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THE GENDERED PAY GAP IN CANADA:

UNPAID HOUSEWORK AND EARNINGS IN THE MID-1990S

by

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presented to the University of Waterloo

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Abstract

The Gendered Pay Gap in Canada:

Unpaid Housework and Earnings in the Mid-1990s

This study extends research into the gap between women's and men's average earnings in Canada. Among other predictors, the effects on pay for employment from workers' unpaid time doing housework, caring for children, and assisting seniors are investigated. Statistics Canada data from the 1994 and the 1995 cycles of the General Social Survey are used. The main analysis is for adults, 25 to 69 years old in 1994, who are employed full-time. The 1994 and 1995 surveys also provide subsamples of full-time workers whose spouses are employed. Other 1994 GSS subsamples are young adults 18 to 24 years of age who work full-time, and part-time workers 25 to 69 years of age, 80 percent of whom are women. Gender is consistently a strong influence on hourly pay rates across models with various controls and across subsamples, except in models of pay for part-time workers. In "family responsibility models" for full-time workers, women's disadvantage in average wages is altered little with control for marital status, housework, child care, and recent interruption to paid work (or career interruption).

For all except the part-time workers, women's education moderates the disadvantage in pay for women compared to men. Except among young adults, housework time accounts for a small part of the gendered difference in full-time pay and is consistently a significant disadvantage for women's pay, but not for men's pay. When housework is included, unpaid child care time has little additional impact on pay. Housework is a significant negative influence on pay even in a "life cycle model" with the added effects on pay of social origins (parental occupations and educations), a unionized workplace, and self-employment.

For workers in dual-earner couples, an interruption since beginning regular employment is negatively associated with pay for women, but not for men, in "family responsibility models,"

and is similar in importance to housework as an influence on women's pay. In the analyses for dual-earner couples, spousal education differences do not alter the effects of gender on pay. Women's disagreement with breadwinning as the sole role for husbands and fathers is associated with increasing pay among women. In these analyses, gender attitudes are slightly more important than housework and an interrupted career in accounting for variance in pay.

The overall set of results provide more support for explanations of the gendered pay gap based in gender relations theory than explanations derived from human capital theory.

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A bittersweet part of finishing my Phd is leaving the community of Sociology graduate students at the University of Waterloo. The supportive collegiality has always extended across cohorts in our program. My grad school years have given me amazing friends who kept me smiling through this last stage. Several showed the way ahead of me. Thank you Marcela, Elaine, Serge, Kathleen, Alison, Norine, Jim, Lynn, and Subhanghi for your kindness and affection. Especially since my father's death this month, Ilona Khosa, Julie Dembski, Rick Helmes-Hayes, and Keith Warriner have, as always, mixed concern and caring with their practical assistance.

On the home front, Bill did the cooking and most of the housework -- a good environment for musing on the division of domestic labour. "Thanks, Billy." Now I will turn my talk and writing towards thanking my friends, siblings, aunts and uncles who, like Suzanne and Francis, have encouraged me to get this work done.

"Yes, Ryan. I'm a doctor, now."

Waterloo

September, 1999

Dedication

For my Mom and Dad,

Mary Katherine (Zünti) Schwab (d. June 26, 1994)

and

Wendelin Joseph Schwab (d. September 2, 1999).

TABLE OF CONTENTS

List of Tables

Page

Page

INTRODUCTION

Explaining the gap in pay between women and men has become "a major research industry," in Ridgeway's words (1997:224). But within the large volume of research dominated by studies of the United States and by economic theory, the sociological contributions on Canada are sparse. Updating and extending analysis focused upon Canada is an obvious, minimal objective of this dissertation research. From the interplay between economic and sociological approaches to explaining gendered pay differentials, questions about the impact upon pay for employment from family relationships, household work, family background, and attitudes towards gendered divisions of labour emerge as central issues of this investigation. The main point of contention initially is the extent to which interruptions in women's paid employment and women's current unpaid child care and housework for their families account for pay differences between men and women. Near the end of the analysis, the focus becomes whether differences in gender role attitudes or differences in the potential and actual earnings between spouses can account for the overall gendered pay gap among people in dual-earner couples. Canadian national-level data from the 1994 and 1995 cycles of the General Social Survey provide answers to some of these questions.

THE PAY RATIO

Through the first half of the 1990s, women employed full-time all year were paid around 71 cents if men similarly employed were paid a dollar. Since 1967, when Statistics Canada first began regular reporting of the female to male wage ratio, women's average pay for full-year full-time employment has increased about 15 percent relative to men's average pay.[1] In other words,

[1] Beginning in 1981 a full-year has been defined as 49 to 52 weeks of work by Statistics Canada. Earlier Statistics Canada figures are based on 50 to 52 weeks of work for a full-year. Full-time work is at least 30 hours a week, using a recent Statistics Canada definition. Employment includes those who have a job, even if not at work at that job for reasons such as illness or a vacation (e.g., Statistics Canada 1997a:17, 24, 25).

the relative improvement over about 30 years was about one half of one percent a year. Among all workers, the 30 year increase was about 20 percent between 1967 and 1996. A substantial gap persists. The employment incomes of women and men have been moving closer to equity, but moving slowly.

In 1995, women working in full-time paid employment all year earned 73.1 percent of the average earnings of men who worked full-time over the full year. Without an adjustment to exclude part-time and seasonal workers, the wage gap is even larger: among all earners in 1995, women were paid, on average, 65.1 percent of the average amount men were paid. These percentages place women's average pay closer to men's than in any other year back to 1967. In 1967, women working full-time for a full year received an average wage that was 58.4 percent of the average wage for men while in the same year among all earners, women received 46.1 percent of the average wage for men. Over the intervening years, the ratio slowly and steadily increased for full-time full-year workers (except for a few small year-by-year decreases of less than a percent) until 1988, then rapidly increased from 66 percent in 1989 to 72.2 percent in 1993. A sharp decline to 1991 levels followed in 1994, when women's employment incomes were 69.8 percent of men's employment incomes for full-time full-year workers and 62.3 percent among all workers. Then in 1995 the ratio increased again, then was followed by the slightly higher 73.4 percent among full-year full-time workers in 1996. For all workers in 1996 the ratio was 64.8 percent (Statistics Canada, 1998a).

The mid-1990s year-to-year fluctuations in the size of the wage gap are partially explained as the effects of aggregate changes in labour force participation during periods of economic recession and recovery in Canada: a loss of full-time full-year jobs between 1989 and 1992 was followed by a substantial increase in the number of jobs. The big reduction in the wage gap in the early 1990s occurred, in large part, when average employment incomes for men were stalled or declining but women's average employment incomes were growing. Women's wages then stabilized after 1992, changing very little after decades of steady increase. When men's wages

increased in 1994, the wage gap widened. It narrowed again in 1995 when men's employment income dropped and women's employment income again increased.[2] The further reduction in the size of the gap occurred in 1996 with increasing pay for both men and women (Statistics Canada, 1998a:9-19; 1997a:10-11).

Models of the Gender Gap in Pay

A strong motivation for renewed investigation of the gendered earnings gap is the prevalence of research interpretations based on assumptions, usually untested, about the negative consequences for pay of women's unpaid domestic labour to care for families and homes. My analysis of the gendered pay gap in Canada in the mid-1990s begins with an overview, in Chapter One, of economic theories and of sociological feminist theories about why the gap exists.[3] In a review of empirical research from the past 25 years, I build the case for new research into the gendered earnings gap in Canada. Several potential influences upon the size of the gendered gap in pay -- influences such as the unpaid time spent in housework and child care and care of the elderly, or the interruption of paid work experience to care for children, or attitudes in support of traditional gender roles -- are inherent in human capital theory or gender relations theories, yet these potential effects have received scant attention in national level multivariate analyses of the gap in Canada. I propose models of pay to examine the relative importance of these influences on pay in comparison to gender and other independent variables. First is a "family responsibility model" incorporating the unpaid care of families and homes; second, a "life cycle model" starting with influences inherited from a mother's education and occupation and a father's education and

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[2] The 1995 decrease in average full-year full-time earnings for men is partly explained by loss of employment in occupations paying higher wages while women experienced increases in earnings, particularly in managerial, medicine and social science occupations (Statistics Canada, 1997a:10).

[3] For overview summaries of theories, see England (1992), Marini (1989), Gunderson (1985), or Ornstein (1982).

occupation; and third, a "gender relations model" considering either gender role attitudes or differences in earning potential between spouses in dual-earner couples.

Statistics Canada's General Social Surveys of 1994 and 1995, Cycles 9 and 10, are good sources of recent data with which to examine various arguments about influences upon the gendered gap in pay. As explained in Chapter Two, the availability of variables that are generally not included in national sample surveys makes these data sets especially appropriate for studies that bring to the forefront some previously unexamined or rarely examined associations with pay. Much of Chapter Two covers the construction of hourly pay rates for the dependent variable. The definition and construction of independent variables are explained and the working subsamples are introduced.

In Chapter Three, the analytical technique is described, expected results are restated, and then results are presented for GSS9 respondents aged 25 to 69 years old in 1994 and in full-time paid employment. The first set of results in Chapter Three examines the fit of a family model of pay that incorporates the relationships with pay of gender, family responsibilities, and unpaid domestic work. This model is oriented to querying whether unpaid domestic labour and work interruptions alter the magnitude of the gender gap and produce a disadvantage for women's wages relative to men's. The model further sets out to test the resilience of any influence of domestic labour on pay after adjustment for the impact on pay of education, supervisory experience, and job tenure. The second set of results is a supplementary analysis of pay for men and women in full-time employment. The factors of the basic family reponsibility model are re-examined within a life cycle model of influences on pay. Beginning with influences on pay from social origins, the order in which factors are considered gives the name to the life cycle model. The first patterns examined are the influence of parental educations and occupations upon the wages of the GSS9 respondents, followed by the respondents' education and work experience, their employment characteristics such as unionization and self-employment, and in the final steps, their current unpaid domestic labour. The overall question with this life cycle model is whether family

responsibilities in the form of work interruption and unpaid housework and child care can add anything to an understanding of the gendered wage gap after social origins and employment characteristics are considered.

In Chapter Four, the third and fourth sets of results are from analyses of pay from 1994 GSS9 data for full-time workers aged 18 to 24 and part-time workers 25 to 69 years old. The fit of the family responsibility model of pay for each of these two subsamples of workers is assessed and discussed. The reasons for these separate analyses are elaborated in Chapter Two. Among young adults, the gap between women's pay and men's pay is narrower than among older workers: the educational attainment of young women is rising relative to that of young men and the pay of young men is declining relative to that of young women. Among part-time workers, the proportion of women is much higher than the proportion of women among full-time workers.

In Chapter Five, the focus is upon respondents in "dual-earner" couples.[4] First, the basic analysis, the fit of the family responsibility model, is repeated for the GSS9 respondents whose marriage partners or common-law partners are also employed at a job or work for a business. Results are then presented from a gender relations model of pay, a model which utilizes educational difference as an indicator of differences in earning potential between spouses within dual-earner households. The chapter continues with the analysis and discussion of models for 1995 GSS10 data. Again the fit of a family responsibility model is considered for the pay of 25 to 69 year olds respondents who are in dual-earner couples. A second version of a gender relations model of pay for dual-earner couples incorporates the gender attitudes of men and women in dual-earner couples.

In the concluding section, Chapter Six, the results are summarized and interpretations are offered. This wrap-up maintains the focus upon the influence of housework and other unpaid

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[4] A considerable number of Canadian adults are in dual-earner couples. In 1995, dual-earner couples who received employment income from both husband and wife were 59 percent of Canadian "husband and wife" families (Statistics Canada, 1998b). The percentage in the United States is similar, with both the husband and wife reporting employment income in 61 percent of all married couples (Winkler, 1998).

domestic work on pay. While I point to ways this investigation extends beyond earlier research, I also comment upon its limits, particularly in the assessment of the gendered qualities of power relations in dual-earner couples and for differentiation between doing housework and being responsible for housework. At the same time, I outline the need for continuing analysis of the pay gap.

Chapter One

Explanations of the Gender Gap in Pay

In human capital explanations of the gendered pay gap, a primary source of the difference in pay between men and women is located outside the labour market, and outside of the economy, in the choices women make in order to accomplish unpaid domestic work. Feminist theory draws attention to the economic separation of unpaid work from paid work and the general social devaluation of women's unpaid care of families and homes in comparison with paid employment. Added to the devaluation of women's unpaid work is the patriarchal devaluation of women's paid work relative to men's paid work, a further reason greater responsibility for unpaid domestic housework is allocated to women than to men. However, information about unpaid work is not commonly collected among the economic indicators of national data sets that are otherwise suitable for analyses of gendered pay differentials. As the review of research will make clear, the contributions of family responsibilities and of unpaid housework and child care to the gender gap in pay in Canada remain open research questions.

Human Capital Theory

Human capital theory (beginning with Becker 1957; 1964) has permeated explorations of the gender gap in pay. A basic assumption of human capital theory is that pay is allocated by employers to reward employees' productivity. Educational level and experience in paid employment are assumed to measure productivity. Nestled within neoclassical economic theory, the argument of human capital theory is that workers with greater human capital -- education and labour market experience -- are more productive than employees with less human capital and, therefore, are rewarded with greater pay for their greater productivity. The labour market in which the forces of labour supply and demand interact is assumed to be an efficient, competitive,

gender-neutral market. To state the human capital explanation in an overly simplified manner, women "earn" less, as a group, because women have invested less than men in building up their human capital endowments through education and the training which accumulates over time in the labour force and over a period of tenure with a particular employer. In other words pay is deemed, in theory, to be allocated fairly according to a merit system. Inequities between pay structures for women and for men are not issues of injustice within human capital theory.

Refinements to human capital theory within a neoclassical economic perspective accommodate the preferences, or tastes, of individuals and their choices to optimize returns on their investments. Thus a theory of discrimination admits the possibility of discrimination to account for employers who appear to select employees on the basis of criteria other than human capital (Becker, 1957). However, discrimination by employers is non-competitive behaviour. In an unrestricted competitive market, employer discrimination (or personal prejudice or aversion) cannot account for an enduring gendered pay gap because the cost of discrimination is reduced profits for an employer. One reason gender discrimination might take some time to disappear is because employers have invested in the training of the existing work force. Another reason is customer preferences. Nevertheless, for human capital theorists discrimination is not expected to last within a competitive market.

Employers also engage in "statistical discrimination," whereby an employer's selection of individual men and women for hiring, for assignment to job tasks, and for promotion is made on the basis of the characteristics attached by the employer to men as a group and women as a group (Gunderson, 1985:225; Reskin, 1993:254). Thus, perceptions of differences between women and men in skills and behaviour, often behaviour expected to result from current or potential marital status and parental status, enter judgments about which individual man or woman is the better investment for an employer. Reskin and Roos (1990:35-37) argue that labour queues then become gender queues as employers assess labour costs and rank potential employees.

Other accommodations of individual preferences, within neoclassical economics' taste perspective, connect human capital investment to individuals' choices within households through division of labour, specialization, and comparative advantage:

> [A] rational division of labour (from an efficiency point of view) may involve one sex specializing in household tasks and the other in labour market tasks, and since women bear the children (so the argument goes) they may have the comparative advantage in household tasks. This also means that since their careers are likely to be shorter and interrupted, they are unlikely to invest as much as males in human capital, and they are likely to acquire education and skills that are usable in both household and labour market tasks (Gunderson, 1985:221).

In this argument, women's actual or potential family responsibilities and household work determine women's position in the labour market and their pay. If the division of unpaid work within households or the allocation of effort between paid and unpaid work occurs in adherence to traditional gender roles, rather than from comparative advantage, constraints upon women's decisions as a result of domestic responsibilities remain non-labour market and non-economic constraints as far as neoclassical economists are concerned. Role expectations and the construction of gender are placed, in theory, outside the economy along with influences on women's preferences from educational institutions and influences from childhood or adult socialization that limit women's accumulation of human capital, as Gunderson (1985) explains.

The theoretical foundation of human capital theory locates causes for unequal pay in differences among individuals on the supply-side of the labour market. Thus, marital status and, less frequently, the presence of young children are incorporated into economic models predicting earnings from the attributes of individual women and men.[1] Education, work experience (often replaced with a proxy measure), and marital status are the variables most consistently present in predictive models of gender wage inequalities in sociological and economic research. In sociology, status attainment explanations of income inequalities across and within generations are

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[1] On the other hand, while marital status is frequently entered into models of the wage gap, Wellington (1993) does not include marital status in a model for wages in the U.S. because it is not a direct measure of productivity.

also supply-side human capital explanations that include parental education and occupation as endowments of individual workers. The empirical evidence provides some support for human capital theory, but is unable to account for substantial portions of the gender gap in pay.

As free market advocates, neoclassical economists' response to the sparse evidence is to restate the assumptions of human capital theory (if there were a free labour market in conditions of perfect competition, differences in skills would explain the gender gap in pay) and point to constraints on competition in the labour market (Pujol, 1992). Some theory and analysis turned to consideration of demand-side effects: employer characteristics and labour market structures. Therefore, economists and sociologists have examined and discussed the effects of the monopoly economy comprised of the public sector and non-competitive private sector, the effects of monopsony in which one large employer can control wages in a local labour market, the effects of unions and collective agreements, and the effects of government interventions such as pay equity legislation. Recent analysis has also included organizational structures, considering the effects of bureaucratization, and in particular, of formalization.

Modifications of human capital explanations of the gender gap within non-competitive theories owe much to feminist economists writing in the 1970s. Madden (1973) applied the concept of monopsonistic power to explain that women's wages may be depressed because their wage curves are less elastic than men's when women are less mobile and have skills that are less in demand. As Gunderson (1985) explains, the labour force may be segmented by an employer so that competition is contained within segments and wages can be controlled, perhaps lowered, for a group such as women who may be tied to local employment close to their household responsibilities. Bergmann (1971) contributed the notion of "crowding" that occurs with gendered occupational segregation, and leads to lower wages for women as the result of differences in the labour supply curves for men and women. Occupational segregation has been taken as evidence that men and women are not competing in a single homogeneous market. There appear to be core and periphery markets (or primary and secondary markets) and internal labour markets within

particular industries and firms also segmented and segregated by gender. The low pay and poor working conditions of secondary industries and lower tier positions make discouragement, absenteeism, and high job turnover more likely so that women employed in these positions eventually acquire the work histories usually associated with low wages. Blau and Jusenius (1976) are credited with early analysis of labour market segmentation and discussion of employer taste preferences as a causal factor in occupational segregation. However, all these modifications to theory had little impact upon the prevalent neoclassical models of the time (Pujol, 1992).

Gender Relations Theory

Approaches from outside human capital theory to investigation of the gender gap in wages tended to reshape the inquiry by adding attention to the consequences of social inequality and gender relations. Basic assumptions of human capital theory are challenged:

> Productivity is primarily a result of the way work is organized and technology is used, not a result of the characteristics of the workers. In other words, the pay cannot be blamed primarily on women working inefficiently or on lack of experience and education. Moreover, pay is not simply the result of some intrinsic job worth. It is a negotiated worth based to a large extent on power (Armstrong and Armstrong, 1994:28).

Pay is not the outcome of a neutral exchange. The gender gap in pay is presented as a feature of power relations in workplaces. Furthermore, the direction of causal influences (the "blame" in the Armstrong and Armstrong statement) is probably reversible and reciprocal.

In explaining why the gendered pay gap has persisted over time or in identifying how the gap is sustained at any point in time, the most important factor for many analysts is occupational segregation. "Gender segregation at work is the most important cause of the wages gap between men and women in Western economies" (Walby, 1988:1). Reskin and Padavic (1994) similarly point to gendered occupational segregation and job segregation as the core explanation for the gendered pay gap in the United States. Armstrong and Armstrong (1994:45) observe the gender segregated occupations in Canada and conclude: "[W]omen's jobs have always been systematically underpaid relative to those of men. Wage differentials are unlikely to disappear until either the

segregation or the inequitable wages that accompany women's work disappear." In recent years in Canada as in other countries, women have outnumbered men in the lowest-paying occupations. But whether in the highest or in the lowest paying occupations, women in Canada have consistently earned less than men working in the same occupation (Armstrong and Armstrong, 1994:46, Table 9).[2] Even in female-dominated occupations, women earn less than men (Armstrong and Armstrong, 1994:42-43, Table 8).

This observable segregation into "men's work" and "women's work" has become the target of equal pay legislation in Canada and other countries. To the restricted extent that women have access to high-paying jobs, they have access to high pay for their paid work. Attempts to understand the reasons for occupational segregation and job segregation have become more prominent in recent years than inquiries about the sources of gendered pay differences, especially in sociological research (Stone, 1995).

For Reskin (1993), among others, the gender gap in pay and occupational segregation are parts of a pattern of injustice that describes unequal patriarchal power relations in workplaces. In a review of U.S. research titled, "Sex Segregation in the Workplace," Reskin (1993) emphasizes that occupational segregation is closely connected to gender stratification and a general undervaluing of the work women do. Women are likely to receive less pay than men, even when doing comparable work that requires comparable skills, because women's work is devalued in comparison to men's work and any particular skills required for "women's work" (nurturance skills, for example) are valued less than skills required for "men's work." This devaluation also means that when jobs include unpleasant tasks, the compensating pay for tasks typically done by women, if any, is lower than the compensation for the "dirty work" in jobs typically done by men. The list of inequities associated with female-dominated occupations begins with lower starting pay than male-dominated occupations and continues with less promotion opportunity, less likelihood

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[2] Results for the United States, leading to the same conclusions, are presented in Reskin and Padavic (1994).

of receiving benefits or on-the-job training, and less possibility of exercising authority (Reskin, 1993). Hartmann (1976:139) draws attention to "the role of men -- ordinary men, men as men, men as workers -- in maintaining women's inferiority in the labor market." Reskin (1993:265) concurs. Many men have a stake in preserving male advantages through the system of segregation in which most women are in lower-paying jobs than men and in jobs that are unlikely to give women control over men in their workplaces. Mechanisms of discrimination which perpetuate occupational segregation and job segregation have included word-of-mouth recruitment for jobs through social networks which exclude women and physical requirements or training requirements that are not necessary to do the job but have the effect of keeping women out of an occupation.

The dual systems theory of Hartmann (1976; 1981a; 1981b) locates the source of women's subordination to men in both public and private spheres in the intersection of capitalism and patriarchy.

> Job segregation by sex ... is the primary mechanism in capitalist society that maintains the superiority of men over women, because it enforces lower wages for women in the labor market. Low wages keep women dependent on men because they encourage women to marry. Married women must perform domestic chores for their husbands. Men benefit then, from both higher wages and the domestic division of labor. This domestic division of labor, in turn, acts to weaken women's position in the labor market (Hartmann, 1976:139).

Her stark argument makes the gender gap in pay a feature of power relations within households as well as in places of paid employment. Contrary to human capital theory, the genesis of the pay gap is not found in women's choices about actual or anticipated future care of children but in the encumbrances surrounding those choices because of the importance to men of women's domestic work. In Hartmann's Marxist feminist analysis, the material base of patriarchal gender relations is men's control of women's productive and reproductive labour in private households and in public workplaces. Writing around the same time as Hartmann, Smith (1977) argues that women's unpaid work to maintain the homes and the physical and emotional well-being of employees and their children is work necessary to support corporate capitalism. Smith (1987) also describes how women's practical work facilitates men's conceptual work. Not employed directly by their

husbands' employers, Smith argues that women nonetheless work without pay for the same corporations and institutions.

Once the power dynamics of class relations and gender relations are introduced into explanations of the gender gap in pay, the inequality issues are rather complex. Walby also asserts that "[t]he causal link between labour-market and family goes largely (but not exclusively) in the reverse direction from that conventionally assumed" (Walby, 1990:57). Keeping women "out of the better kinds of paid work" maintains women's subordination in families. But another of Walby's (1986) points is that low wages for women, because they undercut men's wages, can be the means that free women to enter the labour market and escape the confinement to unpaid domestic work. In industrializing societies, historically and currently, women are pulled into paid employment outside their homes.

In a review of theoretical approaches to the gender gap in pay, Ornstein (1982) explains that occupational segregation, in combination with the differentiation of wages by race and by gender, provides employers with strategic opportunities to maximize profits.[3] Low wages for women's work can be maintained by keeping men out of women's occupations. At the same time, wages in men's occupations can be lowered by encouraging women to enter those occupations (Ornstein, 1982:46). While the advantages for men in comparison to women in paid work and unpaid household work lead to wage benefits for men as a group, not all men experience the same advantages or receive the same benefits because the pay gap between men and women can serve the intersecting interests of many, various dominant groups.

Pay and Domestic Labour

As the nexus for understanding the gender gap in pay, the family household and women's domestic work are shared in common by human capital explanations and patriarchal gender

[3] The extension of a profit-maximizing dynamic through gender, class, state and multiple race relations over a long period of time is particularly clear in Muszynski's (1996) analysis of the Canadian West Coast salmon fishery and canning industry.

relations explanations. However, the family as a social (or economic) location relevant to ways women participate in paid employment is just not the same sort of place for the two approaches to the gendered pay gap. The patriarchal household and the household of neoclassical economics are essentially different. As Pujol points out,

> Neoclassical theory has consistently denied the existence of social or economic power relations between classes, races or sexes. In a theoretical approach where everything is reduced to exchange dynamics, freedom of interaction and equality of the actors are assumptions essential to the predicted outcome of harmony in the free market (Pujol, 1992:7).

She continues:

> Whereas the presence of power as a factor in class relations in the public/market sphere was denied in traditional neoclassical economics, it is now also being ignored as a factor in the relations between the sexes in the private/family sphere (Pujol, 1992:7).

With power relations absent, housework can be connected to wage levels through rational allocation of each individual's resources which include time, physical energy, and mental energy.

One elaboration of human capital theory is the argument that because of their family responsibilities women put less effort into paid work than men do. Women's productivity is consequently lower, according to assumptions of human capital theory, and of course wages are also lower. Becker (1985) contends that because of the effort child care and housework require, married women put less effort into each hour of paid work than married men do. In comparison with men, women seek less demanding jobs, accumulate less human capital from those jobs, earn less than men, and then are inclined to put not only less effort but also fewer hours into paid work than men. Over lifetimes of work, the obvious outcome is that women's average pay moves further and further away from men's. Hersch and Stratton (1997) comment that if the connection from effort to productivity and pay holds, housework time should have consequences for men's pay, not just for women's pay. Bielby and Bielby (1988) undercut Becker's focus upon effort with evidence from 1973 and 1977 U.S. surveys. They conclude that women put more effort into paid work than men with similar paid work and family responsibilities. "For women to work just as

hard as men, if not harder, despite their greater household responsibilities, they must be able to draw on a reserve of energy that is either not available to the typical male or, more realistically, that men choose not to draw upon" (Bielby and Bielby, 1988:1055-56). Canadian information suggests something similar, at least in the balance of time between men and women. When time at paid work is combined with time at marketable unpaid work, the total workload of women exceeded the workload of men in 1986 and again in 1992 even when the comparison includes the population as young as 15 years old. In 1992, women 15 years of age or older worked 8.9 hours per day, averaged over a seven day week, and men worked 8.3 hours per day (Status of Women Canada, 1997:20, 26).[4]

If women's "specialization" in child care and housework means that when wives and mothers participate in the paid workforce, they work a "double day" (Hartmann, 1981a) or have a "dual career" (Treiman and Roos, 1983) and almost inevitably return home to work "the second shift" (Hochschild, 1989), the unequal distribution of unpaid housework and care of children between women and men seems more credibly to be an aspect of gender relations than of an efficient allocation of each individual's resources. If just household goods and services were being produced, men and women would work out a more efficient, equalized division of domestic labour (Berk, 1985). Most women in full-time employment work a double day if they have children and husbands, but most husbands and fathers do not. Prefacing research into pay and differences in participation in unpaid domestic work, Baxter (1997) refers to the gendered division of housework and child care work as "a central component of the continued existence of gender stratification" (1997:220). She notes Berk's (1985) argument that "not only does the division of household labor between husbands and wives involve the production of goods and services, but it also involves the production of gender" (Baxter 1997:220).

The division of housework done for family members is sometimes presented as an aspect of unequal opportunities for women with unequal outcomes in the short term and long term in

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[4] The data source is Statistics Canada, General Social Survey.

comparison with men. The economically invisible unpaid production of goods and services within households is brought to the fore, as in the Status of Women Canada (1997) indexes, to be evidence of the need to balance the scales through public policy. Quite plainly, women and men are making different decisions about household tasks and care of family members. Several sources are cumulatively convincing about the disproportionate amount of unpaid domestic work done by Canadian women who also are in paid employment. The 1996 Census determined that Canadian wives employed full-time for pay do more hours of unpaid housework and child care than husbands who are employed at full-time paid jobs. Housework took at least 15 hours of time for 51 percent of the wives and for 24 percent of the husbands. At least 15 hours were spent looking after children by 64 percent of the wives and by 42 percent of the husbands (Statistics Canada, 1998b:10). Women's proportions of domestic work time are greater than men's, currently, and have been over the past twenty years, whether or not young children are in the households being compared (Armstrong and Armstrong, 1994; Wilson, 1996; Status of Women Canada, 1997). With changes in institutional health care, new forms of care-giving are adding to women's domestic responsibilities (Ursel, 1992; Glazer, 1993; Armstrong, 1994; MacDonald, 1995). The unpaid care of elderly parents is referred to as "daughterwork" by Luxton (1990), the work of daughters and daughters-in-law that is now being added to their "motherwork," "wifework," and "wagework."

But on top of differences in the amounts of unpaid work done by men and women, differences in the types of domestic work done by men and women have been clear in studies of Canadian families. First of all, the distinction between housework and motherwork (or fatherwork) is sometimes made in theoretical analyses of household work but as Fox (1997) explains, is rarely made in empirical studies. For example, Brayfield's (1992) analysis with 1983 data is an analysis of traditional female tasks without child care being included either among the tasks or as a separate task, although the presence of children is included among the family characteristics in her equations. Lero (1996) argues that the distinction between housekeeping

tasks and child care should be made, in part because men's involvement in child care may be greater than their involvement in other housework -- a tendency Luxton (1990) first noted in 1981 and Fox (1997) noticed in recent interviews with 20 first-time parents. The share of the housework, apart from child care, increased for about half the new mothers. In Canadian research roughly 20 to 25 years ago, a second distinction between women's and men's domestic work emerged. Routine, often simultaneous, on-going daily tasks tend to be women's housework. The occasional house maintenance and seasonal outdoor tasks that are often done on days away from paid work are the household work usually done by men (Meissner et al., 1975; Luxton, 1990). That division is confirmed with 1983 Canadian data: men are more likely to take responsibility for yard work and home maintenance than for more routine indoor tasks (Clement and Myles, 1994). Men, in a later study, are inclined to define indoor housework, cooking, and child care as leisure activity while women are more likely to define the same tasks as work. Gardening tends to be the opposite: more defined as leisure by women and as work by men (Shaw, 1988).

A third gendered difference is in who adjusts their paid employment and their time to the requirements of child care and housework. This responsibility for doing the work or for making certain someone else does the work is an important component of the division of household labour, a component noticed among British mothers interviewed almost 30 years ago (Oakley, 1974). It involves "anticipating, planning, and organizing what needs to be done. It encompasses the management of time, people, and resources" (Marshall, 1993:24). Men are likely to take on some responsibility for housework in Canadian families with children if both the wife and husband are employed for pay; however, the percentage of men responsible for housework is described as "relatively low" in 1990 (Marshall, 1993:25). Even employed women in Canada whose husbands are not employed do more than 60 percent of the house cleaning, laundry, grocery shopping, and meal preparation (Brayfield, 1992). If men's proportion of the total housework does increase, the change probably occurs because women are doing less rather than because men doing more (Brayfield, 1992).

Women's tendency to adjust their paid employment to children and household demands is purported to explain the high percentages of women among part-time employees, yet Pupo (1989) and Wilson (1996) emphasize that around a third of Canadian women in part-time paid employment would prefer full-time work for pay. Pupo's interviews with women in part-time paid work reveal a complex balance maintained by mothers because of constraints in the labour market and in the domestic division of labour and care of children. Women's adjustments are also apparent in absences from paid work and extended interruptions from paid employment. Recent Canadian data produces evidence that women with pre-school children take more days away from paid work because of personal or family responsibilities than men with pre-school children, even when women's interruptions for maternity leave are excluded from the count of days away from work (Akyeampong, 1998).[5] Cook and Beaujot surmise, after studying work interruptions among Canadians from 1988 to 1990: "It is mothers who continue to adjust their paid work activities to their responsibilities as parents" (1996:38). Marshall (1993) says much the same thing about mothers aged 25 to 44 in two parent dual-earner families in Canada.

