 Income	\$37664.80 (19225.57)	\$24229.81 (13358.23)	\$28040.89 (12144.67)	\$21274.65 (10477.96)	\$25584.59 (13852.34)	\$18987.60 (10880.95)
Education	14.12 (3.23)	14.31 (2.77)	12.98 (3.39)	12.63 (2.13)	11.64 (2.78)	12.90 (2.29)
Blisshen Points	58.34 (12.04)	59.66 (12.36)	55.03 (14.37)	54.48 (11.63)	46.22 (14.02)	49.57 (11.85)
Experience	22.12 (11.58)	14.30 (8.17)	20.44 (13.52)	16.60 (9.99)	19.20 (12.28)	16.17 (9.68)
Experience ²	622.46 (553.55)	269.67 (335.61)	592.72 (638.94)	369.57 (382.70)	518.03 (557.30)	353.62 (388.14)
Times Unemployed	.85 (2.18)	.44 (.90)	1.60 (3.01)	.40 (.60)	1.33 (2.19)	1.40 (3.02)
Weighted N	147	46	24	17	107	57

Source: Canadian Class Structure Data Set

TABLE 20
SIMPLE MODEL OF INCOME ATTAINMENT (UNSTANDARDIZED REGRESSION COEFFICIENTS AND STANDARD ERRORS) BY
GENDER FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE FOR
DECISION MAKERS, ADVISORS, SUPERVISORS

	Intercept	Education	R^2 (Adj. R^2)	N
<u>Decision Makers</u>				
Males	11800.70	1823.74*	.09371*	149
S.E.	(6769.78)	(467.79)	(.08754)	
t-value	1.743	3.899		
Females	-14202.98	2686.71*	.31084*	46
S.E.	(8784.13)	(603.09)	(.29518)	
t-value	-1.617	4.455		
<u>Advisors</u>				
Males	28362.13*	-88.24	.00061	26
S.E.	(9628.24)	(730.95)	(.04103)	
t-value	2.946	-.121		
Females	-25757.76*	3725.26*	.57126*	17
S.E.	(10659.97)	(833.28)	(.54268)	
t-value	-2.416	4.471		
<u>Supervisors</u>				
Males	10180.05	1318.47*	.07014*	108
S.E.	(5586.48)	(466.27)	(.06137)	
t-value	1.824	2.828		
Females	-15868.32*	2707.57*	.32793*	58
S.E.	(6776.08)	(517.96)	(.31593)	
t-value	-2.342	5.227		

Source: Canadian Class Structure Data Set (Winter 1982-83)

Follows selection process described in Chapter 2 and listwise deletion of missing cases

* Significant at .025 level or better

TABLE 21

EXPANDED MODEL OF INCOME ATTAINMENT (UNSTANDARDIZED REGRESSION COEFFICIENTS AND STANDARD ERRORS)
BY GENDER FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE FOR
DECISION MAKERS, ADVISORS, SUPERVISORS

	Intercept	Education	Exper.	Exper. ²	Times Unemp.	Occ. Status	R ² (Adj. R ²)	N
Decision Makers								
Males	-21360.70*	1883.41*	1457.65**	-20.50	-1161.35	239.05	.25254*	147
S.E.	(9857.02)	(589.96)	(539.41)	(11.13)	(656.08)	(149.14)	(.22604)	
t-statistic	-2.167	3.192	2.702	-1.841	-1.770	1.603		
Females	-25868.36*	2207.75*	1629.73*	-33.77*	-1745.99	85.73	.46767*	46
S.E.	(9747.71)	(675.13)	(627.49)	(15.07)	(1852.45)	(154.00)	(.40113)	
t-statistic	-2.654	3.270	2.597	-2.241	-.970	.557		
Advisors								
Males	4863.51	184.39	650.53	-5.94	84.00	197.46	.23071	24
S.E.	(16680.16)	(922.79)	(967.01)	(20.92)	(1015.00)	(191.92)	(.01702)	
t-statistic	.292	.200	.673	-.284	.083	1.029		
Females	-34135.48*	3934.39*	128.52	2.83	1415.41	36.59	.62651*	17
S.E.	(13991.30)	(1618.83)	(964.77)	(26.15)	(4058.80)	(270.75)	(.45674)	
t-statistic	-2.440	2.430	.433	.108	.349	.135		
Supervisors								
Males	-6277.40	234.07	1151.37*	-21.98*	-94.60	401.19*	.35027*	107
S.E.	(5856.77)	(476.29)	(355.96)	(7.71)	(533.92)	(101.50)	(.31810)	
t-statistic	-1.072	.491	3.235	-2.85	-.177	3.953		
Females	-43008.57*	2706.44*	1508.97*	-30.32*	53.74	268.62*	.57294*	57
S.E.	(7747.52)	(506.28)	(436.33)	(10.81)	(334.05)	(91.98)	(.53107)	
t-statistic	-5.551	5.346	3.458	-2.805	.161	2.920		

Source: Canadian Class Structure Data Set (Winter 1982-83)

Follows selection process described in Chapter 2 and listwise deletion of missing cases

* Significant at .03 level or better

In general, mean level of education, mean income, and mean occupational status for both women and men rise steadily for each level within the managerial hierarchy, as expected. Table 20 summarizes the simple regression equations for the three detailed classes; Table 21 summarizes the expanded models. Many of the tables presented throughout this chapter are derived from the basic information summarized in Tables 20 and 21.

This chapter is divided in three sections. In Section 4.1, Assumptions 1 and 2 are discussed (no new evidence concerning Assumptions 3 and 4 is presented here); a closer look at the positions within the managerial/supervisory class adds to the findings exposed in Chapter Three. In Section 4.2, Propositions 1 through 4 are examined with respect to what new information is provided by bringing detailed class positions within the managerial/supervisory class into the analysis. Finally, Section 4.3 provides an overall view of how this 'closer look' at managers/supervisors can improve our understanding of the findings discussed in Chapter Three.

4.1 The Assumptions

In Chapter Three it was noted that some support was found for Wright's general theory of class and income determination; specifically, the following assumptions, stated briefly, were upheld by the findings:

Assumption 1: The level of income between classes should differ.

Assumption 2: The rate of return to education should be significantly different between classes.

Do these assumptions apply to specific class positions within the managerial hierarchy? According to Wright's arguments, the level of income and rate of return to education should be higher in the

the decision makers' group (at the top of the hierarchy) than in the supervisory group (at the bottom of the hierarchy).

Assumption 1 is supported within the managerial/supervisory class for males only. Table 22 summarizes the information concerning gaps in income between specific class positions for both sexes. At this point, only the second comparison group (decision makers with supervisors) is relevant. For males, the gap in mean income (this does not control for level of education, experience, occupational status, number of times unemployed) between decision makers and supervisors is quite substantial; the mean income of supervisors is only 67.93 percent of that of decision makers (males only). Controlling for differences in level of education, experience, occupational status, and number of times unemployed, the gap narrows by about 24 percent (column 2, Table 22). The predicted income of male supervisors is 92.36 percent of that of male decision makers (at the same level of education, experience, etc.). While this suggests that much of the gap may be due to differences in income-related attributes (since controlling for the level of these attributes narrows the gap considerably), it also supports Assumption 1. A slightly different situation is found for females however. Returning to Table 22 (column 3) we can see that the mean income of female supervisors is 78.36 percent of that of female decision makers, offering initial support for Assumption 1. However, when the gap is evaluated at the same level of education, experience, occupational status, and number of times unemployed (column 4, Table 22), female supervisors have a predicted income that is 97.57 percent of that of female decision makers. This suggests that much of the difference in mean incomes

TABLE 22
GAPS IN INCOME BETWEEN CLASS POSITIONS WITHIN SEX CATEGORIES
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE
(DECISION MAKERS, SUPERVISORS, WORKERS)

	Males		Females	
	Mean Gap Difference (1)	Expanded Model Gap (2)	Mean Gap Difference (3)	Expanded Model Gap (4)
1. Supervisors - Workers Workers as % of Supervisors	\$ 5243.97 79.50%	\$ 3229.87 87.48%	\$ 5065.76 73.32%	\$ 827.18 94.95%
2. Decision Makers - Supervisors Supervisors as % of Decision Makers	\$12080.20 67.93%	\$ 2132.32 92.36%	\$ 5242.21 78.36%	\$ 407.22 97.57%
3. Decision Makers - Workers Workers as % of Decision Makers	\$17324.18 54.00%	\$ 5362.19 80.80%	\$10307.97 57.46%	\$1234.40 92.65%

Source: Canadian Class Structure Data Set (Winter 1982-83)

Follows selection process described in Chapter 2

Mean Gap Difference: difference in mean incomes for comparison groups

Expanded Model Gap: The predicted income gap using the expanded model evaluated at the grand mean for the employee classes where:

Education = 12.51; Blishen Score = 47.70; Experience = 16.58;
Experience² = 407.96; Times Unemployed = 1.28

between these two groups (female supervisors and female decision makers) can be accounted for by differences in level of education, experience, occupational status, and number of times unemployed; this does not support Assumption 1. (See Appendix H for further details.)

Assumption 2 is also supported for males within the managerial/supervisory hierarchy (in the expanded model) but not for females. Table 23 summarizes class differences in returns to education using the simple model for women and men. (Only the second comparison group is relevant at this point.) Male supervisors have a rate of return to education that is 72.29 percent of that of male decision makers (although this difference is not statistically significant). Females supervisors, however, have a rate of return to education that is nearly the same (101 percent) as that of female decision makers. Table 24 reveals that even when the other independent variables are controlled for, female supervisors still receive roughly the same rate of return to education that female decision makers do (actually they receive 122.59 percent more according to the expanded model—but this is not statistically significant). Males, however, are quite different. Table 25 reveals that, when the other variables are controlled for in the expanded model, male decision makers have significantly higher rates of return to education than male supervisors (male supervisors have a slope value that is only 12.43 percent of that of decision makers). The great increase in the difference between supervisors and decision makers for males from the simple model to the expanded model appears to be due to the mediating effects of occupational status within the supervisory group for males (education is important to male supervisors in that it helps them to

TABLE 23

CLASS DIFFERENCES IN RETURNS TO EDUCATION IN THE SIMPLE MODEL
OF INCOME ATTAINMENT (t-VALUE FOR DIFFERENCES IN COEFFICIENTS)
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

Class Comparison	Males		Females	
	Intercept	Education	Intercept	Education
	(1)	(2)	(3)	(4)
1. Supervisors -	10180.05	1318.47	-15868.32	2707.57
Workers	<u>14992.58</u>	<u>468.05</u>	<u>22.37</u>	<u>1154.11</u>
Difference	<u>-4812.53</u>	<u>850.42</u>	<u>-15845.95</u>	<u>1553.46</u>
t-value		1.734		2.851*
Workers as %		35.50%		42.63%
of Supervisors				
2. Decision Makers-	11800.70	1823.74	-14202.98	2686.71
Supervisors	<u>10180.05</u>	<u>1318.47</u>	<u>-15868.32</u>	<u>2707.57</u>
Difference	<u>1620.65</u>	<u>505.27</u>	<u>1665.34</u>	<u>-20.86</u>
t-value		-0.765		.026
Supervisors as		72.29%		101.00%
% of Dec. Makers				
3. Decision Makers-	11800.70	1823.74	-14202.98	2686.71
Workers	<u>14992.58</u>	<u>468.05</u>	<u>22.37</u>	<u>1154.11</u>
Difference	<u>-3191.88</u>	<u>1355.69</u>	<u>-14225.35</u>	<u>1532.60</u>
t-value		2.756*		2.447*
Workers as %		25.66%		42.96%
of Dec. Makers				

Source: Canadian Class Structure Data Set (Winter 1982-83)
Follows selection process described in Chapter 2

* Significant at .01 level

TABLE 24
CLASS DIFFERENCES IN RETURNS TO VARIABLES IN THE EXPANDED MODEL OF INCOME ATTAINMENT
(t-VALUE FOR DIFFERENCES IN COEFFICIENTS)
FOR CANADIAN FEMALES WORKING 30 HOURS PER WEEK OR MORE

	Intercept	Education	Exper.	Exper. ²	Times Unempl.	Occ. Status
1. Supervisors						
Workers	-43008.57	2706.44	1508.97	-30.32	53.74	268.62
Difference	-5667.69	647.64	305.69	-.46	-443.98	210.28
t-value	37340.88	-2058.80	-1203.28	29.86	-497.72	58.34
Workers as % of Supervisors	-3.833*	-2.650*	2.634*	ns	ns	ns
		23.93%				
2. Decision Makers						
Supervisors	-25868.36	2207.75	1629.73	-33.77	-1795.99	85.78
Difference	-43008.57	2706.44	1508.97	-30.32	53.74	268.62
t-value	-17140.21	498.69	-120.76	3.45	1849.73	182.84
Supervisors as % of Decision Makers	ns	122.59	ns	ns	ns	ns
3. Decision Makers						
Workers	-25868.36	2207.75	1629.73	-33.77	-1795.99	85.78
Difference	-5667.69	647.64	305.69	-.46	-443.98	210.28
t-value	20200.67	-1560.11	-1324.04	33.31	1352.01	124.50
Workers as % of Decision Makers	-2.233*	-2.069*	2.156*	ns	ns	ns
	29.33%					

Source: Canadian Class Structure Data Set (Winter 1982-83)
Follows selection process described in Chapter 2

Note: Advisors are not singled out for separate analysis as the other two components of the managerial/supervisory class are due to the extremely low numbers of respondents.