The consequences of housework for pay, if taken from a liberal feminist articulation of unequal opportunity and outcome are, in the end, much like those projected by rational decisions for maximum utilization of time or effort from the neoclassical liberal economics of human capital theories. Women's housework is likely to be related most directly to pay through reduction of the time available for paid employment and through interruption of paid work to do child care and housework. If gender relations are hierarchical power relations and gender is constructed, or "produced" in Beck's (1985) terms, the predicted effect on pay is more clearly a gendered outcome that fits with the multiple ways domestic labour is different for women and men beyond the inequality in the time men and women spend on household work and child care. Unpaid domestic work would be detrimental for women's pay and irrelevant for men's pay regardless of the amount of the work men do. Because the effects of household work on pay and on the

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[5] The data, for 1997, are from the redesigned Labour Force Survey.

gendered gap in pay have rarely been examined directly in empirical research, other research touching upon the processes which produce and sustain gendered unpaid work may provide some insights about domestic processes likely to sustain the gendered gap in pay. Studies examining reasons for gender inequality in domestic work suggest that gender role attitudes and women's economic dependence within marriages (the pay gap between wives and their husbands) may be critical influences on pay.

Several studies using the same data for Canada conclude that men with conservative gender attitudes are likely to do less housework than men with more egalitarian attitudes. Canadian women with more conservative, traditional gender attitudes are likely to do a greater proportion of housekeeping tasks than women who are more egalitarian in their attitudes about the household division of labour (Kalleberg and Rosenfeld, 1990; Brayfield, 1992; Baxter, 1997). The association is much stronger among women than men. However, attitudes do not necessarily translate into compatible behaviour. With a 1986 Canadian example, Wilson (1996) illustrates the poor follow-through for men who say they should do housework to actually doing housework, at least in the reports from wives that husbands do less housework than the men say they do. In another study, even among men and women who have accepted changes for women in paid employment, tolerance of inequalities in the distribution of unpaid household work remains high. Married women, whether or not they have children, are likely to be less critical than others of both domestic and workplace gender inequalities. Parenthood, rather than marriage, is the more important variable for men's attitudes in a U.S. survey in 1990 and 1991: being a father reduces their criticism of gender inequality at home (Kane and Sanchez, 1994). Cook and Beaujot (1995) suggest that attitudes would be less important in explaining interruptions in paid work for women than having young children. If their results are relevant, any effect upon the wage gap associated with differences between women and men in attitudes about responsibilities for taking on paying employment and about the division of domestic labour could disappear if the effects of marriage or the effects of housework were also considered.

The differences in women's domestic work in comparison with men's -- the relatively greater amount of household work, the greater routine of their housework, and the greater responsibility taken for adjustment in time and activities in order to do housework and child care -- have been attributed to gender role socialization in childhood. Attitudes about the most appropriate work behaviour, educational goals, and occupations for women and for men are also posited to be the outcome of childhood socialization. Armstrong and Armstrong (1994) point to some evidence that childhood experience of the gendered division of labour, which would include whether one or both parents were employed outside the home as well as who did what housework inside their homes, influences sex-role stereotyping among children. On the other hand, husbands' attitudes towards their wives' careers, towards doing household chores, and towards sharing child care may be formed more by influences from the immediate social environment, as suggested by Reskin and Padavic (1994), than by childhood socialization. This interpretation fits the argument of Berk (1985), Ferree (1991), Potucheck (1997), Ridgeway (1997) and others that gender is an ongoing construction rather than learned roles. In one longitudinal study of women, mothers' attitudes and work behaviour (their presence at home or in paid employment) do have some influence on their daughters' attitudes and work behaviour, but the daughters' own lived experiences were more strongly connected to their attitudes (Moen, Erickson, and Dempster-McClain, 1997).

The relative incomes of spouses may be more relevant than socialization or parental occupations for attitudes about appropriate gender behaviour and responsibilities for paid and unpaid work. Looking at attitudes in five countries including Canada, Baxter and Kane (1995) find that "men's greater economic power in the household is associated with less egalitarian gender attitudes for both men and women. In other words, as women's economic dependence on men increases, both men's and women's gender attitudes become more conservative" (1995:210). Clement and Myles (1994) note that the effect is especially strong for Canadian men and women for attitudes about family structures, with women "more progressive" than men. Summarizing

research on couples in Great Britain, Arber and Ginn (1995) also suggest that only when women's employment incomes are greater than their husbands' employment incomes will women's and men's domestic gender attitudes become egalitarian.

Arber and Ginn (1995) and, earlier, Luxton (1990, originally 1983) speculated that men's dominance in employment income within households props up patriarchal gender relations in homes, thus affecting not only who does unpaid housework inside homes, but also what arrangements are made by parents around the time of first becoming parents (Fox, 1997) and who takes on what paid employment outside the home. Brayfield (1992) comments that while Canadian women's income advantage significantly reduces their share of household tasks, the reduction is not much different whether a woman's income is a lot more than her husband's income or about the same. With the same data, Baxter (1997) also finds that men's proportional contributions to household income influence the division of domestic labour in Canada as in the U.S., Sweden, Norway, and Australia. As men's economic power within the household increases, their unpaid domestic work significantly declines. The same relationship for women, doing less as their economic power increases, is not as strong.

Men's dominance in wages within couples could be maintained by a traditional division of labour with men "at work" and women "at home" receiving no income from employment or by women's relatively lower wages and lower annual earnings which could be accomplished in most occupations by working fewer hours and fewer years than their husbands. In Canada, the average wage of wives in paid employment was 57 percent of the wage of their husbands in 1993 (Crompton and Geran, 1995), making the gendered pay gap within married couples greater than the gap in the general population. Regardless of the total income of dual-earner couples, as long as women do not earn as much as (or more than) their spouses, women's employment is likely to be seen as secondary and men perceived to be primary wage-earners by women themselves and by their husbands. As Lero (1996) points out, the majority of dual-earner couples are not dual-career couples. It would be a mistake, however, to assume that only a small group of women are

paid more for employment than their husbands. In 1993 the annual employment income of 25 percent of wives in Canadian dual-earner couples was greater than the employment income of their husbands (Crompton and Geran, 1995).[6] If some of these women have the primary career within their dual-earner marriages and have the potential for job mobility, Winkler (1998) thinks change in the relative wages within dual-earner families could change the gendered pay gap in wider population, an effect also projected by Arber and Ginn (1995).

In reference to U.S. surveys, Reskin and Padavic (1994:155) note a falling proportion of men who believe only men should be breadwinners. Still, men in dual-earner couples are certain their employment is breadwinning while their wives question whether or not their own employment is breadwinning (Potuchek, 1997). "Husbands' and wives' constructions of breadwinning differ precisely because breadwinning is still an important gender boundary in American culture; it is taken for granted that husbands should contribute to the financial support of their families" (Potuchek 1997:69). Reskin and Padavic (1994) point to a study associating increasing income for women with increasing likelihood that their husbands feel underpaid (Mirowsky 1987), and to another in which women's wages increase their power in family decision-making (Blumstein and Schwartz, 1983). The same effect occurs for major financial decisions in Canadian households if women earn half or more of the household income (Clement and Myles, 1994).

In summary, the literature investigating women's and men's household work suggests that attitudes about appropriate gender roles and relative spousal resources are important in predicting wages. Beginning with these sorts of findings, analyses of the influence on the gendered pay gap from gender attitudes, from differences in earning potential between wives and husbands when their spouses are in paid employment, and from employment interruptions have some merit alongside analyses of connections between child care time, housework time and wages. In previous research, very few studies of the gender gap in pay consider the impact of unpaid

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[6] In the United States in 1996, women received higher hourly pay than their husbands in 23 percent of couples (Winkler, 1998).

domestic work. Theoretical assumptions about the influence of women's household and family responsibilities simply have not been adequately investigated. However, the existence of a gendered wage gap in spite of women's and men's comparable human capital and employer characteristics is commonly explained with reference to women's family responsibilities.

The direct and indirect connections between households and pay for employment are a complex interweaving of divided responsibilities for household tasks, attitudes about providing for families and caring for children, pay differences between spouses within households, and gendered differences in wages between occupations. Both in theory and in the interpretation of results of analyses of the gender gap in pay, causal links between domestic housework and pay for employment are often assumed to be uni-directional but at other times are presented as reciprocal and reversible over time. However, the core of much discussion and research revolves around the consequences for women's pay of their unpaid domestic labour. Coverman (1983), Baxter (1992a), and Hersch and Stratton (1997) all provide evidence suggesting a one-way relationship from housework to wages. McAllister (1990) assumes, as I do for my analysis, that unpaid domestic work affects wages and not the other way around.

Feminist theories of gender relations describe a gender hierarchy in which the disadvantage of family work for women's pay is greater than any disadvantage for men who do the same amount of housework. The contrasting implication from human capital theories is that, in a rational and efficient market, men's housework and child care would compromise their productivity and reduce their wages in the same way an equal amount of unpaid family work affects women's pay. Yet to the extent that women, not men, do the unpaid domestic labour, the distribution of work is an efficient allocation of men's and women's resources according to human capital theory. In short, the thrust of predominant arguments is that a critical source of gendered inequalities in wages lies in the gendered organization of unpaid domestic work.

Relevant Previous Research

Much of the economic and sociological analysis of the gender gap in pay has attempted, through decomposition techniques, to determine the magnitude of the portion of the gap that is problematic for human capital theory -- the unexplained portion apparently attributable to gender, alone. Variations in decomposition methods make comparison of decomposition results particularly cumbersome, if not impossible. Baker, Benjamin, Desaulniers, and Grant (1995) attempt to provide consistent estimates of the gendered earnings gap, adjusted for observable differences between Canadian men and women in full-time full-year employment, for five different years over the two decades from 1970 to 1990. Their comment about the end result is worth noting: "very little of the difference in earnings between men and women can be explained by differences in their characteristics. We thus conclude that discrimination, as it is commonly measured, accounts for roughly a 30-percentage-point difference between male and female average earnings during the period" (Baker et al., 1995:481).

Decompositions involve separate regression analyses predicting women's earnings and men's earnings. The wage gap is then decomposed into explained and residual components by using the regression coefficients for one group and substituting into the equation either the means for the other group or the grand means for the combined groups. The part of the gap attributed to gender is the unexplained residual after differences in human capital variables and other variables related to pay have been taken into account.

What the unexplained residual represents is uncertain. For example, given that discriminatory effects favouring men are likely represented in educational, labour market, and workplace processes, Ornstein and Stewart (1996:443) reject description of the unexplained residual gap as "pure discrimination" by some economists.

> Because of gender differences in seniority, education, and other factors that favour men, pure discrimination is typically much smaller than the average difference in the pay of women and men. It is easy to slide into thinking that pay differences attributable to measured variables reflect justifiable -- that is, non-discriminatory -- differences (Ornstein and Stewart 1996:463).

The one thing clear from data gathered since 1970 is that an unexplained portion of the pay differentials between men and women remains stubbornly present in Canada, even as the size of the gap, itself, appears to have become smaller (Gunderson, 1979; Goyder, 1981; Denton and Hunter, 1982; Ornstein, 1983a; Shapiro and Stelcner, 1987; Rosenfeld and Kalleberg, 1990; Maki and Ng, 1990; Doiron and Riddell, 1994; Christofides and Swidinsky, 1994; and Coish and Hale, 1995). Among studies of subpopulations at a national level (Guppy, 1989; Wannell, 1989; Wannell and Caron, 1994; Davies et al., 1996; Ornstein and Stewart, 1996; Boyd, Miller and Hughes, 1997), the only suggestion that Canadian women are not disadvantaged in pay is recent and within a privileged group, employed university graduates a couple of years after completing school (Wannell and Caron, 1994).

An alternate approach to examination of the wage gap is utilized by Ornstein and Stewart. Regression models of wages with gender as an independent variable, among other independent variables, permit comparison of the relative effects of the independent variables and testing of the significance of interactions of gender effects on pay with other variable effects in the model. Thus the magnitude of the gender coefficients can be ranked relative to the coefficients of other influential variables (Ornstein, 1983a and 1983b; Ornstein and Stewart, 1996). Model effects are estimated with variables in addition to gender, age, and education "in order to understand the processes that disadvantage women, *not* to arrive at a different estimate of the effect of 'pure' discrimination" (1996:486). McMullin and Ballantanyne (1995) enter gender as an independent variable in regression models for four age cohorts as part of their analysis of the personal income of Canadians over the age of 45.

Analytical techniques vary in past research -- none of it Canadian -- into the influence of unpaid domestic work upon wages. McAllister (1990), Hersch (1991), and later, Hersch and Stratton (1997) all decompose the gender gap in pay. Baxter (1992a) begins with a single regression with gender as an independent variable and enters all gender interactions, but presents only the separate regressions with coefficients for men and women. Others also estimate separate

regressions for men and women, without decompositions, and provide tests of the significance of differences in the coefficients for men and for women. For a U.S. sample (Coverman, 1983) and an Australian sample (Baxter, 1992a), the relative influence of gender on pay is not established in comparison to the influence of other independent variables.

The approach to be used in my research is a variation of the Ornstein and Stewart approach: gender will be included as a predictor variable in models of pay.

For the most part, research precedents are identified in Canadian studies of the gendered gap in pay. The selected studies are those which have accumulated since the early 1980s, some of them using data from the early 1970s. Comment on notable non-Canadian results appears occasionally. In my overview of results for independent variables from previous research, indications of the significant influences on men's pay or on women's pay are of greater interest than the measured size of the wage gap or of components of the wage gap. The discussion of previous empirical quantitative research focuses first upon family characteristics, unpaid domestic work, and interruptions to paid work, then upon spousal relationships and social origins. For the most part, results in each section are taken out of the context of other effects that are equalized in prediction equations. The featured results in each section are effects upon income reported to be present, or absent, in multivariate models after at least the effects of work experience and educational attainment are entered into models. Often influences of some labour market and workplace characteristics are also entered. In other words, if men have greater average amounts of paid work experience or education than women, adjustment for these variable effects on pay are included in the results for other independent variables, say, indicators of family characteristics or gender attitudes. Near the end of the review section the effects for education, work experience, and labour market characteristics are summarized.

Marital Status

Marital status information is more available in data sets utilized for examinations of the earnings gap than any other information about workers' families or households and is the indicator

of household roles and family obligations that has often been used. While categorization varies in the studies, "married" usually includes married and co-habiting couples. In the absence of any comment in outlines of research methods, the co-habiting relationships are presumed to be heterosexual.

The Canadian research is fairly consistent in spotting a significant difference among men, with married men earning more than single men in the 1970s and 1980s; however, among women, earnings have not been significantly associated with marital status (Denton and Hunter, 1982; Shapiro and Stelcner, 1987; Rosenfeld and Kalleberg, 1990; Baker et al., 1995). For Swedish men in 1981, marriage also affected earnings in a positive way, while it had no effect for women's earnings in Sweden (le Grand, 1991:268), and cross-national studies report similar results for several other countries over time periods from the late 1960s to early 1980s, including the United States (Treiman and Roos, 1983; England et al., 1988; Rosenfeld and Kalleberg, 1990). The size of the gendered pay gap, itself, is not affected by marital status in le Grand's analysis (1991). A "modest effect" on the pay gap in the 1970s was reported by Treiman and Roos (1983).

However, pay structures may be changing, as indicated in Canadian results for the late 1980s and early 1990s. Single status for Canadian women, as well as for men, may now be associated with a significant negative effect on earnings (Wannell and Caron, 1994; Coish and Hale, 1994). While Christofides and Swidinsky (1994) identified a large advantage in earnings associated with marriage for both white men and visible minority men in Canada, they also found a small marriage advantage in pay for white women. In an analysis of U.S. women over the twenty years from 1968 to 1988, a "marriage premium" for married or divorced women is associated with receiving greater pay than single women, an effect Waldfogel (1996:215)[7] notes is inconsistent with traditional human capital theory.

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[7] Unlike other research reviewed in this section, Waldfogel's sample consists only of women. For her longitudinal study, she uses U.S. national information from 1968 to 1988 in pooled regressions and fixed effects models. She controls for actual work experience, age, education, children and if black or hispanic, with a separate model for part-time work experience and current part-time employment. (See Table 4, Waldfogel, 1996:215.)

Researchers who interpret their results within human capital explanations have focused upon the lack of differentiation in pay by marital status among women and, specifically, the frequent absence of advantage in pay for married women. Interpretations are often located on the supply-side of the labour market as the outcome of "labour supply decisions" in which couples decide to maximize men's earnings (e.g., Wannell and Caron, 1994:28). Marriage effects are speculatively linked to women's responsibility for household tasks, absenteeism, extended work interruptions, and reduced productivity (e.g., Shapiro and Stelcner, 1987). But in a U.S. study, Bielby and Bielby (1988) reject the argument that household work reduces the amount of effort available for paid employment in the labour market. Other comments shift the interpretive focus to emphasize that women's marital status, whatever it is, does not add explanatory power to models predicting women's pay (Denton and Hunter, 1982). Treiman and Roos (1983:634) observe in their study of data collected during the 1970s in several countries, but not in Canada, that the substantial and statistically significant advantage for married men's pay was not the result of their greater experience or higher-status occupations. They argue a demand-side cause, statistical discrimination: "(E)mployers may prefer to hire and promote married men because they view them as more stable and reliable than single men" (Treiman and Roos, 1983:634).

Treiman and Roos (1983) also argue that the findings for women are contradictory to those consistent with the notion in human capital theory that the double day of paid work in the labour force and unpaid domestic work reduces women's productivity and pay. Married women should earn less than single women, "net of other factors," and marital status should be a significant variable in multivariate equations predicting women's pay. However, one unusual set of results for women could fit this explanation. Baxter (1992a) found the 1986 annual pay of married Australian women to be substantially lower than the pay of single women. The results for the Australian men are the opposite and are significantly associated with pay.

Parental Status

From recent research looking at the presence of children, the expected results for new Canadian research is uncertain: having children may, or may not, significantly alter the pay of employed mothers and fathers in Canada. Among Canadian college and university graduates in several years between the late 1970s and the early 1990s, children are a disadvantage for women's pay (Wannell and Caron, 1994; Davies et al., 1996). Among U.S. women, children also have a negative effect on pay, a "family penalty." Part of this negative effect on women's pay remains even after past and current part-time employment are controlled (Waldfogel, 1997). On the other hand, when the presence of children is considered for general populations of Canadian workers in the 1980s, no important difference emerges for either women's or men's earnings (Christofides and Swidinsky, 1994; Rosenfeld and Kalleberg, 1990, for both Canada and the U.S.). Ornstein's (1983b) earlier results for a 1977 Canadian sample are the opposite, with no significant effect for women yet preschool children brought positive effects to men's pay. In his interpretation, he notes that the men's wives had probably withdrawn from the workforce. In other words, the effect is likely related to motivation and commitment to paid work.

Parental status in other countries has various results in models of pay that also include child care or domestic labour. For Sweden in 1981, le Grand (1991) found that the presence of children is not important in explaining the earnings gap. Baxter (1992a) again notes negative effects of the number of children on women's pay among married and employed Australians in 1986, with no effect on men's pay. Coverman's (1983) U.S. results for 1977 and McAllister's (1990) Australian results for men with preschoolers in 1984 and 1985 show a negative effect on men's full-time pay but no significant effect on women's full-time pay. McAllister found, however, that school-aged children were positively associated with men's full-time pay and with women's part-time pay.

Although the presence of children is often taken to indicate the effects of women's domestic responsibilities on their wages and some studies confirm the expected negative

association, the most common result among general populations of women is that the presence of children does not help to distinguish higher from lower wages. Rosenfeld and Kalleberg (1990), referring to Duncan and Corcoran (1984), remind analysts that earnings gap research examines differences and similarities between men and women who are employed. It is not research trying to identify differences between women who do not seek paid employment and women who are working for pay.

Household Domestic Labour

So far no published Canadian quantitative multivariate analysis has included the contribution of gendered differences in unpaid housework time or unpaid child care time to the gender gap in pay. Rarely in analyses for other countries is a distinction made between the effects on pay of motherwork or fatherwork compared with the effects of housekeeping tasks. Some researchers settle for the presence of children or the number of children in a home as a proxy for the time taken up by caring for and assisting children. From multivariate studies in other countries for years from the later 1970s to the mid-1980s, a significant constraint on Canadian women's wages is expected from the amount of time required for household labour regardless of whether or not there are children in women's homes. For Canadian men, no association of wages is expected with household work excluding the care of children. Considered separately from housework, the unpaid time to care for children and to assist the elderly are both expected to have significant negative consequences for Canadian women's pay. The associations with men's pay may be negative but are not expected to be significant. The unpaid care of the elderly has not been considered in multivariate analyses of the gendered pay gap in Canada and may not have been considered elsewhere, either.

One Canadian study, restricted to dual-earner couples with teenaged or younger children, does present pay levels in zero-order associations describing who does household work. Marshall (1993), using 1990 General Social Survey data, finds that the men who report they are least likely to have any responsibility for domestic tasks (meal preparation and clean-up, house cleaning, and

laundry) are the men with high personal incomes. The direction of the pattern is the same for women, although the volume of work is much greater for women than for men. The women who report they are least likely to have sole responsibility for the housework are in the highest income group while the women most likely to have sole responsibility for housework are in the lowest personal income group (Marshall, 1993). The assumption (e.g., in Lero, 1996) is that men and women in households with higher total family incomes can afford to purchase child care and housework services not available to lower income families.

For other countries, some researchers have asked if unpaid domestic labour is associated with pay for employment. Women's hours of domestic work are reported to increase the gendered pay gap, having a negative impact upon women's pay in selected U.S. groups in the early and mid-1980s (Shelton and Firestone, 1989; Hersch, 1991). Controlling for class and human capital, Coverman (1983) found a significant negative impact on weekly pay for men as well as women with domestic work time among married employed whites from a 1977 U.S. national sample. Coverman explains in a footnote that when child care and housework are considered separately, housework has no effect for men's pay, child care decreases men's pay, and both significantly decrease women's pay. Hersch and Stratton (1997), for a similar sample of white, married, employed U.S. adults, confirm the robustness of the negative effect on wives' hourly pay and the tenuousness of a negative effect for men for years from 1979 to 1987. The difference in effects adds to the wage gap between women and men.

The amount of housework is the only indicator of family responsibilities that le Grand (1991) determines to be of any importance in accounting for the wage gap between women and men in Sweden in 1981. The amount of housework done by Swedish women and men does not explain variation among women or among men, but eliminating the difference in hours of housework between men and women appears to account for a significantly and substantially part of the gender gap in wages. However, with further information about the percentage of women in occupations, "the whole effect of housework can be explained by job segregation, i.e. that

women with a lot of homework tend to hold low-paying jobs" (le Grand, 1991:271). Within the sample of married Australians employed full-time in 1984 and 1985, the gendered gap in pay is also significantly reduced by accounting for time at household chores. But, unlike le Grand's results, housework time appears to have an impact in addition to and equivalent to occupational differences. Housework time has significant negative effects on pay, separately, for women and for men employed full-time. Notably, there is no effect accounting for variation in pay among women employed part-time (McAllister, 1990). With controls for class and human capital among married and employed Australians in a 1986 national sample, Baxter (1992a) found no effect on pay from time spent doing indoor household tasks (excluding child care) but rather that, for women, being the spouse responsible for doing housework significantly decreased women's annual wages.

Work Interruptions

The effects of work interruptions on Canadian women's earnings have been examined with contradictory results for the early 1970s and early 1980s. Interruptions had important consequences for women's earnings twenty-five years ago, in 1972, when an increase in earnings accompanied career continuity (Goyder, 1981), but interruptions had no impact on women's employment income from income information gathered almost a decade later (Ornstein, 1983a). The tendency then was a negative effect for men and a small positive influence on a woman's earnings if the interruptions were less than one year in length. For women, the positive influence could mean that women's "planned short-term work interruptions (perhaps more likely among highly educated women taking time off at the birth of a child) have no negative effects on income" (Ornstein, 1983a:14). For men and women, together, in a pooled multivariate model, the number of years of interruptions were not significantly associated with pay.

Because models and estimates of interruptions vary, the apparent change for Canadian women could too easily be attributed to the introduction of maternity leave benefits with amendment to the Unemployment Insurance Act in 1971. The study of interruptions clearly needs

replication. Details about the reasons for interruptions, the length of particular interruptions, or even about the number of interruptions are generally not available in secondary data sets. Goyder (1981) calculated career discontinuity of Canadian men and women employed in 1973 by dividing the number of years of paid work experience by the number of years since beginning paid employment. For Swedish workers, le Grand (1991) subtracts the first figure from the second to estimate the number of years away from paid employment. Denton and Hunter (1982), who do not discuss results for interruptions within the same data set used by Goyder (1981), control for interruptions with the time at work since the last major interruption and categories for those who did not return to full-time work or never worked full-time. Ornstein's (1983a) analysis of pay for 1981 appears to be the only Canadian study with information about both the number of interruptions and the number of years of interruptions.

Characteristics of workers and jobs which predict interruptions, themselves, may provide some insight into the relationship between pay and interruptions to paid work. Examining occupational groupings as predictors of the likelihood of interruptions among Canadian workers, Cook and Beaujot's (1995) results are in line with Ornstein's conjecture that women in high income, professional positions briefly interrupt their paid employment with no penalty in earnings. Interruptions of six months or longer are less likely for administrative and managerial workers, whether men or women. Elsewhere, interrupted participation in the labour force does not have an impact on wages unless job characteristics are held constant, and then the influence on women's earnings is negative (le Grand, 1991).

At the other lower end of the pay scale, the odds of interruptions are greater among younger Canadians, 20 to 24 years in age, whether male or female (Fast and Da Pont, 1997:3), who are already likely to be receiving low wages regardless of interruptions. Cook and Beaujot (1995) also note the young age and unmarried status of the Canadian men most likely to interrupt their paid work.

Work interruptions, in any case, may be a poor indicator of the lack of commitment to the labour force attributed to women by human capital theorists and may not even mark the "deterioration of their human capital skills" which would garner a pay penalty for interruptions. When looking at the effect of commitment to the labour force upon wages among white workers in longitudinal U.S. data, Wellington (1993) found that the wage gaps were similar whether she included or excluded women who were not working at both ends of the 1976 to 1985 decade. Years not in the labour force since high school did not have an effect for men and only a small impact for women. She concludes that commitment to the labor force and other unmeasured characteristics probably cannot explain the lower pay of women in comparison with men and that her results "provide little support for the hypothesis that wages are depressed due to the deterioration of human capital skills from time out of the work force" (Wellington, 1993:392).

Economic Dependency

In one cross-national study (Rosenfeld and Kalleberg, 1990), the employment of respondents' spouses was considered as an explanatory variable. The only significant effect for women in the four nation study was for Canadian women who had lower incomes when their spouses or partners were unemployed, an association that is taken by the researchers to mean the couples are in poor financial situations. Spousal employment or unemployment did not distinguish between higher and lower earnings of women in the U.S., Norway, or Sweden. Among men in Canada having a wife or partner, whether employed or unemployed, increased income significantly. In the three other countries, men's incomes increased significantly when their wives were not employed.

More informative measures of the economic dependency or interdependency of partners have been used in analysis of responsibility for different types of housework and analysis of differences in gender attitudes between men and women than in wage gap research. Pay relative to a husband's or wife's pay (Brayfield, 1992; Kane and Sanchez, 1994; Baxter and Kane, 1995) and the proportion of family income represented by the respondent's pay (Clement and Myles,

1994) or by the husband's pay (Baxter, 1997) are indicators that apparently have not been used in investigation of the gender gap in pay.[8]

Gender Attitudes

When analysis turns to gender attitudes in the wage gap literature, follow-through from speculations in theory to evidence in empirical analysis is rare. For employed Australians, Baxter (1992a) finds variation in attitudes is not significantly associated with pay differences for 1986. Among just the married, employed Australians (Baxter, 1992a) or Americans about a decade earlier (Coverman, 1983), attitude scales with items regarding responsibilities for doing paid work and caring for children are significantly associated with women's wages. Women with less traditional attitudes receive higher wages than other women. There is no effect for men.

Social Origins

Parental resources, including those provided by mothers, indirectly affect the income of children by influencing their access to education and their entrance into occupations. In Canadian research little is available about influences upon current pay for employment from the educations and occupations of parents in a worker's family of origin. Coish and Hale (1995) look at both mother's and father's education levels in decomposing the wage gap, while Wannell (1989) and Wannell and Caron (1994) considered whether one, or both, or neither of the parents has some post secondary education. Any effects of these variables on pay levels are not discussed in the published results of these studies. In earlier research a respondent's family background, in the form of the father's occupational status, had little impact on earnings (Goyder, 1981; Denton and Hunter, 1982; Ornstein 1983b). Ornstein also looked at the education of a respondent's mother and father but none of the background factors is significant for pay in his models with gender, education, work experiences, occupation, children, and marital status. Note that no study seems to have considered the influence of both father's and mother's occupational status and educational achievements. The omission of maternal occupational status in earlier research bolsters the need,

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[8] However, all but Kane and Sanchez (1994) use the same data for Canada.

minimally, to use occupation and education information of mothers as well as fathers in a replication of earlier research.

Fathers' occupations and education levels have also been more obvious than mother's educations and occupations in status attainment research into intergenerational occupational mobility. However, status scores were problematic in application to women's work and occupations (Boyd, 1985; Fox, 1989), and usually only fathers' and sons' scores were investigated. (See McRoberts, 1987.) What a mother's education level or occupation means over the long term for the employment activity and wages of their sons and daughters is not clear.

The weak positive effect on pay of the occupational status of fathers is likely to be repeated in further analysis with little influence on the gendered pay gap. However, there is an expectation from educational attainment research where "same sex effects" have been found (Boyd, 1985; Guppy and Arai, 1993; Nakhaie and Curtis, 1998) that parental occupations and educations influence children's pay in a same-sex pattern in which a mother's education and occupation may be more strongly associated with a daughter's pay for employment than with a son's pay, while a father's education and occupation are more strongly associated with a son's pay than with a daughter's pay. The Canadian children most likely to reach post-secondary schooling are those whose mothers or fathers have post-secondary educations themselves.

Personal and Workplace Characteristics

The context for wage gap research also includes more usually examined variable effects upon earnings and the gendered earnings gap. A final group of wage effects, summarized here, are results from wage gap research covering a period from the early 1970s to the early 1990s in Canada. Even if the effects are not central concerns of the present research, zero-order level of associations between most of these factors and pay will be considered before constructing models of wage differences which include the influence of gender.

In earlier research results regarding immigration, Goyder (1981) does not find significant disadvantage in pay for foreign-born women in comparison with native-born women. An

advantage in educational attainment with immigration (being foreign-born) is no longer present in Canada in the 1990s (Guppy and Arai, 1993). Nevertheless the effects on pay should be considered, even if significant differences in pay between foreign-born and native-born Canadians are unlikely.[9] Coish and Hale (1995) consider the effect of visible minority status on 1993 earnings of men and women within multivariate models. They conclude there is no important effect for women relative to other influences, but visible minority status is associated with lower earnings for men.

Where possible, indicators of immigration and physical limitations will be considered in my research. Christofides and Swidinsky (1994) attempt to examine multiple discrimination by visible minority status, immigration status, gender, and physical disability in the 1989 wages of Canadians.[10] Immigration status is a significant influence on pay only for visible minority women. They receive lower wages if they have immigrated to Canada than if they were born in Canada. On the other hand, disabilities which limit work activity have no effect for visible minority women, but result in significant losses in pay for white women and for all men. Of these losses, the greatest loss of earnings is for visible minority men who have work-limiting disabilities. Using the same Canadian data, Hum and Simpson (1996) find no effect on pay in 1989 from disabilities after accounting for differences in hours worked. They do note differences among women and men, separately. Overall, men with disabilities do somewhat better in pay than men without disabilities but with similar education and personal characteristics. Women with disabilities receive about the same pay as other women.

As education levels rise, pay improves for men and women employed full-time for a full year. The size of the gender gap in pay is smaller between men and women with university

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[9] If visible minority status is added, an effect through education on pay may still be present. Looking at 1991 Census of Canada information, Li (1998) states, "[F]oreign-born visible minorities would have earned less if their educational level were *not* higher than others, and their other characteristics were not the same as other groups" (Li, 1998:123. Italics mine).

[10] Visible minority status was established from questions about ancestry. First Nations people were excluded.

degrees than between less-educated men and women (Statistics Canada, 1995a; 1997a; 1998a). Analysis by marital status in addition to education and gender for the mid-1990s indicates a small pay gap in men's favour between university-educated men and women who are single and have never married (Statistics Canada, 1995a; 1997a). In 1996, however, the pay gap slightly favours women in the young well-educated group (Statistics Canada, 1998a:16). Because the pay patterns for university-educated women and men have become similar over time, multivariate studies have also reported little difference between men and women. Women may receive slightly more pay per year of education than men, as they did during the 1980s (Ornstein, 1983b; Baker et al., 1995), and women with advanced degrees in some fields may do better in pay than men as they did in the early 1990s (e.g., Wannell and Caron, 1994). The contribution of education in narrowing the gender gap in pay among young adults occurs simultaneously with another trend in education. Women's attainment of university degrees is exceeding men's among young adults. From the 1996 Census, 15 percent of Canadian women over age 15 have completed university degrees, a slightly smaller percentage than 16.2 percent of men over age 15 who have completed university degrees. However, for the 20 to 29 year old age group in 1996, 21 percent of women had completed a university degree compared to 16 percent of men (Statistics Canada, 1998b:1).

Paid work experience in Canada consistently brings greater earnings to men than to women whether measured as actual work experience (Ornstein, 1983a; Coish and Hale, 1995) or with a proxy measure of potential experience (Ornstein, 1983b; Shapiro and Stelcner, 1987; Rosenfeld and Kalleberg, 1990; Baker et al., 1995). However, in the absence of information on work interruptions to care for young children, one interpretation is that an apparent advantage for men's experience compared to equal years of women's experience appears to be an advantage only because the comparison is actually with fewer years of women's experience after proxy measures overestimate women's time in the paid workforce (Ornstein, 1983b; Baker et al., 1995).

A direct measure of one type of work experience, tenure or time with an employer, provides mixed results for gender effects using Canadian data. For 1981, the pattern of

relationships between earnings and job tenure is no different among women than among men, for either the time with an employer or the time in a position (Ornstein, 1983a). However, in other data for the same year, women receive more benefit in pay than men receive from work experience with one employer (Rosenfeld and Kalleberg, 1990). Otherwise in internal labour markets, Canadian women receive less advantage in pay for supervisory responsibilities or managerial work than men receive whether in 1981 (Ornstein, 1983a) or in 1994 (Boyd et al., 1997). Autonomy on the job brings greater increases in earnings for men than for women (Rosenfeld and Kalleberg, 1990). Promotional opportunities have no effect on pay for either women or men (Rosenfeld and Kalleberg, 1990).

In samples of the general adult Canadian population, age on its own, rather than as a proxy for experience, is also associated with increases in earnings. Men have a greater age advantage than women; that is, their pay increases more with added years of age than women's pay increases (Wannell and Caron, 1994; Coish and Hale, 1995; Davies et al., 1996). Statistics Canada's figures for the pay gap by age cohort for full-time full-year workers in the mid-1990s chart the increase in pay from its lowest levels among 15 to 24 year olds to its peak in the 45 to 54 year old age group of men and of women. In the early 1990s, the already low pay of young men declined relative to the pay, also low, of young women (Gadd, 1998). The pay gap between men in women is smallest within the youngest group and is largest between men and women in the group with the highest average pay, the 45 to 54 year olds in 1995 and 1996. In 1994, the gap is as large among those aged 55 years and over as it is among the 45 to 54 year olds (Statistics Canada, 1995a; 1997a; 1998a).

Distributions across occupations and industries significantly increase the variance in income explained for women and for men in Canada (e.g. Rosenfeld and Kalleberg, 1990; Doiron and Riddell, 1994). The evidence supports arguments about the critical importance of occupational segregation in explaining the gender gap in pay. Results of two studies of the effects of the proportion of women in occupations on 1981 income are contradictory. In Ornstein's (1983a)

research, women's concentration in low wage occupations and industries significantly lowers their income. Men's income falls in occupations with greater proportions of women even though income rises for women as the proportion of women increases, presumably within traditionally "female" occupations. In the second study, the percentage of men in an occupation is significantly associated with earnings of Canadian women.[11] But, the influence on women's earnings is negative, an outcome that fits with men's dominance in blue collar occupations where wages are low in comparison to wages in professional occupations (Rosenfeld and Kalleberg, 1990).

In Canadian studies, some labour market and workplace characteristics are particularly advantageous for women. Whenever public sector differences have been examined over the past twenty years, benefits are seen accruing to women in the public sector where women's earnings are better than in the private sector (Denton and Hunter, 1982;[12] Ornstein 1983a; Shapiro and Stelcner, 1987; Maki and Ng, 1990; Wannell and Caron, 1994; Coish and Hale, 1995), and in unionized workplaces (Ornstein, 1983a; Maki and Ng, 1990; Rosenfeld and Kalleberg, 1990; Christofides and Swidinsky, 1994; Doiron and Riddell, 1994). Large firm size (Ornstein, 1983a) or large university employers in the early 1970s and mid-1980s (Guppy, 1989) provide an advantage to men but not to women, and particularly not to visible minority women at the end of the 1980s (Christofides and Swidinsky, 1994). Men's self-employment as business owners accounted for some of the pay gap in 1981 (Ornstein, 1983a). More recently, self-employment had negative effects for income in Canada, overall. In 1993, women reported much lower self-employment income than men (Church, 1998, referring to Statistics Canada figures). While some regions in Canada are clearly better places to work in terms of the average earnings for men or for women, no evidence points to current differential treatment of women and men within regions of Canada (e.g., Christofides and Swidinsky, 1994; Coish and Hale, 1995). Mother

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[11] The proportion of men is inconsequential for women's pay in several other countries.

[12] Denton and Hunter (1982) examined the gendered wage gap in the public sector, non-competitive private sector, and competitive private sector in Canada. Women's pay was best in the public sector and worst in the competitive private sector. Researchers more usually compare just across private and public sectors.

tongue, whether French or another language, also has no influence on earnings in studies from the 1980s and 1990s (Rosenfeld and Kalleberg, 1990; Coish and Hale, 1995). Neither region nor mother tongue will be variables considered in my research.

Hours of Paid Work

Differences in hours of paid employment are acknowledged in most explanatory models of the gap as obvious sources of variation in total employment earnings between individual women and men. During 1995, about half of all employed workers, but more of the men (56 percent) than of the women (43 percent), were in full-time full-year paid employment (Statistics Canada, 1998c:2). Australian results point to separate analysis of women's part-time work and full-time work when examining associations between unpaid domestic work and pay (McAllister, 1990). Reciprocal relationships between hours of paid work and the proportion of household work taken on by women, but not men, are suggested by Canadian research (Kalleberg and Rosenfeld, 1990).

Variation in paid labour time has been managed several ways in Canadian research: restricting the analysis group to only full-time full-year workers (e.g., Shapiro and Stelcner, 1987; Wannell, 1989), entering part-time work or hours of work as an independent variable (e.g., Goyder, 1981; Rosenfeld and Kalleberg, 1990; Christofides and Swidinsky, 1994; McMullin and Ballantyne, 1995) and, in a recent study, constructing hourly wage rates as the dependent variable and including all employed workers (Coish and Hale, 1995). My strategy will be to estimate hourly wage rates and to study both part-time and full-time employment, but in separate analyses.

Conclusions and Research Propositions

Clement and Myles neatly summarize the existing research situation: "While official statistics in OECD countries tell the story of women's rising share of employment with persistent problems in their earnings relative to men, there is little research that looks inside the household *and* relates it to paid labour" (1994:152). Unpaid domestic labour has been given a prominent place in theoretical discussions of the gap between women's average wages and men's average

wages. But little or no attention has actually been given to the division of domestic labour -- the care of homes, of children, or of the elderly -- in multivariate analyses of the gender gap in pay.

The focus of my research for Canada is the impact of family relationships, of unpaid domestic work, and of interrupted employment upon women's pay and men's pay and upon the gap between the mean average pay of women and of men. The dependent variable is hourly wage rates, an estimation of pay with an adjustment built-in for differences in the hours individual men and women spend at their paid employment. Within the limits of cross-sectional data analysis, this research extends to consideration of aspects of gender relations and encumbrances surrounding women's decisions about paid and unpaid work. Most variables from cross-sectional data cannot be called predictors of pay, strictly-speaking, even if statistically significant associations with pay are established. Following other researchers who assume or demonstrate non-reciprocal relationships between concurrent unpaid household work and pay rates (notably McAllister, 1990; Baxter, 1992; and Hersch and Stratton; 1997), here a one-way relationship with pay is assumed for the purposes of analysis.

The research propositions are loosely organized within three models of pay. The basic model is a model of the influence of family responsibilities on hourly pay and on the gendered pay gap. The main question the family model addresses is whether women's disproportionate load of current and past unpaid domestic labour sustains the gender gap in pay for employment. Measures of men's and women's unpaid housework or home maintenance, child care, and assistance to seniors as well as information about interruptions in paid employment are drawn into the model. The family tasks and interrupted employment are expected to be detrimental for pay, but more so among women than among men. Women are more likely than men to have long term interruptions and women's employment is far more likely than men's to be interrupted for reasons connected to care of family members. If only from greater incidence, the expected consequence of interruptions is a larger negative effect on women's pay, attributable in large part to their care of their families and homes, than on men's pay. Unpaid domestic work concurrent with employment

is expected, overall, to contribute to the gender gap in pay, reducing women's pay but not changing men's pay. However, with child care considered separately from housework, the anticipated effects of unpaid work are not clear cut. The effect of child care on the gendered pay gap may be moderated because men are likely to take on greater proportions of the child care in their households than of the housework. Simply having dependent children in the household, an alternative indicator of responsibility for children, may be of little importance for the gap in pay. Being married, especially for older workers, will likely be associated, overall, with pay that is above average pay, but separately only among men and not among women.

The family responsibility model also enables assessment of the importance of unpaid household work in comparison to the strong connections between pay and education and experience. Women's employment experience, if socially and economically undervalued, should increase their wages less than men's experience increases men's wages. Consequently, the difference between women's and men's wages would be greater than expected for any differences between women's and men's employment experiences. However, following results of previous research, an amplification of some differences in experience is uncertain. For job tenure, women may receive equal or better wage increases than men with the same length of tenure. Yet for supervisory experience, women are likely to receive less pay than men with experience as supervisors. Education has strong effects on pay for both women and men, but women's educational achievements may bring their wages closer to men's wages, reducing the size of the gendered pay gap rather than adding to it.

In the second model, the life cycle model, potential influences on the size of the gendered pay gap are considered in roughly the order of occurrence over a lifetime. First, the inherited effects on pay of social origins, including the education and occupation of respondents' mothers, are noted. In general, higher status occupations and higher education levels of parents contribute, indirectly, to higher pay levels among their children. However, the effects on workers' current pay of the occupations and educations of their parents are likely to be weak. The possibility of

altering the influence of gender on pay lies with the expectation that paternal occupation and education have a greater influence on men's pay than on women's pay, while maternal background has a greater impact on women's pay than on men's pay. The effect on pay of place of birth, whether inside or outside of Canada could be a factor in this model; however, no alteration to the size of the gendered gap in pay is expected from place of birth.

Education, experience, and job characteristics such as unionization or self-employment are then considered in the life cycle model. The final issue is whether interrupted employment, current marital status, and unpaid domestic work account for any of the gendered gap in pay apart from social origins, education, experience, and job characteristics. Some separate influence should remain from family responsibilities, given the prominence of women's unpaid care of families and homes in both gender relations and human capital explanations of the gendered pay gap.

The third model, a gender relations model, is applicable for subsamples of dual-earner couples, that is married or co-habiting heterosexual couples with both spouses working at paid employment. One version of the gender relations model utilizes differences in education between spouses to indicate relative difference in their earning potentials. Effects on pay rates and change in the influence of gender beyond the basic family model can be noted. Another version of the gender relations model incorporates a measure of men and women's gender role attitudes, again to estimate additional influence on pay beyond the effects of the family responsibility model. The interpersonal action maintaining men's privilege in the division of paid and unpaid labour is argued, in theory, to be critical for the ongoing production of gendered differences which include inequitable divisions of domestic labour, gendered occupational segregation, and the gendered gap in pay. The expected outcomes for pay rates and the gendered pay gap in my research are extrapolated from results in Canadian studies of husbands' participation in housework and child care or of wives' participation in major household decisions as well as from non-Canadian analysis of the gendered pay gap.

While an alignment of men's attitudes in support of traditional, patriarchal gender roles with men's higher pay is anticipated from theoretical arguments, results from housework research and gendered pay gap research suggest that men's attitudes are not significantly related to their pay levels. Among women, however, the women with less traditional gender role attitudes are likely to have higher pay than the average for women. The relative earning potential of spouses is taken to be an indicator of financial interdependence and, particularly, of the importance of women's pay for their families. If women's actual or potential earnings are the same as their husbands' earnings or more than their husbands' earnings, women's paid employment is more likely to be perceived as important by both husbands and wives than if women's pay is less than their husbands' pay. As a result, women with the potential to receive greater or higher pay for employment than their husbands would be likely to earn pay above the average for women. The relative difference in actual or potential pay between spouses is thus expected to alter the influence of gender on pay rates.

Chapter Two

Data Sources, Measures of Pay, and Independent Variables

This chapter covers four areas: first, a description of Canada's General Social Survey, the source of the secondary data utilized for this investigation; second, the calculation of hourly wage rates from the 1994 General Social Survey and 1995 General Social Survey public use microdata sets; third, an introduction to the indicators available to investigate explanations of gendered differences in pay from employment; and fourth, the reasons for the selection of subsamples of respondents for whom the fit of explanatory models will be tested. An outline of how the independent variables are likely to be related to hourly wage rates follows in Chapter Three. The analytical technique and selection of variables for multivariate models of hourly wages are also discussed in the next chapter. Results of multivariate analyses, illustrated by multiple tables, are presented in Chapters Three to Five.

Data Sources

Data collected in 1994 and 1995 for Cycles 9 and 10 of Canada's General Social Survey (GSS) make possible a new investigation of the difference in the pay of women and men in Canada. The GSS has been conducted by Statistics Canada annually since 1985 with core topics repeated every five years. Questions about work, education and retirement are the core of cycles 4 and 9. Issues relating to family are the core topics of cycles 5 and 10. Each cycle of the survey repeats the collection of demographic and socio-economic information such as age, sex, education and income. (Information here and in the following description is adapted from the *User's Guide* Statistics Canada, 1995b or 1997b.)

The target population of the GSS is the population 15 years of age and older who live in the ten provinces of Canada and are not full-time residents of an institution. In contrast to many

other surveys, notably the Labour Force Survey of Canada, residents of Indian Reserves and full-time members of the Canadian Armed Forces are included in the GSS sampling frame. All residents of the Yukon and the Northwest Territories are, however, excluded. The basic sample size is 10,000 individuals for each cycle of the survey. In 1994, the sample size for cycle 9 was increased with a supplementary sample of people aged 55 and over for a final sample size of 11,876 and a response rate of 81.2 percent. In 1995, for cycle 10, a supplementary sample of Quebec residents was added. The sample size is 10,749 with an estimated response rate of 80.7 percent.

GSS interviewers use a Computer Assisted Telephone Interviewing system (CATI) to collect information from participants. The GSS sampling frame of telephone numbers excludes banks of numbers with no residential telephones. The working banks of telephone numbers for the ten provinces are divided within each province, except in Prince Edward Island, into Census Metropolitan Areas and non-CMA areas. In addition, Montreal is a separate stratum within Quebec and Toronto is a separate stratum within Ontario. Every month a random sample of telephone numbers is generated for each province and the strata within each province. Spread evenly within each province over the year, seasonal variation in information is evenly represented. A random selection technique, Random Digit Dialling (RDD) is used to select the numbers that are called. Once a private household is contacted, all household members are listed and one person in each household is selected at random to be interviewed. For cycles 9 and 10, proxy responses were not accepted for a selected individual even if that person could not use a telephone, could not communicate in either English or French (the two interview languages), or could not be contacted during the survey time period. The small percentage of people in residences without telephone service, two percent of the Canadian population in 1994 and 1995, and people without any residence were also excluded from the survey by the nature of the sampling frame.[1] Further

[1] The assumption that households without telephones are not significantly different from other households in the target population in ways that affect population estimates was tested and confirmed using Labour Force Survey data (Statistics Canada 1997b:8).

detail on survey purposes, sampling and methodology is available in Norris and Paton (1991) or in the *User's Guide* for either of the two cycles (Statistics Canada, 1995b; 1997b).

A few of the common shortcomings of secondary data sets regarding women's pay for employment, as listed by MacDonald (1995:170-171), are alleviated by using these two General Social Surveys. New sections in the 1994 GSS9 include information on work interruptions and social origins (notably parents' occupations), thereby providing an opportunity to utilize combinations of employment and personal information not often available for Canadian research. With regards to MacDonald's particular concerns, detailed information about current employment is given in the GSS9 data set. The detail facilitates reexamination of differences between full-time and part-time employees. Work interruptions and the reasons for some interruptions are also included in the two surveys, although the GSS10 covers a different part of an individual's work history than the GSS9 questions. Both surveys also capture something of a respondent's family situation. The employment status and education level of the respondent's spouse or partner, for example, are pieces of information absent from many data sets. Respondents identify their same sex or opposite sex partners in response to GSS10 interview questions. Unfortunately, neither survey has income information sufficiently detailed for calculation of the proportion of household income provided by a respondent. Both surveys have information on a respondent's place of birth, but neither of the surveys has satisfactory information for sufficient numbers of respondents to sustain investigation of the intersection of class background and immigration effects on the pay of visible minority women and men in Canada, or even to identify ethnicity and visible minority effects on pay.

Employment Income in the 1994 GSS

Pay for employment is calculated as an hourly wage rate from information in Cycle 9 of the General Social Survey. Questions about wages and salaries, apart from any other personal income, permitted respondents in 1994 to report their employment income for the unit of time they

chose as most suitable: hourly, daily, weekly, biweekly, twice a month, monthly, or annually. When specific income information was not provided, survey participants were asked by GSS9 interviewers to locate their employment incomes within categories of annual income figures. The category midpoints were then added to the data as estimates of annual salaries. About 40 percent of respondents reported their pay as hourly wages. Around the same number reported pay as annual salaries, and the remaining 20 percent of respondents reported their pay for other time periods. Fewer assumptions are necessary for hourly wage computations than if annual salaries were to be calculated for everyone reporting employment income, and fewer cases are discarded because of missing information. Excluded in the initial selection of respondents are those under 18 years of age, over 69 years of age and, regardless of their ages, respondents who said retirement was their main activity during the previous twelve months.[2] People reporting an income of zero are also excluded. Non-retired adults, 18 to 69 years old, who held jobs and provided information about employment income are 5307 of the GSS9 respondents. Just under half of this subsample, 48 percent, are women.

For the people paid on a daily basis, a work day of eight hours is assumed for computing hourly pay. Otherwise, in addition to income figures, the critical information for estimation of an hourly rate of pay is the number of hours a person usually worked for pay at the job held during the week before the interview. For weekly and biweekly pay, the calculation of an hourly wage rate is straightforward division.[3] For pay received twice a month or monthly, the pay is first extended over 52 weeks as if it were annual pay. Then, pay for an hour of work is calculated as it is from annual income: the hours a respondent reported working in one week are multiplied 52 times and divided into the annual income figure. Unless paid hourly or daily, any

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[2] With exclusion of all retired workers, the small group of employed 65 to 69 year olds is included much as a later selection excludes all active students, regardless of age, and retains workers who are not students. The non-retired 65 to 69 year olds are only 1.5 percent of the 5307 employed 18 to 69 year olds.

[3] From biweekly pay, for example, the hourly pay is biweekly pay divided by the number of hours worked in a week times two.

respondent missing information about weekly hours of work is deleted from the analysis. If a worker held more than one paying job, the reported employment income is for the main job which is the job at which he or she spent the most hours. Therefore, weekly hours are only the hours at the main job for purposes of computing hourly wage rates.

Respondents missing any of the information necessary to compute an hourly wage are dropped from the analysis. No values are substituted for the missing information. Other selection criteria, discussed below, further reduce the size of the subsample of employed adults. The decline in the number of cases as a result of selection decisions is shown in detail in Table A.1 of Appendix A.

The group of workers who put in part-time hours of less than 30 hours a week at paid work contains more women than men by roughly three to one. Despite this imbalance, a lower-end limit for hours in a week for part-time workers is introduced to eliminate potential bias from some extreme values. Respondents are included if they worked at least ten hours a week -- the equivalent of a couple of short work days, or one long work day, or a couple of hours a day over five days.[4]

Extremely low wages, estimated to be less than $1.00 per hour, are the outcome of the hourly rate calculation for a small number of respondents reporting long hours for low annual salaries. These respondents are deleted.[5] At the other end of the income scale, the distribution of income is already truncated in the GSS9 data set. If employment income greater than $100,000 was reported as annual pay, the amount is capped in the data set at $100,000 per year and the specific annual salary is not given. Hourly pay of over $50.00 per hour is estimated for only half a percent of the group at work ten or more hours a week and paid $1.00 or more per hour.

As a final point about the income appropriate to be included as employment earnings, note that the analysis is not limited to respondents who describe their paid work as their "main activity

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[4] The deleted cases are less than 2 percent of those actually at work the previous week.

[5] Only about one-quarter of one percent of the cases are dropped.

in the past 12 months." To do so would unnecessarily push respondents out of the analysis.[6] The main activity definition subsumes, but does not specifically refer to, the week before the interview which is the pay period the detailed employment information describes. Even if a worker's current job is not the respondent's preferred employment and he or she, consequently, spent much of the previous year looking for work, the current job with its income is the focal point for this analysis. Respondents holding a job the previous week, but not actually at work, are excluded.[7]

After the low estimated incomes and the work weeks with few hours are set aside along with people who did not supply sufficient information for hourly wage rate estimates, the respondents employed and working for pay in the week before their GSS9 interviews are 4819 people. Dropping the low hour and low wage cases has a minor effect on the overall mean weekly hours among the remaining respondents. (The change is from 39.29 hours per week to 39.85 hours per week for those working at their jobs the previous week and the median number of hours is unchanged at 40 hours per week.) The 2261 women are 46.9 percent of the group. Their mean average wage of $13.45 per hour is 78.2 percent of the mean average wage of $17.20 per hour for men.

These wage figures (the top panel of Table 2.1, end of the chapter) are close to the hourly wage rate calculations by Coish and Hale (1995) for women and men 15 to 69 years old who were working full-time or part-time in January of 1993. From an average hourly wage rate that year of $13.32 for women and $16.87 for men, Coish and Hale report women's pay to be 78 percent of men's pay. This ratio for 1993 is slightly lower than in 1994, as would be expected given the different ranges of ages and hours. Table 2.1 contains the mean hourly pay of 18 to 69 year old men and women in selected subsamples defined by hours of work and workforce participation.

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[6] Some of these respondents were at work the week before the survey interview, worked full-time, and held a job for the full year.

[7] The appropriateness of this decision within the investigation at hand is discussed below in sections on the independent variables and on the analysis subsamples. Other earnings gap figures use Labour Force Survey definitions of employment to include all those holding jobs (Statistics Canada, 1997a:24).

EMPLOYMENT INCOME IN THE 1995 GSS

To facilitate comparable investigations and results for 1994 and 1995, an hourly wage is also calculated for GSS10 respondents as the standard unit of income. Pay from employment is not easily identified in the 1995 data because employment income is part of personal income amounts given in response to a GSS10 question about personal income from all sources. To identify a group similar to the GSS9 analysis subsample, respondents' non-employment income needs to be screened out, as much as is possible.

The GSS10 analysis is, first of all, limited to people who received income from wages, salary or self-employment. Next, it is further limited to people who did not identify another income source as the main component of their annual personal income. Respondents missing information on income or reporting an income of zero are deleted from the analysis, as they are for the GSS9 analysis. Those who say retirement was their main activity over the past year are dropped, regardless of their ages. Any participant who received employment income during the year but did not actually work at a job sometime during the year is also dropped from the analysis. After these exclusions, the potential group of GSS10 participants with employment income is 5136 workers, 18 years to 69 years old, who worked sometime during the previous year and are not retired. Their earnings from employment or self-employment are either their main source of personal income or their only source of income during the twelve months before their survey interviews. Women are 46.5 percent of this group. See Table A.2 in Appendix A for the numbers of cases included through stages of selection from GSS10 data by income and employment criteria.

Information about income and most employment information covers the twelve months prior to the GSS10 survey interview, rather than just the reference week of employment covered by much of the GSS9 information about jobs. Annual personal income is reported in 19 categories, excluding the "no income" category. For this research, the categories are recoded into their midpoint values. As with GSS9, the upper end of the annual income range is capped at

$100,000 from the category for the highest salaries, $100,000.00 and over. At the lower end of the distribution, $1000.00 is the value assigned as the midpoint of the category with the lowest annual incomes, "less than $2000.00" in a year.

The hours a respondent usually worked for pay during a week are multiplied by the number of weeks of employment in the previous year[8] and that figure is divided into the estimated annual salary to obtain an estimate of the hourly wage rate. For a few people who said they usually work over 100 hours a week, hours of employment are truncated at 100 hours.[9] Long hours are credible in transportation and farming, two of the occupations mentioned, but the reported hours are impossible to sustain every week for a year. If information is missing about the hours of work in a week or the weeks worked, no values are substituted and the cases are dropped.

Within the GSS10 data, respondents who worked less than ten hours a week are less than two percent of the employed respondents, as in the GSS9 data, and about 80 percent of them are women. Again, those reporting low weekly hours of paid work are deleted from the potential analysis as are respondents with hourly wage rates estimated to be under $1.00 per hour.[10] These low hourly wages are all estimated for people who reported low annual salaries, originally recorded as less than $2,000.00 for the year even though most reported employment for a full year of 52 weeks and full weeks in terms of the hours they usually worked. Once those working less than ten hours a week are dropped, four men with pay estimated at over $200.00 per hour remain in the analysis. Each reports just a few weeks of work in the previous twelve months and is later excluded when the analysis is restricted to full year and full-time workers.

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[8] The number of weeks are weeks of employment or weeks holding a job, not necessarily the weeks of work at a job. Included in the total are any weeks of vacation, illness, strikes, lockouts and maternity or paternity leave.

[9] Less than one-quarter of a percent of 18 to 69 year old workers are affected.

[10] This group was only about one third of one percent of the employed adults in GSS10. Among GSS9 workers, the comparable percentage is one-quarter of one percent.

Workers who reported hours or income for concurrent multiple jobs cannot be separated out from other workers for 1995. Reports about more than one job could contribute to the recording of greater numbers of hours per week, at the upper extreme, among GSS10 respondents compared to GSS9 respondents. However, the calculation of hourly wage rates moderates effects from multiple jobs. As a measure of pay, the hourly wage rates are roughly comparable units for the two surveys.

A subsample containing only people who were employed and at their jobs the week before the survey is selected from the GSS10 data. In another step to facilitate comparable investigations for 1995 and 1994, workers employed a full year -- at least 49 weeks of the previous 52 weeks -- are selected. This step is not taken with GSS9 data. In the GSS9 data, employment income is given by each participant for employment the week prior to their survey interviews, a week of work which then stands in as if representative of weeks throughout the year. In the GSS10 data, every participant's income is reported for the whole year and employment information applies more generally to work over the year. Therefore, selected respondents are those who say they were employed for that year.

Table 2.2 (also at the end of the chapter) provides an overview of the numbers of men and women in GSS10 subgroups selected at various stages of dependent variable definition. Of the 3779 adults 18 to 69 years old at work the week before GSS10 interviews and employed for at least 49 weeks of the previous year, 45.6 percent are women and 54.4 percent are men. These respondents usually worked at least 10 hours a week and provided sufficient information for calculation of an hourly wage estimate for employment over a year. The mean average wage for the women, $15.48 per hour, is higher than the mean average for women from the 1994 survey; for the men, the mean wage of $19.04 per hour is also higher than the mean for 1994 (in Table 2.1). Some of the 1995 increase over 1994 is caused by the restriction to full year workers from the GSS10 survey; some of the increase would also be attributable to any remaining portions of total personal incomes that are not income from employment; and some could be caused by the

coarser estimates for 1995 that result when beginning with categorized incomes. However, average pay should be higher in 1995 than in 1994, as reported by Statistics Canada (1997a) for the country for the two years.

The change in the size of the gender gap in pay reinforces the likelihood that the measure of pay from the 1995 data closely approximates the measure constructed from the 1994 data. Women's mean hourly pay rate is 81.3 percent of men's hourly pay for full-time work in the 1995 GSS10, a 3.1 percent increase for women relative to men and a decrease in the size of the gap compared with the 1994 GSS9. This difference between 1994 and 1995 is close to the change recorded by Statistics Canada. If Statistics Canada figures are used to calculate change in the gender gap in pay for all workers over 15 years of age, the gap declined by 2.8 percent from 1994 to 1995. For full-time, full year workers over 15 years of age, the gap declined by 3.3 percent from 1994 to 1995 (from figures reported in *Earnings of Men and Women in 1995*, Statistics Canada, 1997a:11, 17).

The Statistics Canada summary figures for the population of workers aged 15 years and over apply to a wider age range than the analysis subsamples taken from the GSS data and include anyone employed any amount of hours as a part-time or occasional or full-time worker. With one more selection of respondents to remove workers actively studying and pursuing their educations, an even smaller subpopulation (in comparison to the population of workers represented in Statistics Canada's summary statistics) is defined for this investigation. At its largest, the 1994 subsample represents the population of Canadian adults 18 to 69 years of age who worked at least ten hours in the week before the 1994 survey and were not students. The largest subsample of participants selected from the 1995 survey is further restricted, as noted already, to those employed from 49 to 52 weeks during the twelve months prior to their survey interviews.

Adults aged 18 to 69, who are not students and who worked at least ten hours the week before their 1994 interviews are 4282 of the GSS9 respondents. Women make up 45.7 percent of the group. For 1995, the adults who are not students and worked a full year, including the

seven days before the interview, are 3001 of the GSS10 respondents. Women are 44.5 percent of them. Tables 2.1 and 2.2 permit comparison of numbers of men and women and the mean wages for men and women in selected subsamples from the two GSS data sets.

Comment on Hourly Pay Rates

Some advantages and some problems are inherent in the use of hourly wages as the unit of pay. Conversion of all pay for employment to an hourly rate facilitates analysis of both long and short work weeks. As the dependent variable, this unit of income easily accommodates income from women's non-standard work arrangements. At the same time, an adjustment is built into this income measure against the concern in some earlier research about women working fewer hours than men. The dependent variable, hourly pay rates, has a built-in moderating influence on the size of the gender gap in pay and conservative estimates of the size of the gap are generated. Thus, at the outset, arguments about the contribution of women's hours of work in creating the pay gap are addressed. People who work fewer hours than others receiving the same annual salary have a higher hourly wage rate than those who work more time for that salary.

Note also the inclusion of seasonal employees who are working during the reference week in 1994, an advantage for an investigation as inclusive of non-standard work as is possible with the available data. The presence of seasonal workers draws attention to the need for caution in interpretation of the meaning of the dependent variable. Respondents working at seasonal employment the week prior to the GSS9 survey are included in the analysis of earnings income when the rate of pay is "standardized" for all workers as an hourly wage during the survey reference week. To extrapolate from this unit of pay to annual earnings would defy the reality of incomes for seasonal work in Canada, grossly exaggerating the total annual income of any occasional worker or seasonal worker. The income unit remains one of pay for the hours actually spent at work at a job for which employment income is received. It is not the actual rate of pay for all of the past year (although it could be for some workers) or the estimated rate of pay over

the year "as if" working at last week's job for the whole year. The GSS10 hourly unit of pay applies to a more common standard group: only those working a full year are included. Still, for both 1994 and 1995, the unit of pay is unusual for an analysis of employment earnings. Therefore, an estimate of annual salaries will be constructed for comparison with some final models of influences on hourly pay in order to assess whether using hourly rates as the dependent variable produces distorted estimates of independent variable effects.

INDEPENDENT VARIABLES

The two data sets have sufficiently large sample sizes to sustain analyses using multiple independent variables. Nevertheless, some interesting comparisons are impossible because the men and women in relevant subgroups are too few in number for comparison of their pay across a number of independent variables. The few men who interrupt their employment for paternity leave or other family related reasons are an obvious example, or the few respondents living with same sex partners, or the small number of married women whose partners are not employed.

The main data source for this research is the 1994 General Social Survey. Some indicators for 1995 from GSS10 are comparable to variables for 1994 from GSS9; others are not, and offer opportunities for investigation of questions about the pay of the 1995 respondents that cannot be explored for 1994 respondents. Therefore, some variables from the GSS10 data set are discussed below, alongside those from the GSS9 data. As part of a continuing overview of the data, some percentage distributions are included.[11] Unless otherwise noted, the descriptive percentages are for non-student adult GSS9 respondents, 18 to 69 years old, who worked at paid employment for ten or more hours during the week before the survey or for the adult GSS10 respondents who, in addition, had worked a full year. More detail for a few questions from the two surveys is provided in Appendix B and Appendix C.

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[11] The figures are rounded to the nearest percent.

Family Characteristics and Economic Dependency

Marital status is regrouped from four categories in the 1994 data into three categories: 1) married or common-law, 2) single, and 3) widowed, separated, or divorced.[12] Among all the employed adults, 24 percent are single. Among the women, about the same proportion is single and never-married as the proportion among the men. Respondents with married or common-law partners are 64 percent of the group. Sixty percent of employed women have partners, a smaller proportion than the 67 percent of employed men who have partners.

Each survey has some information indicative of the economic arrangements between spouses.[13] Ninety percent of the husbands of employed women in married or common-law relationships were also employed sometime during the previous year. Among the employed men with spouses, 73 percent of their wives were employed. For later supplementary analyses restricted to respondents in dual-earner couples and living in the same household, the main activity of spouses over the previous year is an added consideration. The percentage of women, 87 percent, remains much larger than the 61 percent of employed men who have a spouse whose main activity is work at a job or for a business. The number of weeks a respondent's spouse worked during the previous year is also known. From the GSS10 data, the hours the spouse usually works in a week are also available to identify respondents' spouses who are employed full-time. Other measures in the 1994 or 1995 data for economic interdependency of spouses are too coarse to be satisfactory indicators of gender relations in respondents' households.[14]

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[12] In the 1994 data, widowed respondents are not in the same category as other formerly married respondents.