* Significant at .025 level or better

TABLE 25
CLASS DIFFERENCES IN RETURNS TO VARIABLES IN THE EXPANDED MODEL OF INCOME ATTAINMENT
(t-VALUE FOR DIFFERENCES IN COEFFICIENTS)
FOR CANADIAN MALES WORKING 30 HOURS PER WEEK OR MORE

	Intercept	Education	Exper.	Exper. ²	Times Unempl.	Occ. Status
1. Supervisors						
Workers	-6277.40	234.07	1151.37	-21.98	-94.60	401.19
Difference	4683.32	310.50	559.90	-9.83	87.73	180.43
t-value	10960.72	76.43	591.47	12.15	182.33	220.76
Workers as % of Supervisors		ns	ns	ns	ns	1.942
		132.65%				
2. Decision Makers						
Supervisors	-21360.70	1883.41	1457.65	-20.50	-1161.35	239.05
Difference	-6277.40	234.07	1151.37	-21.98	-94.60	401.19
t-value	15083.30	-1649.34	-306.28	-1.48	1066.75	162.14
Supervisors as % of Decision Makers		-2.17*	ns	ns	ns	ns
		12.43%				
3. Decision Makers						
Workers	-21360.70	1883.41	1457.65	-20.50	-1161.35	239.05
Difference	4683.32	310.50	559.90	-9.83	87.73	180.43
t-value	26044.02	-1572.91	-897.75	10.67	1249.08	58.62
Workers as % of Decision Makers		-2.543*	n	n	1.856	n
		16.49%				

Source: Canadian Class Structure Data Set (Winter 1982-83)

Follows selection process described in Chapter 2

Note: 'Advisors are not singled out for separate analysis as the other two components of the managerial/supervisory class are due to the extremely low numbers of respondents

*Significant at .025 level or better

attain a more favourable occupational status which, in turn, helps them to attain higher income returns).

In conclusion, Wright's general theory seems to be supported for males within the managerial/supervisory hierarchy (higher levels of income and greater rates of return to education are found at the top), but it does not seem to apply to females. The overall level of income for females within the hierarchy appears to differ mostly as a result of differences in income-related attributes, and there is no significant difference in the rate of return to education for female decision makers and supervisors (in fact, female supervisors have a slightly higher rate which is not statistically significant).

4.2 The Propositions

In Chapter Three it was noted that, overall, the propositions were not supported; the effect of sex on the income attainment process seems to transcend class effects. These findings can be added to by examining the detailed managerial/supervisory class positions as follows.

Proposition 1: Any gap in the level of income between women and men overall should disappear when class position is held constant.

Table 26 summarizes the information regarding gaps in income between females and males within each of the detailed managerial/supervisory class positions (as well as for all employee classes and all managers/supervisors together for ease of comparison). Column 2 (Table 26) indicates that when level of education, experience, occupational status, and number of times unemployed is held constant (at the grand mean for the employee classes), the predicted gap in income level between women and men within the decision makers' class

TABLE 26

GAPS IN INCOME BETWEEN MALES AND FEMALES WITHIN CLASSES
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE
(DECISION MAKERS, ADVISORS, SUPERVISORS)

Class Position	Sex Diff. in Mean Income	Sex Diff. in Predicted Income
	(1)	(2)
All Employee Classes		
Females as % of Males	\$ 9716.81 63.43%	\$ 9516.90 63.56%
Managers/Supervisors (Total Class)	\$10852.72 66.27%	\$10440.52 62.04%
Decision Makers		
Females as % of Males	\$13434.99 64.33%	\$11134.03 60.12%
Advisors		
Females as % of Males	\$ 6766.24 75.87%	*
Supervisors		
Females as % of Males	\$ 6596.99 74.21%	\$ 9408.92 63.52%

Source: Canadian Class Structure Data Set (Winter 1982-83)
Follows selection process described in Chapter 2

* Not predicted for advisors since the model of income attainment for men is inadequate (use of the mean is preferable).

Sex Differences in Mean Income: male mean income - female mean income

Sex Differences in Predicted Income: The predicted income gap using the expanded model evaluated at the grand mean for the employee classes where:
Education = 12.51; Blisshen = 47.7; Experience = 16.58;
Experience = 407.96; Times Unemployed = 1.28

is just slightly greater than that between women and men in the entire managerial/supervisory class and for all employee classes overall (females have a predicted income that is 60.12 percent of that of males in the decision makers' class). Even the gap in mean income (column 1, Table 26) indicates that the gap in income is not reduced (slightly increased actually) within the decision makers' class. Although the gap in mean income suggests that the gap does narrow within the supervisors' class (women are 74.21 percent of men), the predicted income gap (column 2, Table 26) reveals that female supervisors have a predicted income that is 63.52 percent of that of males; this is virtually the same as the gap for all employee classes together and very similar (within two percent) to the gap for all managers/supervisors.² (See Appendix H for further details regarding evaluation of predicted gap at different values of the independent variables.) This adds to the evidence exposed in Chapter Three which suggests that sex effects on the income attainment process transcend class effects.

Proposition 2: Any difference in the rate of return to education between women and men overall should disappear when class position is held constant.

Table 27 summarizes gender differences in the rates of return to education in the simple model. The results follow the same pattern that was found for the three main classes in Chapter Three, women have

TABLE 27.

GENDER DIFFERENCES IN RATES OF RETURN TO EDUCATION IN THE SIMPLE
MODEL OF INCOME ATTAINMENT (t-VALUE FOR DIFFERENCES IN COEFFICIENTS)
FOR DECISION MAKERS, ADVISORS, SUPERVISORS
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

<u>Class Position</u>	<u>Intercept</u>	<u>Education</u>
	(1)	(2)
<u>All Employee Classes:</u>		
Males	6364.00**	1625.87**
Females	-7159.14**	1883.30**
Difference in Coefficients	13523.14**	-257.43
t-value	5.113	1.251
Female b_1 as % of Male b_1		115.83%
<u>All Managers/Supervisors:</u>		
Males	7166.54	1904.45**
Females	-16409.08**	2818.64**
Difference in Coefficients	23575.62**	-914.19*
t-value	3.806	2.000
Female b_1 as % of Male b_1		148.00%
<u>Decision Makers:</u>		
Males	11800.70	1823.74**
Females	-14202.98	2686.71**
Difference in Coefficients	26003.68*	-862.97
t-value	2.345	1.131
Female b_1 as % of Male b_1		147.30%
<u>Advisors:</u>		
Males	28362.13*	-88.24
Females	-25757.76*	3725.26**
Difference in Coefficients	54119.89*	-3813.50**
t-value	3.768	3.440
<u>Supervisors:</u>		
Males	10180.05	1318.47*
Females	-15868.32*	2707.57**
Difference in Coefficients	26057.37*	1389.10*
t-value	2.967	1.993
Female b_1 as % of Male b_1		205.36%

Source: Canadian Class Structure Data Set (Winter 1982-83)
Follows selection process described in Chapter 2

* Significant at .05 level

** Significant at .01 level or better

TABLE 28
GENDER DIFFERENCES IN RETURNS TO VARIABLES IN THE EXPANDED MODEL OF INCOME ATTAINMENT
(t-VALUE FOR DIFFERENCES IN COEFFICIENTS)
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE FOR
DECISION MAKERS, ADVISORS, SUPERVISORS

	Intercept	Education	Exper.	Exper. ²	Times Unemp.	Occ. Status	R ² (Adj. R ²)	N
Decision Makers								
Males	-21360.70*	1883.41*	1457.65*	-20.50	-1161.35	239.05	.25254*	147
Females	-25868.36*	2207.75*	1629.73*	-33.77*	-1795.99	85.78	.46767*	46
Diff. in Coefficient	-4507.66	324.34	172.08	-13.27	-1679.64	-153.27		
t-value	-.325	.362	.208	-.708	-.855	-.715		
Advisors								
Males	4868.51	184.39	650.53	-5.94	84.00	197.46	.23071	24
Females	-34135.48*	3934.39*	128.52	2.83	1415.41	36.59	.62651*	17
Diff. in Coefficient	-39003.99	3750.00*	-522.01	-8.77	1331.41	-160.87		
t-value	-1.792	2.012	-.382	.262	.318	-.485		
Supervisors								
Males	-6277.40	234.07	1151.37*	-21.98*	-94.61	401.19*	.35027*	107
Females	-43008.57*	2706.44*	1508.97*	-30.32*	53.74	268.62*	.57294*	57
Diff. in Coefficient	-36731.17*	2472.37*	357.6	-8.34	148.34	-132.57		
t-value	-3.782	3.557	.818	-.628	.236	-.968		

Source: Canadian Class Structure Panel Study (Winter 1972-73)

Follows selection process described in Chapter 2 and lists deletion of missing cases
* Significant at .03 level or better

higher rates of return to education than men (significant only in the supervisory class position); not only do the differences in the rates of return not disappear, they seem to increase within the detailed classes. Table 28 summarizes the same information for the expanded model with the same results (only the greater rate of return to education for women in the supervisory class position is even more pronounced when the other independent variables are controlled for).³

In conclusion, women consistently receive higher rates of return to education within the detailed managerial/supervisory class positions; these higher rates are most pronounced for supervisors.

Proposition 3: Differences in the level of income between classes for women should be less marked than those for men.

Wright (1979) maintained that since women are concentrated at the lower level of the managerial/supervisory hierarchy, their income level will be based proportionately more on that which characterizes these lower levels; men, however, would have income levels within this class that are higher than women overall because they are more highly concentrated at the upper levels than women. Therefore, the gap between this class and the working class would be less for women than men due to these compositional differences. Although it was established in Chapter Three that women are, indeed, more highly concentrated in the supervisory class position than men (and men more highly concentrated in the decision making class than women), these compositional differences could not be responsible for the differences in income level between classes being less marked for women than men (although they are only slightly less marked for these data, as noted in Chapter Three). The following discussion explains why.

Returning to Table 22 (page 145), three class comparisons are displayed for income levels of women and men. Comparison 2 (Table 22) reveals that when the income gap between decision makers (at the top of the hierarchy) and supervisors (at the bottom of the hierarchy) is predicted using the expanded equation (evaluated at the grand mean of the employee classes for each independent variable), female supervisors have a predicted income that is 97.57 percent of that of female decision makers (less than three percent difference). It would appear that there is very little difference in income levels between the supervisors' class and the decision makers' class for women. (As revealed in Appendix H, when the predicted income gap is evaluated at a high level for each of the independent variables, female supervisors actually have higher predicted incomes than decision makers.) If women were just as concentrated in the decision makers' class position as men, the findings outlined in Table 22 suggest that very little would change in the findings for Proposition 3 as revealed in Chapter Three. Wright assumed that within the managerial/supervisory hierarchy there would be steep gradients in income and rates of return to education as one moves up the ladder. This assumption seems to be supported for men (who display differences between predicted income for supervisors and decision makers), but not for women (as noted under Assumption 1 in Section 4.1). It appears that women in the decision making class position have a mean income advantage over women in the supervisory class position because they possess different income-related attributes and not from vastly different income attainment processes (note in Table 24 that there are no significant differences between any of the

coefficients in the comparison of these classes for women). Compositional differences within the managerial/supervisory class, therefore, cannot be used to explain the overall lower income of women within that class (and, consequently, the less marked differences between income in different class comparisons for women).

Table 22 also shows the direct comparison of supervisors' income with workers' income (comparison 1). The difference in the predicted income gap between supervisors and workers for women (column 4) is less marked than that for men (column 2). This suggests that the range of incomes is simply smaller for women than men, regardless of class differences. Even if men were just as concentrated in the lower levels of the managerial/supervisory class (supervisors) as women, the results for the testing of Proposition 3 would not change overall (the differences in income between classes for women would still be less marked than for men). Thus, while there may have been some slight support for Proposition 3 in Chapter Three, it should be noted that the argument put forth by Wright regarding Proposition 3 is highly questionable in view of the findings exposed in this chapter.

In conclusion, the theory of class and income determination posed by Wright seems to be more useful in the study of males than females. Sexual inequality in income levels does not appear to be a result of compositional differences. Sex effects on the income determination process seem to transcend class effects such that women have a very narrow range of income possibilities, regardless of class (this is why class differences in income levels are less marked for women than men).

Proposition 4: Differences in the rate of return to education between classes for women should be less marked than that for men.