[13] The term "spouses" here refers to heterosexual spousal partners of respondents who describe themselves as co-habiting in common-law relationships or living with a partner to whom they are legally married. "Spouse" is preferred over "partner" to avoid confusion between spousal partners and business partners. Opposite sex relationships are assumed for GSS9 but GSS10 interviews include the type of partner: No partner; Married partner in household; Common-law partner in household; Same sex partner in household.

[14] For example, a respondent's annual personal income and annual household income are presented in both data sets. The amounts are collected and coded into categories too broad and discrepant in their varying sizes to be used in constructing a valid measure of a respondent's proportional contribution to household income. The ranked categories cover different ranges of income: at the low end, four categories with

As an alternate measure of relative income between spouses, the impact of differences in educational attainment between spouses will be examined for 1994. The indicator of educational differences between GSS9 respondents and their spouses is a calculation using two GSS9 variables: the highest level of education attained by spouses and the highest level attained by respondents.[15] This information for both respondents and their spouses, originally with different categories, is recoded into the same ranked categories which include a couple of categories for partially completed university programs and college programs.[16] The education differential between spouses is a variable with three categories: more education, the same level of education, or less education for the respondent in comparison to his or her spouse's education. Among the 18 to 69 year old respondents who provided education information for spouses, 24 percent are less educated than their partners, 35 percent attained the same level of education as their partners, and the largest group, 41 percent, achieved a higher level of education than their partners. The distributions among men and among women are similar. Those with less education than their spouses are, in rounded figures, 25 percent of the men and 24 percent of the women. A fraction of a percent more of the women than the men are at the same level of education as their spouses, and 42 percent of the women, a half percent more than the men, are at a higher level of education than their spouses.

Questions about a respondent's single (that is, not married) children living with the respondent determine the parental status of respondents. Children are included whether biological,

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arange of about $5,000; four more categories with ranges of $10,000, and at the upper end one with a $20,000 range before the uppermost category capped at $100,000 for annual income at that level and higher.

[15] The GSS9 educational attainment variable separates postgraduate degrees from undergraduate or bachelor's degrees. With GSS10 public use microdata this distinction is not possible because all university degrees are coded into one category in the education information for respondents and for their spouses. Therefore, a spousal education differential variable is not constructed for GSS10 respondents.

[16] The categories, in declining order, are: 1) master's degree or earned doctorate; 2) bachelor's degree; 3) diploma or certificate from a community college or from a technical, vocational or business school; 4) some university education; 5) some community college, or some trade, technical, business, or vocational schooling; 6) high school diploma; 7) less than high school completion; and 8) no schooling. The last category applies only to spouses.

adopted, or stepchildren. Simple dichotomous variables are constructed from GSS9 information to indicate the presence of dependent children under 15 years of age and also of children under 25 years of age, although the influence of the capped count[17] for children under 15 will also be examined. In 35 percent of respondents' homes at least one family member is a child under 15 years of age and in 44 percent at least one is a child under 25. Preschoolers cannot be identified separately. Continuity and comparability of 1995 indicators with 1994 indicators are facilitated by duplicating, as much as possible, GSS9 variables from GSS10 information about marital and parental status.[18]

Unpaid Domestic Work and Child Care

Indicators of family demands and responsibilities are taken from a set of questions about hours of unpaid work in both GSS9 and GSS10.[19] Three questions from the GSS9 are reproduced here to clarify the extent of the activities covered, lest later references to truncated versions of the question become misleading.

> During the past 7 days, how many hours did you spend doing the following activities?
>
> a) looking after one or more of your own children, or the children of others, without pay? (Some examples include: swimming or playing with young children, driving children to sports activities, helping with homework, talking with teens about their problems.)
>
> b) doing unpaid housework, yard work, or home maintenance for members of this household or others? (Some examples include: preparing meals, household planning, shopping, and cutting grass.)
>
> c) providing unpaid care or assistance to one or more seniors? (Some examples include visiting, talking with seniors on the telephone, helping with shopping, banking, or with taking medication, driving to appointments or other activities.)

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[17] The number of children under 15 is capped at three or more, as is the number from 15 to 25 years.

[18] Cycle 10 of the General Social Survey has a second public use microdata set, not used here, entirely devoted to detail regarding each child of a respondent.

[19] The same questions were used in the 1996 Census of Canada long form.

Because the list of potential activities extends beyond a respondent's own household and family to cover all unpaid work, the hours are approximate indicators of the time respondents give to family responsibilities.[20] In the data sets, the hours for care of children and care of households are reported in categories from "none" as the lowest to "60 hours or more" as the highest. For work with seniors, the highest category is "10 hours or more."[21]

The list of housework and home maintenance work is an all-inclusive grouping of tasks sometimes described as typically "men's work" and other tasks described as typically "women's work." Within this grouping, distinctions cannot be made between household tasks done by men and women across "traditional" gender roles and arguments about such distinctions cannot be tested using these data. Gendered differences do appear among the employed adults in the number of hours of unpaid domestic work in 1994, especially for higher hours. Some time is put into housework and home maintenance by 96 percent of the women and 88 percent of the men. Forty-six percent of women, but only 19 percent of men, do 15 or more hours of housework and home maintenance. Overall, far fewer respondents spend time caring for children than doing housework. Measured at the simple level of whether a respondent did any unpaid child care, the percentage among 18 to 69 year old women, 51 percent, is not much greater than the percentage among men, 47 percent. At 30 or more hours of unpaid time caring for children, 37 percent of the women but only 11 percent of the men spend unpaid hours of this magnitude in caring for children. The unpaid care of seniors, in contrast, is less clearly "women's work." Around 20

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[20] A fourth question in the GSS9 unpaid work section asks about unpaid care and assistance to persons other than children or seniors. Unpaid volunteer hours, the subject of a fifth question, is meant to include unpaid coaching and unpaid teaching.

[21] The response categories for care of seniors are the same four categories in both data sets: no hours, less than 5 hours, 5 to 9 hours, and 10 or more hours. The upper two categories with very few respondents are combined for the analysis. For care of children and the household, the categories vary slightly between the two surveys. The GSS9 data has seven categories: no hours, less than 5 hours, 5 to 14 hours, 15 to 29 hours, 30 to 44 hours, 45 to 59 hours, and 60 or more hours. The GSS10 data is in five categories, with one category for all hours from 30 to 59 hours. In GSS9 models, the upper categories are combined to create the same five categories.

percent of employed adults provide some assistance to seniors, with eight and a half percent of the women and five percent of the men spending more than five hours.

Work Interruptions

Participants in 1994 who said they had been employed at least one of the 60 months prior to their interviews were queried about time away from their paid employment for periods of three months in length, or longer, within the same five years from 1994 back to 1989.[22] The months a student spent in temporary and limited term positions -- summer jobs and co-op program jobs -- were not to be considered by GSS9 respondents in the section on interruptions.[23] (GSS10 participants were asked not to count part-time employment while a full-time student.)

Interruptions range in number from zero to six or more. By far the majority of the respondents were never away from paid employment for a three month period during the five years. Eighty-two percent never experienced an interruption. A larger proportion of the women than of the men stopped working at paid employment at least once in the five years: 21 percent of the women compared to 15 percent of the men. Among all respondents, 11 percent reported only one interruption. Again, a larger proportion of women than men had one extended break from paid work: 15 percent of the women compared to 9 percent of the men. Less than two percent, 76 people, stopped their paid employment five or more times. Here the men are disproportionately represented, but whether men or women, 89 percent attributed the large number of interruptions to having held seasonal jobs. Because of the extremely skewed distribution on the number of interruptions, "yes" and "no" responses to the question of experiencing an extended interruption may be a more useful indicator.

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[22] The question asked: "During the last five years, that is since [month] 1989, did you leave your job, or were you ever away from work, for a period of three or more months?"

[23] The number of months of employment out of the previous 60 is not useful for separating breaks from time at a job. Because the months of employment include vacations, illness, strikes, lockouts or maternity leaves, this employment history identifies the number of months a respondent held a job, even if not actually working at a job all of that time. On its own, this job-holding history cannot separate a respondent's history of work interruptions from his or her history of on-the-job employment.

From the 1995 data, the minimum six-month length of time for an interruption is twice as long as the minimum time for interruptions listed by GSS9 respondents, and the number of interruptions (again, capped at six or more) include any that occurred since first beginning to work at paid employment on a regular basis. (Regular work is defined in GSS10 data as paid employment in full-time or part-time work for six months or longer.) At the time of the GSS10 survey in 1995, the proportion of 18 to 69 year old women working a full year whose paid work had been interrupted for at least six months is far greater than the proportion of the men with interrupted employment: 50 percent of women and 23 percent of men.[24] Even though each respondent's entire employment history is considered -- not just the previous five years -- the total number of interruptions are clustered, as during the five year period for GSS9 respondents, mostly at "no interruption" with the next cluster at one interruption, particularly for the women.[25] The percentages of people with one interruption are 33 percent among the women and 15 percent among all the men. With entire employment histories examined, five and six, or more, breaks occurred for a very small percentage of respondents: about one and a half percent of women and a half percent of men. The length of up to four of their interruptions is given in the GSS10 data yet the total time away cannot be calculated. A respondent's multiple interruptions of just under 6 months in length would not count as even one interruption here, yet could total several years away from paid employment.

Attitudes about Jobs and Family

Differences in attitudes about taking on paid employment and about family responsibilities appropriate for women and men can be taken from GSS10 data. The attitude questions are presented in full in Appendix C. For the 18 to 69 year old respondents working at paid

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[24] Fast and Da Pont (1997:3) give figures for all GSS10 respondents who had ever worked for pay, including those who have not returned to paid employment at the time of the survey. Sixty-two percent of the women had at least one interruption and 27 percent of men had a least one interruption.

[25] An indicator for the number of times off with a zero value for "no interruption," like the GSS9 indicator, is constructed from existing GSS10 variables. A dichotomous variable from GSS10 data indicates whether a respondent has ever been away from paid work for at least six months.

employment for a full year, the difference between the proportion of women and men in agreement with statements, that is either agreeing or strongly agreeing, is greatest on the five attitude statements discussed here. Four of the five statements are also examined by Ghalam (1997).[26] She demonstrates that gendered differences in attitudes about work and family responsibilities are present for several questions across distributions for GSS10 respondents 15 years of age and older, with unemployed as well as employed included.

Employed men, 18 to 69 years old, are more inclined than employed women to be in agreement with two of the five statements. On the first, "a pre-school child is likely to suffer if both parents are employed," 64 percent of the men and 45 percent of women are in agreement. On the second, "If a man brings enough money home so his wife and children have a comfortable life, he has fulfilled his role as a husband and parent," 29 percent among the men and 17 percent among the women are in agreement. On three other statements, the proportion of women in agreement is larger than the proportion of men. Seventy-nine percent of the women and 63 percent of the men agree that "an employed mother can establish just as warm and secure a relationship with her children as a mother who does not work for pay." Eighty-one percent of the women and 70 percent of the men agree that "both the man and the woman should contribute to the household income," while 63 percent of women and 55 percent of men agree that "having a job is the best way for a woman to be an independent person."

The GSS9 does not contain similar questions. The reasons women and men stopped work for extended periods of time and the reasons they work part-time could be used as a way of examining how men's and women's decisions about paid work, unpaid work, and parenting are related to pay. In the public use data set, however, categories are collapsed for the second and third interruptions from the original range of possible reasons for up to three interruptions in the questionnaire. Personal reasons for stopping work cannot be separated from business reasons over

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[26] The percentages for women here are substantially different from percentages for all the GSS10 participants on some of the items discussed by Ghalam, yet the distributions coincide on whether the greater proportion in agreement is among the women or the men.

the set of interruptions for any one respondent. Neither the number of men and women who were on parental leaves during the five years nor the total number of parental leaves for any one person can be extrapolated from the 1994 GSS9 microdata file.

Reasons for each respondent's initial interruptions for up to the first four interruptions are listed in the 1995 data without collapsing categories; consequently, reasons for almost all interruptions in paid work are provided. (See Appendix C for the list of reasons.) For 18 to 69 year old women who are working at least 10 hours a week and worked a full-year, 71 percent experienced at least one interruption for family or personal reasons including marriage, maternity leave, child care, or care of elderly relatives.[27] For only maternity leaves and care of children, 62 percent of women interrupted their employment. Men rarely give such reasons for interruptions to their paid employment. Family or personal reasons are reported by only four percent of the men whose paid work was interrupted at least once.

In contrast to the predominance of family-related reasons for women's work interruptions, personal or family responsibilities are the third most frequently cited reason for women's part-time work. For men, such responsibilities are the reason least often cited. The GSS9 respondents who worked less than 30 hours during the 1994 reference week could give up to three reasons that will be considered in an analysis of pay of part-time workers. The most frequently cited reasons for men or for women between 18 and 69 years of age are "could find only part time work" and "did not want full-time work." Of the group not wanting full-time work, only 13 percent also said they worked part-time because of personal or family responsibilities. (See Appendix B for the list of reasons offered to respondents.)

Work Experience

The 1994 GSS9 data provide some information about the jobs respondents held five years before their interviews. Thereby, the data offer an opportunity to note gendered differences in

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[27] Among all the GSS10 women over 15 years of age who had ever worked, 62% of their interruptions were for marriage, maternity leave, care of children, or care of elderly relatives (Fast and Da Pont 1997:5). Unspecified family and personal reasons do not seem to be included in the percentages.

that segment of their employment histories. The indicator of interest is a respondent's experience as a supervisor in 1989, five years before the survey, when 30 percent of the respondents were working as supervisors. More supervisory experience is recorded among the men than among the women: 36 percent of men were in supervisory positions compared to 22 percent of the women.[28]

Another direct measure of work experience is the length of tenure with respondents' current employers. For the group of 18 to 69 year olds the mean years of tenure are nine; the median number of years is six. Years of tenure are greater among the men than among the women. For men, the mean number of years with their current employers is 10 years; the median, seven years. For women, the mean is eight years; the median, five years.

Chronological age is another measure that captures differences in experience over time. The pay of workers with the least experience in paid employment, young adults under 25 years of age at the time of their interviews, can be examined separately from the pay of other GSS9 workers.[29] These young adult respondents are only nine percent of the larger subsample of employed adults from 18 to 69 years old. Eight percent of the men are 18 to 24 years old and eleven percent of the women are 18 to 24 years old. At the other end of the age range, just over five percent of the respondents are from 60 to 69 years in age.[30] About one and a half percent more of the men than of the women are in the oldest group. Among GSS10 respondents working full-year and full-time, smaller proportions of the distribution are in the youngest and oldest age cohorts than within the GSS9 distribution. Six percent are aged 18 to 24 years, with roughly equal percentages of the men and of the women in the age group. Roughly three percent are from 60 to 69 years old: almost four percent of the men and about three percent of the women.

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[28] Here, "Do not know" and the small percent who were not working are grouped with the "No" responses.

[29] Twenty-five years is the lower age boundary of one age category in the public use GSS9 microdata. Except for the youngest cohort, 18 to 19 years of age, the GSS9 data report age in five year age cohorts starting with 20 to 24 years. Although GSS10 data include age as a continuous variable, the same division between young and older adults is used for comparability with GSS9 analyses.

[30] The 65 to 69 year olds remain a small portion of the employed adults, at 1.3 percent, adding information about older workers without biasing results. The 18 and 19 year olds are also a small group at 1.5 percent.

Choices of which indicators of experience to use will weigh missing values, substantive meaning, use in previous research, and intercorrelation of the measures. From GSS10 data the indicator of paid work experience, the number of years since respondents began regular work, is calculated from the age at which their regular work began. The cap of 50 years of age on the starting age causes no problems in this data. The same measure of years cannot be calculated from GSS9 data. On the other hand, measures of more particular types of employment experience -- supervisory experience and years with the current employer -- are not available in GSS10 data.

Education

To examine the association between a respondent's education and pay rates, completed levels of education are taken from the GSS9 data.[31] For my research, information from several GSS9 variables is collapsed into four categories of achievement: 1) completion of a university bachelor's degree or post graduate degrees and post graduate diplomas, 2) other post secondary education such as college diplomas and certificates, 3) high school diploma, and 4) education to less than high school graduation. Twenty percent of the employed 18 to 69 year olds from the GSS9 data have at least one university degree and another 29 percent have completed high school. The percentages of women and of men are almost identical for each category.[32] However, within the younger age cohorts, the percentage of women with at least one university degree exceeds the percentage of men. Nineteen percent of employed 20 to 24 year old women hold a university degree compared to nine percent of the men in the same age group. After the age of 40, the percentage among the men is greater than the percentage of women.

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[31] The use of completed education as a criterion here and the selection within the GSS9 interview of respondents who answered questions about work after education lead to the elimination of four respondents working during the reference week who had never attended school. All the 18 to 69 year old GSS10 respondents who supplied employment and income information had attended school.

[32] When the highest completed level of education is recorded, someone with a high school diploma and some university credits has a high school diploma as the highest complete level of education. Otherwise, the people with some university education (including those with degrees) are 27 percent for 1994 and 28 percent for 1995. Again, the distributions among men and among women are almost identical in 1994. In 1995 the men with some university education are only one percent over the percentage of women.

A comparable indicator for completion of educational programmes among 1995 GSS10 respondents is a regrouping from categories of educational attainment into four categories. University graduates with degrees in 1995 are 21 percent of the GSS10 respondents. Again, the overall proportions among women and among men are close to identical, but the percentage of young women with degrees is larger than the percentage of young men. Six percent of women 20 to 24 years of age hold university degrees compared to five percent of the men in the same age group. Nineteen percent of 25 to 29 year old women have degrees compared to 13 percent of the men. The difference is not as great as among the young GSS9 respondents, perhaps because of the restriction to full year employment for GSS10 respondents. Although for workers aged 60 years and over the proportion of men with degrees is greater than the proportion of women, in GSS10 five year age cohorts between 30 and 60 years of age, the proportion of women with a degree is greater than the proportion of men.

Physical Limitations

Respondents limited in the amount or kind of activity they do at home or at work because of a long-term physical condition or health problem can be identified among GSS9 and GSS10 respondents. "Long-term" is defined as six months or longer, perhaps capturing serious but temporary limitations along with more permanent restrictions in activity and creating a variable that may be related to work interruptions. GSS10 respondents were asked also about the length of time since first becoming limited in physical activity.

Job Characteristics

Many characteristics of a respondent's current employment are contained in the GSS9 data and are of potential interest along with measures of family relationships and work interruptions. As with employment experience, choice from among potential variables will be affected by intercorrelation of indicators, assessment of the volume of missing cases, variation in the distributions for men and women, and by the magnitude of influences on pay.

Part-time status is one characteristic of current employment to be highlighted in this investigation through a comparison of models for full-time and part-time workers. Part-time hours are from 10 to 29 hours usually worked by respondents employed during the reference week. These hours apply to 11 percent of the 18 to 69 year olds, or 438 people, in 1994. More of the women than of the men are employed part time: 19 percent of women and only four percent of the men, 93 men, are employed part-time. Even fewer respondents altogether, but almost the same proportion of women as of men, describe their jobs in 1994 as temporary: eight and a half percent of men and eight percent of women. With such skewed distributions and little difference between men and women, temporary versus permanent status is not likely to be a concern in final explanatory models.

With data that facilitate an examination of the effects of supervisory experience upon men's and women's current pay, the effect of current supervisory positions on pay will also be noted. Asked if they worked as supervisors at their current jobs (during the survey reference week), 39 percent of men and 27 percent of women replied that they supervise other workers.[33] The gap between the percentage of supervisors among women and the percentage of supervisors among men is smaller in 1994 by three percent than it was five years earlier. Another employment characteristic also available through the GSS9 data, one not typically mentioned in earnings gap literature, is a respondent's status as a paid employee or as a self-employed earner. Altogether, the self-employed are 13 percent of the 18 to 69 year old workers. Here a greater proportion among men, 17 percent, are self-employed workers. Among the women, just nine percent -- less than 200 women -- are self-employed.[34]

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[33] These unrounded percentages for 18 to 69 year old workers are a fraction of a percent higher than the 26.5 percent of women and 38.7 percent of men reported by Boyd, Miller and Hughes (1997). Their analysis group is 25 to 64 year old full-time and part-time employees, excluding self-employed workers.

[34] The numbers are insufficient to sustain a separate analysis of self-employed respondents within other subsamples to be defined later. The strength of self-employment effects will be examined and, if necessary, controlled.

Several workplace characteristics commonly examined in relation to gendered earnings differences do not distinguish between the jobs of men and women in the GSS9 data. Across sizes of firms, the distributions among men and among women are similar. The sizes of businesses are ranked in six categories,[35] starting at less than 20 people, the size of firm for about 32 percent of men and women. The percentage of men in the largest firms, a thousand employees and over, is about one percent more than the percent of women in the largest firms. Collective agreements or contracts cover the work of a slightly greater proportion of men than of women, 41 percent of men and 38 percent of women.[36] Several other job characteristics, not to be used in my analysis, provide additional description here of the employed adults. A dichotomous indicator separating respondents who work regular daytime shifts and respondents who work other shifts is constructed from one variable in the GSS9 data that identifies respondents working regular evening shifts, night shifts, rotating shifts, and regular daytime shifts. Overall, 25 percent of respondents worked the shifts other than regular daytime shifts, with just a half percent difference in the proportions of women and men. Further description of current jobs emerges from "yes" and "no" responses to questions about other work arrangements: 33 percent of men and 28 percent of women have flexible work schedules; 11 percent of men and seven percent of women have a compressed work week; 19 percent of men and 16 percent women have jobs including work at home other than overtime work; and 31 percent of men and 21 percent of women have jobs including on-call work.

For the 1995 respondents, comparable information is limited. GSS10 participants answered "yes" or "no" to a question about regularly working evening or night shifts and to a second question about regularly working weekends (that is, Saturdays or Sundays). In 1995, shift work is done by 38 percent of men and 30 percent of women, higher percentages than for the

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[35] The categories were: <20, 20-99, 100-249, 250-499, 500-999, 1000 and over. Missing values make the indicator less useful than others with which it is correlated, particularly coverage by a collective agreement.

[36] Union membership is 31.4 percent overall and is about the same percent among men and among women.

constructed variable from 1994 information. Weekend work, not identified through GSS9 interviews, is done by 45 percent of men and 37 percent of women.

Occupational groupings for both GSS9 and GSS10 respondents are in 15 categories collapsed from 33 in the survey data.[37] The occupations of women and men are markedly different, overall, with only small differences between distributions from 1994 data and 1995 data. Over one quarter of the women and only five percent of the men are in clerical occupations. The occupational group with the greatest number of men, the 18 percent in management and administration, is close to the second most common occupation for women. Among the women in 1994, about 15 percent are in management and administration with another 15 percent in service occupations.[38] (Among the men, nine percent are in service occupations.) The fourth category for women, medicine and health, is the field of employment for 12 percent of the women in 1994, but only two percent of the men. For men the second and third most common occupations are in construction and in manufacturing, occupations for very few of the women. Around half a percent of the women are in construction and four percent are in manufacturing.

Social Origins

An examination of patterns of association between current pay and educational as well as occupational differences in family backgrounds is possible using GSS9 data. For the time when respondents were 15 years of age, those who were living with one parent or with two parents were asked about the occupation and education of their parents. The parents could be birth parents, adoptive parents, or someone who acted as a substitute for a parent. Pineo socio-economic classifications are combined into four categories that maintain a distinction between service occupations and manual occupations. To create a five category grouping of occupations, a

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[37] The 15 categories I use are listed in Appendix B. Occupational groupings in the GSS public use microdata sets are collapsed from the four digit 1980 Standard Occupational Classification.

[38] From the GSS10 data selecting full year workers, the number of women in management and administration (17 percent to men's 18 percent) is clearly second among women to the number in clerical work (26 percent to men's five percent). Fourteen percent of the women are in service occupations.

category for mothers not in the workforce is added to the four categories collapsed from Pineo scores.[39] The fifth category is constructed from a question about the main activity of respondents' mothers and includes the 70 percent of women's mothers and the 64 percent of men's mothers who were keeping house or otherwise were not in the paid workforce. (Detail from the GSS9 questions and original categories are included in Appendix B.) Only four percent of respondents' fathers were not in the workforce. More of the fathers, 39 percent, were in crafts, trades, and manual occupations than in any other occupational group. Almost as many, 34 percent, were in professional, semi-professional, and managerial occupations. The percentage distributions describing the work of their fathers are much the same for men and for women. The biggest difference, just three percent, is for farming. About 15 percent of men's fathers and 12 percent of women's fathers worked as farmers or farm labourers. The percentages across categories of paying occupations are smaller by two or three percent for men's mothers than women's mothers because a smaller proportion of the men's mothers were employed for pay. Farming is the exception as the occupation for one percent of men's mothers and women's mothers. Among the women, 17 percent of their mothers were employed in clerical, sales, and service occupations. Eleven percent of the women's mothers were in the second largest occupational group for mothers: professional, semi-professional, and managerial occupations.

When indicators of educational attainment for two parents are used along with parental occupational information, the number of respondents is considerably reduced. More respondents at age 15 were living with mothers than living with fathers. Even more cases are lost because many respondents do not know the education levels attained by their parents, especially beyond high school completion. The educational information for this investigation is taken from dichotomous measures in the GSS9 data indicating a mother's or father's attainment of a high

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[39] The regrouped Pineo-Porter classification uses skill levels and ignores the service-blue collar distinction: 1) Professional, semi-professional, and management; 2) Clerical, sales, and service; 3) Crafts and trades; 4) Farm and farm labour; 5) Not in paid workforce. These categories are much the same as those used by Wanner (1993). See his Tables 12-2 and 12-4.

school diploma. Among the 18 to 69 year old respondents (without concern here for whether a respondent had supplied information for one parent or for two parents), more of the mothers than of the fathers had received high school diplomas, 43 percent to 35 percent. Between men and women, the percents for their fathers are half a percent apart. But less of the women's mothers, 41 percent, had received a high school diploma than the percentage of the men's mothers, 44 percent.[40]

Educational levels of parents are also given in the GSS10 and the detailed categories can be collapsed to form the same dichotomies provided in the GSS9 data set. Forty-five of women's mothers and 46 percent of men's mothers had received a high school diploma; 41 percent of women's fathers and 43 percent of men's fathers had completed high school. However, parental occupational information is not available. An analysis of social origins and earnings for 1994 cannot be replicated for 1995.

From respondents' places of birth, in either data set, a straightforward indicator of birth inside or outside of Canada is another social background variable that is constructed. Percents among men and women are about the same within and between the two years. Overall, around 15 percent of the adults employed in 1994 and about 14 percent of the adults employed a full-year in 1995 were born outside Canada.

Analysis Subsamples

In the next chapter, examination of the association of pay with gender, family relationships, and interruptions in paid employment will begin with full-time workers, 25 years of age and older but less than 70 years of age, who were not students actively pursuing a diploma, a certificate, or a university degree. Full-time work is 30 or more hours a week. Why pursue analyses of full-

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[40] Among GSS9 respondents' parents with some post secondary schooling, compared to any lower level of education, the percentage of fathers is higher than the percentage of mothers. The rounded percents of parents with some post secondary schooling are 27 percent of women's fathers and 26 percent of men's fathers compared to 24 percent of women's mothers and 22 percent of men's mothers.

time workers' pay if one aim of this research is analysis which includes women's non-regular paid employment, employment that frequently is excluded from earnings analyses? One reason is to arrive at results for comparison with earlier studies of full-time non-student workers. The results are also a benchmark, a basic model for comparison with the fit and suitability of similar models of pay for younger workers, part-time workers, and workers in dual-earner couples. For this purpose, a benefit from setting up the main analysis subsample is the initial testing of arguments in contexts from which likely sources of "noise" have been discarded.

An example of noise reduction, already introduced in construction of the dependent variable, is that only those at work for pay sometime during the seven days before the surveys are included in analysis subsamples. Subsamples of respondents engaged in paid employment the previous week make sense if differences in the hours people spend without pay doing housework and home maintenance, or caring for children, or helping seniors are examined in relation to differences in pay for hours they spend at paid work during the same week. For comparison across differences among workers in the hours devoted to family responsibilities, a worker's "usual hours" at paid employment are not the best way to identify people actually occupied by paid employment if some were on maternity leave during the relevant week, or were seriously ill and on sick leave, or were on vacation. Restriction of the analyses to subsamples of respondents actually working at paid employment the previous week simply clarifies some of the circumstances in which the association of unpaid work with employment earnings is being examined.

The pay of young adult workers under the age of 25 is examined apart from workers aged 25 and over in order to test the expectation that model effects will not be the same among younger adult workers and older workers. Results discussed in the literature review of Chapter One indicate that gendered pay differences are substantially smaller among young adult workers than among older workers. In particular, the pay of men and women with similar jobs may be close to equal among young university graduates of the 1990s. Consideration of this age cohort and education effect is built into the research design here.

Setting younger adults outside the main analysis subsample simultaneously excludes many students actively pursuing their educations. If all active students are excluded, regardless of their ages, another source of noise is minimized in analysis of pay for employment. Attempts to understand the reasons for variability in pay can then sidestep speculation that some low earnings are the result of partially completed educational qualifications and temporary employment while studying. Another reason to set aside students' earnings at the outset is that students are missing cases on several variables needed for the arguments being investigated. In the GSS9 interviews, as noted earlier, instructions accompanying questions about work interruptions direct respondents not to consider summer jobs and co-op jobs; in other words, their employment while full-time students. In the GSS10 data, work interruptions are breaks that occurred after respondents had been employed full-time or part-time for at least six months. Because paid employment for six months or longer marks the beginning of regular employment in GSS10 data, most students' "summer jobs" could not qualify as regular work. In any case, when giving the year their regular work started, respondents were asked to exclude part-time employment while attending school full-time.

Additional clarity is brought to analysis that includes effects on pay of breaks in paid employment continuity if respondents' ages and employment circumstances provide a context in which questions about interruptions make some sense in relation to the pay being analyzed. Work interruptions from the GSS9 data occurred within the five years prior to the survey interview in 1994. Respondents at least five years past the usual age of high school graduation meet a rough qualification of having had time to be employed and the time, consequently, for interruptions of three months or longer during the five years before the survey. GSS10 information about work interruptions covers not the most recent interruptions, but rather the earliest interruptions after respondents began to work on a regular basis at a paying job. While again helpful for explanations of effects on earnings because some time has elapsed after high school completion, the selection of GSS10 respondents 25 years of age and older also simplifies comparisons of

interruptions and earnings for 1994 and 1995. Note again the impact of selecting people on the job during the survey reference week and excluding people who received employment-related income but were not actually at work at their jobs the previous week because they were on paid leaves. For the analysis subsamples, whether from GSS9 or GSS10 data, some paid employment follows completed work interruptions, just as paid employment follows the completion of studies.

Pay for part-time employment among non-student, non-retired workers is the focus of a separate analysis of 25 to 69 year old workers. The concrete differences between part-time and full-time employment in annual take-home pay and in the benefits attached to jobs recommend separate analyses of the two forms of work. However, the separation is also based in the apparent differences between women and men in the personal meaning and purposes of part-time work for men and women suggested in the literature review in Chapter One. Some difference in purposes appears in the reasons, discussed earlier, that are given by 18 to 69 year olds for their part-time employment.

Respondents in Dual-Earner Couples

The selection of subsamples in which both respondents and their spouses are working for pay sets up, as closely as possible, roughly comparable employment for each spouse in a household before examining arguments about unpaid domestic labour, gender role attitudes, differences in the potential earnings of spouses, and the gender gap in pay. The subsample of "dual-earner" couples from GSS9 is determined by selecting the men and women who are living in the same households as their marriage partners or common-law partners if the main activity of their spousal partners has been work at a job or for a business during the year prior to the 1994 survey interview.[41] Other defining characteristics are the same as those of the main GSS9

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[41] The definition of the spouse's main activity is supplied by a GSS9 respondent about his or her partner. Some bias is risked using such information because some spouses described as keeping house or looking for work might have been included if some additional information, such as the hours of their paid work weeks, were available. The number of weeks of employment, although available, is compromised as an indicator of actual time at a job. The weeks are weeks holding a job, not weeks working at a job, because maternity or paternity leaves, illnesses, strikes, lock-outs, and vacations could be included as they are for the survey participants. In any case, respondents are not selected for GSS9 analysis by weeks of work.

subsample. The respondents are between 25 and 69 years of age, worked for pay at a job or for a business during the week before their survey interviews in 1994, and usually work at least 30 hours a week. The subsample selected is 1588 respondents, 45.4 percent of the respondents from the main GSS9 subsample.[42] The percentage of women is greater in this subsample, at 44 percent, than the 40.8 percent of the main subsample.

Selection of the subsample of GSS10 respondents in couples is a bit tighter than is possible with GSS9. With the GSS10 data for 1995, first of all, heterosexual relationships can be identified rather than assumed. Second, a spouse's usual weekly hours of employment are known and, therefore, spouses working full-time at paid employment can be identified. Employment for at least 30 hours a week is used for the definition of an employed spouse of a GSS10 respondent. Any spouse whose main activity in the previous year was retirement, attending school, long term illness, maternity leave or paternity leave is excluded.[43] The selected respondents in dual-earner couples are 1156 individuals, aged 25 to 69 years, who usually work at least 30 hours a week for pay, were employed for a full year (49 to 52 weeks) that includes the survey reference week, and have spouses employed full-time at paid work. The total number of women is 568 women or 49.1 percent of this subsample of GSS10 respondents in couples.

Distributions on the Dependent Variable

The dependent variable of the analysis using each of the analysis subsamples is the actual or estimated hourly wages respondents received for their work at a job or for a business. The means, standard deviations, and median hourly wages for the main adult subsample, young adult subsample, and part-time subsample of respondents are presented in Table 2.3 for Cycle 9 of the

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[42] For the first three months of the GSS9 survey, main activity and educational attainment questions were not asked for common-law spouses. The resulting loss of information is not critical here, applying to only three percent of main subsample respondents with spousal partners.

[43] Otherwise, spouses who usually worked 30 hours or more hours a week are considered to be employed full-time regardless of the definition attributed to their main activity by GSS10 respondents.

General Social Survey and in Table 2.4 for similar subsamples from Cycle 10 of the General Social Survey. Differences in average pay within these three subsample types are clear. Within the main subsample of 25 to 69 year olds employed full-time, women earned 78 percent of men's average pay in 1994 and 78.9 percent in 1995. Among the younger adults, women earned 89.9 percent of men's pay in 1994 and 92.5 percent in 1995, a confirmation of the expected proximity of young women's and men's wages in comparison to older workers. The mean and median averages from which differences are calculated are, however, much lower than the averages for older workers.

In contrast, the pay gap between the part-time employment earnings of the few men and four to five times more women is much larger than the gendered pay gap in either subsample of workers in full-time employment. Women working less than 30 hours a week earned 65.8 percent of the pay of 25 to 69 year old men also working part-time in 1994. Part-time pay in 1995 is comparatively lower for women, at 61.3 percent of men's pay; however, the number of respondents in part-time paid employment is small (even smaller than the numbers from GSS9), the gender gap in pay is a large spread in dollars, and the distribution of pay is extremely skewed.

Table 2.5, the last table, contains descriptive statistics of the hourly pay distribution for GSS9 and GSS10 subsamples of respondents whose spouses are employed. For the GSS9 dual-earner subsample, the difference between men's and women's mean hourly wages is $4.37. Women receive 76.2 percent of the mean hourly wage paid to men, less than the 78 percent for women among the full-time workers in the main subsample. The larger gender gap in pay for respondents in couples compared to the full-time workers of Table 2.3 is a combination of a higher mean wage ($18.33) for men and a lower mean wage ($13.96) for women.

Among GSS10 respondents in dual-earner couples, the pay gap between the men and women in couples is also larger than the gap between men and women in the wider subsample of respondents in the same age group employed for pay full-time for a full-year. As within the GSS9 data, the mean for GSS10 men in dual-earner couples is higher than for men among the 25 to 69

year old full-time workers and the mean for women in dual-earner couples is lower than for the women among the full-time workers. Otherwise, the smaller gender pay gap among GSS10 respondents in couples compared to the gap among GSS9 respondents in couples is anticipated because of the drop from 1994 to 1995 in the size of the gender gap in pay for the general Canadian population (Statistics Canada, 1997a).

In the end, analysis of the gender pay gap using the 1995 GSS10 data will be limited to the 25 to 69 year olds with full-time full-year paid jobs who are in dual-earner couples. Only 37 men 25 to 69 years old worked at part-time paid employment for a full year in 1995. The number of young adult men working full-time is larger, but fewer than 100 men and 100 women are in full-time full-year employment. The analysis would be constrained to a small number of variables in a multivariate analysis and therefore is not pursued for the GSS10 data.

The investigation begins in Chapter Three with the main subsample of GSS9 respondents of full-time workers, then shifts to analyses in Chapter Four of the pay of young adult GSS9 respondents from 18 to 24 years of age employed full-time and GSS9 respondents 25 to 69 years of age with part-time paid employment of less than 30 hours a week. In Chapter Five, following analysis of pay of GSS9 respondents in dual-earner couples, the analysis concludes with GSS10 respondents in dual-earner couples.

Table 2.1 Mean Hourly Pay[a] by Gender, and the Gender Pay Ratio for Selected Respondents 18 to 69 years old, General Social Survey, Cycle 9, 1994

	N	Mean Hourly Earnings	S.D.	Median	Difference Between Means	Ratio Women/ Men
All workers (≥ 10hrs/wk)[b] age 18 to 69, not retired						
Pooled	4819	15.44	(8.63)	13.97		
Men	2558	17.20	(9.39)	15.81		
Women	2261	13.45	(7.18)	12.12	3.74	.782
All workers,[b] age 18 to 69, no students						
Pooled	4282	15.70	(8.75)	14.14		
Men	2327	17.54	(9.51)	16.03		
Women	1955	13.51	(7.16)	12.18	4.03	.770
Full-time[c] employment, age 18 to 69, no students						
Pooled	3811	15.90	(8.09)	14.43		
Men	2234	17.49	(8.68)	16.21		
Women	1577	13.64	(6.53)	12.69	3.85	.780

[a] Dollars rounded to the nearest cent
[b] At work last week for 10 hours or more
[c] At work last week for 30 hours or more

Table 2.2 Mean Hourly Pay[a] by Gender, and the Gender Pay Ratio for Selected Respondents 18 to 69 years old, General Social Survey, Cycle 10, 1995

	N	Mean Hourly Earnings	S.D.	Median	Difference Between Means	Ratio Women/ Men
All workers,[b] full year,[c] ages 18-69, not retired						
Pooled	3779	17.42	(9.97)	15.63		
Men	2057	19.04	(10.54)	18.03		
Women	1722	15.48	(8.85)	13.92	3.56	.813
All workers, full year, ages 18 to 69, no students						
Pooled	3001	17.59	(10.06)	15.63		
Men	1665	19.24	(10.65)	18.03		
Women	1336	15.54	(8.86)	13.92	3.71	.808
Full-time[d] full year ages 18 to 69, no students						
Pooled	2770	17.30	(8.85)	15.63		
Men	1626	18.91	(9.28)	18.03		
Women	1144	15.01	(7.62)	13.89	3.90	.794

[a] Dollars rounded to the nearest cent.
[b] At work last week and usually worked 10 hours or more in a week.
[c] Employed 49 to 52 weeks of the past year.
[d] Usually worked 30 hours a week or more.

Table 2.3 Mean Hourly Pay[a] by Gender, and the Gender Pay Ratio for GSS9 Full-time, Young Adult, and Part-time Subsamples

	N	Mean Hourly Earnings	S.D.	Median	Difference Between Means	Ratio Women/ Men
Full-time[b] employment, age 25-69, no students						
Pooled	3492	16.43	(8.13)	15.02		
Men	2068	18.05	(8.68)	16.83		
Women	1424	14.08	(6.60)	13.19	3.97	.780
Full-time, youth, age 18 to 24, no students						
Pooled	319	10.04	(4.50)	9.00		
Men	166	10.56	(5.02)	9.14		
Women	153	9.49	(3.79)	8.65	1.07	.899
Part-time[c] employment, age 25 to 69, no students						
Pooled	401	15.20	(13.49)	11.29		
Men	75	21.06	(23.01)	13.00		
Women	326	13.85	(9.68)	11.14	7.21	.658

[a] Dollars rounded to the nearest cent.
[b] At work 30 or more hours last week
[c] At work 10 to 29 hours last week

Table 2.4 Mean Hourly Pay[a] by Gender, and the Gender Pay Ratio for GSS10 Full-time Full-year, Young Adult, and Part-time Subsamples

	N	Mean Hourly Earnings	S.D.	Median	Difference Between Means	Ratio Women/ Men
Full-time[b] full year,[c] ages 25 to 69, no students						
Pooled	2606	17.76	(8.85)	16.35		
Men	1529	19.45	(9.23)	18.03		
Women	1077	15.35	(7.66)	14.29	4.10	.789
Full-time full year, youth ages 18 to 24, no students						
Pooled	164	9.90	(4.45)	8.81		
Men	97	10.24	(4.78)	8.65		
Women	67	9.41	(3.92)	9.10	.83	.919
Part-time[d] and full year ages 25 to 69, no students						
Pooled	223	21.43	(19.24)	16.83		
Men	37	33.54	(33.40)	21.64		
Women	186	19.02	(13.86)	16.03	14.52	.567

[a] Dollars rounded to the nearest cent.
[b] At work last week and usually worked 30 or more hours a week.
[c] Employed 49 to 52 weeks of the past year.
[d] Usually worked 10 to 29 hours a week.

Table 2.5 Mean Hourly Pay[a] by Gender, and the Gender Pay Ratio for Full-time Workers with Employed Spouses from GSS9 and GSS10

	N	Mean Hourly Pay	S.D.	Median	Difference Between Means	Ratio Women /Men
GSS9 1994						
Full-time[b] ages 25-69 and spouse employed[c]						
Pooled	1588	16.40	(7.96)	15.08		
Men	889	18.33	(8.33)	17.09		
Women	699	13.96	(6.70)	13.00	4.37	.762
GSS10 1995						
Full-time[d] full year[e] ages 25-69, and spouse employed full-time[f]						
Pooled	1156	17.53	(8.87)	15.63		
Men	588	19.74	(9.48)	18.03		
Women	568	15.26	(7.56)	13.92	4.48	.773

[a] Dollars rounded to the nearest cent.
[b] Worked 30 hours or more during reference week.
[c] Main activity over the past year is work at a job or for a business.
[d] At work last week and usually worked 30 hours or more a week.
[e] Employed 49 to 52 weeks of the past year.
[f] Spouse usually worked 30 or more hours a week and his or her main activity over the past year was not going to school, retirement, long term illness, maternity leave or paternity leave.

Chapter Three

The Gender Gap in Pay for Full-time Employment

The following analysis examines the impact of family relationships, unpaid domestic work, and work interruptions upon women's pay and men's pay and upon the gap between the mean average hourly pay of women and of men. The central research question emerges from theoretical discussions and earlier empirical research: Is the gender gap being driven by and maintained by women's disproportionate load of unpaid domestic labour and the interruptions in women's paid work experience that are assumed to be a consequence of women's unpaid work for their families? The investigation consists initially of a series of multiple classification analyses of 1994 General Social Survey data (Cycle 9). Analysis of the 1995 General Social Survey data (Cycle 10) follows. While several key explanatory variables are used in analyses for each of the two years, the 1994 General Social Survey is the richer data set for information about employment and pay for employment.

In addition to gender, numerous potential influences upon hourly pay are assessed. Marital status, parental status, unpaid hours put into housework, home maintenance, child care, helping the elderly, and interrupted employment are all considered in order to address the central research question. Here is an opportunity to look directly and simultaneously at the association of employment income with unpaid domestic work time and with interruptions to paid work using Canadian data. Marital status and parental status have stood as proxy indicators for these predictor variables in much of the research literature reviewed in Chapter One. Indicators of the economic interdependency of spouses and gender relations are introduced into the analysis of the 1994 data through the employment status of respondents' spouses and their educational attainment. Respondents' attitudes about work and family were incorporated into the 1995 General Social Survey data, particularly attitudes about gendered responsibility for taking on paid employment.

The education and occupation of each of a respondents' parents form another unusual set of variables from the 1994 GSS9 data.

The 1994 General Social Survey facilitates analysis of and adjustment for the influence of particular types of work experience, a respondent's past supervisory experience and tenure with the current employer, rather than estimations of potential work experience used in many other studies. The 1994 data also are an excellent source of other information about characteristics of jobs. A few are selected as background variables that could be entered as control variables into models assessing the association of family and household responsibilities with employment income.

In turning to models which include more commonly examined influences on pay such as education, marital status, and the presence of children, the analysis replicates some earlier Canadian research with additional adjustment for influences not previously examined. For example, here is an opportunity to see how education is related to hourly pay in Canada when unpaid domestic work or work interruptions over an entire career are considered and, with these influences considered, to see if education differences alter the gender gap in pay.

Analytical Technique

Multiple Classification Analysis, or MCA, is an additive model appropriate for use when the dependent variable is a continuous measure and independent variables are nominal or ordinal categorical variables (Andrews et al., 1973; Kim and Kohout, 1975).[1] Continuous independent variables can be entered as covariates. For this investigation, the categorical variables, or factors, and covariates are entered concurrently into models of effects on hourly wage rates. SPSS is the statistical package used throughout.

An extremely skewed dependent variable violates normality assumptions of the additive model, as in regression analysis. Although the distribution of hourly pay is somewhat skewed,

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[1] The description of MCA is derived from these sources. For a brief explanation of MCA, see a recent SPSS manual.

the dependent variable stays in the familiar metric of dollars and cents at least for the main analysis.[2] Income distributions representative of the population typically have a long tail containing few high incomes relative to the many near the low end of the income distribution. In exploratory analysis not reported here, a logged version of the dependent variable generates a tail at the lower end of the pay distribution for the main subsample. The distribution is not improved much and the overall pattern of results from the analysis does not appear to be altered.[3] Another remedy, identifying and removing extreme outliers, is also tested as a way to improve the fit of MCA models for the various subsamples but particularly for workers employed part-time. The distribution of estimated hourly pay rates for part-time workers is troublesome for a dependent variable in an MCA model. Although a uni-modal distribution, the extreme skew in hourly pay rates produced by the long tail of high values cannot be ignored.[4]

The MCA procedure constructs dummy variables for each category of each factor. Results for each category (category effects) are displayed as deviations from the Grand Mean and as deviations adjusted for the variance accounted for by all other factors and any covariates in the model. Tendencies for hourly wages to rise or fall across ordered categories of an independent variable can be observed as directional patterns in the set of deviations from the mean for categories of the factor. For a factor with only two ordinal categories, one if a condition is present and the second if the condition is absent, a negative or positive association between the condition and hourly wages is obvious in the set of deviations with one above the mean and the other below the mean.

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[2] The skewness value is 1.216 for the pay of 25 to 69 year olds working full-time.

[3] Some researchers argue that pay distributions should not be logged if prediction of differences by gender is the focus of analysis. "(L)ogging earnings has the effect of dramatically reducing the variance in the right tail of the distribution, exactly where males are more likely to be found. Logged models lead to similar statistical and substantive conclusions, although they understate the degree of real income inequality between men and women" (Anderson and Tomaskovic-Devey, 1995:353).

[4] The skewness value is 3.90 for 25 to 69 years olds employed part-time. For young adults, 18 to 24 years of age and employed full-time, the skewness value is 1.45 for the hourly pay distribution.

Measures of the strength of associations which accompany the output of deviation values from MCA procedures are provided in tables here. An eta value, the correlation ratio, measures the strength of the effects of one independent variable, alone, on hourly wage rates.[5] The square of eta indicates the proportion of variance accounted for by all categories of the factor combined. The statistical significance of the effect is tested with an F-ratio. A significant F-ratio, here at a p-value of .05 or less, indicates that at least one category's mean is significantly different from the Grand Mean.

Beta, a partial-correlation ratio, indicates the amount of variance in hourly wages accounted for by the adjusted category effects of a factor. In other words, the coefficient indicates the effect after controlling for effects of the other factors and for covariate effects. Beta coefficients can be ranked to indicate the relative levels of importance of individual variables. The F-ratios test statistical significance of the adjusted effects. Multiple R square, the summary statistic given in the tables to follow, represents the approximate proportion of variance in hourly wages accounted for by the effects of all factors and covariates added together.

Model Assumptions

In the process of selecting variables to enter into the MCA models, possible violations of additive assumptions are checked. First of all, collinearity between independent variables is minimized. Choices are made between overlapping indicators of similar notions and the variable entered which is likely to present the strongest case for the arguments being tested. To take an obvious example, the presence of children under 15 years old is highly correlated with the amount of unpaid time caring for children. The choice of the indicator then relies upon the strength of their associations with pay (comparison of eta values and significance tests) and the completeness of the data on each of the alternative indicators. Age and tenure, moderately correlated, are less problematic. The independent variables (factors) in an MCA model can be correlated, although highly correlated independent variables should not be included (Andrews et al. 1973:11, 22-27).

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[5] The eta value is zero if the means of the categories are the same.

The associations between the covariates, continuous measures (such as years of tenure with the employer) or interval level measures (such as the age group intervals), and hourly wage rates are also checked for linearity. Values from a continuous level measure are temporarily grouped into ranked categories and the pattern of positive and negative deviations from the mean examined. If a curvilinear association is apparent or is suspected, the quadratic term is entered as an additional covariate and its contribution to the model, both in its significance level and the change in multiple R square for the whole model, assessed.

Significant interactions between factors, multiplicative effects, also violate the assumption of additive effects of MCA models. The first-order interaction effects (the two-way interactions of MCA output) are tested for significance in all models to follow. Because interactions with gender are argued to exist in theory and are demonstrated in some previous research, a remedy for repeated interactions involving one factor (gender in this case) and several other factors is built into the research design by setting up separate analyses for two gender categories, men and women. An alternate solution, one also employed in models for my research, is to control for the effects of significant two-way interactions through entry of all two-way factor-by-factor interaction effects with MCA program procedures.

Categories of some variables are collapsed from the total number of categories that would be possible if original indicators were used. The decisions to collapse categories emerge from an intention to present information clearly and concisely, even though MCA can tolerate small cell sizes.[6] Examples from GSS9 are the choices of whether to use the presence and absence of children under 15 years of age in a household rather than the number of children capped at three, to use a dichotomy for interruptions rather than the number of interruptions capped at six, and to reduce the number of categories for hours of unpaid care of children or unpaid housework from

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[6] "(I)f a predictor category has only a few cases it causes little difficulty. Its coefficient may be unstable and also quite large, in either a positive or a negative direction. But although the other coefficients in the set have to deviate the other way to bring the weighted mean of the coefficients to zero, the effect on the other coefficients is small since the weights are so disparate" (Andrews et al. 1973:11).

seven categories, capped at 60 hours or more, to five categories capped at 30 hours or more. Such decisions are guided by the directions of deviations and the stability of effects with alternate groupings in order to avoid distortion of the effects and of the interpretation.

The variables selected for multivariate models meet the F-ratio significance criterion at a p-value of less than or equal to .05 for the zero order association with pay. Exceptions to selecting a variable with an eta coefficient (or a correlation coefficient) significant at .05 for the pooled subsample of men and women are situations in which etas (or correlations) for the men only and for the women only are even weaker than the value for the pooled sample and are not statistically significant.[7] No substitute values are calculated for cases missing values on the selected independent variables and covariates. Listwise deletion causes less than five percent of the cases to be lost for the main analysis.

Expected Patterns of Associations with Hourly Wages

In the descriptions in Chapter Two of distributions among employed adult men and women, many characteristics common among women are typically detrimental for employment income or have been argued to be disadvantageous. A larger proportion of the women than the men put in long unpaid hours doing housework or home maintenance and child care. The percentages of women who interrupted their paid employment during the five years before the 1994 survey and over the course of their work histories are greater than the percentage of men with work interruptions. Women's average tenure with their current employers is of shorter duration than the average job tenure for men. More women than men work at part-time jobs. Other job conditions, typically advantageous for wages, are similarly distributed characteristics among the men and women: belonging to a union, being covered by a collective agreement, or working for large-sized firms. Large firms provide a greater advantage in pay for men than for women (Ornstein, 1983a), but unionization has been related in past research to greater improvement for

[7] For the main GSS9 subsample, helping the elderly is the only variable affected and not selected.

women's average pay than for men's pay (e.g., Ornstein, 1983a; Rosenfeld and Kalleberg, 1990; Dorion and Riddell, 1994).

Here the focus turns first to the main analysis subsample, the men and women 25 to 69 years of age who worked at least 30 hours the week before the survey in 1994. The expected results for potential explanatory variables are presented in general statements, mostly describing zero-order relationships with hourly wage rates. Results concerning key variable influences are anticipated from previous quantitative empirical analyses of the earnings gap and from interpretative arguments about causes of the gendered earnings gap laid out earlier in the literature review. Those outcomes are restated here. The expectations are roughly grouped into the order variables are considered within a family responsibility model of pay: gender, family characteristics, unpaid domestic labour, interruptions to paid work, work experience, education, and personal characteristics. A final section presents expected results for social origins to be considered later, in life cycle models.

Gender

The influence on hourly pay of being a man or a woman is considered either through gender as an independent variable or through comparison of other independent variable effects on pay within separate models for men and women. The output from MCAs -- deviations from the Grand Mean for the gender categories, men and women, eta values for gender effects, and beta coefficients for gender effects -- facilitates examination of gender effects on pay and also of change in the influence of gender on pay. The deviations, with and without adjustment for other influences, can be used to examine the pattern of change in the effect of gender on hourly pay over successive models with increasingly more factors and covariates introduced as controls. Differences in terms of dollars can be determined by adding together the unadjusted deviations for men and women (expressed in dollars), then adding the adjusted deviations and comparing the figures to observe changes once confounding effects of other variables are controlled. The change in the ratio of women's pay to men's pay also can be easily determined. If each of the two

deviations is subtracted from the Grand Mean, the ratio of women's average pay to men's average pay can be calculated by dividing the mean for women by the mean for men.

The impact of other factors upon the gender gap, in terms of changes in the size of the gap and change in the relative importance of gender compared to other factors, is also indicated by the size of the beta coefficients. If the coefficient for gender changes from the unadjusted eta value to a beta value which is larger or smaller in models with added factors, the change marks an alteration in the size of the gender gap in pay once the influences on pay of those added factors have been taken into account. To determine significant overall improvement in the amount of variance explained as factors are added, the change in multiple R square between models can be assessed.

The anticipated obvious effect on pay is that the gender effect describing a lower mean hourly wage rate for women than for men will be statistically significant throughout the investigation of hourly pay of 25 to 69 year olds in the main subsample. The variance associated with being a woman or a man is expected to remain a significant portion of variance in pay regardless of the additional variables entered into models for pooled analyses of men and women, together, and to remain significant even if the importance of gender is reduced relative to other factors. These expectations are reinforced for the main analysis because respondents under 25 years of age are excluded. In contrast, for the young adults under 25 years of age who are employed full-time for a full-year, gender is expected to be less important than among the older adults (Wannell and Caron, 1994; Statistics Canada, 1995a), but nonetheless still to be statistically significant in association with hourly pay.

On a different tack, models for women and for men, separate from the pooled analyses, provide a way to further compare the patterns of category effects for men and for women, to highlight any differences in effects among men and among women, and to illustrate the relative importance of factors other than gender. Any characteristic which is advantageous for pay within

one gender group while having no effect or being disadvantageous for pay within the other group should be clear from the separate models for women and men.

Family Characteristics and Responsibilities

Eta and beta coefficients for marital status are not likely to indicate strong associations with pay. Living with a marriage partner or a common-law partner is expected to have a positive effect while the deviations from the Grand Mean are negative for other statuses. In spite of a tendency in recent studies for single status (never married) to be significantly and negatively associated with pay for women and as well as for men (Wannell and Caron, 1994; Coish and Hale, 1995), the results for categories of marital status are expected, following earlier Canadian research, to be a significant differentiating factor only for pay among men, not among women (Denton and Hunter, 1987; Shapiro and Stelcner, 1987; Rosenfeld and Kalleberg, 1990; Baker et al., 1995). Marital status will probably be weakly associated with pay for the pooled group of employees and, thus, have little impact upon the influence of gender on pay.

The gender coefficient is also not likely to be affected by an association between pay and the employment status of respondents' spouses. Among men, following one earlier piece of research, marital status differences would be stronger influences than a spouse's employment (Rosenfeld and Kalleberg, 1990). Simply having a spouse, regardless of whether she is employed or is unemployed, is likely to be associated with men's above-average pay. The spouses of almost all women here are employed. The few with unemployed husbands are likely to have lower average wages than other women.

Significant differences in pay by parental status were not identified in recent Canadian national surveys (Rosenfeld and Kalleberg, 1990; Christofides and Swidinsky, 1994) while in special populations a negative link with earnings was noted (Wannell and Caron, 1994; Davies et al., 1996). The presence of dependent children (under age 15 in GSS9 data) in respondents' homes is expected to have a weak and negative association, if any, with the rates of hourly pay

for men and women employed full-time. The weak association is expected whether for the pooled model or the separate models for men and women.

More direct tests of the connection expected from theory between gendered family responsibilities and gendered earnings are to be carried out using indicators of time doing unpaid domestic work. If results in pooled multivariate models follow patterns from non-Canadian national-level research, pay for employment is expected to decline as hours of unpaid domestic work increase (Coverman, 1983; McAllister, 1990; Hersch and Stratton, 1997). The effects on pay could be weak or not significant among men and among women separately (le Grand, 1991; Baxter, 1992a), yet have the effect of accounting for some of the gendered pay gap (McAllister, 1990; le Grand, 1991) and could have a strong negative association with women's pay (Hersch and Stratton, 1997). These forms of unpaid work are disproportionately done by women in Canada (Marshall, 1993; Statistics Canada, 1998b), and previous research for other countries suggests that women's pay, in particular, will decline significantly with increases in amounts of time women spend taking care of children, or doing housework and home maintenance. Helping elderly people, not incorporated into earlier Canadian research, is also expected to bring a significant decline in pay for women. Men's pay is not expected to be significantly affected by this unpaid domestic work. The variance in pay accounted for by gender is expected to overlap somewhat with variance accounted for by unpaid work hours and, consequently, the adjusted coefficient for gender would be reduced in size after controlling for unpaid domestic work.

Work Interruptions

Measures of work interruptions, the occurrence and accumulation of extended periods of time away from paid employment, theoretically link women's family responsibilities to reduced pay through a reduction in work experience. This connection has rarely been examined in empirical research. Even when only the recently interrupted work during the past five years is considered, the anticipated effect of having an interruption in paid work is a negative association with pay following the strong argument from theory. The variance in pay attributed to gender

differences should be reduced after controlling for the effects of interruption in paid work. Canadian results from some years ago are not so clear. The numbers of years of interruptions had no effect on employment income among women, had a negative effect for men's pay, and were not significantly associated with pay in pooled multivariate models of pay (Ornstein 1983a). However, results from elsewhere suggest that interruptions in paid work may be more important in accounting for pay differences among women than among men (le Grand, 1991). The variance in pay accounted for by gender is expected to be reduced once the effects of interruptions are considered.

Work Experience

Additional years of tenure with the current employer, a direct measure of employment experience, are expected to be positively and significantly associated with current hourly wages, but women's years of accumulated job tenure tend to be less than men's job tenure. Previous research suggests that women's experience and men's experience with their current employers are similarly associated with pay (Ornstein, 1983a). If pay increases with tenure at the same rate for women and men, those with more years of tenure will simply be paid more than those with less years, regardless of gender. After the years of tenure are entered as a covariate into the pooled model, job tenure would then account for some of the variance in pay associated with gender because women have less years of job tenure. However, other research suggests that women could receive even greater increases in their wages than men do for the same length of job tenure (Rosenfeld and Kalleberg, 1990).

Experience as a supervisor five years before the survey interview is expected to account for some of the current differences in hourly pay associated with gender. Although having supervisory experience is likely to be positively related to pay separately among men and women, women are not rewarded equally to men for their supervisory work among the 1994 GSS9 respondents (Boyd et al., 1997). This effect conforms with Ornstein's earlier results (1983a). With or without controls for current employment as a supervisor, the anticipated result for

women's supervisory experience is a repetition of effects noted in earlier research (Ornstein, 1983a; Coish and Hale, 1995; Baker et al., 1997) for more general paid work experience: the positive influence on pay from women's supervisory experience will be smaller than the positive influence of supervisory experience on pay for men. But in addition, fewer women have supervisory experience. Thus the negative impact on pay of being a women is expected to be accounted for, to some extent, by controlling for differences in pay between workers with past employment as a supervisor and workers who were not supervising (whether they were employed or not employed at the time).

Education, Age, and other Socio-demographic Characteristics

Age cohorts are expected to make some difference in the size of the gender gap. Pay typically increases over the years, but less for women than for men. A drop in average pay among the oldest workers that mirrors low wages for young workers is also typical (Coish and Hale, 1995; Statistics Canada, 1995a; 1997a; 1998a). This curvilinear pattern is likely to be less pronounced for the main GSS9 analysis subsample because young adult workers are not included while the oldest workers are employed full-time and have not yet retired.

Education, on the other hand, is expected to have a significant positive impact upon pay as wage rates increase with higher levels of educational attainment among men and among women aged 25 years and older and employed full-time. Given reports that the gender gap is narrowest among men and women with university degrees (Statistics Canada, 1995a; 1997a; 1998a), one expectation could be that among women the increases in pay with improvements in education are greater than among men. However, this effect on the gender gap also occurs if more of the women than the men complete university programs. With the benefit of university education, the existing overall gendered pay gap is expected to be smaller than it would be without adjustment for differences in education. The underlying effect of gender differences on pay would be greater without education effects on pay.

Nativity, physical limitations, collective agreements and self-employment provide a larger context for the analysis of family responsibilities and represent potential influences upon wages that could be controlled in multivariate models. Based on earlier research results, nativity (birth in Canada or immigration to Canada) is not expected to distinguish between the pay within a general population of women and men (Goyder, 1981; Christofides and Swidinsky, 1994). The outcome for physical limitations is uncertain from other Canadian research. Disability among employed men and women may not be a significant influence on pay rates (Hum and Simpson, 1996), yet gendered effects on pay are possible (Hum and Simpson, 1996; Christofides and Swidinsky, 1994). Self-employment is expected to be a negative influence upon hourly pay with lower self-employed income for women than men (Church, 1998). Collective agreement coverage will bring benefit to the pay of men and women with a greater positive impact upon the pay of women (Ornstein, 1983a; Rosenfeld and Kalleberg, 1990; Dorion and Riddell, 1994). Occupational differences, likely to be closely connected with wages in the main subsample (Ornstein, 1983a; Rosenfeld and Kalleberg, 1990; Dorion and Riddell, 1994), will be discussed but will not be entered into my multivariate models.

Social Origins

The final set of indicators enable testing of the importance of social origins. If results with mother's occupation are of the same magnitude as the effects of parental education or father's occupation on children's income in earlier research, the association of each of the four social background indicators with pay will be weak. None is likely to be a statistically significant influence on pay in the pooled or gender segregated models (Goyder, 1981; Denton and Hunter, 1982; Ornstein, 1983b). Because the effects are expected to be weak or even absent, no alteration in the gender coefficient is anticipated. Patterned category effects would be expected, roughly, to link high school education of either parent with higher pay and parental occupations of higher status with higher pay for their children. Any significant effect which does emerge is expected to be towards same-sex influences, with maternal educational attainment and occupation more

associated with women's pay than with men's pay while paternal education and occupation are more associated with men's pay than with women's (Boyd 1986; Guppy & Arai 1993; Nakhaie & Curtis 1998).

Family Responsibility Model of Pay

Following some discussion about variable selection and about interactions between gender and other factors in association with hourly wage rates, the results of two sets of MCA models for men and women in the main subsample are presented in the remainder of this chapter. These men and women, 25 to 69 years old and in full-time paid employment (at least 30 hours a week) in 1994, are 92 percent of the respondents aged 18 to 69 years who are working full-time at paid employment and 82 percent of the respondents aged 18 to 69 years working at any paid employment, either full-time or part-time. The first set of results are for a basic family responsibility model of the influence on pay of family responsibilities and interruptions for the GSS9 main subsample, with the results presented for men and women, together, in the pooled subsample, and then for men and women in separate groups. The second set of results, in another section below, are a re-examination of the factors of the basic family responsibility model within a life cycle model of influences on hourly pay that include the effects of parental educations and occupations.

The first tables at the end of the chapter (Tables 3.1 to 3.3) contain zero-order effects of independent variables, one by one, on hourly pay for respondents in the main subsample. For several of the variables, Table 3.3 provides some detail to accompany the unadjusted eta coefficients: the number of respondents in each category and individual category effects as unadjusted deviations from the Grand Mean. Table 3.7 provides a summary of the impact on the gender coefficient of adjustment for factors and covariates in successive models for the main subsample. The intervening tables are models with factor effects adjusted for other factors and

covariates for men and women together (Table 3.4), for men (Table 3.5), and for women (Table 3.6).

Table 3.1 confirms that being a man or a women is significant statistically for differentiating higher from lower average hourly pay within the main subsample of GSS9 respondents (eta =.24, $p \leq .001$). The mean hourly wage for men is $1.62 more per hour than the Grand Mean of $16.43 per hour, the mean hourly wage for women is $2.35 less than the Grand Mean (Table 3.3), and the unadjusted gender gap in hourly pay (already noted in Table 2.3 of Chapter Two) is $3.97 per hour.