Chapter Three revealed that the difference in the rate of return to education between managers/supervisors and semi-autonomous wage earners is less marked for men than for women; while the differences in the rate of return to education in the comparisons of managers/supervisors with workers and semi-autonomous workers with workers are less marked for women than for men (supporting Proposition 4). However, the argument posed by Wright to explain this phenomenon is extremely flawed. As explained, the greater similarity between classes for the rate of return to education for women than men hinges upon compositional differences within the managerial/supervisory hierarchy. It is assumed that the rate of return to education is greater for those in the upper levels of the managerial/supervisory hierarchy (decision makers) than those in the lower levels (supervisors); since women are more highly concentrated in the lower levels (supervisors), it is further assumed that female managers/supervisors overall would have lower rates of return to education than men; thus, the difference in rate of return to education between this class and the others should be less marked. Table 23 (column 4, comparison 2) reveals, however, that the partial support found for Proposition 4 in Chapter Three cannot be due to compositional differences (although these compositional differences do exist). Female supervisors have a rate of return to education that is almost identical with that of female decision makers (actually one percent higher); thus, it would make no difference if women were to be equally distributed throughout the hierarchy with men.

Comparison 1 in Table 23 indicates that the difference in the rate of return to education between supervisors and workers is less marked for women than for men; comparison 3 in Table 23 indicates that the difference in the rate of return to education between decision makers and workers is also less marked for women than for men. This suggests that it does not matter what the distribution of women is like within the managerial/supervisory hierarchy, class differences are less marked for women than men. The range of possible rates of return to education is simply smaller for women than men; this is largely due to unusually high rates of return to education for women in all classes. Males fit Wright's model better than women do.

4.3 Overview of the 'Closer Look'

This 'closer look' at the managerial/supervisory class adds to the findings revealed in Chapter Three. The important information may be summarized into three points as follows:

(1) The Income Gap and Sex Differences in Rates of Return to Education:

The income gap between women and men remains almost constant even within the detailed managerial/supervisory class positions (Proposition 1 not supported). Women also consistently receive higher rates of return to education than men within these classes; in fact, the difference is more pronounced within the supervisory class position (Proposition 2 not supported). Thus, controlling for detailed class position within the managerial/supervisory hierarchy does not help to understand either the income gap between women and men or differences in the rate of return to education for the two.

(2) Women Have a Lower Range of Income Possibilities: The income level and rate of return to education for female supervisors is very similar to those for female decision makers. The differences in mean income between female supervisors and female decision makers appear to be largely due to differences in income-related attributes. It would make little difference overall if women were equally distributed throughout the managerial/supervisory hierarchy with men (unless their income-related attributes also changed); the differences in income levels and rates of return to education in some class comparisons would continue to be slightly less marked for women than men (Propositions 3 and 4). Thus, the partial support found for Propositions 3 and 4 in Chapter Three cannot be explained in terms of compositional differences. A more likely explanation for this phenomenon is that the range of income possibilities for women is generally much smaller than that for men. Wright's model of income attainment appears to apply more to males than females. Sex effects on the income attainment process transcend class effects for women.

(3) Women Continue to Have Higher Rates of Return to Education: Contrary to the bulk of past research which has indicated that women receive lower rates of return to education than men, this study has found that the opposite is true in most cases. Women have higher rates of return to education within the decision makers' class position and even more so within the supervisors' class position. Possible explanations for this were discussed in Chapter Three. In Chapter Three it was revealed that occupational and industrial segregation remained within ~~classes~~ (men tended to be more concentrated in occupations which rely more upon training outside the formal school system than those in which women are concentrated). Tables T to X in Appendix F summarize occupational

distributions, industrial distributions, training information, and union membership information for the three detailed managerial, supervisory classes. Within the supervisors' class men continue to be more highly concentrated in blue collar occupations (Table O indicates that the specific blue collar occupations are crafts, operatives, and unskilled occupations) and women in white collar occupations (Table O indicates that the specific white collar occupations are secretarial and clerical occupations). The occupational segregation in blue collar/white collar occupations is less noted for decision makers; however, the information regarding extra training reveals that training outside the formal school system continues to be more associated with men than women. Table V (in Appendix F), for example, looks at the amount of time usually required for on-the-job training, apprenticeship training, job experience for the respondent's job. It is likely that for decision makers on-the-job training and job experience are the type of training required (apprenticeship is likely to be more important in the working class and supervisory class). Table V reveals that this type of training is required more often for males than females and longer periods of time spent training are required for males than females. The same arguments that were posed in Chapter Three regarding differences in rates of return to education can be put forth with regard to the detailed managerial/supervisory classes.

Footnotes

1. Also, the model predicted for male advisors does not explain any of the variance (low R^2 that is not significant); residual analysis suggests that there is no relationship between the independent and dependent variables for male advisors. Thus, any information which requires the regression model (comparing b_1 or estimating income) would not be meaningful for this group.
2. Within the supervisors class, the gap in mean income is less than the gap in predicted income largely due to differences in attributes between women and men (i.e., women have higher educations and occupational statuses).
3. This is largely due to the fact that occupational status mediates the effects of education for male supervisors to a great extent.

CONCLUSIONS

The results of this research confirm past findings that Canadian women have lower income levels than men. This analysis also suggests that the income gap is largely due to gender differences in the income attainment process rather than differences in income-related attributes.

These gender differences in the income attainment process were investigated within Erik Olin Wright's (1979) framework of class and income determination (class being defined within the Marxist tradition in relational terms). According to Wright (1979), each class will be characterized by its own range of income level possibilities and its own income determination process. Specifically, Wright proposed that the rate of return to education within that process would also differ between classes such that managers/supervisors > semi-autonomous workers > workers. Using the Canadian Class Structure Data Set (1982-83), support was found for this general theory for a sample of women and men working 30 hours a week or more (i.e., full-time workers). In addition, Wright (1979) proposed that gender inequality in income could be better understood by holding class position constant. Since women are more highly concentrated in the working class than men (where incomes are lowest and rates of return to education are lowest) and men are more highly concentrated in the managerial/supervisory class than women (where incomes are the greatest and rates of return to education are the greatest in the employee classes), Wright (1979) further proposed that much of the overall gender differences in income level and rate of return to education are due to class compositional differences between women and men.

Although the results of this study also confirm that women are more highly concentrated in the working class than men and men are more highly concentrated in the managerial supervisory class than women, controlling for class position does not really reduce the income gap between women and men. The income gap remains at a fairly constant level within the semi-autonomous class and the managerial supervisory class (compared with all three employee classes together). Only a slight narrowing of the gap occurs within the working class (however, when the predicted income gap is evaluated for workers at a level of income-related attributes that is more characteristic of the working class, this narrowing of the gap is even less pronounced). Thus there is only extremely weak support for Wright's proposition that controlling for class would reduce the income gap.

Perhaps the most unusual finding of all in this research was the discovery that women, in most cases, have a higher rate of return to education (i.e., each increment in education has a greater effect on income). Although the bulk of past research has indicated that women receive lower rates of return to education than men (Suter and Miller, 1973; Oaxaca, 1973; Blinder, 1973; Bibb and Form, 1977; Wright, 1979; and Abowitz, 1982), the finding that women have greater rates of return to education than men is not entirely unique. Gunderson (1982) and Goyder (1981), for example, have also found higher rates of return to education for women using Canadian data. In the past, lower rates of return to education for women were often interpreted as discrimination. In view of the fact that women are obviously disadvantaged with respect

to overall income levels, it would seem inappropriate to interpret the lower rate of return to education found for males in this study as discrimination against men. Further investigation suggested at least three possible interpretations of this finding: (1) males rely more heavily upon income-related attributes other than formal education in the income attainment process than women (due to structural factors such as the type of occupations they perform, the industries in which they are located, and the influence of the unions and/or associations to which they belong); (2) due to discrimination, women may be more subject to credentialism than men; and (3) the recoding of the income categories at the mid-point may have overestimated the income of women relative to that of men, thus, possibly inflating rates of return to income-related attributes (this was assessed as being a minimal threat however). It was found that men are more highly concentrated in blue collar occupations (particularly crafts, operatives, and unskilled occupations) than women. Many of these occupations are likely to be dependent upon training outside the formal school system (apprenticeship training, on-the-job training, etc.); therefore, the incomes associated with these occupations are likely to be based more upon this type of training than on formal schooling. Women, however, are more highly concentrated in white collar occupations (secretarial and other clerical in particular). Formal schooling is likely to play a major role in the performance of these occupations since many of the skills required are taught in the formal school system. It was also found that men in this sample are much more likely than women to have had or be in jobs that require

training outside the formal school system. These findings draw our attention to the need to further develop the income attainment model.

Future research in this area should, for example, incorporate a measure of training outside the formal school system. The class framework might also be examined in conjunction with other structural frameworks that consider type of occupation or industry (i.e., segmented labour market theories). Future research might examine career paths and reward structures at the firm level (and gender differences in access to them); this could lead to a new structural model of the organization of work that would improve our understanding of gender inequality.

Wright (1979) also assumed that women would be concentrated at the lower level of the managerial/supervisory hierarchy (men would be more highly concentrated at the upper levels than women). These data support this assumption (Wright was unable to separate specific positions within the managerial/supervisory class due to data set limitations). Wright (1979) further proposed that the differences in income levels and rates of return to education between classes would be less marked for women than for men. The argument behind this proposition hinged on Wright's assumption that higher income levels and higher rates of return to education are found at the upper levels of the managerial/supervisory hierarchy. Due to differences in concentration within the hierarchy, women should, according to Wright (1979), have class differences that are less marked than men. However, a closer look at the detailed managerial/supervisory class positions indicates that for women within the hierarchy income levels and rates of return are virtually the same at the lower levels as they are at the higher levels; thus, compositional

differences cannot be responsible for the weak support found for the proposition that the differences between classes (for both income levels and rates of return to education) are less marked for women than for men. In conclusion, it appears that sexual inequality in income transcends class effects. Although Wright's general theory of class and income determination appears to be a useful framework for the study of income inequality for men (and to a lesser extent for women), it does not appear to explain sexual inequality in income to the degree that Wright had hoped. Although Wright (1979) warned that his propositions were not an attempt to show that "sexual inequality is a mere epiphenomenon" (Wright, 1979:218), he did maintain that "some of the differences between men and women are clearly mediated by their positions within class relations" (Wright, 1979:218). This research has provided only the weakest support for the latter contention. However, the class analysis employed here has turned up some interesting findings; for example, women within the supervisory class can improve their income level vis-a-vis men significantly by increasing their educational level, occupational status, experience in the labour force, etc. However, women in the decision makers' class (upper level of the managerial/supervisory hierarchy) are equally disadvantaged at almost every level of these income-related attributes.

The findings here also suggest certain policy implications. Policies aimed at occupational segregation seem to be recommended by these findings. We must investigate blocked access for women to on-the-job training and apprenticeship programs; programs which attempt to ensure the equality of access to such training are also recommended.

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APPENDIX A

Intercepts and Slopes

The income attainment process can be predicted for a group of individuals using the simple regression of income on education as follows:

$$Y = a + bX$$

where 'Y' represents the predicted income, 'X' represents the educational attainment (i.e., years of education), 'b' represents the magnitude of the change in income for a unit change in educational attainment (slope), and 'a' represents the intercept (or the value of income when the educational attainment is zero). The entire process of income attainment must consider both the value of 'a' and 'b' (in a multiple regression prediction equation there will be several slope values to consider). Although isolating the effects of slope differences between two groups can be very informative if the corresponding independent variable is one which has an overall major effect on income, it can also be very misleading. Wright (1978), for example, in an examination of race, class and income inequality, concentrated almost entirely upon slope differences; this concentration was, no doubt, due to previous investigations which had led him to believe that, in that particular case, such a concentration would not be misleading. The investigation carried out in this thesis, however, reveals that, for the case under study, such a concentration would be very misleading. The following three scenarios should expose the difficulties that may be encountered with respect to concentrating on slope differences alone.

The graphic representations of a simple income attainment prediction equation, shown below, reveal three possible scenarios

in which the rate of return to education between two groups, Group A and Group B, is different:

Scenario 1 illustrates a situation in which both Group A and B have the same rate of return to education (identical slopes); yet at any given level of education, Group A does not enjoy the same overall level of income that Group B does due to the difference in intercepts. Embodied in the difference in intercepts may be differences in rates of return to other independent variables left out of the equation and some estimate of basic discrimination (to name only two of the more important possibilities). If this intercept gap is large (in this hypothetical case it is \$15000), it matters very little that Group A and B are equal with respect to rates of return to education. We are concerned with rates of return to such variables only because they might help us to understand overall inequality in income. Scenario 1 suggests that we must focus on other factors to explain the inequality of incomes for Groups A and B, an inequality that is very real, very pronounced, and of utmost concern.

Scenario 2 illustrates a situation in which Group A has a lower rate of return to education than Group B. An isolated examination of

slopes in this case, would not be quite so misleading (this was the type of case that Wright observed for race differences in his 1978 paper). Although Group A also has a lower intercept than Group B (indicating that they receive lower incomes due to factors other than education as well), it is quite evident that this initially small gap (compared with Scenario 1) is increased at higher levels of education due to slope differences. In such a case, the examination of slope differences tells us a great deal about the differences in level of income. The implication of this for Group A is that there is very little they can do to close the gap with respect to increasing their educational attainments. Increments in education are not quite so valuable for this group as they are for Group B, making the decision to increase their level of education less attractive (assuming that they are aware of this relationship, which they may not be). Instead, policies which are directed at improving the ability of Group A to utilize education in the same way as Group B would be preferable to policies aimed at improving the educational attainments of Group A. This was the type of situation which Wright (1979) found in his study of gender differences in income.