Selection of Independent Variables for the Main Subsample

Indicators of family responsibilities, unpaid domestic work, and interruptions in paid work generate mixed results for related pay differences. No clear pattern in hourly pay rates accompanies increasing amounts of unpaid child care hours of men or women (Tables 3.1 and 3.3). Eta values for the association between child care and pay among men and pay among women are not significant although for the pooled subsample the small eta is significant (eta =.08, $p \leq .001$). While having and living with children who are less than 15 years old has a weak, negative effect upon women's pay, no significant change in hourly pay is associated with pay in the main subsample of men and women, taken together. The housework and home maintenance effect is significant for women, but not for men, even though the pattern of the relationship with pay is similar for men and women and is also significant for the pooled subsample (eta =.14, $p \leq .001$). Hourly pay rates decrease from their highest level for those doing a few hours of housework (less than five) to the lowest level for those spending the longest hours at housework and home maintenance (30 or more hours). However, the relationship is not a straightforward decrease in pay with increases in blocks of unpaid time because the hourly pay of those doing no housework or home maintenance is worse, not better, than the pay of those doing a little.[8]

[8] For men, a negative deviation from mean hourly pay is associated with not spending any time doing housework or home maintenance.

The negative effect of having at least one employment interruption in the past five years is a significant impact on the hourly pay of both men and women, unlike marital status effects or housework and home maintenance effects. Marital status distinguishes between hourly pay rates in the pooled subsample and among the men, but not among women. The result is a disadvantage of $1.52 per hour for single men in comparison to other men. Significant first order interactions between marital status and gender as well as between recent work interruption and gender in association with hourly pay are discussed below.

Educational attainment (eta $=.38$, $p \leq .001$) is an influence on hourly pay in the pooled subsample that will be controlled in multivariate models. The patterns for women and men are similar in that university degrees generate a substantial advantage over the Grand Mean. Otherwise pay rates decline to the greatest disadvantage for those who have not finished high school. For the men with degrees, the gain is $6.07 per hour above the mean hourly wage for men. The advantage for women with university degrees is $4.81 above the mean hourly wage for women. (See Table 3.3.)

Associations between pay and current employment circumstances are much as expected. Except for the positive impact of currently holding a supervisory position, which is entered as a covariate, current job conditions and descriptions of employers are not controlled in the family responsibility models. In the life cycle model considered later, some current employment circumstances (self-employment and coverage by a collective agreement) are considered along with current supervisory positions.

Social origins are the foundation for the life cycle models. Nativity is not related to differences in pay in the main subsample (Table 3.2). Parents' educational achievement and their occupational attainment, however, are all significantly and positively related to pay as zero-order associations.[9] The eta coefficients in Table 3.1 for these associations are statistically significant

[9] Here the correlation between the mother's and father's attainment of a high school diploma is strong, but is not so extreme that including both as variables in the same MCA model is ruled out ($r = .48$, $p \leq .001$). It is higher among men ($r = .51$, $p \leq .001$) than among women ($r = .43$, $p \leq .001$).

whether for the pooled subsample, for men, or for women, and the eta values suggest that each of the indicators is more important in accounting for differences in pay among women than among men. More detail about the zero-order effects, in the form of category effects expressed as deviations from the mean, is provided in Table 3.8 along with information on the current job conditions also utilized in the life cycle models of Table 3.7 and Table 3.9.

Interactions with gender

First-order interactions of independent variables with gender were tested for each independent variable and a couple of significant interactions were determined through simple two-factor models (not presented in any table here). The impact of gender and one other factor on pay, along with the two-way interaction between the factor and gender, were entered into an MCA model of pay and tested for significance at a p-value of less than or equal to .05 for the F-ratio. The interaction between marital status and gender, at the .01 level of significance, plus an interaction between age and gender, at .01, are sufficient to recommend the tactic of presenting separate models for men and women as a remedy for interactions with gender. At the .05 level of significance for interaction effects on pay, gender effects also interact with effects of recent work interruption, current supervisory work, and maternal high school completion. The first-order interaction with each of these three dichotomous variables, one at a time, brings men's and women's mean average pay closer together. The adjustment for gender effects reduces the disadvantage in pay for recent interruptions, a little more common among women than among men, and reduces the advantage for current supervisory work or for having a mother with high school education, each more common for men than women. In pooled multivariate analyses, all factor-by-factor interactions are entered, tested and, when significant, are noted in relevant tables of results.

The gender gap in pay is reduced by eleven cents per hour after adjustment for the differences in hourly pay by marital status: men's pay is five cents less and women's pay is six cents more. The beta coefficient for gender barely changes, declining from the eta value of .24

to .23. Considering gender, however, also alters the association of marital status with pay from an eta of .08 to an even smaller beta coefficient of .05. The different category effects for men and women (in two columns of Table 3.3) are clear. A large negative deviation from mean wages is present for single men and a positive deviation, for men living with spousal partners. This pattern is not duplicated for women and marital status is not significantly related to pay among women. However, the positive deviation from mean pay for single women and the negative deviation for women with spouses moderate the pay differences in the pooled subsample between people living with spouses and people who are single.

Age also changes the gender gap but with an even slighter reduction (three cents an hour less for men and five cents more for women) so that controlling for age effects does not change the size of the beta coefficient for gender from the unadjusted eta value. On the other hand, the most noticeable effect on the pattern of deviations by age cohorts after controlling for gender is reduction in the overall advantage for the age groups from 55 years and to 69 years. The largest positive deviation, before and after adjustment for differences by gender, remains for people between the ages of 60 and 64 years. However, the differences in the categorical age cohort effects for men and women (in Table 3.3) demonstrate that a roughly increasing advantage in pay followed by a decline in pay over age 65 is the tendency for men but not for women. A negative effect is present for women from 25 to 29 years of age, but for men negative effects continue up until the age of 40. After a dip towards the mean for men between the ages 50 and 59, the largest increment in pay among men occurs between the ages of 60 and 64. While men's pay declines for those working after age 65, the women ten years younger (from age 55) and continuing up to age 69 earn less than the mean hourly wage for women. They are at a disadvantage in comparison to the pay of most younger women except for the youngest, the women under 30, who also earn less than the mean hourly wage. The high point in pay for women is for the 50 to 54 year old age group.

The set of deviations over intervals of five year age cohorts among the men and within the pooled subsample loosely form a curved pattern of pay by age, while wages for women are low for the youngest cohort and several of the oldest cohorts. Age squared will be entered as a covariate into models along with age cohorts to correct for these curvilinear tendencies in the association of age with pay.

Occupation, self-employment, and pay.

The relationship between standard occupational groupings and pay is noted here to enrich the description of the paid work of GSS9 respondents and also to connect back to gendered occupational segmentation as explanations of pay differences between women and men. The strength of the association of occupational differences with pay in the pooled sample (eta =.40, $p \leq .001$) and separately among men (eta =.40, $p \leq .001$) and women (eta =.47, $p \leq .001$) is clear from the zero-order correlations (Table 3.1). Anything other than a strong association of occupational groupings with pay would be surprising. The absence of an interaction with gender is the more relevant point for the present analysis. The two-way interaction between gender and the fifteen occupational groupings was tested in the simple model with the main effects of gender and of occupation on pay. The interaction does not approach statistical significance. Occupation accounts for a greater amount of the variance in hourly pay rates than the variance accounted for by gender; however, being a man or a woman remains a solid predictor of differences in pay even after occupational differences are controlled.[10]

In spite of an insignificant interaction between occupation and gender in predicting full-time pay, some differences in the pattern of occupational effects among men and among women, from Table 3.3, are worth mentioning here. Hourly pay for work in management and administration is less advantageous for women relative to other women than it is for men relative to other men,

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[10] Indeed, the gender coefficient is larger after control for occupational differences. The gap between women's mean hourly pay and men's mean hourly pay would be even larger without pay differences between occupational groupings. With a beta coefficient of .29 for gender, significant at $p \leq .001$ (eta =.24, $p \leq .001$; N=3474), the deviations from the Grand Mean of $16.44 are $1.94 for men and -$2.81 for women. (The two-factor MCA result is not reproduced in a table here.)

a result consistent with what we already know about the annual pay of supervisors and managers from Boyd et al. (1997). Occupations in medicine and health, the most advantageous for men's pay, improve hourly pay much less for women than for men in a way that fits the disparate occupations men and women tend to have within medicine and health. Within the separate groups of women and of men, the directions of the deviations from mean wages are in the same direction for men and for women, except for employment in primary industries. Pay rates are below the mean for men in primary industries, but pay increases to above the mean for the few women working in primary industries. At the lower end of the hourly pay range, employment in farming and in service occupations are the most disadvantageous for men and for women. For men, hours in farming are the least lucrative; for women, hours working in service occupations are the most poorly paid. In the occupational groupings offering an advantage over mean wages, women do not gain as much in any particular occupational grouping relative to other women as men do relative to other men. However, in four occupational groupings (sales, service, manufacturing, as well as material handling and other crafts), the loss in dollars for women is greater than the loss for men.

Earnings from self-employment are not often identifiable in surveys of gendered earnings differences; therefore, the negative correlations of self-employment with pay of both men and women in Table 3.2 should be noted and will be an adjustment introduced later in the life cycle models. The eta coefficients for self-employment are significant, and the negative impact upon reported earnings is greater among women than among men -- the expected result. Only a small number of main subsample respondents are self-employed rather than employees,[11] and the interaction between self-employment and gender does not approach statistical significance in predicting pay from employment status in a two-factor MCA model for full-time workers.

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[11] About 14 percent of the full-time workers aged 25 to 69 years are self-employed and over 70 percent of the self-employed are men.

Results for the Family Responsibility Model

Results for the fit of the basic model which begins with indicators of family responsibilities and interruptions in paid work are displayed in Tables 3.4 to 3.6 for the 25 to 69 year old main subsample. In addition to the impact of gender upon pay, the same independent variable effects are tested within models for the pooled subsample of women and men, together, and in the separate models by gender. Child care, housework, recent interruption in paid work, marital status, supervisory experience, and education level are all entered as factors. The years of tenure with the current employer, current supervisory position, age group intervals and age squared are entered as covariates.

For men and women, together, beta coefficients show housework and home maintenance hours to be consistently more important than marital status or child care hours in accounting for variance in hourly pay in the family responsibility models. Having experienced at least one work interruption influences pay more than unpaid domestic work influences pay until the effects on pay of experience as a supervisor and experience with the current employer are introduced along with education and current supervising. Then interruptions, housework and home maintenance hours, and marital status are similar in importance. Their beta coefficients indicate small, yet statistically significant relationships with pay. The connection between gender and hourly pay rates is also weakened with this second model in Table 3.4, but only slightly, after adjustment for the influences beyond immediate family circumstances and recent interruptions. The influence of gender remains about the same in the third model of Table 3.4, after control for differences across age cohorts. Marital status and unpaid child care hours are not significant associations with pay in this third model. The interaction between marital status and gender is not a significant influence on pay in any of the three models.

In the results for men's hourly pay (Table 3.5) and for women's hourly pay (Table 3.6), differences in the magnitude of effects of interruptions in paid work are evident. Among men, recent interruptions are a stronger influence on hourly pay than marital status, but with work

experience and education controlled, the effects of interruptions are moderated to rank as less important than supervisory experience and marital status. Among women the results are quite different. Unpaid housework and home maintenance hours contribute more in accounting for variance in women's hourly pay than either their interruptions from paid work or their supervisory experience. Both marital status and unpaid child care are non-significant factors in association with women's pay. Recent interruption of paid work becomes a non-significant influence on pay after education differences among women are controlled and remain non-significant for pay with age group effects also controlled.

The changes in marital status effects following adjustment for age cohort differences are clear in the models separated by gender. For men, marital status remains a significant influence on pay but consideration of age differences reduces the negative impact of single status for men's pay. For women, results across the set of factors change little between the models with and without adjustment for age cohort differences in pay. Overall, the ranking of factors does not change among men or among women after age and age squared are entered as covariates, the same outcome as in the pooled main subsample. In these models for men and women and in the pooled models, no first-order interaction between factors is significant at .01.

Discussion

A summary of gender coefficient changes and multiple R square changes in basic models of family responsibility for the main subsample are the first section of results in Table 3.7. The table contains some intermediary steps not presented in Table 3.4 and concludes with information from Model 3 in the right-hand column of Table 3.4, the last model for men and women together. The solidity of the gap between the mean hourly wages of men and women is confirmed for the main subsample of workers in full-time employment. Even in the context of control for education and for changes over time (through control of differences between age cohorts), the beta coefficient for gender remains a significant influence accounting for pay differences from model to model. In terms of the ranked importance of factors, gender is consistently more important

than any factor other than education levels but gender effects are not eclipsed by the impact of educational differences. Whereas the influences of supervisory experience and cumulative years of work experience with the current employer erode some of the strength of gender as an explanation for the gap in pay, education slightly moderates the negative consequences for pay of being a woman and the positive consequences for pay of being a man.

For the main subsample of men and women, the incorporation of age cohort differences into the final model alters the outcome for influential factors only slightly in comparison to the models with direct measures of work experience (tenure with the current employer and supervising five years earlier) and no control for age differences. The gender coefficient is not changed with the additional control for age cohort effects.

The central research question, however, is directed more towards understanding the impact of unpaid domestic work and work interruptions on the gendered pay gap. In the face of other influences on wages, unpaid child care hours do not achieve a significant level of association with pay for respondents in the main subsample of 25 to 69 year olds employed full-time. Time helping the elderly, just on its own, has a weak effect on pay. In contrast, unpaid housework and home maintenance work are significantly related to hourly pay for employment in the pooled models for men and women, together. Unpaid hours of domestic work for families, child care and housework or home maintenance account for some of the gender gap in pay. The size of the gender coefficient is reduced a little, the model multiple R square is improved a small amount, and the "unexplained" portion of the gender gap in pay is narrowed after control for unpaid domestic labour.

In family responsibility models for women, alone, housework and home maintenance time are clearly associated with women's pay for employment in an inverse pattern: pay decreases with increasing hours of housework. Not doing housework, however, is associated with wages closer to the mean for women than are the wages of women who do a few hours of housework. The pay of these women, doing some but not much unpaid housework, is clearly at an advantage in

comparison to the pay of other women. Note that an effect on pay among men is absent even though yard work and building maintenance, more typically men's tasks than women's tasks, are included in the measure.

The differences in pay associated with different marital statuses for men are not captured by the effects of men's unpaid household work on their pay or the effects of men's recent interruptions in paid work on their pay. On the other hand, the magnitude of the marital status effect does decline with adjustment for effects not obviously linked to family circumstances. In particular, consideration of age differences reduces the negative impact of single status for men. This result suggests some of the disadvantage in pay associated with single status among men in the main subsample overlaps the negative effects associated with the pay of young age cohorts of men who could be, at the youngest, 25 years old.

Comparative Model of Life Cycle Influences

The gender coefficients for successive components of life cycle models, in the second section of Table 3.7, approximate the order of an argument that gendered pay differences are the cumulative result of life cycle changes. The family responsibility model flips the time order in testing an argument that, compared with men's mean pay, women's mean pay for full-time employment is disproportionately affected by immediate family-related circumstances -- child care, housework, and recent interruptions from work -- both with and without adjustment for employment-related effects originating earlier in time -- educational achievement, tenure with employers, past supervisory experience, and the effects of changing opportunities over time for women in different age cohorts. The life cycle model, more clearly than the family responsibility model, addresses the question of whether interrupted employment, marital status, and household work time can account for any significant amount of variance in hourly pay after the influence of gender, social origins, education, employment experience, and some current job conditions are

considered. Unpaid child care hours, not significantly associated with pay in family responsibility models, are not included in the life cycle models.

The absence of a significant zero-order relationship between pay and birth inside or outside of Canada (Table 3.2) leads to the exclusion of nativity from this analysis which begins with the social origins of respondents. The significant zero-order associations with pay of parental education and parental occupations (from Table 3.1) are presented with categorical effects as deviations from mean wages in Table 3.8 for the subsample of men and women, together, and for men and women, separately. These zero-order results for the main subsample of 25 to 69 year olds indicate that both a mother's and a father's completion of high school are positively related to their children's hourly pay. The pattern associated with parental backgrounds is, roughly, that hourly wages are higher for the children of mothers or fathers whose occupations are classified as highly ranked Pineo scores. A low ranking category is added for the majority of mothers and a small number of fathers who were outside the paid workforce. Men's wages appear to be about average and women's, below average, if their mothers were not in the paid workforce. An increase in pay related to professional, semi-professional, or managerial occupations is the clearest in the association between the mother's occupation and a respondent's pay. With the father's occupation, the obvious contrast is between the higher pay if a father's occupation was not manual compared to the lower pay, less than mean pay, if a father was in a manual occupation, or was farming, or was not working for pay.

Zero-order categorical effects are also given in Table 3.8 for the current employment circumstances added in the life cycle models. The direction of effects is the same for men and women. A negative deviation from mean hourly wages is associated with self-employment. Positive deviations are associated with supervisory work and with collective agreement coverage.

Results for the Life Cycle Model

The multivariate models of Table 3.7 and 3.9 are restricted to the 2765 respondents within the main subsample who, at age fifteen, were living with two parents (or parent substitutes) and

who provided information about both parents.[12] Table 3.9 contains detail about effects from gender, parental background, housework, and recently interrupted work adjusted for all the other factors and covariates entered in the life cycle models of Table 3.7.

When recent interruption of paid work, marital status, and housework and home maintenance hours are entered into a model of hourly pay after controls for some conditions of current employment and for employment experience, the effects of immediate family circumstances and recent interruption are eclipsed, for the most part, by the variance in hourly pay accounted for by differences in education, supervisory experience, tenure with the current employer, age cohort differences, current supervisory work, self-employment, and employment under a collective agreement. Nevertheless, when measures of family responsibilities are added to the life cycle model, the model is improved in its ability to account for variance in hourly pay as indicated by the multiple R square of the last two life cycle models of Table 3.7. Once family circumstances are taken into consideration, the portion of the gender gap in pay that is not accounted for in the model at first declines through the effects on pay of marital status and recent interruptions from paid work, and then drops further with adjustment for the effects on pay of unpaid housework and home maintenance time.

In the final life cycle model for women in Table 3.9, unpaid hours spent doing housework are related to hourly pay (beta $=.11$, $p \leq .001$). Marital status and interruptions in paid work are not significantly associated with pay. Among the men, housework and home maintenance hours are not significant influences on pay, but recent interruption of paid work and marital status are.

The enduring influence of parental social background for both men and women comes down to the significant association of fathers' occupations with the pay of their children. In Table 3.9 the effect is strong. Beta coefficients mark the influence as more important in accounting for variance in hourly pay rates than men's interruptions from paid work and more important than

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[12] For the multivariate models, occupational groupings for mothers are collapsed to four categories partly to facilitate testing of first-order interactions. Mothers who were farming are grouped with mothers in crafts, trades, and manual work.

women's unpaid housework hours. A mother's education achieves significance for pay at $p \leq .05$ in the pooled model, but this weak effect is not present as a statistically significant association with pay for men or for women, as separate groups. The influence of parental education and of mothers' occupations appears to be minimized when the relationship between the respondents' own education levels and pay are added to the model.

The final life cycle model for men's pay is obviously an over-specified model. Interactions other than the one between a father's occupation and the son's education level generate statistically significant influences on pay even though main effects are not significant. The less cluttered results for women suggest that the final model here is more appropriate, overall, in accounting for the pay differences among women than among men.

Note also that directions of deviations would be the same without self-employment in the final models[13] and that the pattern of important influences is the same with or without self-employment effects considered in the life cycle model. In other words, self-employment does not appear to confound the outcome on other factors, notably indicators of family responsibilities and gender. If self-employment were to be removed from the separate models for men and women, the greater change in multiple R square would be for men (-.016) compared to the change for women (-.002).

Discussion

The overview of gender coefficients and of the advantages in pay for men and disadvantages for women, in Table 3.7, confirms that gender differences in the pay of full-time workers aged 25 to 69 years are not easily explained with the life cycle models.

The education of a respondent's parents and a respondent's class background contribute to an explanation of pay differences, as noted by increases in multiple R square for the model, yet have little or no impact on the gap between women's pay and men's pay, even when age cohort differences are controlled through the entry of age cohorts and age squared as covariates. A

[13] The results are not presented in tables here.

respondent's education, as in the family responsibility model, does not contribute to an explanation of the gap in pay between men and women but rather moderates the effects of gender on pay. Self-employment also moderates the influence of gender on pay while work experience, current work as a supervisor, and collective agreements all overlap somewhat with the influence of gender on pay.

Among the indicators of respondents' social origins, only the father's occupation has an impact beside factors that account for some of the variance in pay of either men or women. In zero-order tables the extent of "same-sex" effects is the larger eta value for the association of a mother's education or occupation with a daughter's current hourly pay than the association with a son's pay. However, a father's education and occupation are similarly stronger in association with a daughter's pay than with a son's pay, a "cross-sex" effect. Once age cohort effects are controlled in the multivariate models, the adjusted patterns of association of respondents' pay with their mothers' occupations and educations are relatively flat compared to the unadjusted zero-order associations. Yet the pay rates of both men and women in the main subsample remain strongly connected to status differences associated with their fathers' occupations.

The associations with pay of unpaid housework hours, of recent employment interruption, and of marital status are sustained in the pooled model for men and women after control for social origins and characteristics of current employment. (See Table 3.9.) None of these indicators of family responsibilities and commitments is more important than gender or more important than a father's occupation in accounting for variance in pay. However, the factors connected with more immediate family characteristics have the effect, demonstrated in Table 3.7, of reducing the size of the coefficient measuring the impact of gender on hourly pay. Family characteristics -- at least the effects of marital status, recent interruptions from paid work, and housework hours -- still contribute to an overall account of gendered pay differences even after adjustment for the parts of the gender effect associated with social origins, age, education levels, supervisory experience, tenure with the employer, collective agreements, and self-employment have been recognized within

the life cycle model. If housework and home maintenance hours are entered alone into the model of pay, after other influential family-related circumstances, there is an additional adjustment to the gender gap in pay. In other words, the disadvantage for pay of long hours of unpaid housework and home maintenance partially overlaps with some of the disadvantage in pay attributed to being a woman and the advantage of being a man.

In the final life cycle model, as in the family responsibility model, gender remains a significant influence upon hourly pay. Again, as in the family responsibility model, the statistically significant indicators of family characteristics and responsibilities have different impacts on women's pay than on men's pay. Housework hours make some difference for pay in the pooled subsample of women and men, together, and among women but not among men -- a repetition of the outcomes for men and women with the separate family responsibility models. The pattern in the pooled model for men and women, together, is a decline from the pay of people doing no unpaid housework or home maintenance to the low pay of people doing 30 or more hours; however, the pattern is not as neat in the model for women. Women doing no housework or home maintenance received less than the mean hourly wage for women, as in the family responsibility model. The most advantaged group of women, in terms of wages, are the women doing small amounts of housework.

Marital status, in contrast to non-significant association with pay in the family responsibility model after control for age cohort differences, is significantly associated with pay in the final life cycle model for men and women together. In the separate models for men and women the effects on pay are, as in the family responsibility models, significant for men but not for women. The effects of recent employment interruption in the life cycle models again repeat the pattern of family responsibility models: no effect on women's pay and a strong, significant effect for men's pay that is more important in accounting for variance in pay between men than the differences associated with men's marital statuses.

Regarding social origins, included only in life cycle models, higher pay remains strongly and positively tied to the non-manual occupations of respondents' fathers, although among women, average pay at less than the mean for women is tied only to a father's farming occupations or to his unemployment. Other parental characteristics in combination with the impact of other factors are poor predictors of pay in the main subsample.

SUMMARY

The MCAs of 1994 General Social Survey data reinforce prior evidence that the gap in pay between women and men is a stable influence determining the distribution of hourly wages for full-time employment. Even when the significant influences on pay of unpaid housework time, marital status, recently interrupted paid work, past supervisory experience, education, current supervisory experience, job tenure, collective agreements, self-employment, mother's education, and father's occupation are all considered, the respondents most likely to receive less than average pay for their full-time work during 1994 are women, not men. Gender ranks as a more important factor in accounting for variance in hourly pay than immediate family responsibilities, interruption to paid work in the past five years, or parental occupations and educations.

In regards to the central research question, housework is also consistently an influence on pay distributions across pooled models for the main subsample whether or not social origins are considered. Time spent doing housework and home maintenance is a disadvantage for hourly pay, but a significant disadvantage among women and not among men. This relationship with pay is present even though the measure of housework time maximizes men's unpaid time through the inclusion of yard work and house maintenance tasks more typically done by men than by women. The relationship holds with control for the effects of unpaid child care time in the family responsibility model of pay and without control for child care time in the life cycle model of pay. These overall results were expected, confirming with Canadian data the robustness of the

housework effects noted by Hersch and Stratton (1997) for the U.S. and repeating a footnoted side-analysis for housework without child care in Coverman (1983).

The effects of unpaid domestic labour are only in part what was anticipated from theoretical arguments because current unpaid child care time is not a significant influence on wages in the final pooled model. An alternate measure with even less influence on pay rates is the presence of children under 15 years of age in the household, following Rosenfeld and Kalleberg (1990). The unadjusted zero-order association between having a dependent children and wages is a weak and small negative influence on pay only among women. The results for unpaid domestic labour are, then, indicative of hierarchical gender relations within households. In comparison with men's pay, women's pay is compromised by the care of houses and husbands, not by their care of dependent children. Time taken by men to do household work is not associated with their wages. One interpretation of the greater time spent on housework by women with lower incomes is that they cannot afford the purchase of goods or services to accomplish the equivalent work for their households. Women with higher incomes, in contrast, can afford to do less housework. However, for arguments based in gender relations and the production of gender within households, women's responsibility for housework remains intact in this sort of interpretation.

The gendered connection of housework with pay is even noticeable in the model which includes control for the indirect advantages for pay that are inherited through parental backgrounds as well as the effects of self-employment or employment under a collective agreement, work experience, and education. The overlap of pay differences between women and men with the loss of pay as unpaid housework time rises for women is clear, but the magnitude of the overlap with the gendered pay gap should not be exaggerated. If the portion of the gendered pay gap connected to differing amounts of domestic work could be set aside, the gap between the estimated hourly pay for men's full-time employment and women's full-time employment would be reduced, but not substantially. The gender gap in pay certainly would not be eliminated.

Because of the cross-sectional nature of the data, caution is needed in drawing conclusions about associations of unpaid domestic work with pay for employment. Hours of unpaid work, hours of paid work, and pay for employment are likely to have been interdependently adjusted through respondents' actions prior to the time of the survey.

Other anticipated sources of gendered pay differences are not obvious in the final models here for full-time paid workers. Neither marital status nor interruption in paid work over the previous five years has an association with pay that, in turn, has much influence on the gendered distribution of pay. The overall significant advantage in employment income for married men has a minor effect on the differences in pay between men and women. Recently interrupted work, more frequent among women but a significant disadvantage only for men's pay, appears to have no effect at all on the size of the gendered pay gap. Pay advantages through social origins or parental backgrounds also are of little help in understanding differences in pay between women and men. The higher or lower occupational prestige of fathers tends to be inherited in the subsequently higher or lower pay of both daughters and sons. A mother's completion of high school has a weak positive effect on wages that is not significant separately for either their daughters or their sons.

The effects of education and self-employment are unusual among the variables investigated here. The adjustment of the gender effects with either education, as a factor, or self-employment, as a covariate, is the opposite of accounting for some of the gendered pay gap. The size of the gender coefficient increases with control for the influence of either of these variables. A greater percentage of the men than of the women are self-employed and the negative consequences of self-employment for pay are a greater disadvantage for men's pay than for women's. Women's average pay rises because fewer women are self-employed. The effects of educational attainment on pay also bring a significant advantage to women's pay that overcomes the disadvantage for pay of being a woman. In part the effect is the result of the greater percentage of women with post secondary certificates, diplomas, or university degrees than the percentage of men. Men's and

women's average pay was expected to be brought closer together by university degrees. However, the counter-influence to gender effects is not so much in the pay for university degrees which is considerably better for men than women here, but rather in the disadvantages for men's pay of not graduating from high school, a polarization among men noted by Coish and Hale (1995). Roughly the same percentage of men did not complete high school as the percentage of men who completed a university degree. Education improves women's average pay relative to men's average pay, moderating (or suppressing) the influence of gender on pay.

Table 3.1 Full-time Workers Ages 25 to 69, GSS9: Eta Coefficients for Gender, Family, Work Experience, Education, and Social Origins on Hourly Pay

	N	Hourly Wage[a]	Men's Pay[b]	Women's Pay[c]
		Eta	Eta	Eta
Gender (0=Men, 1=Women)	3492	.24***		
Marital Status[d]	3492	.08***	.10***	.06
Spouse Employed (as main activity)[e]	3423	.01	.02	.02
Child under 15 yrs[e]	3492	.00	.01	.05*
Child Care Hours[f]	3465	.08***	.04	.05
Housework & Home Maintenance[f]	3444	.14***	.05	.17***
Helping Elderly[g]	3478	.05*	.04	.03
Interruption in Employment Past in 5 yrs[e]	3409	.14***	.14***	.11***
Supervising 5 years ago[e]	3469	.21***	.19***	.16***
Education level completed[h]	3490	.38***	.39***	.42***
Current Occupation[i]	3474	.40***	.40***	.47***
Mother High School[e]	3250	.13***	.09***	.21***
Father High School[e]	3035	.15***	.13***	.21***
Mother's Occupation[i]	3363	.07**	.08**	.11**
Father's Occupation[i]	3062	.18***	.18***	.22***

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001

[a] Pay in dollars and cents
[b] Men, N = 2068
[c] Women, N = 1424
[d] Marital Status: 1 = partner; 2 = single; 3 = other
[e] Coding: 0 = no; 1 = yes
[f] Child care or housework: 0 = none; 1 = < 5 hours; 2 = 5-14 hours; 3 = 15-29 hours; 4 = 30 or more hours
[g] Helping Elderly: 0 = none; 1 = < 5 hours; 2 = 5 or more hours
[h] Education completed: 1 = > high school; 2 = high school diploma; 3 = post secondary certificate/diploma; 4 = university degree
[i] See occupation codes in Table 3.3, below.

Table 3.2 Full-time Workers Ages 25 to 69, GSS9: Correlations of Job and Personal Characteristics with Gender and Hourly Pay

	N	Gender[a] (Women)	Hourly Pay[b]	Men's Pay[c]	Women's Pay[d]
Supervising 5 years ago[e]	3469	-.15***	.21***	.19***	.16***
Number Supervised	3456	-.14***	.19***	.16***	.16***
Tenure (years) with Current Employer	3480	-.11***	.24***	.20***	.26***
Age Group (5 yr intervals)	3492	-.06***	.13***	.16***	.04
Age Squared	3492	-.06***	.12***	.15***	.03
Supervising in Current Job[e]	3486	-.11***	.22***	.21***	.18***
Collective Contract[e]	3485	-.01	.19***	.15***	.28***
Self employed[e]	3492	-.11***	-.07***	-.10***	-.12***
Limited Physically[e]	3488	.01	-.02	-.02	.00
Canadian Born[e]	3479	.02	-.03	-.02	-.05

* p value ≤ .05
** p value ≤ .01
*** p value ≤ .001

[a] Gender 0 = men; 1 = women
[b] Pay in dollars and cents
[c] Men, N = 2068
[d] Women, N = 1424
[e] Coding: 0 = no; 1 = yes

Table 3.3 Eta Associations and Category Deviations for Hourly Wages of Full-time Workers Ages 25 to 69, General Social Survey, Cycle 9, 1994

		All Men and Women (Mean hourly wage $16.43)			Men (Mean hourly wage $18.05)			Women (Mean hourly wage $14.08)		
		N	Deviation	Eta	N	Deviation	Eta	N	Deviation	Eta
Gender	Men	2068	1.62							
	Women	1424	-2.35	.24***						
Marital Status	Partner	2318	.46		1479	.52		839	-.15	
	Single	704	-.62		406	-1.52		298	.74	
	Other	470	-1.33	.08***	183	-.84	.10***	287	-.32	.06
Child Care Hours	No time	1728	-.03		1055	-.15		693	.07	
	< 5 hrs	276	.55		176	.07		100	.89	
	5 - 14 hrs	397	.34		279	-.05		118	-.22	
	15 - 29 hrs	451	1.05		319	.75		132	.21	
	30 or more	613	-1.14	.08***	242	-.34	.04	371	-.38	.05
Housework & Home Maintenance	No time	286	.47		230	-.50		56	.18	
	< 5 hrs	720	1.51		527	.61		193	1.92	
	5 - 14 hrs	1408	.30		882	-.06		526	.54	
	15 - 29 hrs	756	-1.29		308	-.32		448	-.73	
	30 or more	274	-2.45	.14***	94	-.65	.05	180	-1.89	.17***
Any Interruption in Past 5 years	No	2839	.50		1726	.49		1113	.36	
	Yes	570	-2.51	.14***	289	-2.91	.14***	281	-1.41	.11***
Child Under 15 years of age	No	2216	.02		1284	-.07		932	.26	
	Yes	1276	-.04	.00	784	.11	.01	492	-.50	.05*

F significant * p value ≤ .05; ** p value ≤ .01; *** p value ≤ .001

.....continued

Table 3:3 Eta Associations and Categorical Deviations for Hourly Wages of Full-time Workers Ages 25 to 69, General Social Survey, Cycle 9, 1994 (continued)

		All Men and Women (Mean hourly wage $16.43)			Men (Mean hourly wage $18.05)			Women (Mean hourly wage $14.08)		
		N	Deviation	Eta	N	Deviation	Eta	N	Deviation	Eta
Supervising 5 years ago	No	2314	-1.19		1251	-1.30		1063	-.61	
	Yes	1155	2.38	.21***	801	2.02	.19***	354	1.84	.16***
Education Level Completed	< High School	671	-3.37		448	-3.60		223	-3.81	
	High School	935	-1.57		541	-1.72		394	-1.25	
	Post Secondary	1131	-.36		639	-.18		492	-.35	
	University Degree	753	5.50	.38***	438	6.07	.39***	315	4.81	.42***
Age Cohort	25 - 29 years	480	-2.50		265	-2.92		215	-1.62	
	30 - 34 years	652	-.86		382	-1.65		270	.32	
	35 - 39 years	592	-.17		348	-.57		244	.44	
	40 - 44 years	516	1.10		302	1.67		214	.37	
	45 - 49 years	448	.97		259	1.78		189	.00	
	50 - 54 years	286	.75		166	.55		120	1.14	
	55 - 59 years	334	1.14		217	1.45		117	-.08	
	60 - 64 years	148	1.62		99	2.12		49	-.29	
	65 - 69 years	36	.47	.15***	30	.73	.20***	6	-6.56	.13**

F significant * p value ≤ .05; ** p value ≤ .01; *** p value ≤ .001

.....continued

Table 3:3 Eta Associations and Categorical Deviations for Hourly Wages of Full-time Workers, Ages 25 to 69 years, General Social Survey, Cycle 9, 1994 (continued)

		All Men and Women (Mean hourly wage $16.43)			Men (Mean hourly wage $18.05)			Women (Mean hourly wage $14.08)		
		N	Deviation	Eta	N	Deviation	Eta	N	Deviation	Eta
Current Occupation	Manager/admin	641	3.45		392	4.04		249	2.33	
	Sci/math/eng/arch /computer science	161	5.96		120	5.38		41	5.25	
	Soc sci/religion	88	3.84		43	4.49		45	4.01	
	Teaching	185	4.34		77	5.09		108	4.99	
	Medicine/health	199	1.64		39	5.42		160	2.66	
	Art/lit/recreation	60	.58		35	1.03		25	.04	
	Clerical	466	-2.90		98	-1.71		368	-1.30	
	Sales	237	-1.40		134	-1.01		103	-1.67	
	Service	355	-5.11		176	-4.41		179	-5.04	
	Farming	110	-5.41		91	-6.76		19	-4.34	
	Primary	41	-.50		36	-2.18		5	2.30	
	Manufacturing	306	-1.17		243	-1.55		63	-3.58	
	Construction	350	.23		339	-1.29		11	-.65	
	Transportation	159	-1.50		144	-2.80		15	-2.23	
	Material handling /other craft	116	-.39	.40***	89	-.82	.40***	27	-1.94	.47***

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001

Total N's vary from 3409 to 3492. The Grand Mean is for maximum number of cases, altogether, and for maximum number of men or women.

"Not supervising 5 years ago" includes 148, in pooled group, not working 5 years ago.

Table 3.4 Family Responsibility Models, MCA of Hourly Pay for Full-time Workers Ages 25 to 69, GSS9 1994

	Model 1		Model 2[a]		Model 3[b]	
	Grand Mean: $16.52		Grand Mean: $16.56		Grand Mean: $16.56	
	Adjusted Deviation	Beta	Adjusted Deviation	Beta	Adjusted Deviation	Beta
Gender						
Men	1.39		1.28		1.30	
Women	-2.02	.21***	-1.84	.19***	-1.87	.19***
Marital Status						
Partner	.30		.23		.18	
Single	-.66		-.56		-.25	
Other	-.49	.05*	-.30	.04*	-.54	.03
Child Care Hours						
No hours	-.13		-.21		-.24	
< 5 hours	.05		-.18		-.27	
5 - 14 hrs	-.30		-.04		-.14	
15 - 29 hrs	.35		.66		.72	
30 or more	.27	.03	.20	.04	.36	.05
Housework						
No hours	-.39		-.03		.00	
< 5 hours	1.10		.63		.64	
5 - 14 hrs	.19		.05		.07	
15 - 29 hrs	-.74		-.38		-.41	
30 or more	-1.49	.09***	-.92	.05*	-.94	.05*
Interruption (5 Yr)						
No	.43		.16		.15	
Yes	-2.13	.12***	-.81	.04**	-.76	.04**
Supervising 5 years ago						
No			-.42		-.35	
Yes			.82	.07***	.69	.06***
Education						
< high school			-3.95		-3.99	
High school			-1.54		-1.51	
Post secondary			-.12		-.11	
University degree			5.45	.39***	5.44	.39***
Total N	3360		3338		3338	
df Main Effects	12		18		20	
R Squared	.08***		.30***		.30***	

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001

[a] Covariates: current supervising (no=0; yes=1) p≤.001; employment tenure (years) p≤.001.

[b] Covariates all at p≤.001: current supervising, tenure with employer, age (5 year cohorts), and age squared.

Note, all models: First order factor by factor interactions not significant at p=.01.

Table 3.5 Family Responsibility Models for Men, MCA of Hourly Pay, Full-time Workers Ages 25 to 69, GSS9 1994

	Men Model 1		Men Model 2[a]		Men Model 3[b]	
	Grand Mean: $18.15		Grand Mean: $18.21		Grand Mean: $18.21	
	Adjusted Deviation	Beta	Adjusted Deviation	Beta	Adjusted Deviation	Beta
Marital Status						
Partner	.51		.44		.34	
Single	-1.55		-1.30		-.83	
Other	-.73	.10***	-.69	.08**	-.97	.06*
Child Care Hours						
No hours	.16		-.06		-.14	
< 5 hours	-.29		-.48		-.61	
5 - 14 hrs	-.36		-.06		-.12	
15 - 29 hrs	.23		.50		.68	
30 or more	-.37	.03	-.00	.03	.25	.04
Housework						
No hours	-.83		-.22		-.29	
< 5 hours	.72		.38		.37	
5 - 14 hrs	-.04		-.10		-.07	
15 - 29 hrs	-.36		-.09		-.13	
30 or more	-.43	.06	-.43	.03	-.32	.03
Interruption in Past 5 Years						
No	.46		.15		.16	
Yes	-2.72	.13***	-.90	.04*	-.93	.04*
Supervising 5 years ago						
No			-.45		-.32	
Yes			.69	.06**	.49	.05*
Education						
< high school			-3.92		-3.97	
High school			-1.62		-1.52	
Post secondary			-.09		-.07	
University degree			5.89	.39***	5.80	.39***
Total N	1986		1969		1969	
df main effects	11		17		19	
R Squared	.03***		.24***		.25***	

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001

[a] Covariates: supervising at current job (no=0; yes=1) p≤.001; tenure with employer (years) p≤.001.

[b] Covariates: supervising now p≤.001; tenure p≤.001; age (5 yr cohorts) p≤.01; age squared p≤.01.

Note, all models: First order factor-by-factor interactions not significant at p=.01.

Table 3.6 Family Responsibility Models for Women, MCA of Hourly Pay, Full-time Workers Ages 25 to 69, GSS9 1994

	Women Model 1[a] Grand Mean: $14.17		Women Model 2[b] Grand Mean: $14.18		Women Model 3[c] Grand Mean: $14.18	
	Adjusted Deviation	Beta	Adjusted Deviation	Beta	Adjusted Deviation	Beta
Marital Status						
Partner	-.02		-.09		-.11	
Single	.39		.37		.43	
Other	-.36	.04	-.12	.03	-.14	.03
Child Care Hours						
No hours	-.41		-.34		-.28	
< 5 hours	.45		.08		.10	
5 - 14 hrs	-.22		-.10		-.10	
15 - 29 hrs	.12		.63		.54	
30 or more	.68	.07	.43	.06	.35	.05
Housework						
No hours	.27		.48		.42	
< 5 hours	1.87		1.12		1.18	
5 - 14 hrs	.54		.26		.29	
15 - 29 hrs	-.77		-.44		-.47	
30 or more	-1.87	.17***	-1.09	.10**	-1.15	.10**
Interruption in Past 5 Years						
No	.37		.15		.14	
Yes	-1.46	.11***	-.60	.05	-.55	.04
Supervising 5 years ago						
No			-.31		-.30	
Yes			.94	.08***	.88	.08**
Education						
< high school			-3.89		-3.81	
High school			-1.37		-1.40	
Post secondary			-.24		-.24	
University degree			4.78	.43***	4.78	.42***
Total N		1374		1369		1369
df main effects		11		17		19
R Squared		.04***		.31***		.31***

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001

[a] Model Multiple R square includes first order factor by factor interactions. None significant at p = .01.

[b] Covariates: supervising at current job (no=0; yes=1) p≤.01; years of tenure with current employer p≤.001. Child care and housework interaction p≤.01.

[c] Covariates: current supervising p≤.01; tenure p≤.001; age (5 yr cohorts) p≤.001; age squared p≤.001. Child care and housework interaction p≤.01.

Table 3.7 Gender Beta Coefficients and Hourly Pay Gap for Full-time Workers, GSS9 1994

Model Variables	N	Gender Beta	Dollar Deviation from Grand Mean		Model R^2
			Men	Women	
Full-time, Age 25 to 69, Family Responsibility Model					
Gender, only	3432	.24***	1.60	-2.33	.06***
add child care, housework and home maintenance	3432	.21***	1.44	-2.09	.07***
add employment interruption in past 5 years	3360	.21***	1.44	-2.08	.08***
add marital status	3360	.21***	1.39	-2.02	.08***
add supervising 5 years ago, and supervising currently (as a covariate)	3347	.18***	1.21	-1.75	.13***
add tenure with current employer (covariate)	3340	.16***	1.11	-1.60	.16***
add education level completed	3338	.19***	1.28	-1.84	.30***
add age group, age squared (covariates)	3338	.19***	1.30	-1.87	.30***
Full-time, Age 25 - 69, Life Cycle Model					
Gender, only	2765	.24***	1.63	-2.39	.06***
add mother's high school, mother's occupation, father's high school, father's occupation	2765	.24***	1.65	-2.43	.11***
add age group, age squared (covariates)	2765	.24***	1.62	-2.38	.14***
add education level completed[a]	2763	.25***	1.71	-2.51	.25***
add supervising 5 years ago, tenure with employer (covariates)	2751	.22***	1.52	-2.22	.29***
add current supervisory position, collective agreement coverage (covariates)	2747	.22***	1.50	-2.19	.31***
add self-employment (covariate)	2747	.23***	1.56	-2.29	.32***
add employment interruption in past 5 years, marital status	2695	.22***	1.52	-2.22	.33***
add housework and home maintenance	2678	.21***	1.41	-2.07	.33***

*** F significant p value ≤ .001

[a] Interaction between father's occupation and respondent's education is significant at p≤.01.

Notes: Grand Means of family responsibility models from $16.44 (N=3432) to $16.56 (N=3338), and Grand Means for life cycle models from $16.67 (N=2765) to $16.81 (N=2678). Model multiple R squares include factor-by-factor first-order interaction effects.

Table 3.8 Etas and Category Deviations of Social Origins and Current Job Conditions for Hourly Pay of Full-time Workers, GSS9 1994

		All Men and Women			Men			Women		
		N	Deviation from Mean	Eta	N	Deviation from Mean	Eta	N	Deviation from Mean	Eta
Mother's Education	< high school	1924	-.91		1117	-.69		807	-1.15	
	High school	1326	1.32	.13***	790	.98	.09***	536	1.73	.21***
Father's Education	< high school	2025	-.88		1202	-.82		823	-.96	
	High school	1010	1.77	.15***	605	1.62	.13***	405	1.95	.21***
Mother's Occupation	Prof/semi-prof/manager	316	.84		162	1.00		154	1.32	
	Clerical/sales/service	469	.35		255	.57		214	.51	
	Craft/trades/manual	208	-1.41		109	-2.38		99	.22	
	Farm/farm labour	36	-3.47		20	-2.82		16	-3.97	
	Not in paid work	2334	.00	.07**	1442	.01	.08**	892	-.30	.11**
Father's Occupation	Prof/semi-prof/manager	1027	1.49		617	1.44		410	1.51	
	Clerical/sales/service	295	1.54		162	2.05		133	1.32	
	Craft/trades/manual	1183	-.68		686	-.63		497	-.61	
	Farm/farm labour	436	-2.44		293	-2.61		143	-3.02	
	Not in paid work	121	-.96	.18***	63	-.37	.18***	58	-.99	.22***
Supervising Currently	No	2197	-1.22		1208	-1.56		989	-.77	
	Yes	1289	2.08	.20***	855	2.21	.21***	434	1.76	.18***
Collective Agreement	No	2041	-1.30		1204	-1.13		837	-1.54	
	Yes	1444	1.83	.19***	859	1.59	.15***	585	2.20	.28***
Self employed	No	2997	.24		1707	.39		1290	.25	
	Yes	495	-1.46	.07***	361	-1.86	.10***	134	-2.41	.12***

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001

Deviation in dollars from Grand Mean of individual variables for pooled subsample, for men or for women. Total N's from 3035 to 3492.

Table 3.9 Life Cycle Models with Social Origins, MCA of Hourly Wages for Full-time Workers Ages 25 to 69 years, GSS9 1994

	Men & Women[a]		Men[b]		Women[c]	
	Grand Mean: $16.81		Grand Mean: $18.47		Grand Mean: $14.37	
	Adjusted Deviation	Beta	Adjusted Deviation	Beta	Adjusted Deviation	Beta
Gender						
Men	1.41					
Women	-2.07	.21***				
Mother's Education						
< high school	-.26		-.35		-.28	
High school	.37	.04*	.48	.05	.43	.05
Father's Education						
< high school	-.02		-.27		-.20	
High school	.04	.00	.14	.02	.40	.04
Mother's Job						
Prof/semiprof/manag	.24		.69		-.26	
Clerical/sale/serv	.27		-.23		.70	
Craft/trad/man/farm	-.57		-1.04		.11	
Not in paid work	-.02	.02	.05	.04	-.13	.05
Father's Job						
Prof/semiprof/manag	.65		.69		.66	
Clerical/sales/serv	1.01		1.77		.27	
Crafts/trades/manual	-.03		-.20		.06	
Farm/farm labour	-1.99		-2.00		-2.09	
Not in paid work	-.19	.11***	.37	.12***	-.43	.13***
Marital Status						
Partner	.29		.31		.15	
Single	-.50		-.79		.02	
Other	-.77	.05**	-.77	.06*	-.52	.04
Housework						
No hours	.58		.62		-.45	
< 5 hours	.56		.24		1.16	
5 - 14 hrs	.04		-.05		.26	
15 - 29 hrs	-.49		-.66		-.24	
30 or more	-.98	.06*	-.08	.04	-1.51	.11***
Interruption (5 Yrs)						
No	.19		.24		.13	
Yes	-.93	.05**	-1.43	.07**	-.51	.04
Total N		2678		1595		1183
df Main Effects		27		26		26
R Squared		.33***		.28***		.37***

.....continued

Notes for final life cycle models:

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001

[a] Controls for education (4 categories) p≤.001; and covariates, age (5 year cohorts)p≤.001; age squared p≤.01; supervised 5 years ago (no=0; yes=1) p≤.001; years of tenure with current employer p≤.001; supervising in current job (no=0; yes=1) p≤.001; collective agreement (no=0; yes=1) p≤.001; self-employed (no=1; yes=2) p≤.001. No first order, factor-by-factor, interaction is significant at p=.01.

[b] Control for education (4 categories) p≤.001; and covariates, age (5 year cohorts)p≤.05; age squared p>.05; supervised 5 years ago (no=0; yes=1) p≤.001; years of tenure with current employer p≤.001; supervising in current job (no=0; yes=1) p≤.001; collective agreement (no=0; yes=1) p≤.001; self-employed (no=1; yes=2) p≤.001. First order interactions significant at p≤.01: father's education with housework; mother's occupation with housework; father's occupation with respondent's education level.

[c] Controls for education (4 categories) p≤.001; and covariates, age (5 year cohorts)p≤.001; age squared p≤.001; supervised 5 years ago (no=0; yes=1) p≤.05; years of tenure with current employer p≤.001; supervising in current job (no=0; yes=1) p≤.001; collective agreement (no=0; yes=1) p≤.001; self-employed (no=1; yes=2) p≤.05. No first order, factor-by-factor, interaction is significant at p=.01.[d]
0 = no; 1 = yes

Chapter Four

YOUNG ADULTS AND PART-TIME WORKERS

Outside the subpopulation of adults aged 25 and older who are employed full-time, two other subpopulations of paid workers -- young adults under 25 years old working full-time and adults 25 years of age or older who are working part-time -- are of interest within an investigation of the gender gap in pay. Women are a greater proportion of each of these types of workers than they are of the full-time workers 25 to 69 years old. Previous research suggests that among young adults working full-time, women do almost as well as men in pay and, after completing higher levels of education, may do even better than men in employment income (Wannell and Caron, 1994; Statistics Canada, 1995a; 1997a; 1998a). In the subsample of young adults here from GSS9 data for 1994, women's mean average pay is close to the average pay of the young men. However, among the part-time workers aged 25 to 69 years, women's mean pay is much less than men's pay.

But aside from the increased presence of women and the opposing contributions to the size of the overall gendered pay gap among all employed Canadians, another reason these subpopulations are of particular interest is that differences in pay between young men and women and between men and women working part-time for pay are sometimes explained with reference to unpaid work for families and children. Young women, because they are more likely than older women to have never married and to be childless, are likely to do less unpaid domestic work than other women. The narrower gap in pay between young adult men and women is then described as the consequence of "women behaving just as men traditionally have -- devoting almost all their work time to earning income" (Status of Women Canada, 1997:9). Does having children and doing unpaid domestic work identify the lowest paid workers, even within this group with a narrow gender gap and, specifically, identify low pay among the young women? If so, for those

young women who do have children and spend time doing household work and child care, hourly pay levels would be significantly decreased in comparison to the pay levels of women without children. The negative pattern of association between housework and pay is expected also to hold in models of pay for the pooled subsample of men and women together with gender as an independent variable. A conflicting expectation is that young single men and young single women will both receive less pay than married and co-habiting young adults.

Part-time paid employment, on the other hand, is described as work women choose because it provides time for women to do unpaid work for homes and families. Women are described as choosing and accepting part-time hours regardless of lower pay as a way to accommodate their roles of caring for families and households. Care of children and households thus is a source of lower pay for women employed part-time and an explanation for some of the gap in pay between women and men. For men, part-time employment is often described as a poorly paid, undesirable alternative to full-time work, a way of "making-do" while preferring and seeking full-time hours of paid employment. Following these arguments, women's unpaid family work again is expected to account for much of the gender gap in pay, more so among workers with part-time paid employment than among full-time workers in the same age range. Canadian women employed part-time did 62 percent of the child care work in their homes in the early 1980s, with no differences between classes in the proportion of work done by women (Clement and Myles, 1994). Among married women employed part-time in Australia, McAllister (1990) found that the presence of preschool children is positively and significantly associated with pay levels. But doing household chores is not significant in predicting pay. Are associations between family circumstances and hourly pay more important among part-time workers than among full-time workers? Will unpaid domestic labour, including the care of children, account for a large portion of the gender gap in pay?

Pay of Young Adults Employed Full-time

GSS9 respondents under 25 years of age and at least 18 years of age are included in the subsample consisting of 319 young adults employed full-time. The women, 48 percent of the subsample, are closer to being half the young adult subsample than women are in the main subsample. The gender gap in pay for young adults, first presented in Chapter Two (Table 2.3) is a $1.07 per hour advantage in men's mean hourly wage of $10.56 over the mean hourly wage for women of $9.49. The Grand Mean ($10.04) is lower and women's pay as a percentage of men's pay (89.9 percent) is higher among the 18 to 24 year old respondents than among older men and women.

Distributions of family characteristics are very different from the distributions for respondents over 25 who have more years of life experience. Single, never married respondents are 68 percent of the young adults, and the association of marital status with pay is determined through a contrast between the pay of single respondents and the pay of other young adults, those in legal marriages or common-law relationships and the four men who were legally married in the past but are no longer married. (None of the 18 to 24 year old women is divorced, separated, or widowed.) Only nine percent of the young adults are parents with one or more dependent children in their households, compared to 36.5 percent of the 25 to 69 year olds who live with their children under 15 years of age. Two percent more of the women than the men are parents living with their children. Ten percent more of the women than the men are married or in common-law relationships. The descriptive profile of young adults' employment histories also differs from the profile for workers aged 25 and over. Because many of the young adults were not in the paid workforce five years before the survey, neither the interruptions of the past five years nor experience as a supervisor five years before the survey are considered in the multivariate models of pay for young adults. One quarter of them started their current employment during 1994. Among the rest, very few have been employed for a number of years with one employer.

The 12 percent of young adults with a university degree is roughly half the percentage of the older adults who have at least one university degree. The percentage seems low yet is not out-of-line because the young adult subsample is not only young but also excludes students pursuing any level of education. The exclusion of students currently working towards degrees or certification beyond a bachelor's level degree leads to under-representation of those in the general population of young adults who have one, or even more, university degrees. The percentage of women with degrees is three times larger than the percentage of men, a greater difference than within the general population again because here students are not part of this subsample of workers with full-time paid jobs.

The zero-order associations with pay for indicators of family responsibilities and for several other variables are provided in Tables 4.1 and 4.2. In Tables 4.3 and 4.4, detail is presented from some MCA models of pay for men and women, together and separately. The first section of Table 4.5 summarizes changing gender coefficients and changing deviations from the Grand Mean that define the gendered pay gap over successive models of pay incorporating additional factors and covariates.

Independent Variable Selection for Young Adult Subsample

Table 4.1 again shows that being either a man or a woman is a significant difference in estimating hourly pay among young adults but gender differences, alone, appear to account for less variance in hourly pay (eta $=.12$, $p \leq .05$) among young adults employed full-time than among older workers employed full-time. The indicators of family and employment characteristics most appropriate for examining the fit of a family responsibility model for young adults are not the same indicators selected initially for the main subsample. Except for the presence of a dependent child, zero-order associations of family circumstances with hourly pay are not significant associations for the pooled subsample.

The presence of a child under 15 years of age, positively but weakly associated with pay differences in the pooled subsample of men and women together (eta $=.13$, $p \leq .05$) and separately

among women (eta =.21, $p \leq .001$), is the only indicator of family responsibilities entered into the multivariate analysis of hourly pay. Eta values for single status, on its own, are not significant in association with hourly pay. Although among women having an employed husband, one whose main activity in the previous year has been work at a job or for a business, is significantly and positively associated with wages, the association is weak. First-order interactions between gender and these variables describing respondents' family circumstances are not additional significant predictors of wages.

Note that the measure of parental status, on its own, is too coarse to distinguish preschoolers from other children less than 15 years old and economically dependent on their parents. However, among young adults, in comparison with the 25 to 69 year olds, the measure is more likely to be identifying parents of preschool and primary school children than parents of older children. The association between being 20 to 24 years old, rather than 18 or 19 years old,[1] and having young child is positive but not large (phi =.12, $p \leq .05$) for men and women together and is not significant for men or women separately. This connection between pay rates and having a young child could in part be an artifact of the dependent variable if women with children work fewer hours for the same total employment income received by other men and women. The evidence for this subsample is that women with young children do less hours of paid work than other women. Here the correlation between hours of paid work and the presence of young children is negative and significant for women (r =-.20, $p \leq .05$) while it is positive, but not significant, for men. Adjustment for such correlations with hours of work, even if the correlations are not substantial, is the purpose of the calculation of hourly pay estimates.

Influences to be controlled in multivariate models include education levels, tenure with the current employer, and collective agreement coverage. The categorical differences in average pay for different levels of education are again significant (eta =.29, $p \leq .001$) with higher levels of education associated with higher hourly wages. Employment under a collective agreement is also

[1] The 18 and 19 year olds are 13.2 percent of the young adult subsample.

associated with higher pay than the pay for employment that is not covered by a either a collective agreement or a union contract.

As a direct measure of work experience, years of tenure with the current employer are significantly and positively correlated with hourly pay for the pooled subsample and for men. The age of respondents also has a significant positive effect on pay within the pooled subsample[2] and among women but not among men. The self-employed, seven percent of the men and three per cent of the women, do not differ significantly in hourly pay from other young adults who work full-time.

From the group of indicators of parental characteristics, here neither the occupations nor the educations of respondents' fathers are significantly associated with their children's hourly pay. A mother's education and occupation do, however, have significant consequences for pay. In the separate groups, the significant associations exist only for women. In general, the zero-order associations indicate that hourly pay is higher if respondents' mothers have completed high school or if their mothers worked in professional, semi-professional, or managerial occupations than if mothers did not complete high school or were in other, less prestigious, occupations.

None of the selected factors interacts with gender to predict hourly pay rates at the .05 significance level. Separate multivariate models of pay for men and women are still presented to clarify results, given some zero-order associations with pay that differ in the influence among men and among women. The separate models facilitate rough comparisons of results for young adults with results for the main subsample aged 25 years and over.

Results for 18 to 24 year olds Employed Full-time

With the presence of young children, education levels, and employment tenure all considered, the gender coefficient of the pooled model in Table 4.3 (beta $=.21$, $p \leq .001$) increases from the zero-order eta value. The gender coefficient of Table 4.5 (beta $=.17$, $p \leq .01$)

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[2] Years of tenure with the current employer are positively correlated, but not highly correlated, with the age group ($r = .22$, $p \leq .01$).

is less important than the added influences of maternal occupation and coverage by a collective agreement -- both influences which overlap somewhat with gender differences in pay. While being a woman or a man is not the most important factor influencing pay in either model, being a parent ranks as even less important than gender in accounting for variance in hourly pay.

In so far as having children is the least important of the factors significantly associated with pay, the multivariate models confirm the zero-order results suggesting that family circumstances do not have much relationship with the hourly pay of young adults. Yet for the pooled subsample of men and women and among the women, the positive effect on pay remains significant (at $p \leq .05$) even after control for the effects of education and tenure with the current employer (Table 4.3), and after the additional control (in Table 4.4) for the effects of social origins (here the educational achievement and occupation of their mothers) as well as control for the effects of being employed under a collective agreement.

The pooled model in the first column of Table 4.3 is an expanded version of the model which includes education levels in the upper section of Table 4.5, the summary of gender coefficient changes over successive models. Because age is not a significant influence on hourly pay after the effects of employment tenure and education levels are introduced into the MCA models, the age difference -- whether respondents are 20 to 24 years old rather than 18 or 19 years old -- is not entered into the pooled models of Table 4.3 or Table 4.4. Among the people who provided information about their mothers,[3] the influence of maternal education is not significantly associated with pay while maternal occupation is a slightly stronger influence on pay than gender differences. The more important influences of collective agreements and of completed post secondary education programs are closely ranked with each other in importance.

Collective agreement coverage (again in Table 4.4) ranks well above education in accounting for variance in pay among women, whereas for men, differences in education levels rank above differences in collective agreement coverage in accounting for hourly pay differences.

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[3] Missing cases in Table 4.4 are 9.4 percent of 319 respondents, 18 to 24 years, employed full-time.

For men or for women, hourly wages for those with completed post secondary education -- particularly university degrees -- are above the mean while pay for respondents without some education beyond high school is less than the mean hourly wage. In the main subsample, the pattern is slightly different: the only categorical effect above the mean is attached to completion of university degrees.

A mother's occupation and the respondents' employment under a collective agreement together account for some of the same variance in pay accounted for by gender, as is demonstrated in the declining size of the beta coefficient with the introduction of these factors in the pooled models of Table 4.4 and in Table 4.5. However, much of the effect moderating the impact of gender differences comes from collective agreement coverage. When collective agreement coverage is entered as an additional factor before social origins are entered, as it is in the second last model of Table 4.5, the gender coefficient drops to .18 ($p \leq .001$) and the R-square improves to .24 ($p \leq .001$, N=318). The remaining significant connection of respondent's pay with the mother's occupation reduces the influence of gender still further and improves the model multiple R-square.

Note from the MCA models of Table 4.4 that the lowest wage rate, as a categorical effect, is not attached to having a mother outside the paid workforce but rather to a mother's paid employment in crafts, trades, manual work and farming. The highest hourly pay is associated with having a mother in professional, semi-professional or managerial occupations. Pay for children of mothers who were in other occupational groupings is less than the mean wage, although among women alone, those with mothers who were in clerical, sales and service occupations are receiving pay just above the mean for women.

Discussion

The advantaged group is the same among the young adults with full-time paying jobs as within the main subsample of full-time workers. Men, on average, receive more pay per hour of employment than women receive. The consistency of the advantage for young adult men is clear

in the deviations from mean hourly pay, presented in Table 4.5. The models incorporate significant effects on pay of having and living with young children, then of job tenure with the current employer, completed levels of education, and age. Age -- being 20 to 24 rather than 18 or 19 -- is entered into the last model and there is not significantly associated with pay. Gender coefficients, indicating the effects on pay of being a man or a woman, remain significant throughout.

The small contribution of family characteristics for understanding pay differences within the pooled subsample of young men and women is also clear in Table 4.5. The gender coefficient does not change and the model multiple R square increases by only two percent after addition of the association between pay rates and parental status (that is, being a parent living in the same household as his or her dependent children). Control for the length of tenure in current employment marks another minor change in the beta coefficient and in the hourly pay difference between men and women, an increase of one cent for men and a decrease of one cent for women. Control for a respondent's completed education increases the beta coefficient for gender to a magnitude familiar from the analysis of pay among 25 to 69 year olds.[4] Post secondary and university education among the younger adults have positive consequences for pay which, in turn, overcome some disadvantage in pay for young women relative to the pay for young men.

The question of whether indicators of family responsibilities are significant in identifying the men and women receiving higher or lower pay is again addressed within the young adult subsample. Being single, that is not co-habiting and never having married, is of no help in accounting for variance in pay among young adult men and women -- a twist on the expectation that single marital status in the 1990s has similar consequences for young men and young women in terms of pay. The similarity is present in that the association with pay is negative for both men and women. However, for both men and women the association between marital status and hourly

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[4] Comparison of beta coefficients between MCA models is an approximation. The between-model comparisons of beta coefficients for gender are approximate and precise values of the rise or fall of the influence of gender from model to model cannot be calculated from the beta values for gender.

pay is also statistically non-significant. Most young adults are single, but no significant advantage in pay occurs for married men that is comparable to the advantage among older full-time workers. On the other hand, unpaid hours doing domestic work also do not account for wages that are below the mean for women or for men. Child care hours are not significantly associated with pay, and housework hours are not significantly associated with pay.

Respondents who are parents living with their dependent children are likely to receive higher hourly pay than non-parents receive, a result unlike the outcome with the main subsample where parental status is not significant. However, the effects of the presence of young children, in both zero-order associations and in multivariate models, are not the negative effect on pay that would corroborate results in studies of recent graduates from university (Wannell and Caron, 1994; Davies et al., 1996). A small positive effect on pay is evident within the pooled subsample of women and men. Among men, no significance is attached to the differences in pay between men with and without young children, the opposite of the effect expected within human capital theories. The associated increase in the hourly pay of women, although not the most important factor related to their pay, is a significant influence in models with control for some influences upon pay from work experience, education levels, current job conditions, and social origins.[5]

The impact of gender differences grows steadily in steps of the family responsibility model of Table 4.5, as if gender effects are suppressed by the levelling effects of other characteristics related to pay among young adults. Compared to changes in beta coefficients for gender in versions of the family responsibility model for the main subsample, presented in Table 3.7, the change in beta coefficients is somewhat different. Neither unpaid domestic work nor supervisory experience variables are relevant zero-order influences on pay among the young adults, and these influences are the associations with pay in the main subsample which partially overlap gender

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[5] When differences between the age groups is controlled in an MCA, as in the family responsibility model of Table 4.5, the age effects are not significant and the influence of children becomes non-significant for the pooled subsample yet remains of some importance for women's pay. The relationship between being 20 to 24 and having a child is not high at phi $=.12$, $p \leq .05$ for men and women together and is not significant separately for men or for women.

effects in accounting for variance in pay (presented in Table 3.7). Thus, they reduce the magnitude of the gender coefficient in the main subsample. Removing the effects on pay of job tenure, the one work experience variable entered for young adults, generates change in the opposite direction: a small increase in the size of the beta coefficient for gender and the addition of a couple of cents to the gender gap.

For young adults, education levels and collective agreement coverage are significant in models here, but apparently both factors are more important in distinguishing higher from lower hourly wage rates among women than among men. The situation is similar within the main subsample. The point to consider here is that these advantages are present for young women without other distinctions in pay that among the 25 to 69 year old workers contribute to the gendered pay gap. Pay increases are not a significant advantage for young men who are married. Pay decreases for doing housework work are not a significant disadvantage for young women.