Scenario 3 illustrates a situation in which Group A actually has a greater rate of return to education than Group B (slope for Group A is greater than slope for Group B). This is the most dangerously misleading possibility of all. A concentration on slopes alone in this case might lead one to make the erroneous conclusion that Group A has an income advantage over Group B. An examination of the entire equation reveals that the large intercept difference is such that

Group A still has lower levels of income at any given 'realistic' level of education (since the lines representing the earnings functions of the two groups intersect at 40 years of education, Group A would not be able to close the income gap under real conditions). Overall, Group A is at an income disadvantage relative to Group B, despite having higher rates of return to education. Implications of this include the possibility that other factors not considered (other independent variables and, even, pure discrimination) may be much more important in the income attainment process of Group B than Group A. These other factors are embodied in the intercept differences. In this scenario, it is imperative that income levels be reviewed in conjunction with rates of return to education. The possible policy implications of such a situation in an effort to eradicate income inequality between the two groups might be: (1) further specification of the model to discover what other independent variables may be responsible for this gap (i.e., does Group B translate another income-related attribute, X_2 , into income at a much faster rate than Group A?); and (2) estimating the role of pure discrimination in the intercept gap (this would require further specification of the model to try to separate out the effects of other unknown factors). Policies aimed at equalizing the rate of return to these unknown variables and at discrimination would then be in order. It should be noted that, as will be revealed in Chapter 3, this is precisely the situation uncovered in this study; for this reason, extra care is taken throughout to make the distinction between differences in levels of income and differences in the rates of return to education.

APPENDIX B

What Does 'Personal Income' Measure?

One important issue that must be discussed is the answer to the following question: "What does the question regarding 'personal income' actually measure?" Ideally, the measure of income for this study would be one that reflected money earned in wages or salary resulting from work performed within a particular class position (for employers and petty bourgeoisie this would also include money earned from investments, rental of property, etc.). Individuals may have other sources of income, however, that are not a function of class location or personal attributes; examples of such income would include inheritances, lottery winnings, etc. There are yet other sources of income besides money earned in wages and salary; the absence of a relationship between these sources of income and class position and personal attributes is not quite so clear. Government transfer payments (welfare, family allowance, unemployment insurance, etc.) are one example of this latter type of income. At first glance, such transfer income may not appear to be a function of class or personal attributes; however, upon closer inspection, one can begin to accept the argument that some examples of this type of income may indeed be related to class and personal attributes. Certain classes (i.e., the working class) may have a much higher incidence of unemployment (Wright, 1979:260) and, therefore, have a much greater probability of obtaining such transfer payments. Unemployment and inability to find work may also be related to one's personal attributes (i.e., those with lower educations and skills may be more likely to face this problem). At the same time,

certain types of investment income (income from stocks and bonds, capital gains, etc.) may also be included in this category of income which is not earned through salary or wages, but may still be related to class position and personal attributes. For employers and petty bourgeoisie, such income may actually be an integral part of the rewards reaped from being in these classes. For the employee labour force, however, who typically earn wages/salary from selling their labour power to employers, such income may be considered to be unrelated to class or personal attributes. On the other hand, if one considers that such income may be highly associated with certain classes (i.e., the managerial/supervisory class), then it is unclear as to whether or not this should be included in a measure of income for the purposes of this study. Wright (1979:248-249 and 260) feels that the exclusion of transfer payments (such as welfare and unemployment insurance) from the measure of income may have the effect of understating the income of the working class; thus biasing upward the returns to education, since "such transfer income would be most significant among less educated sections of the working class" (Wright, 1979:248). As well, Wright (1979:249) feels that exclusion of capital gains and investment income from the measure of income may understate the income of managers/supervisors (thus biasing downward the returns to education). It is clear that Wright's construct of 'income' is one which includes any income that is associated with one's class position and income-related attributes.

As explained within the body of this thesis (Chapter 2), 'income' was operationalized from a question which was worded as follows:

3 3

OF / DE

1.0

1.1

1.25

1.4

1.6

1.8

2.0

2.2

2.5

2.8

3.2

3.6

4.0

4.5

5.0

5.6

6.3

7.1

8.0

9.0

10

Question 172B: Now looking at this card again, in which of these letter groups did your personal income fall before taxes in 1981?

This is followed by 12 letter groups with 12 corresponding income brackets as reported in Chapter 2. It is unclear whether or not respondents answered this question by taking into account income from transfer payments or investments. Some respondents may have considered 'personal income' to be wages/salary; others may consider personal income to be a composite of the types of income just discussed. The question is worded in a way that the meaning of 'income' is left for interpretation by the respondent. There is some ambiguity, therefore, as to whether or not the measure of income used here includes only wages/salary or includes all types of income added together.

Just before this question regarding personal income was asked, the following question was asked:

Question 172A: In which of these letter groups does the approximate income of the family fall? That is, the total income or earnings of all the family members in this household before taxes in 1981?

After the question regarding personal income, the following question was asked:

Question 174A: Did (you/your family) receive any income from any government program in 1981? (Family Allowance, Old Age Pension, etc.)

Question 174B: What percentage of your total family income was that?

Similar questions were asked regarding income from rent or sale of property (Question 175A&B) and from investments other than real estate or savings (Question 176A&B).

There are several points to be made regarding the importance of these additional 'income related' questions. First of all, those questions which tap information regarding transfer payments and investment income (Questions 174 to 176) are worded in such a way that it is impossible to know if the respondent included such income in her/his stated 'personal income' or 'family income'; in which case, separating such income from wages/salary for the individual would be impossible. Secondly, an investigation of the answers provided by the respondents to these questions suggests that these additional types of income may not have been considered by most when answering the question regarding personal income. The questions regarding these three additional types of income (Questions 174 to 176) appear after the question regarding personal income (had they occurred before, there would be more certainty that such income would have been considered in their reported personal income or family income). There is also a very high rate of non-response to the questions regarding the percentage of total family income that these additional types of income comprised. If a respondent is unable to estimate the amount of money earned from these additional sources, one might conjecture that she/he would not have been able to add such income to wages/salary when responding to the earlier questions regarding personal and family income. In conclusion, it seems likely that the reported personal income of the respondent does not include transfer income or investment income.

It is interesting to note that of those who did report a figure for the percentage of total family income which these three additional sources comprised, most respondents estimated that it was under 10 percent.

APPENDIX C

Scales and Codes for the Education Variable

Wright (1979:250) maintains that "sociologically a credential is a more meaningful unit of education than a year". For this reason, Wright (1979) used the following scale for education:

- 0 = no schooling or illiterate
- 1 = some elementary school
- 2 = completed elementary school
- 3 = some high school
- 4 = high school
- 5 = high school plus nonacademic training
- 6 = some college
- 7 = college degree
- 8 = graduate training

As discussed in Chapter Two, this is a strictly ordinal scale using a discrete measure of the variable. This poses problems with respect to the basic assumptions of regression analysis. The scale proposed by Boyd and Humphreys (1979) and Boyd et al (1985) provides a measure of education which is based upon credentials but is also an estimate of years in school (making it the type of ratio level, continuous measure that is ideal for regression). Table A on the next page summarizes the response categories in the Canadian Class Structure Data Set (on the left) and the corresponding recodes (on the right).

Table ARESPONSE CATEGORIES AND CODES FOR EDUCATION VARIABLESResponse Categories in the Canadian
Class Structure Data SetEstimated Years

1. No formal schooling	1
Elementary school:	
2. Some	4
3. Completed	8
High school:	
4. Some academic	10
5. Completed academic	12
6. Some vocational or technical	10
7. Completed vocational or technical	12
After high school but not university:	
Business or trades training: (e.g., secretarial schooling, hairdressing school, barbering school, trade school, etc.)	
8. Some	12
9. Completed	13
Nursing school or teacher's college	
10. Some	12
11. Completed	13
Community college, junior college, CEGEP, technical institute	
12. Some	13
13. Completed	14
University	
14. Some	14
Completed:	
15. Certificate or diploma	14
16. Bachelor's degree	16
17. Master's degree	19
18. Doctorate	19
19. Professional degree (e.g., M.D., L.L.B., C.A., etc.)	18

Source: Boyd and Humphreys (1979:60)

APPENDIX D

The Population Selected For Study

Studies of income determination often exclude certain age groups due to possible biases involved in including such groups (Boyd and Humphreys, 1979). The inclusion of persons 18 to 24 might provide biased results in that those with low education will typically be over-represented (since these persons will be in the labour force, whereas their better educated counterparts will still be in the process of obtaining their education and will be absent from the labour force). Similarly, those who remain in the labour force past retirement age (65) typically display characteristics not necessarily representative of that age group (they are typically better educated). Unfortunately, due to the small number of respondents in this data set, the exclusion of respondents in the 18 to 25 year old and over 65 year old age groups would reduce the number of cases in the analysis to a point where statistical significance would be very difficult to achieve in the various tests to be performed. The age group of this analysis is, therefore 18 years and over. (Wright, 1979, also used a population of 18 years and over.)

APPENDIX E

TABLE B

CASES REMAINING AFTER EACH SELECTION PROCESS BY CLASS POSITION AND SEX

	<u>Male</u>		<u>Female</u>	
	<u>f</u>	<u>Percent</u>	<u>f</u>	<u>Percent</u>
<u>Employed Respondents</u>				
Large Employers	14	(1.4)	1	(.2)
Small Employers	37	(3.6)	12	(1.6)
Petty Bourgeoisie	171	(16.8)	46	(6.2)
Total Self-Employed	222	(21.8)	59	(8.0)
Decision Mgt.	151	(14.9)	56	(7.6)
Advisor Mgt.	26	(2.6)	23	(3.1)
Supervisors	110	(10.9)	64	(8.7)
Total Managers/Supervisors	287	(28.4)	143	(19.4)
Semi-Autonomous Wage Earners	154	(15.2)	127	(17.2)
Workers	353	(34.7)	408	(55.3)
Total	1016	(100.0)	738	(100.0)
<u>Began Working in 1981 or Earlier</u>				
Large Employers	14	(1.4)	1	(.2)
Small Employers	35	(3.5)	10	(1.4)
Petty Bourgeoisie	169	(16.8)	44	(6.1)
Total Self-Employed	218	(21.7)	55	(7.7)
Decision Mgt.	151	(15.1)	54	(7.5)
Advisor Mgt.	26	(2.6)	23	(3.2)
Supervisors	110	(11.0)	64	(8.9)
Total Managers/Supervisors	287	(28.7)	141	(19.6)
Semi-Autonomous Wage-Earners	150	(14.9)	125	(17.3)
Workers	349	(34.7)	400	(55.4)
Total	1005	(100.0)	723	(100.0)

Continued

Cont'd

TABLE B

CASES REMAINING AFTER EACH SELECTION PROCESS BY CLASS POSITION AND SEX

	<u>Male</u>		<u>Female</u>	
	<u>f</u>	<u>Percent</u>	<u>f</u>	<u>Percent</u>
<u>Works 30 Hours/Week or More</u>				
Large Employers	14	(1.5)	0	(0.0)
Small Employers	33	(3.5)	8	(1.4)
Petty Bourgeoisie	153	(16.3)	27	(4.9)
Total Self-Employed	200	(21.3)	35	(6.3)
Decision Mgt.	149	(15.8)	48	(8.5)
Advisor Mgt.	26	(2.7)	17	(3.1)
Supervisors	108	(11.5)	58	(10.4)
Total Managers/Supervisors	283	(30.0)	123	(22.0)
Semi-Autonomous Wage-Earners	142	(15.1)	106	(18.9)
Workers	316	(33.6)	298	(52.9)
Total	941	(100.0)	562	(100.0)
<u>Not a Full-Time Student</u>				
Large Employers	14	(1.5)	0	(0.0)
Small Employers	33	(3.5)	8	(1.4)
Petty Bourgeoisie	153	(16.4)	27	(4.9)
Total Self-Employed	200	(21.4)	35	(6.3)
Decision Mgt.	149	(16.0)	46	(8.3)
Advisor Mgt.	26	(2.8)	17	(3.1)
Supervisors	108	(11.6)	58	(10.5)
Total Managers/Supervisors	283	(30.4)	121	(21.9)
Semi-Autonomous Wage-Earners	137	(14.7)	104	(18.7)
Workers	312	(33.5)	296	(53.2)
Total	932	(100.0)	557	(100.0)

Continued

Cont'd

TABLE B

CASES REMAINING AFTER EACH SELECTION PROCESS BY CLASS POSITION AND SEX

	<u>Male</u>		<u>Female</u>	
	<u>f</u>	<u>Percent</u>	<u>f</u>	<u>Percent</u>
Select Out Obviously Unreliable Cases				
Large Employer	14	(1.5)	0	(0.0)
Small Employer	33	(3.5)	8	(1.4)
Petty Bourgeoisie	153	(16.5)	27	(5.0)
Total Self-Employed	<u>200</u>	<u>(21.5)</u>	<u>35</u>	<u>(6.4)</u>
Decision Mgt.	149	(16.0)	46	(8.4)
Advisor Mgt.	26	(2.8)	17	(3.2)
Supervisors	108	(11.6)	58	(10.4)
Total Managers/Supervisors	<u>283</u>	<u>(30.4)</u>	<u>121</u>	<u>(22.0)</u>
Semi-Autonomous Wage-Earners	136	(14.7)	103	(18.7)
Workers	311	(33.5)	292	(52.9)
Total	<u>930</u>	<u>(100.0)</u>	<u>551</u>	<u>(100.0)</u>

Note: This table uses weighted data (table using unweighted data is, however, nearly identical).

Each selection process is cumulative as listed.

APPENDIX F
Supplementary Tables

TABLE C
 MEANS AND STANDARD DEVIATIONS OF VARIABLES USED IN EXPANDED REGRESSION EQUATION,
 BY GENDER BY CLASS POSITION (CANADIANS WORKING 30 HOURS PER WEEK OR MORE)
 FOR ALL RESPONDENTS*, ALL LARGE AND SMALL EMPLOYERS, AND PETTY BOURGEOISIE

	All Respondents*		Large & Small Employers		Petty Bourgeoisie	
	Male	Female	Male	Female	Male	Female
1981 Income	\$27758.06 (18288.46)	\$16822.83 (11077.07)	\$43761.92 (31063.09)	\$31691.07 (37619.46)	\$28746.24 (24853.06)	\$11785.22 (21328.88)
Education	12.14 (3.35)	12.78 (2.48)	12.96 (3.21)	14.01 (2.82)	11.03 (3.00)	12.09 (1.85)
Blishen Points	44.48 (16.13)	48.07 (13.39)	51.12 (16.51)	48.35 (16.71)	30.50 (12.69)	34.03 (12.21)
Experience	19.46 (12.40)	13.13 (9.53)	18.56 (10.49)	13.09 (5.22)	21.61 (13.64)	16.68 (12.54)
Experience ²	532.26 (596.23)	263.05 (360.16)	452.10 (527.78)	194.83 (143.40)	651.59 (755.23)	428.97 (544.74)
Times Unemployed	1.45 (2.79)	.88 (1.87)	1.41 (3.69)	.26 (.47)	.97 (2.05)	.74 (1.02)
Weighted N	[902]	[527]	[46]	[7]	[147]	[25]

*All Respondents includes all those remaining in the sample after the selection processes described in Chapter 2 (Large Employers, Small Employers, Petty Bourgeoisie, Managers/Supervisors, Semi-Autonomous Wage Earners, and Workers)

Source: Canadian Class Structure Data Set

TABLE D
INCOME ATTAINMENT BY GENDER BY CLASS POSITION FOR
CANADIANS WORKING 30 HOURS PER WEEK OR MORE

Income*	Decision Mgt.		Advisor Mgt.		Supervisors		Semi-Autonomous		Workers	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
\$ 2500	0.8%	0.0%	2.8%	0.0%	0.0%	5.2%	2.7%	5.3%	2.2%	7.2%
\$ 6250	0.8%	1.1%	2.7%	10.6%	0.4%	6.5%	1.5%	5.5%	2.6%	7.6%
\$ 8750	0.5%	3.1%	0.0%	10.3%	2.0%	7.4%	0.8%	2.6%	5.2%	15.6%
\$ 12500	1.1%	18.6%	4.9%	5.0%	18.0%	24.5%	6.0%	15.8%	16.3%	31.1%
\$ 17500	4.1%	25.5%	17.8%	24.1%	17.0%	22.6%	15.9%	18.6%	25.0%	23.8%
\$ 22500	19.3%	21.7%	16.7%	14.9%	19.6%	5.9%	18.4%	26.8%	29.0%	9.1%
\$ 30000	29.4%	14.2%	36.5%	27.4%	27.0%	19.2%	30.7%	25.0%	17.0%	4.8%
\$ 42500	27.4%	9.9%	15.5%	7.8%	14.4%	3.8%	19.0%	0.4%	1.8%	0.8%
\$ 62500	13.9%	6.0%	3.2%	0.0%	0.8%	0.0%	4.1%	0.0%	0.9%	0.0%
\$ 87500	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%
\$125000	1.8%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Weighted N	149	46	26	17	108	58	136	101	306	284

Source: Canadian Class Structure Data Set (Winter 1982-83)

Excludes: Full-Time Students, Those Unemployed or Not in Labour Force During 1982-83
Survey, Those Working Less Than 30 Hours Per Week, Those Who Began Work For the First Time
After 1981, and Selected Unreliable Cases as Noted in Chapter 2

*Recorded Mid-Point Dollar Value of Income Categories

TABLE E

EDUCATION ATTAINMENT BY GENDER BY CLASS POSITION FOR
CANADIANS WORKING 30 HOURS PER WEEK OR MORE

Approximate Years of Education	Decision Mgt.		Advisor Mgt.		Supervisors		Semi-Autonomous		Workers	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%
4	2.0%	0.0%	3.2%	0.0%	3.8%	0.0%	0.8%	0.9%	9.5%	1.9%
8	1.1%	0.0%	7.7%	0.0%	4.9%	0.8%	0.0%	0.0%	8.3%	4.4%
10	13.1%	11.0%	19.0%	24.0%	33.6%	14.1%	12.6%	11.9%	27.4%	21.4%
12	17.5%	10.6%	20.1%	34.6%	25.9%	46.1%	19.3%	14.1%	31.1%	33.9%
13	5.3%	28.2%	5.8%	12.6%	8.6%	10.5%	9.7%	19.9%	7.6%	16.9%
14	20.0%	15.0%	18.2%	8.7%	14.6%	11.4%	21.7%	15.3%	9.7%	16.6%
16	22.5%	17.4%	15.6%	20.1%	3.6%	10.1%	23.7%	33.7%	3.7%	3.2%
18	6.4%	0.0%	8.5%	0.0%	3.8%	2.6%	3.3%	2.7%	0.2%	0.3%
19	12.1%	17.8%	2.0%	0.0%	1.2%	4.3%	8.8%	4.4%	1.6%	1.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Weighted N	149	46	26	17	108	58	136	103	311	292

Source: Canadian Class Structure Data Set (Winter 1982-83)

Excludes: Full-Time Students, Those Unemployed or Not in Labour Force During 1982-83
Survey, Those Working Less Than 30 Hours Per Week, Those Who Began Work For the First Time
After 1981, and Selected Unreliable Cases as Noted in Chapter 2

TABLE F

MEAN (STANDARD DEVIATION) FOR NUMBER OF YEARS OF TENURE IN PRESENT JOB BY GENDER BY CLASS POSITION FOR
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

	Decision Mgt.		Advisor Mgt.		Supervisors		Semi-Autonomous		Worker	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Mean Years Tenure	12.31	6.85	11.29	10.08	12.23	9.71	10.30	7.30	10.68	8.08
Standard Deviation	(9.24)	(5.84)	(8.21)	(6.03)	(8.54)	(8.70)	(8.56)	(5.75)	(8.25)	(6.93)
Weighted N	129	43	21	17	85	46	107	83	242	235

NOTE: This table uses a much smaller number of cases than all others since the use of the variable tenure necessitates excluding those who changed jobs since 1981.

TABLE G

MEAN (STANDARD DEVIATION) FOR AGE OF RESPONDENT BY GENDER BY CLASS POSITION FOR CANADIANS WORKING 30 HOURS
PER WEEK OR MORE

	Decision Mgt.		Advisor Mgt.		Supervisors		Semi-Autonomous		Workers	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Mean Age	41.26	36.87	38.70	38.27	37.43	36.75	36.38	33.11	37.69	34.73
Standard Deviation	(10.49)	(10.39)	(12.59)	(10.78)	(12.20)	(10.86)	(11.78)	(9.05)	(12.46)	(12.35)
Weighted N	149	46	26	17	108	58	136	103	311	289

Source: Canadian Class Structure Data Set (Winter 1982-83)

Excludes: Full-Time Students, Those Unemployed or Not in Labour Force During 1982-83
Survey, Those Working Less Than 30 Hours Per Week, Those Who Began Work for the First
Time After 1981, and Selected Unreliable Cases as Noted in Chapter 2

TABLE II
MEAN INCOME (STANDARD DEVIATION) BY EDUCATIONAL ATTAINMENT BY CLASS FOR CANADIAN WOMEN WORKING
30 HOURS PER WEEK OR MORE

Education (Approx. Yrs.)	All Classes	Self-Employ.	Man/Sup.	Semi-Aut.	Workers	N Weighted
1	--	--	--	--	--	0
4	\$14417.99 (7478.06)	--	--	\$30000.00 (0.00)	\$11775.00 (2919.01)	6
8	\$8532.66 (4603.28)	\$4866.78 (2483.67)	\$6250.00 (0.00)	--	\$9222.01 (4702.34)	16
10	\$11655.89 (5441.93)	\$7185.19 (2856.82)	\$14722.35 (8072.31)	\$10079.54 (4878.89)	\$11274.97 (4265.38)	93
12	\$14050.66 (7178.66)	\$11256.51 (7406.84)	\$15959.91 (8559.93)	\$18577.90 (8325.48)	\$13072.77 (6060.32)	155
13	\$16831.17 (11995.73)	\$18000.83 (35677.16)	\$21471.26 (5567.29)	\$16166.65 (8729.54)	\$14826.41 (4951.90)	98
14	\$18150.55 (8687.98)	\$12618.93 (9599.40)	\$19763.60 (8960.60)	\$21857.40 (7718.58)	\$17059.32 (8495.02)	84
16	\$23540.39 (9138.22)	\$2500.00 (0.00)	\$27891.76 (12090.42)	\$23432.66 (5597.97)	\$17129.45 (8762.17)	61
18	\$42027.65 (36407.32)	\$125000.00 (0.00)	\$42500.00 (0.00)	\$26600.86 (4662.41)	\$17500.00 (0.00)	6
19	\$34316.28 (15503.77)	\$42500.00 (0.00)	\$39335.20 (16031.40)	\$21921.22 (10803.31)	\$30913.46 (14724.17)	20

Source: Canadian Class Structure Data Set (Winter 1982-83) (Exclusions noted in Chapter 2)

TABLE I
 MEAN INCOME (STANDARD DEVIATION) BY EDUCATIONAL ATTAINMENT BY CLASS FOR CANADIAN MEN WORKING
 30 HOURS PER WEEK OR MORE

Education (Approx. Years)	All Classes	Self-Employed	Man/Sup	Semi-Aut.	Workers	Weighted N
1	\$15791.88 (6112.80)	\$15791.88 (6112.80)	--	--	--	2
4	\$19237.47 (15095.00)	\$19041.68 (21243.05)	\$24507.83 (15626.83)	\$ 8750.00 (0.00)	\$18303.37 (11609.64)	52
8	\$24306.50 (15065.13)	\$30822.22 (20909.43)	\$24583.55 (12270.94)	--	\$19200.85 (6990.51)	55
10	\$23479.89 (17278.78)	\$30487.22 (29050.56)	\$23281.89 (9709.93)	\$24253.90 (15776.29)	\$19238.55 (9524.86)	212
12	\$26032.18 (16429.86)	\$32237.34 (26599.45)	\$31714.54 (16470.05)	\$24932.17 (8288.13)	\$19916.84 (7566.83)	223
13	\$30716.95 (20671.09)	\$48565.44 (33635.36)	\$27578.44 (12243.85)	\$31258.13 (15488.15)	\$21248.18 (7233.00)	68
14	\$26127.40 (15851.39)	\$23277.79 (19034.01)	\$30839.91 (18722.38)	\$26430.68 (10296.16)	\$21041.46 (7724.38)	142
16	\$35215.52 (22052.33)	\$37423.67 (32776.71)	\$43428.24 (22170.54)	\$27844.89 (15351.13)	\$23765.77 (5748.76)	100
18	\$48014.85 (15516.79)	\$62500.00 (0.00)	\$44440.64 (16907.67)	\$46257.73 (11772.66)	\$42500.00 (0.00)	26
19	\$42060.34 (17723.54)	\$86327.95 (26079.94)	\$39566.98 (14983.85)	\$42457.68 (10813.00)	\$30000.00 (0.00)	39

TABLE J

EXPANDED MODEL OF INCOME ATTAINMENT (UNSTANDARDIZED REGRESSION COEFFICIENTS AND STANDARD ERRORS)
BY GENDER FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE FOR
ALL CLASSES, LARGE AND SMALL EMPLOYERS, PETTY BOURGEOISIE

	Intercept	Education	Exper.	Exper. ²	Times Unemp.	Occ. Status	R ² (Adj. R ²)	N
All Classes								
Males	-4576.36	1235.44*	1097.61*	-17.62*	-485.33*	136.31*	.17046*	902
S.E.	(2810.12)	(219.13)	(164.40)	(3.4)	(44.41)	(204.36)	(.16583)	
t-statistic	-1.629	5.638	6.677	-5.166	-2.375	3.069		
Females	-18483.27*	1675.64*	876.95*	-18.78*	-426.63	159.82*	.33055*	527
S.E.	(2406.86)	(197.49)	(142.34)	(3.75)	(214.77)	(36.62)	(.32412)	
t-statistic	-7.679	8.485	6.161	-5.001	-1.986	4.364		
Large and Small Employers								
Males	-27598.74	4915.64*	2475.68	-29.85	-1987.56	-430.23	.22338	46
S.E.	(33197.34)	(1697.48)	(1825.21)	(34.68)	(1192.40)	(298.75)	(.12630)	
t-statistic	-.831	2.896	1.356	-.861	-1.667	-1.440		
Females	-71542.71	11947.42*	-1107.17	Minimum	22675.52	-1147.80	.26379	7
S.E.	(74159.38)	(5279.94)	(2749.61)	Tolerance	(32403.07)	(888.04)	(.58969)	
t-statistic	-.965	2.263	-.403	Not Met	.700	-1.293		
Petty Bourgeoisie								
Males	23400.97	392.79	638.29	-14.16	-1518.57	-68.56	.03804	147
S.E.	(11901.09)	(814.40)	(560.31)	(9.95)	(1059.51)	(177.13)	(.00393)	
t-statistic	1.966	.482	1.139	-1.422	-1.433	-.387		
Females	-18396.10	2842.10	1629.79	-41.39	-139.61	-396.66	.12464	25
S.E.	(34251.96)	(2705.36)	(1461.70)	(33.11)	(5178.59)	(433.97)	(.10571)	
t-statistics	-.537	1.051	1.115	-1.250	-.027	-.914		

Source: Canadian Class Structure Data Set (Winter 1982-83)

Follows selection process described in Chapter 2 and listwise deletion of missing cases.

* Significant at .03 level or better (two tailed test)

Note: All classes includes all self-employed classes, managers/supervisors, semi-autonomous, workers

TABLE K

OCCUPATIONAL DISTRIBUTION BY GENDER FOR ALL CLASSES
 FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE
 (USING WRIGHT'S 27 OCCUPATIONAL CATEGORIES)

<u>Occupational Category</u>	<u>Male</u>	<u>Female</u>
1 Physicians and Dentists	0.7%	0.0%
2 Other Medical	0.2%	4.8%
3 Accountants, Other Auditors	1.3%	1.1%
4 Teachers, Elementary and Secondary	4.9%	7.9%
5 Teachers, University	1.7%	1.2%
6 Mathematicians, Engineers, Scientists	2.3%	0.0%
7 Technicians, Draftsmen	4.9%	3.9%
8 Public Advisors, Clerical	1.7%	3.1%
9 Judges and Lawyers	0.9%	0.3%
10 Creative, Entertainment	0.9%	0.8%
11 Managers, Administrative (Public)	1.0%	2.3%
12 Managers, Corporate	8.7%	6.4%
13 Managers, Other	0.7%	0.4%
14 Secretaries	0.8%	12.9%
15 Other Clerical	6.5%	24.1%
16 Sales	5.5%	5.5%
17 Foremen	3.9%	0.9%
18 Crafts	15.5%	4.2%
19 Government	2.3%	0.0%
20 Transportation	5.0%	0.2%
21 Operatives	6.6%	3.4%
22 Labourers (Except Farm)	6.2%	1.6%
23 Farm Labourers	2.2%	0.7%
24 White Collar Service	0.2%	1.5%
25 Skilled Manual Service	1.9%	4.4%
26 Unskilled	3.2%	7.5%
27 Farmers	10.2%	1.0%
Total	100.0%	100.0%
Weighted N	(933)	(552)

TABLE L

OCCUPATION DISTRIBUTION BY GENDER FOR ALL SELF-EMPLOYED
 (LARGE AND SMALL EMPLOYERS AND PETTY BOURGEOISIE)
 FOR CANADIANS WORKING 30 HOUR PER WEEK OR MORE
 (USING WRIGHT'S 27 OCCUPATIONAL CATEGORIES)

<u>Occupational Category</u>	<u>Male</u>	<u>Female</u>
1 Physicians and Dentists	2.3%	0.0%
2 Other Medical	0.0%	1.6%
3 Accountants, Other Auditors	1.0%	0.0%
4 Teachers, Elementary and Secondary	0.0%	0.0%
5 Teachers, University	0.4%	0.0%
6 Mathematicians, Engineers, Scientists	1.2%	0.0%
7 Technicians, Draftsmen	3.1%	0.0%
8 Public Advisors, Clerical	0.0%	0.0%
9 Judges and Lawyers	1.5%	0.0%
10 Creative, Entertainment	1.6%	9.6%
11 Managers, Administrative (Public)	0.0%	0.0%
12 Managers, Corporate	9.0%	23.4%
13 Managers, Other	0.9%	0.0%
14 Secretaries	0.0%	2.3%
15 Other Clerical	1.4%	2.8%
16 Sales	5.5%	9.1%
17 Foremen	5.0%	0.0%
18 Crafts	10.1%	0.9%
19 Government	0.0%	0.0%
20 Transportation	5.5%	0.0%
21 Operatives	1.3%	0.0%
22 Labourers (Except Farm)	1.4%	1.4%
23 Farm Labourers	1.8%	9.6%
24 White Collar Service	0.0%	0.0%
25 Skilled Manual Service	0.7%	6.5%
26 Unskilled	0.5%	16.7%
27 Farmers	<u>45.7%</u>	<u>16.2%</u>
Total	100.0%	100.0%
Weighted N	(200)	(35)

TABLE M

OCCUPATIONAL DISTRIBUTION BY GENDER FOR DECISION-MAKERS
 FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE
 (USING WRIGHT'S 27 OCCUPATIONAL CATEGORIES)

<u>Occupational Category</u>	<u>Male</u>	<u>Female</u>
1 Physicians and Dentists	0.2%	0.0%
2 Other Medical	0.0%	8.5%
3 Accountants, Other Auditors	2.0%	3.6%
4 Teachers, Elementary and Secondary	7.5%	11.6%
5 Teachers, University	2.0%	1.7%
6 Mathematicians, Engineers, Scientists	7.8%	0.0%
7 Technicians, Draftsmen	2.3%	0.0%
8 Public Advisors, Clerical	4.8%	2.5%
9 Judges and Lawyers	2.3%	0.0%
10 Creative, Entertainment	1.3%	0.0%
11 Managers, Administrative (Public)	4.0%	14.5%
12 Managers, Corporate	31.3%	22.9%
13 Managers, Other	0.6%	2.2%
14 Secretaries	1.2%	8.7%
15 Other Clerical	7.0%	16.2%
16 Sales	4.4%	1.1%
17 Foremen	10.4%	1.7%
18 Crafts	2.9%	1.7%
19 Government	2.5%	0.0%
20 Transportation	0.2%	0.0%
21 Operatives	1.3%	0.0%
22 Labourers (Except Farm)	0.4%	0.0%
23 Farm Labourers	1.0%	0.0%
24 White Collar Service	0.0%	0.0%
25 Skilled Manual Service	1.1%	1.7%
26 Unskilled	1.2%	1.5%
27 Farmers	<u>0.0%</u>	<u>0.0%</u>
Total	100.0%	100.0%
Weighted N	(149)	(46)

TABLE N

OCCUPATIONAL DISTRIBUTION BY GENDER FOR ADVISORS
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE
(USING WRIGHT'S 27 OCCUPATIONAL CATEGORIES)

<u>Occupational Category</u>	<u>Male</u>	<u>Female</u>
1 Physicians and Dentists	0.0%	0.0%
2 Other Medical	2.3%	5.3%
3 Accountants, Other Auditors	0.0%	3.7%
4 Teachers, Elementary and Secondary	7.4%	7.7%
5 Teachers, University	1.1%	0.0%
6 Mathematicians, Engineers, Scientists	4.0%	0.0%
7 Technicians, Draftsmen	14.9%	5.1%
8 Public Advisors, Clerical	0.0%	0.0%
9 Judges and Lawyers	7.4%	0.0%
10 Creative, Entertainment	0.0%	5.3%
11 Managers, Administrative (Public)	0.0%	0.0%
12 Managers, Corporate	13.4%	19.0%
13 Managers, Other	5.2%	1.4%
14 Secretaries	0.0%	3.7%
15 Other Clerical	7.6%	31.0%
16 Sales	8.9%	9.2%
17 Foremen	5.4%	0.0%
18 Crafts	9.7%	2.8%
19 Government	0.0%	0.0%
20 Transportation	0.0%	0.0%
21 Operatives	3.4%	0.0%
22 Labourers (Except Farm)	4.2%	0.0%
23 Farm Labourers	0.0%	0.0%
24 White Collar Service	0.0%	5.8%
25 Skilled Manual Service	0.0%	0.0%
26 Unskilled	0.0%	0.0%
27 Farmers	<u>4.9%</u>	<u>0.0%</u>
Total	100.0%	100.0%
Weighted N	(26)	(17)

TABLE O

OCCUPATIONAL DISTRIBUTION BY GENDER FOR SUPERVISORS
 FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE
 (USING WRIGHT'S 27 OCCUPATIONAL CATEGORIES)

<u>Occupational Category</u>	<u>Male</u>	<u>Female</u>
1 Physicians and Dentists	1.0%	0.0%
2 Other Medical	0.0%	6.1%
3 Accountants, Other Auditors	0.6%	4.3%
4 Teachers, Elementary and Secondary	3.1%	1.7%
5 Teachers, University	0.8%	2.6%
6 Mathematicians, Engineers, Scientists	2.9%	0.0%
7 Technicians, Draftsmen	6.4%	4.1%
8 Public Advisors, Clerical	1.1%	12.3%
9 Judges and Lawyers	0.0%	0.0%
10 Creative, Entertainment	1.1%	0.0%
11 Managers, Administrative (Public)	0.0%	2.1%
12 Managers, Corporate	9.6%	7.7%
13 Managers, Other	2.0%	1.8%
14 Secretaries	1.9%	11.5%
15 Other Clerical	6.6%	18.9%
16 Sales	3.5%	5.3%
17 Foremen	7.0%	4.8%
18 Crafts	23.3%	4.3%
19 Government	2.3%	0.0%
20 Transportation	0.0%	0.0%
21 Operatives	9.8%	2.6%
22 Labourers (Except Farm)	3.4%	3.2%
23 Farm Labourers	0.05	0.0%
24 White Collar Service	0.0%	0.7%
25 Skilled Manual Service	4.2%	6.0%
26 Unskilled	9.4%	0.0%
27 Farmers	0.0%	0.0%
Total	100.0%	100.0%
Weighted N	(108)	(58)

TABLE P

OCCUPATIONAL DISTRIBUTION BY GENDER FOR SEMI-AUTONOMOUS WAGE-EARNERS
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE
(USING WRIGHT'S 27 OCCUPATIONAL CATEGORIES)

<u>Occupational Category</u>	<u>Male</u>	<u>Female</u>
1 Physicians and Dentists	0.0%	0.0%
2 Other Medical	1.2%	10.3%
3 Accountants, Other Auditors	4.0%	0.7%
4 Teachers, Elementary and Secondary	18.9%	27.7%
5 Teachers, University	7.3%	3.6%
6 Mathematicians, Engineers, Scientists	1.4%	0.0%
7 Technicians, Draftsmen	8.5%	7.5%
8 Public Advisors, Clerical	5.6%	0.5%
9 Judges and Lawyers	0.0%	1.5%
10 Creative, Entertainment	0.9%	0.0%
11 Managers, Administrative (Public)	0.5%	0.0%
12 Managers, Corporate	2.0%	7.8%
13 Managers, Other	0.0%	0.0%
14 Secretaries	0.0%	6.4%
15 Other Clerical	3.3%	7.0%
16 Sales	15.4%	8.8%
17 Foremen	1.3%	1.3%
18 Crafts	14.2%	0.0%
19 Government	6.5%	0.0%
20 Transportation	0.0%	0.0%
21 Operatives	2.9%	0.0%
22 Labourers (Except Farm)	1.7%	0.0%
23 Farm Labourers	2.4%	0.0%
24 White Collar Service	0.0%	3.1%
25 Skilled Manual Service	1.6%	4.0%
26 Unskilled	0.5%	3.9%
27 Farmers	0.0%	0.0%
Total	100.0%	100.0%
Weighted N	(136)	(103)

TABLE Q

OCCUPATIONAL DISTRIBUTION BY GENDER FOR WORKERS
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE
(USING WRIGHT'S 27 OCCUPATIONAL CATEGORIES)

<u>Occupational Category</u>	<u>Male</u>	<u>Female</u>
1 Physicians and Dentists	0.2%	0.0%
2 Other Medical	0.0%	2.3%
3 Accountants, Other Auditors	0.3%	0.3%
4 Teachers, Elementary and Secondary	1.2%	2.5%
5 Teachers, University	0.5%	0.1%
6 Mathematicians, Engineers, Scientists	0.5%	0.0%
7 Technicians, Draftsmen	4.4%	3.7%
8 Public Advisors, Clerical	0.0%	0.7%
9 Judges and Lawyers	0.0%	0.0%
10 Creative, Entertainment	0.4%	0.0%
11 Managers, Administrative (Public)	0.8%	1.2%
12 Managers, Corporate	0.0%	0.3%
13 Managers, Other	0.0%	0.0%
14 Secretaries	1.3%	18.0%
15 Other Clerical	10.9%	34.8%
16 Sales	1.8%	4.4%
17 Foremen	0.0%	0.0%
18 Crafts	23.6%	6.5%
19 Government	2.0%	0.0%
20 Transportation	11.4%	0.3%
21 Operatives	13.2%	6.0%
22 Labourers (Except Farm)	15.2%	2.3%
23 Farm Labourers	3.8%	0.2%
24 White Collar Service	0.6%	1.2%
25 Skilled Manual Service	2.4%	4.6%
26 Unskilled	5.2%	10.5%
27 Farmers	<u>0.3%</u>	<u>0.0%</u>
Total	100.0%	100.0%
Weighted N	(311)	(292)

TABLE R
GENDER DIFFERENCES IN RETURNS TO VARIABLES IN THE EXPANDED MODEL OF INCOME ATTAINMENT
(SIGNIFICANCE OF DIFFERENCES IN COEFFICIENTS)
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE WITH
MORE THAN HIGH SCHOOL

	Intercept	Education	Exper.	Exper. ²	Times Unempl.	Occ. Status	R ²	N
All Employee Classes								
Males	-21029.05*	1617.46*	1201.55*	-17.64*	-356.10	263.54*	.28726*	303
Females	-29410.23*	1874.36*	792.01*	-15.09*	-980.92*	312.81*	.46271*	249
Diff. in Coeff.	8381.18	-256.90	409.54	-2.55	624.82	-49.27		
Managers/Supervisors								
Males	-27716.21*	1741.99*	1517.49**	-22.41	-788.49	338.40*	.25670*	143
Females	-40347.78*	2667.31*	1398.04*	-25.51	-274.11	223.52*	.46114*	66
Diff. in Coeff.	12631.57	-925.32	119.45	3.1	-514.38	114.88		
Semi-Autonomous								
Males	-6740.01	507.26	1560.03*	-25.84*	-775.74	-21.81	.29172*	92
Females	-9556.16	897.01	546.64	-10.82	-1549.45	252.26*	.40931*	76
Diff. in Coeff.	2816.15	610.25	1013.39	-15.02	773.71	-274.07		
Workers								
Males	-4954.47	881.68	569.40*	-9.27	744.52*	187.03*	.41015*	69
Females	-26103.84*	1578.83*	313.90	-4.36	-2014.84*	391.48*	.48099*	107
Diff. in Coeff.	21149.37*	-697.15	255.50	-4.91	2759.36*	-204.45*		

Source: Canadian Class Structure Data Set (Winter 1982-83)

Follows selection process described in Chapter 2 and listwise deletion of missing cases

*Significant at .03 level or better

TABLE S

GENDER DIFFERENCES IN RETURNS TO VARIABLES IN THE EXPANDED MODEL OF INCOME ATTAINMENT
(SIGNIFICANCE OF DIFFERENCES IN COEFFICIENTS)
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE WITH
HIGH SCHOOL OR LESS

	Intercept	Education	Exper.	Exper. ²	Times Unempl.	Occ. Status	R ²	N
<u>All Employee Classes</u>								
Males	-3009.21	379.45	815.62*	-13.87*	1.21	334.79*	.25289	404
Females	-3269.98	287.53	635.37*	-13.97*	-160.13	201.01*	.26362	245
Diff. in Coeff.	260.77	91.92	179.85	.10	-161.34	133.78*		
<u>Managers/Supervisors</u>								
Males	-7129.40	760.24	998.86*	-16.17*	447.30	325.94*	.29767	135
Females	-1378.49	-306.43	1380.33*	-31.88*	-104.34	200.09	.32043	55
Diff. in Coeff.	-5750.91	1066.67	-381.47	15.71	-362.96	125.85		
<u>Semi-Autonomous</u>								
Males	6087.12	-505.05	2631.17*	-51.36*	1756.09*	-56.42	.52814	44
Females	-39817.52*	4128.14	62.31	11.28	117.12	117.58	.52365	22
Diff. in Coeff.	45904.64	-4633.19**	2568.86*	-62.64*	1638.97	-174.00		
<u>Workers</u>								
Males	7505.47*	129.01	573.12*	-10.83*	-43.14	166.23*	.08894	225
Females	736.77	232.93	381.28*	-7.39	-240.27	152.10*	.1970	168
Diff. in Coeff.	6768.70	-103.92	-191.84	-3.44	197.13	-14.13		

Source: Canadian Class Structure Data Set (Winter 1982-83)

Follows selection process described in Chapter 2 and listwise deletion of missing cases

* Significant at .03 level or better

**Significant at .05 level

TABLE T
OCCUPATIONAL DISTRIBUTION BY GENDER BY CLASS POSITION
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE
(USING WRIGHT'S 5 OCCUPATIONAL CATEGORIES)

	Decision Mgt.		Advisor Mgt.		Supervisors		Semi-Autonomous		Workers	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Upper White Collar	66.3%	67.4%	55.8%	47.6%	28.6%	42.7%	50.2%	65.5%	8.2%	11.3%
Lower White Collar	12.6%	25.9%	16.5%	49.7%	12.0%	36.5%	18.7%	25.3%	14.7%	58.3%
Upper Blue Collar	17.0%	5.1%	15.1%	2.8%	36.8%	15.0%	23.6%	5.3%	28.0%	11.1%
Lower Blue Collar	3.7%	1.5%	7.7%	0.0%	22.6%	5.8%	7.4%	3.9%	48.8%	19.3%
Farmers	0.5%	0.0%	4.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%
Total	100.1%	99.9%	100.0%	100.1%	100.0%	100.0%	99.9%	100.0%	100.0%	100.0%
Weighted N	(149)	(46)	(26)	(17)	(108)	(58)	(136)	(103)	(311)	(292)

Source: Canadian Class Structure Data Set (Winter 1982-83)
(Excludes: Full-Time Students, Those Unemployed or Not in the Labour Force During 1982-83 Survey, Those Working Less Than 30 Hours Per Week, Those Who Began Work For the First Time After 1981, and Selected Unreliable Cases as Noted in Chapter 2)

TABLE U
INDUSTRIAL DISTRIBUTION BY GENDER BY CLASS POSITION
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

	Decision Mgt.		Advisor Mgt.		Supervisors		Semi-Autonomous		Workers	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1 Agriculture	0.0%	0.0%	4.9%	0.0%	0.4%	1.3%	0.0%	0.0%	3.7%	0.5%
2 Mining	5.3%	0.0%	0.0%	0.0%	2.6%	1.9%	0.6%	0.9%	2.0%	0.0%
3 Construction	6.4%	2.0%	14.2%	0.0%	9.5%	0.0%	3.6%	0.6%	10.4%	1.3%
4 Durable Mfg.	9.2%	0.0%	10.9%	0.0%	12.0%	3.3%	10.1%	0.0%	20.4%	4.9%
5 Nondurable Mfg.	11.4%	4.9%	3.4%	15.1%	17.1%	11.3%	3.2%	6.7%	19.0%	8.0%
6 Comm. & Utilities	6.5%	4.5%	25.4%	2.7%	12.6%	6.1%	4.6%	2.2%	15.0%	9.8%
7 Wholesale	8.6%	5.5%	10.8%	8.2%	4.4%	2.6%	5.3%	0.4%	3.9%	3.1%
8 Retail Trade	7.1%	5.3%	4.4%	12.8%	14.9%	20.2%	8.7%	5.8%	3.5%	9.7%
9 Business Service	8.7%	18.9%	0.0%	23.3%	8.6%	7.8%	12.3%	19.7%	2.4%	14.7%
10 Personal Service	3.7%	3.5%	1.7%	0.0%	4.3%	15.2%	4.6%	5.0%	5.6%	9.4%
11 Professional Service	2.0%	3.9%	7.4%	0.0%	0.0%	0.0%	0.0%	6.6%	0.0%	4.4%
12 State Service	31.2%	51.5%	16.9%	38.0%	13.1%	30.2%	47.0%	52.2%	14.0%	34.2%
Total	100.1%	100.0%	100.0%	100.1%	99.5%	99.9%	100.0%	100.1%	99.9%	100.0%
Weighted N	(149)	(46)	(26)	(17)	(108)	(58)	(136)	(103)	(311)	(292)

Source: Canadian Class Structure Data Set (Winter 1982-83)

(Excludes: Full-Time Students, Those Unemployed or Survey, Those Working Less Than 30 Hours Per Week, Those Who Began Work for the First Time After 1981, and Selected Unreliable Cases as Noted in Chapter 2)

TABLE V
TIME USUALLY REQUIRED FOR ON-THE-JOB TRAINING, APPRENTICESHIP TRAINING, JOB EXPERIENCE FOR PRESENT JOB
IF OVER ONE YEAR
BY GENDER BY CLASS POSITION FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

	Decision Mgt.		Advisor Mgt.		Supervisors		Semi-Autonomous		Workers	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
12 Months to 23 Months	0.5%	7.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.4%
2 Years	12.9%	39.0%	28.0%	76.9%	22.7%	53.9%	27.3%	51.7%	23.4%	79.3%
3 Years	7.8%	9.6%	7.7%	0.0%	20.0%	5.1%	15.2%	27.7%	21.6%	9.5%
4 Years	12.2%	15.9%	8.1%	0.0%	14.1%	0.0%	19.9%	7.0%	38.4%	0.0%
5 Years	25.9%	23.0%	25.2%	14.6%	18.9%	36.3%	34.7%	7.5%	5.7%	0.0%
6 Years	2.7%	4.8%	9.6%	8.4%	8.1%	0.0%	1.5%	0.0%	3.0%	0.0%
7 Years	31.4%	0.0%	15.4%	0.0%	6.6%	4.7%	1.4%	0.0%	2.6%	0.0%
Missing	6.6%	0.0%	6.0%	0.0%	9.6%	0.0%	0.0%	6.2%	5.1%	5.8%
Total	100.0%	99.9%	100.0%	99.9%	100.0%	100.0%	100.0%	100.1%	99.8%	100.0%
Weighted N	(91)	(25)	(15)	(8)	(49)	(17)	(46)	(23)	(56)	(27)

Over 1 Year Extra Training Required	Decision Mgt.		Advisor Mgt.		Supervisors		Semi-Autonomous		Workers	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
	61.1%	54.3%	57.7%	47.1%	45.4%	29.3%	33.8%	22.3%	18.0%	9.2%

NOTE: Only a certain percentage in each class reported that such training over a year was necessary.
The percentage by gender in each class reporting that such training over a year was necessary is:

TABLE W
COMPLETION OF AN APPRENTICESHIP, FULL-TIME PROGRAM IN A COMPANY TRAINING SCHOOL LASTING SIX WEEKS OR MORE, OR TRAINING IN THE CANADIAN FORCES LEADING TO QUALIFICATION IN A TRADE BY GENDER BY CLASS POSITION

Completion of Such a Program	Decision Mgt.		Advisor Mgt.		Supervisors		Semi-Autonomous		Workers	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Yes	19.8%	12.5%	21.5%	19.4%	28.7%	15.1%	26.4%	6.6%	24.2%	8.5%
No	80.2%	87.5%	78.5%	80.6%	71.3%	84.9%	73.6%	93.4%	75.8%	91.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Weighted N	149	46	26	17	108	58	136	103	311	292

Source: Canadian Class Structure Data Set (Winter 1982-83)

Excludes: Full-Time Students, Those unemployed or Not in Labour Force During 1982-83
Survey, Those Working Less Than 30 Hours Per Week, Those Who Began Work For the First
Time After 1981, and Selected Unreliable Cases as Noted in Chapter 2

TABLE X
UNION OR COLLECTIVE BARGAINING ASSOCIATION AT PLACE OF WORK
BY GENDER BY CLASS POSITION

Union or Collective Bargaining Association	Decision Mgt.		Advisor Mgt.		Supervisors	
	Male	Female	Male	Female	Male	Female
Yes	62.4%	50.0%	69.2%	33.3%	62.0%	44.8%
No	37.6%	50.0%	30.8%	66.7%	38.0%	55.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
N	(149)	(46)	(26)	(18)	(108)	(58)

Union or Collective Bargaining Association	Total Man/Sup		Semi-Autonomous		Workers	
	Male	Female	Male	Female	Male	Female
Yes	62.5%	45.5%	61.3%	51.0%	69.1%	52.2%
No	37.5%	54.5%	38.7%	49.0%	30.9%	47.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
N	(283)	(121)	(137)	(104)	(311)	(291)

Note: This uses weighted N

APPENDIX G

WRIGHT'S FINDINGS FOR GENDER DIFFERENCES IN
CONCENTRATION WITHIN THE CLASS STRUCTURE

The class compositional differences found by Wright (1979) were somewhat more pronounced. Wright (1979) found the following distribution:

<u>Class Position</u>	<u>White Males</u>	<u>White Females</u>
Employers	11.5%	2.3%
Managers/Supervisors	40.2%	26.8%
Workers	43.5%	67.3%
Petty Bourgeoisie	4.9%	2.0%

(Wright, 1979:219)

As already explained, however, Wright's working class also included semi-autonomous workers. If workers and semi-autonomous workers are collapsed into one class, the distribution using the Canadian Class Structure data set (for all those entering the analysis) would be as follows:

<u>Class Position</u>	<u>Males</u>	<u>Females</u>
Employers	5.11%	1.33%
Managers/Supervisors	30.85%	22.86%
Workers (Both Semi-Aut. & Workers)	47.72%	71.05%
Petty Bourgeoisie	16.32%	4.76%

The main differences in the two distributions appears to be that there is a lower concentration of males in the managerial/supervisory class in the Canadian data set used here than in Wright's data set (also considerably more male petty bourgeoisie in this data set). When considering the semi-autonomous as part of the working class, the over concentration of women (vis-a-vis men) is just as pronounced here

(actually it is even more pronounced); however, the over concentration of men in the managerial/supervisory class (vis-a-vis women) is less pronounced in this data set than in the one used by Wright (1979).

Black and Myles (1985) have shown that "Canada has a smaller managerial and supervisory apparatus than the United States" (1985:9).

Thus, there may be less opportunity for gross over concentrations by gender to occur in the managerial/supervisory class in Canada than in the United States (and the effects of such concentration differences overall should be lower). Another possible explanation for the differences in concentration in the managerial/supervisory class by gender between the two data sets may be, simply, that women have made some progress in the period from 1969 (when Wright's data were gathered) and 1982-83 (when the present data were gathered).

The findings of this study indicate, however, that the semi-autonomous class and the working class are quite distinct in many respects (in terms of mean levels of education, occupational status, etc., and in terms of the income attainment models predicted here).

Theoretically speaking, it would be unwise to collapse the two classes into one. Separating the classes provides a more rigorous test of Wright's hypotheses.

APPENDIX H

THE PREDICTED INCOME GAP: THREE POINTS OF EVALUATION

The predicted income gap reported throughout the body of this thesis is calculated by substituting the grand mean value of each independent variable into the various expanded regression equations. These values are as follows:

Education = 12.51 years; Experience = 16.58 years;
 Experience² = 407.96 years²; Number of Times Unemployed = 1.28;
 and Blishen Score = 47.70

It may, however, be more meaningful to evaluate the income gap at different values of these variables for some comparisons; for example, when comparing female managers/supervisors with male managers/supervisors, the above-noted values may not provide a realistic assessment of the size of the gap since they do not provide an accurate profile of the average female or male manager/supervisor. It may be more realistic, in this case, to evaluate the gap at a slightly higher level of the independent variables (since most people in this comparison group will have a higher level of education, occupational status, etc.).

Table Y summarizes the predicted income gap between women and men within class positions (detailed managerial/supervisory classes are included at the bottom of the table) evaluated at three levels. The 'low level' represents the income gap evaluated at the average of the two lowest values (from the three main employee classes for both sexes) for each independent variable. These values are as follows:

Education = 11.44 years; Experience = 11.55 years;
 Experience² = 212.71 years²; Number of Times Unemployed = .80;
 and Blishen Score = 40.43.

The 'high level' represents the income gap evaluated at the average of the two highest values (from the three main employee classes for both sexes) for each independent variable. These values are as follows:

Education = 14.05 years; Experience = 19.74 years;

Experience² = 544.26 years²; Number of Times Unemployed = 1.69;

and Blishen Score = 55.64.

The 'medium level' represents the grand mean values of these variables already described.

Table Z summarizes various class comparisons for both women and men in which the income gap is also evaluated at three levels.

Some general comments can be made regarding the value of these tables to the problem at hand. First of all, it is obvious that the income gap between women and men occurs at every level of evaluation for every class. Women have incomes that range from 46.47 percent of men's incomes to 77.96 percent of men's incomes. The results reported for Proposition 1 (within class positions the income level of women will be more like that of men than for all classes considered together) are not altered by considering different points of evaluation. At the 'low level', the only class in which there is some narrowing of the income gap (from all employee classes) is the working class; even here the gap is only narrowed by about three percent. At the 'high level' of evaluation, the gap is narrowed within the managerial/supervisory class (only by about one percent), the working class (by about seven percent), and the supervisory class (by just over ten percent). However, the values of the independent variables used in the 'high level' evaluation are higher than the average value of these variables

for both sexes (particularly males) in either the working class or supervisory class; comparison at these high levels may not be realistic.

It is interesting to note that although in every other class the gap is reduced somewhat (between women and men) at higher levels of the independent variables, this is not so within the decision makers' class. At any level of evaluation, female income remains between 60 to 61 percent of male income in the decision makers' class. The implications of this for women are somewhat grim; it appears that there is little they can do to improve their lot within this class relative to men. Within the supervisory class, however, increasing income-related attributes can greatly improve the income level of women vis-a-vis men (as Table Y clearly indicates).

The findings summarized in Table Z provide, essentially, the same information regarding Proposition 3 and Assumption 1 that have already been discussed in the body of the thesis. Assumption 1 is supported at most levels for all comparison groups (i.e., income levels differ between classes). One can get a sense of the range of income possibilities within each class position for women and men by looking at the predicted income at the 'low level' and at the 'high level'.

Also worthy of special attention is the finding that female supervisors have a higher predicted income than female decision makers at the 'high level' of the independent variables. Even at the 'medium level', female supervisors have almost the same level of income as female decision makers (within three percent). Since the most meaningful point of evaluation for this comparison group would be somewhere between the medium and high level (due to the rather high mean value of the independent variables for women in both these classes), one might

conclude that within the managerial/supervisory hierarchy the income levels of women are not characterized by the steep income gradients predicted by Wright.

TABLE Y
GAPS IN PREDICTED INCOME BETWEEN MALES AND FEMALES WITHIN CLASS POSITIONS
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

	<u>Low Level</u>	<u>Medium Level</u>	<u>High Level</u>
All Employee Males	\$21,013.92	\$26,116.49	\$30,884.07
All Employee Females	\$12,725.55	\$16,599.59	\$20,750.87
Predicted Gap	\$ 8,288.37	\$ 9,516.90	\$10,133.20
Females as % of Males	60.56%	63.56%	67.19%
Managers/Super. Males	\$21,563.82	\$27,506.54	\$33,084.75
Managers/Super. Females	\$11,843.61	\$17,066.02	\$22,592.60
Predicted Gap	\$ 9,720.22	\$10,440.52	\$10,492.09
Females as % of Males	54.92%	62.04%	68.29%
Semi-Autonomous Males	\$21,739.84	\$25,933.12	\$29,239.02
Semi-Autonomous Females	\$12,410.20	\$15,908.57	\$19,771.70
Predicted Gap	\$ 9,329.64	\$10,024.55	\$ 9,467.32
Females as % of Males	57.09%	61.34%	67.62%
Workers Males	\$19,976.32	\$22,559.38	\$24,935.58
Workers Females	\$12,682.49	\$15,553.15	\$18,532.49
Predicted Gap	\$ 7,293.83	\$7,006.23	\$ 6,403.09
Females as % of Males	63.49%	68.94%	74.32%
Decision Makers Males	\$21,396.52	\$27,921.57	\$34,055.95
Decision Makers Females	\$13,059.64	\$16,787.55	\$20,679.12
Predicted Gap	\$ 8,336.88	\$11,134.03	\$13,376.83
Females as % of Males	61.04%	60.12%	60.72%
Supervisors Males	\$21,167.75	\$25,789.25	\$29,938.83
Supervisors Female	\$ 9,835.64	\$16,380.33	\$23,338.85
Predicted Gap	\$11,332.11	\$ 9,408.92	\$ 6,599.98
Females as % of Males	46.47%	63.52%	77.96%

Source: Canadian Class Structure Data Set (Winter 1982-83)
Follows selection process described in Chapter 2

Low Level Income: the average of the two lowest values (from the three main employee classes) for each independent variable where:
Education = 11.44; Experience = 11.55; Experience² = 212.71;
Number of Times Unemployed = .80; and Blishen Score = 40.43

Medium Level Income: the grand mean of all employee classes for each independent variable where:
Education = 12.51; Experience = 16.58; Experience² = 407.96;
Number of Times Unemployed = 1.28; and Blishen Score = 47.70

High Level Income: the average of the two highest values (from the three main employee classes) for each independent variable where:
Education = 14.05; Experience = 19.74; Experience² = 544.26;
Number of Times Unemployed = 1.69; and Blishen Score = 55.64

TABLE Z
GAPS IN PREDICTED INCOME BETWEEN CLASS POSITIONS WITHIN SEX CATEGORIES
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

Class Comparison	Males			Females		
	Low Level	Medium Level	High Level	Low Level	Medium Level	High Level
Manager/Super.	\$21,563.82	\$27,506.54	\$33,084.75	\$11,843.61	\$17,066.02	\$22,592.66
Semi-Autonomous	\$21,739.84	\$25,933.12	\$29,239.02	\$12,410.20	\$15,908.57	\$19,771.70
Predicted Gap	\$ -176.02	\$ 1,573.42	\$ 3,845.73	\$ -566.59	\$ 1,157.45	\$ 2,820.96
Semi-Aut. as % of Man./Super.	100.82%	94.28%	88.38%	104.78%	93.22%	87.51%
Manager/Super.	\$21,563.82	\$27,506.54	\$33,084.75	\$11,843.61	\$17,066.02	\$22,592.66
Workers	\$19,976.32	\$22,559.38	\$24,935.58	\$12,682.49	\$15,553.15	\$18,532.49
Predicted Gap	\$ 1,587.50	\$ 4,947.16	\$ 8,149.17	\$ -838.88	\$ 1,512.87	\$ 4,060.17
Workers as % Managers/Super.	92.64%	82.01%	75.37%	107.08%	91.14%	82.03%
Semi-Autonomous	\$21,739.84	\$25,933.12	\$29,239.02	\$12,410.20	\$15,908.57	\$19,771.70
Workers	\$19,976.32	\$22,559.38	\$24,935.58	\$12,682.49	\$15,553.15	\$18,532.49
Predicted Gap	\$ 1,763.52	\$ 3,373.74	\$ 4,303.44	\$ -272.29	\$ 355.42	\$ 1,239.21
Workers as a % of Semi-Autonomous	91.89%	86.99%	85.28%	102.19%	97.77%	93.73%
Supervisors	\$21,167.75	\$25,789.25	\$29,938.83	\$ 9,835.64	\$16,380.33	\$23,338.85
Workers	\$19,976.32	\$22,559.38	\$24,935.58	\$12,682.49	\$15,553.15	\$18,532.49
Predicted Gap	\$ 1,191.43	\$ 3,229.87	\$ 5,003.25	\$ -2,846.85	\$ 827.18	\$ -4,806.36
Workers as a % of Supervisors	94.37%	87.48%	83.29%	128.94%	94.95%	79.41%

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Cont'd
TABLE 2
GAPS IN PREDICTED INCOME BETWEEN CLASS POSITIONS WITHIN SEX CATEGORIES
FOR CANADIANS WORKING 30 HOURS PER WEEK OR MORE

Class Comparison	Males			Females		
	Low Level	Medium Level	High Level	Low Level	Medium Level	High Level
Decision Makers	\$21,396.52	\$27,921.57	\$34,055.95	\$13,059.64	\$16,787.55	\$20,679.12
Supervisors	\$21,167.75	\$25,789.25	\$29,938.83	\$9,835.64	\$16,380.33	\$23,338.85
Predicted Gap	\$228.77	\$2,132.32	\$4,117.12	\$3,224.00	\$407.22	\$2,659.73
Supervisors as % of Dec. Makers	98.93%	92.36%	87.91%	75.31%	97.57%	112.86%
Decision Makers	\$21,396.52	\$27,921.57	\$34,055.95	\$13,059.64	\$16,787.55	\$20,679.12
Workers	\$19,976.32	\$22,559.38	\$24,935.58	\$12,682.49	\$15,553.15	\$18,532.49
Predicted Gap	\$1,420.20	\$5,362.19	\$9,120.37	\$377.15	\$1,234.40	\$2,146.63
Workers as a % of Decision Makers	93.36%	80.80%	73.22%	97.11%	92.65%	89.62%

Source: Canadian Class Structure Data Set (Winter 1982-83)/Follows selection process in Chapter 2

Low Level Income: the average of the two lowest values (from the three main employee classes) for each independent variable where: Education = 11.44; Experience = 11.55; Experience = 212.71; Number of Times Unemployed = .80; and Blishen Score = 40.43

Medium Level Income: the grand mean of all employee classes for each independent variable where: Education = 12.51; Experience = 16.58; Experience = 407.96; Number of Times Unemployed = 1.28; and Blishen Score = 40.43

High Level Income: the average of the two highest values (from the three main employee classes) for each independent variable where: Education = 14.05; Experience = 19.74; Experience = 544.26; Number of Times Unemployed = 1.69; and Blishen Score = 55.64

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