The effects of social origins are not the same for the younger adults as they are for those 25 years old and older. For the young adult subsample the information about mothers is for a relatively recent time, between three and ten years before the survey interview, and mothers' occupations are significantly related to their children's pay, particularly to their daughters' pay, a few years later. With a mother in professional, semiprofessional, or managerial occupations, daughters are receiving pay well above the mean for women. The association between maternal occupation and pay exists even after the impact of gender differences, parental status, education, employment tenure, and collective agreements have been considered. The significant same-sex pattern of effects of social origins found within the young adult subsample is a pattern anticipated from educational attainment literature (e.g. Guppy and Arai, 1993). Here the pattern of inherited effects is only from mother to daughter and not from father to son, as is obvious in the separate analyses of Table 4.4 for men and women. But, with a respondent's own education considered, the important influence on pay is from maternal occupation and not education. In the main subsample, a father's occupational attainment rather than a mother's has a significant impact upon

their children's pay, and the positive influence of a father's non-manual and non-farming occupations is extended to the pay of both sons and daughters among the GSS9 respondents.

Pay of Part-time Workers

The last analysis section of this chapter is concerned with the GSS9 respondents 25 to 69 years of age who were working for pay at least 10 hours, but less than 30 hours, the week before their survey interviews in 1994. Whereas 40.8 percent of the full-time workers in the age group are women, 81.3 percent of part-time workers are women. This preponderance of women is the one motivation for attending to differences in pay, in family circumstances, and in recent employment interruptions among part-time workers in order to see if patterns of association between pay, family characteristics, and family responsibilities are similar to or different from the patterns among full-time workers.

The workers employed part-time tend to be an older group than the workers employed full-time, with higher percentages of part-time workers in age cohorts over 50 years than the percentages among the full-time workers. This describes the distribution for women more so than for men, but for both men and women larger percentages of the part-time workers are in the 60 to 69 year old group. Also noticeable are the greater representation of 35 to 49 year olds among women working part-time, in comparison to women working full-time, and the greater representation of 25 to 29 year olds among men working part-time in comparison to men working full-time.

Reasons for working less than thirty hours a week differ somewhat between men and women. Each respondent could select up to three reasons. Although the most frequently cited reason for women to work less than 30 hours a week is that they do not want full-time work (33 percent of women), personal and family responsibilities come third in the list of reasons given by

women (22 percent), after the absence of full-time employment (32 percent).[6] That is, the number of women in part-time jobs who prefer to work full-time hours is almost the same as the number of women in part-time jobs who prefer to be employed in part-time jobs. This voluntary one third of women working part-time appears to be fairly consistent, repeating the proportion of the women interviewed by Pupo (1989) and the figure in Wilson (1996). The primary reason men are employed part-time is that only part-time work was available for 42 percent of them. Among 25 to 69 year old men, only two men cited personal or family responsibilities as a reason for working less than 30 hours a week. Not wanting full-time work was a reason cited by 21 percent of the men, as was having "full-time" work that is less than 30 hours a week.

Distributions across indicators describing respondents' households also give family responsibilities a high profile among people in part-time paid work. Ten percent less of the part-time workers than of the full-time workers aged 25 and over are single; ten percent more part-time workers live with dependent children under 15 years of age; ten percent less of the part-time workers do no unpaid child care; and ten percent more part-time workers had an extended interruption in employment during the previous five years. Comparisons of the percentage distributions among women and among men employed at part-time jobs show that far greater differences on some attributes exist between these men and women than between the men and women within the main subsample of people employed at full-time jobs. Eight percent of women and 23 percent of men are single; 50 percent of women and 29 percent of men are parents living with children under 15 years of age; 34 percent of women and 63 percent of men do no unpaid child care; and only two percent of women, but 20 percent of men do no unpaid housework or home maintenance. Similar percentages of women and of men, however, had at least one employment interruption in the five years before the survey, compared to the higher percentage among women than among men in the full-time, main subsample.

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[6] Rounded percentages are the valid percent taken from 100 percent, after cases missing information have been dropped, with the remaining percentage of men or women for those not selecting the particular reason.

Education levels and several job characteristics also describe distributions among women and men that are unlike the descriptions of full-time workers. In contrast to a similarity in the main subsample between the proportions of men and women with university degrees, the percentage of part-time women workers with university degrees is much lower, at 16 percent, than the 33 percent of men with one or more university degrees. Over ninety percent of full time workers, 93 percent of men or of women, have permanent jobs. Among women employed for part-time hours, 89 percent have permanent jobs, while only 64 percent of men are in permanent jobs. More part-time work than full-time work is self-employment: twelve percent of the women and 30 percent of the men working part-time are self-employed. But just one percent less of the women than of the men currently supervise other workers, whereas almost 11 percent more men than women among full-time workers are supervisors.

Differences between the overall descriptions of the main subsample and the subsample of workers employed part-time invite a brief analysis of the pay of women and men employed for part-time hours. In the end, the small number of men -- only 75 out of the 401 part-time workers -- is troublesome for separate MCA models for the pay of men. Estimates produced for the group of men alone could be unstable.[7]

Dependent Variable for Part-time Employment

Because the skewed raw distribution of pay in dollars and cents violates normality assumptions for the dependent variable in MCA, the dependent variable is the natural log transformation of the estimated hourly pay distribution. Some results are presented for two forms of the dependent variable, the natural log of hourly pay rates and the original pay metric of dollars and cents. In MCA models, the values expressed as a natural log of pay -- the Grand Mean and categorical deviations from that mean -- can be restated in dollars and cents by taking anti-logs. However, the easier method for a rough comparison of patterns of results from MCAs for the two

[7] The crude guide for stable estimates is ten times as many cases as the degrees of freedom used in a predictive model (Andrews et al., 1973:28).

forms of pay is to rank order the values of beta coefficients for factor effects within models and to compare the rank orders.

The difference between means for men and women, in Table 2.3 of Chapter 2, sets out a much larger gender gap in untransformed pay than the gap among full-time workers, with part-time women's mean hourly pay at 65.8 percent of the mean pay for men's part-time work. Values at the upper end of the original distribution of pay, from just over $60.00 per hour to almost $130.00 per hour, are all for workers reporting income as an annual salary for a full year of employment with part-time hours. These estimated values for pay during the reference week could be unusual for these particular respondents; however, the estimates adequately serve the purposes of research focused upon pay, employment, and unpaid household work during the reference week. In any case, the estimated high hourly pay rates are still credible as the sort of remuneration received by a group which includes (although not exclusively) men with long years of tenure in their jobs, post-graduate university degrees, and employment in managerial, administrative or professional occupations.[8] The natural log transformation of pay moderates the influence of the extreme values. The influences of gender, work experience, age, and education on hourly pay then can be more reliably assessed, without undue influence from the characteristics of the respondents receiving very high wages.

Other remedies to adjust the pay distribution are far less satisfactory than the log transformation as attempts to correct the skewed distribution. Dropping self-employed workers has almost no effect on the skew and the mean of hourly pay actually rises. Dropping workers 65 years of age or older from the subsample will slightly reduce the skew, but again the mean value is increased. Other attempts to eliminate the skew, whether by removing the five cases receiving over $75.00 per hour or the nine cases (two percent of the subsample) receiving $60.00 or more per hour, do not sufficiently reduce the skew.

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[8] Although such jobs defy the description of stereotypical part-time work that is temporary, pays little, and requires little skill or experience, or education, the high hourly wages are not necessarily coding errors or unrealistic artifacts of the measure of pay in this research.

The $15.20 mean hourly pay for part-time work in the original metric is lower than the pay for full-time work in the same age group from 25 to 69 years old, if not yet retired and not studying, but is higher than the pay for younger workers in full-time jobs. After natural log transformation of the distribution, the mean of 2.496 ($12.13 after the antilog is taken to return to the metric of dollars and cents) is still higher than pay for 18 to 24 year olds and lower than pay for full-time paid employment. (The median value is 2.424, the standard deviation is .629, and the values range from .693 to 4.854 in the natural log distribution.)

Independent Variable Selection for Part-time Workers

From Tables 4.6 and 4.7, one way in which the zero-order results for the natural log distribution differ from results for the original pay distribution before transformation is the presence of significant influences upon logged hourly pay for a few more factors and covariates than those achieving statistical significance with the original distribution. Thus the presence of an employed spouse as well as the effect of physical limitations on pay will be considered in some of the multivariate analyses of pay for part-time work. In addition, pay differences over age cohorts are significantly associated only with the natural log of hourly pay.

Notable are the lack of statistically significant effects on pay from marital status, unpaid child care time, unpaid help for seniors, and recently interrupted employment. Differences in housework and home maintenance time are significantly associated with part-time pay for men and women together yet not for women as a separate group. Logged pay drops from the highest pay for respondents doing no unpaid housework but rises to just over the mean value for respondents in the category for doing the most housework or home maintenance work, 30 or more hours a week. Having a child under 15 years of age has a positive effect upon wages within the pooled subsample of part-time workers and among women, similar to the effects observed among young adults employed full-time. However here, among the workers in part-time jobs, multicollinearity is a greater concern in selection of independent variables for the family responsibility model than it has been with other subsamples. The negative correlation between being a parent living with

a child under 15 and a respondent's age ($r = -.56$, $p \leq .001$, $N=401$) merits attention. Among women, alone, the correlation is larger ($r = -.63$, $p \leq .001$, $N=326$), indicating simply that mothers are at the younger end of the age distribution for women employed part-time. Parental status, but not age, is entered into the family responsibility model of pay for respondents employed part-time.

The effect of having a child may coincide with an advantage in pay for women under 45 years in age. The association of age cohorts with logged pay (not given in detail in tables here) is irregular and is less a curving pattern than exists for pay and age among full-time workers. Logged pay is below the mean for the 25 to 29 year old cohort and above the mean for cohorts of part-time workers between 30 and 44 years of age, with the highest pay among 40 to 44 year olds followed by less than mean wages for all the older workers. The decline is not smooth, but pay is low for 55 to 59 year olds and lowest for 60 to 64 year olds. Among women, alone, the zero-order relationship between age and logged pay is again an irregular yet roughly rising and then declining association to be corrected by entering age square as a covariate if age were to be entered as a covariate in MCAs.

Other directional influences are as expected and are in the same direction as in the other subsamples: logged pay increases for respondents with improvement in the level of completed education or increases with additional years of work for current employers.

Among the respondents' reasons for working less than 30 hours a week, only the three reasons significantly associated with hourly pay rates are presented in Table 4.6. Not surprising is a negative association with pay for respondents employed part-time because only part-time work is available. On the other hand, the positive association between pay and working part-time because of personal or family responsibilities was not expected from discussions about consequences for pay of part-time employment, especially for women. Correlations between reasons for working part-time and other independent variables again are a concern when selecting variables. Personal or family responsibility as a reason for part-time work is positively correlated

with living with dependent children under 15 years old ($r = .44$, $p \leq .001$, $N=401$). The association among women is about the same ($r = .45$, $p \leq .001$, $N=326$). Not wanting full-time work and not finding full-time work are not problematic in terms of multicollinearity within the pooled subsample. However, among men a preference for part-time employment is noticeably correlated, positively, with age ($r = .51$, $p \leq .001$, $N=61$) and the absence of full-time jobs for men is negatively associated with age ($r = -.45$, $p \leq .001$, $N=61$) as well as with years of employment tenure ($r = -.45$, $p \leq .001$, $N=61$).

For predicting logged pay, no first-order interaction effect of a factor with gender is significant, at $p \leq .05$, for the factors in Tables 4.6 and 4.7. (Tests for interactions with gender in predicting hourly pay bring another cautionary note to interpretation of MCA results for pay without transformation of the dependent variable because several significant interactions occur in association with the untransformed measure of pay.)[9] Among the covariates, the interaction between age and gender is significant in predicting pay rates ($p \leq .001$), as is the weaker interaction between current supervision and gender ($p < .05$). Although the group of men constitute a small subsample, analyses of pooled models for men and women together and separate models for men and women will be repeated here to provide some continuity with earlier analyses as well as to highlight the pattern of results for women, alone.

Results for Part-time Employment

The independent variables entered into the family responsibility model of pay for part-time workers are gender, the presence of young children, and unpaid hours of housework or home maintenance, along with controls for the impact upon pay of supervisory experience and education, also entered as variable factors, and control for current supervision and employment tenure, entered as covariates. MCA results for part-time workers in Table 4.8 are presented first for the

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[9] Significant interactions influencing pay rates in the original dollar and cents metric, at $p \leq .01$, emerge between gender and some other factors: holding a supervisory position five years earlier, education levels, and current occupations. The interaction effects are also significant between gender and two of the reasons for working less than 30 hours a week: the inability to find full-time work, and personal or family responsibilities.

original measure of pay in dollars and cents without transformation, and then, for the natural log of pay with separate models for men and for women. As already noted, the estimates of effects among men are not stable because of the small sample size. Table 4.9 summarizes the effects on gender coefficients within successive MCA models with added independent variables as factors and covariates, first for the untransformed dependent variable in dollars and cents, then for the natural log of pay with anti-logs of the deviations from the mean for men and women.

In the final model of natural log pay for part-time employment, whether the person in a part-time job is a man or a woman is not statistically important for determining pay rates. The influence of gender is striking in its weakness, obvious in the overview of adjusted gender coefficients in Table 4.9, in comparison to the robustness of gender effects in earlier models of the pay of the respondents both under and over 25 years in age who are employed full-time. The difference in pay between respondents living with and not living with children under 15 overcomes gender differences. After control for the effect on pay of the presence of children, the size of the gender coefficient increases. Differences in pay attributed to differences in hours of unpaid housework have the opposite consequences, reducing the size of the gender coefficient and, in fact, reducing gender effects to statistical non-significance in the logged model of pay.

Family circumstances, apart from the presence of a young child, are of little assistance in accounting for variance in pay for part-time work. In final models for the natural log measure of men's and women's pay, together or separately (Table 4.8), the non-significance of pay differences across different amounts of unpaid housework time is clear while having a child under 15 is a positive influence on pay, significant at $p \leq .05$, which ranks above supervisory experience in importance. The effects of household responsibilities on pay are weak even before education effects are added to the models of pay for part-time employment. Education is a strong influence on pay (beta=.31, $p \leq .001$).

Given the absence of significant gender effects in the family responsibility model for part-time pay, the influence of additional variables is a minor interest. When added singly to the final

model of logged pay[10] in Table 4.9, being self-employed, having a spouse whose main activity is paid employment, or taking on part-time work for personal or family reasons do not achieve statistical significance at $p \leq .05$. Being limited in activity physically or because of a chronic health problem does achieve significance in relation to pay but with no change in the deviations from the Grand Mean for men's and women's average pay and with less impact that the presence of children in accounting for variance in pay. Coverage by a collective agreement is significant in the multivariate model and ranks just below education in importance in accounting for variance in part-time pay.

Discussion

Whether the worker in a part-time job is a man or a woman has little influence upon part-time hourly pay rates in the context of family circumstances, education, and work experience even though the weakened pattern of difference by gender remains the initial advantage in pay for men. A significant zero-order effect of gender on the pay of the part-time workers aged 25 to 69 is eroded through overlapping effects of other important influences upon pay for part-time employment. Housework is not significant in final multivariate models of pay presented here. But in a three-factor model of logged pay with gender, the presence of children, and unpaid housework, the effect of gender on pay is not a statistically significant influence when the effects on pay of time spent doing unpaid housework and home maintenance are added to the model.

In zero-order associations, marital status and unpaid child care hours are not significantly associated with hourly pay (unlike the significant zero-order results on family characteristics for the main subsample). However, having a child under 15 years of age has a positive zero-order effect upon wages within the subsample of all part-time workers and among women. The association contrasts with the result for the main subsample of full-time workers who are in the same age range as the part-time workers, yet the pattern is familiar from the analysis of full-time workers between 18 and 24 years of age. The positive influence on pay for women in part-time

[10] The outcomes of the additional MCA models are not presented in tables here.

employment is consistent with McAllister (1990) who found a significant association between Australian women's weekly pay for part-time work and having school-aged children in a multivariate model considering unpaid indoor housework and other variables.[11] Housework is also not an important influence on part-time pay in the Australian model.

Although including reasons for part-time work was ruled out of multivariate models because of correlation with other factors, the pattern of effects also fit with advantages in pay for women with children. People who took part-time jobs for personal and family reasons, a group comprised almost entirely of women who are likely to have dependent children and to be well-educated, are also paid above the mean pay rate. People who would prefer to be in full-time paid jobs are receiving pay below the mean pay rate.

In final multivariate MCA models of logged pay, the positive association of pay with the presence of a child under 15 years remains significant along with supervisory experience, tenure with current employers, and with education in accounting for variance in logged pay for the subsample of men and women together. But supervisory experience is not a strong influence and among women, alone, supervisory experience is not significantly associated with pay. As in models of pay for other subsamples of workers, education is a strong influence on part-time pay within the multivariate models for men and women together or considered separately. However, education effects here overlap with the gender gap in pay whether for untransformed hourly pay or logged pay. The disadvantage in pay for high school or less education overlaps with other disadvantages for women's pay among part-time workers. The men, disproportionately represented among the university educated part-time workers, receive better pay in part-time employment because of their university educations than women receive for their part-time work.

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[11] McAllister (1990) did not look at the pay of men in part-time paid employment.

SUMMARY

Among young adults, women are doing better relative to men in hourly pay for full-time employment than the 25 to 69 year old women employed full-time. But the younger women are receiving more of less. For both young men and young women, the mean hourly wages are far less than the mean pay among the older workers employed full-time even with temporary jobs of students excluded from the analysis.

The difference that remains between young men's pay and young women's pay is not explained by differences in unpaid domestic work or family responsibilities. Neither child care time nor housework time have a significant influence upon pay in zero-order associations. Also contrary to expectations, young women with children are likely to receive a higher rate of pay -- not a lower rate of pay -- than other young women. At the same time, the size of the gender gap in pay changes little in response to the positive connection with women's pay of having children.

A more expected result from other research turns up among the men and women 25 to 69 years old who are employed part-time. The presence of dependent children also represents an advantage for hourly pay that is significant among women employed part-time but not among men. In the main subsample of full-time workers of this age, the presence of dependent children is a negative influence on women's pay levels but is not a strong influence on pay even in zero-order associations. Because the estimated amount of pay depends upon the hours of paid work in the measure constructed for this research, the positive association between children and pay for part-time employment could be somewhat the result of the reduced hours some parents put into paid work. An explanation which cannot be tested with this data is put forward by McAllister regarding an increase in part-time pay for Australian mothers: "the domestic sphere influences labor force participation, and children provide the incentive to seek resources to clothe, feed, and maintain them" (1990:90).[12] What rings hollow, and maybe it should not, is a corresponding

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[12] The interpretation permits McAllister to match his explanation with his understanding, and the understanding of other human capital theorists, of the positive associations of children with men's full-time pay in the same research, an effect that does not emerge from the GSS9 main subsample.

possibility that employers perceive young women who have children as committed, stable, and reliable employees. With appropriate education and training for jobs, perhaps young mothers are seen to be less mobile than other young workers and less likely to quit their jobs. An employer's perception of women with children as well-suited to and committed to part-time jobs seems to fit more easily with stereotypical part-time employer-employee relationships. Of course, receiving good hourly pay compared to other inexperienced young workers or compared to other part-time workers could still place the better paid women among the more poorly paid Canadians on an annual basis.

Two sets of effects which account for some of the small gender gap in pay among young adults are differences in collective agreement coverage for their employment and in the educations and occupations of their mothers. The positive effects on pay of employment under a collective agreement in a unionized workplace and the negative effects of being a young adult outside collective agreements overlap with advantages in pay for men and disadvantages in pay for women. An inherited "same-sex" maternal occupational effect also appears to overlap with gender effects on pay for young adults, aligning women's pay disadvantages with a disadvantage in pay associated with having a mother employed outside professional, semi-professional, and managerial occupations.

The most noticeable adjustment to gender effects on pay among young adults is the mitigation of the gender gap through education in the pattern familiar for others employed full-time and also, to a minor extent, through differences in tenure with employers. Higher education brings advantages for women's hourly pay which overcome some of the negative effects for pay of being a women. Overall, the MCA models confirm the above average pay of people with post secondary education, men or women, and the low pay of people who have not completed high school education. Young women with less than high school education seem to receive very low pay.

In contrast to full-time workers, among part-time workers the identification of the women, who are over 80 percent of the part-time workers, is less reliable as a means of locating the people most likely to be receiving less than average pay. Gender is of very little importance in accounting for pay differences after adjustment for effects of other factors and covariates on pay, whether part-time pay is measured in dollars and cents or as the natural log of pay which minimizes the influence of the few people receiving very high hourly pay. A decrease in pay associated with the increase in amounts of unpaid housework time overlaps with the gap in pay between men and women who are working part-time and erodes the gender gap as a way of accounting for the differences in pay for part-time work. However, the influence of housework, itself, on pay is not significant in the model of logged hourly pay with the addition of stronger influences upon part-time pay: education levels, supervisory experience, and years of tenure with current employers. Even education levels among part-time workers are not separate from the gendered pay gap in the way they are among 25 to 69 year olds who are employed full-time. The advantage for hourly pay of university education to some extent explains the advantage in part-time pay for men. Similarly, the lower hourly pay for high school graduates and those who have not completed high school overlaps with the disadvantage in pay for women with part-time jobs. More important than gender for determining likely differences in part-time pay in final models is whether or not young children are living in respondents' homes and, as with other subsamples, what level of education respondents have completed. University degrees are more common among the men in part-time jobs than among the women employed part-time. Unpaid time assisting the elderly is not significantly associated with women's or men's part-time pay.

Much of the gender gap in part-time hourly pay can be found in the different characteristics of women and men who are working part-time. Having a dependent child has the opposite effect, overriding some of the initial disadvantage of being a woman working part-time. The effect of children on part-time pay and on the gender gap in pay suggests that many women balance the time to be with children against the loss of pay that would come from additional hours

of paid employment. However, their total pay could still be above average, even in terms of annual income, among people working part-time hours. The women and the few men who work at part-time jobs for personal and family reasons are likely to receive above average hourly pay compared to other part-time workers. When part-time work is clearly not preferred, as among the workers who would rather be working full-time hours, the compromise is part-time hours of work that probably pays less than the average part-time hourly pay. Consequently, their annual incomes from employment would be very low.

Table 4.1 Young Adult Full-time Workers, Age 18 to 24, GSS9: Eta Coefficients for Gender, Family, Work Experience, Education, and Social Origins on Hourly Pay

	N	Hourly Wage[a]	Men's Pay[b]	Women's Pay[c]
		Eta	Eta	Eta
Gender (0 = Men, 1 = Women)	319	.12*		
Single (Never Married)[d]	319	.05	.05	.13
Spouse Employed (Main Activity)[d]	311	.03	.05	.17*
Child under 15 years of age[d]	319	.13*	.09	.21**
Child Care Hours[e]	319	.11	.14	.16
Housework & Home Maintenance[e]	316	.12	.13	.09
Helping Elderly[f]	319	.06	.05	.18
Education Level Completed[g]	319	.29***	.27**	.42***
Current Occupation[h]	318	.47***	.37*	.67***
Mother High School[d]	300	.16**	.10	.22**
Father High School[d]	288	.05	.02	.13
Mother's Occupation[h]	289	.23***	.17	.32**
Father's Occupation[h]	275	.15	.20	.14

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001

[a] Hourly pay measured in dollars and cents
[b] Men, N = 166
[c] Women, N = 153
[d] Coding, 0 = no; 1 = yes
[e] Child care or housework: 0 = none; 1 = < 5 hours; 2 = 5-14 hours; 3 = 15-29 hours; 4 = 30 or more hours
[f] Helping Elderly: 0 = none; 1 = < 5 hours; 2 = 5 or more hours
[g] Education completed: 1 = > high school; 2 = high school diploma; 3 = post secondary certificate/diploma; 4 = university degree
[h] See occupation codes in Table 3.3, below.

Table 4.2 Young Adult Full-time Workers Age 18 to 24, GSS9: Correlations of Job and Personal Characteristics with Gender and Hourly Pay

	N	Gender[a] (Women)	Hourly Wage[b]	Men's Pay[c]	Women's Pay[d]
Single[e]	319	-.14.	-.05	-.02	-.13
Years of Tenure with Current Employer	319	.01	.16***	.24**	.07
Age 20 to 24[e]	319	.02	.19***	.13	.29***
Supervising in Current Job[e]	319	.01	.04	.04	.05
Collective Agreement[e]	318	-.03	.35***	.25***	.49***
Self employed[e]	319	-.08	.06	.15	-.14
Limited Physically[e]	319	.00	-.05	-.05	-.04
Canadian Born[e]	319	-.03	.04	-.02	.11

* p value ≤ .05
** p value ≤ .01
*** p value ≤ .001

[a] Coding: 0 = Men, 1= Women
[b] Hourly pay measured in dollars and cents
[c] Men, N = 166
[d] Women, N = 153
[e] Coding: 0 = no; 1 = yes.

Table 4.3 Family Responsibility Models, MCA of Hourly Pay for Young Adults Age 18 to 24, in Full-time Paid Employment, GSS9 1994

	Men & Women[a]		Men[b]		Women[c]	
	Grand Mean: $10.04		Grand Mean: $10.56		Grand Mean: $9.49	
	Adjusted Deviation	Beta	Adjusted Deviation	Beta	Adjusted Deviation	Beta
Gender						
Men	.88					
Women	-.96	.21***				
Child under 15						
No	-.15		-.07		-.22	
Yes	1.54	.11*	.82	.05	2.01	.18*
Education						
<High School	-1.78		-1.49		-2.16	
High School	-.76		-.43		-1.08	
Post Secondary	.54		.79		.31	
University Degree	3.61	.34***	4.63	.28**	2.87	.41***
Total N	319		166		153	
df Main Effects	6		5		5	
R Squared	.17***		.14***		.22***	

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001

[a] Covariate, years of tenure with employer, p≤.001; first order interactions non-significant at .01
[b] Covariate, years of tenure with employer, p≤.01; first order interactions non-significant at .01
[c] Covariate, years of tenure with employer, p>.05 (not significant); first order interactions non-significant at .01

Table 4.4 Family Models including Maternal Background Influence, MCA of Hourly Pay for Young Adults Age 18 to 24, in Full-time Employment, GSS9 1994

	Men & Women[a]		Men[b]		Women[c]	
	Grand Mean: $10.06		Grand Mean: $10.53		Grand Mean: $9.57	
	Adjusted Deviation	Beta	Adjusted Deviation	Beta	Adjusted Deviation	Beta
Gender						
Men	.73					
Women	-.77	.17**				
Child Under 15						
No	-.16		-.09		-.24	
Yes	1.74	.12*	1.15	.06	2.15	.19**
Education						
< high school	-1.53		-1.44		-1.45	
High school	-.66		-.57		-.60	
Post secondary	.49		.90		.13	
University degree	2.65	.27***	4.55	.29**	1.53	.23*
Mother's Education						
< high school	-.20		-.25		-.26	
High school	.13	.03	.12	.03	.21	.06
Mother's Job						
Prof/semiprof/manag	1.95		2.00		1.85	
Clerical/sale/serv	-.17		-.43		.06	
Craft/trad/man/farm	-.64		-.38		-.60	
Not in paid work	-.37	.19**	-.33	.17	-.47	.21*
Collective Agreement						
No	-.78		-.77		-.88	
Yes	2.04	.28***	1.89	.24**	2.46	.38***
Total N	289		148		141	
df Main Effects	11		10		10	
R Squared	.29***		.23***		.42***	

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001

[a] Covariate, years of tenure with employer, p≤.01; first order interactions not significant at .01

[b] Covariate, years of tenure with employer, p≤.01; first order interactions not entered (empty cells) but rough checks, pair by pair and with regrouped variables, are non significant interactions.

[c] Covariate, years of tenure with employer, p>.05 (not significant); first order interactions not significant at .01

Table 4.5: Gender Beta Coefficients and Hourly Pay Gap for Young Adults, GSS9 1994

Model Variables	N	Gender Beta	Dollar Deviation from Grand Mean		Model R^2
			Men	Women	
Young Adults, Age 18 to 24, Employed Full-time, Family Responsibility Model					
Gender, only	319	.12*	.51	-.56	.01*
add dependent child (under 15 years)	319	.12*	.53	-.58	.03**
add tenure with current employer (covariate)	319	.13*	.54	-.59	.06***
add education level completed	319	.21***	.88	-.96	.17***
add age group (covariate)	319	.20***	.87	-.94	.17***
Young Adults, Age 18 to 24, Employed Full-time, Family Responsibility Model with Social Origins					
Gender, dependent child under 15 yrs, tenure with current employer, education level completed	319	.21***	.88	-.96	.17***
add collective agreement coverage (covariate)	318	.18***	.79	-.85	.24***
add mother's high school, mother's occupation	289	.17**	.73	-.77	.29***

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001

Notes: Grand Mean for all family responsibility models is $10.04. Grand Means for social origins models from $10.04 (N=319) to $10.06 (N=289). Model multiple R squares include factor-by-factor first-order interactions. None is significant at p =.01.

Table 4.6 Part-time[a] Workers Age 25 - 69, GSS9: Eta Coefficients for Gender, Family, Work Experience, Education, and Reasons for Part-time on Hourly Wages[b] and on Natural Log of Hourly Pay

	N	Hourly Pay	Men[c] Pay	Women[d] Pay	ln Pay	Men[c] ln Pay	Women[d] ln Pay
		eta	eta	eta	eta	eta	eta
Gender (0 = Men, 1 = Women)	401	.21***			.14***		
Marital Status[e]	401	.07	.22	.08	.10	.21	.13
Employed Spouse (Main Activity)[f]	394	.04	.09	.11	.11*	.11	.16**
Child under 15 yrs[f]	401	.10*	.09	.19***	.18***	.14	.23***
Child Care Hours[g]	399	.06	.17	.16	.14	.16	.21**
Housework and Home Maintenance[g]	389	.25***	.32	.15	.21**	.32	.16
Helping Elderly[h]	400	.01	.03	.04	.08	.15	.08
Interruption Past 5 years[f]	378	.08	.11	.08	.05	.07	.05
Personal/Family Responsibility[f]	374	.13**	.24	.23***	.18***	.25*	.23***
Could Only find Part-time[f]	374	.18***	.28*	.19***	.19***	.18*	.22***
Full-time is <30 hours[f]	374	.12*	.20	.05	.15**	.32*	.07
Supervising 5 years ago[f]	398	.22***	.34**	.15**	.20***	.26*	.17**
Education Level[i]	401	.38***	.42**	.35***	.39***	.41**	.38***
Current Occupation (15 categories)[j]	398	.43***	.56*	.47***	.53***	.51	.56***

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001

[a] Part-time Employment: 10 to 29 hours work for pay during the reference week; [b] Hourly pay in dollars and cents
[c] Men, N = 75; [d] Women, N = 326; [e] Marital Status: 1 = partner; 2 = single; 3 = other; [f] Coding: 0 = no; 1 = yes;
[g] Child care or housework: 0 = none; 1 = < 5 hrs; 2 = 5-14 hrs; 3 = 15-29 hrs; 4 = 30+ hrs;[h] Time: 0 = none; 1 = < 5 hrs; 2 = 5+ hrs;
[i] Education completed: 1 = > high school; 2 = high school diploma; 3 = post secondary certificate/diploma; 4 = university degree
[j] See occupation codes in Table 3.3, above.

Table 4.7 Part-time[a] Workers, Age 25 - 69, GSS9:
Correlations of Job and Personal Characteristics with Hourly Wages[b] and with Natural Log of Hourly Pay

	N	Gender	Hourly Wage	Men[c] Pay	Women[d] Pay	ln Wage	Men[c] ln Pay	Women[d] ln Pay
Tenure (years) with Current Employer	400	.01	.24***	.41***	.14*	.21***	.30***	.18***
Age Group (5 yr cohorts)	401	.01	-.01	.24*	-.17**	-.10*	.15	-.20***
Age Squared	401	-.02	-.01	.23*	-.18*	-.11*	.13	-.21***
Supervising in Current Job[e]	401	-.01	.15**	.34***	.07	.18***	.34**	.13*
Collective Contract[e]	401	-.02	.33***	.25*	.36***	.33***	.25*	.36***
Self employed[e]	401	-.18***	.21***	.14	.21***	.15**	.06	.15**
Limited Physically[e]	401	-.03	-.09	-.05	-.15**	-.13**	-.06	-.17**
Canadian Born[e]	399	-.00	-.04	-.00	-.07	-.06	-.04	-.06

* p value ≤ .05; ** p value ≤ .01; *** p value ≤ .001

[a] Part-time Employment: 10 to 29 hours work for pay during the reference week
[b] Hourly pay measured in dollars and cents
[c] Men, N = 75
[d] Women, N = 326
[e] Coding, 0 = no; 1 = yes

Table 4.8 Family Responsibility Models, MCA of Hourly Pay[a] and Logged Hourly Pay for Part-time[b] Workers Age 25 to 69, GSS9 1994

	Men & Women[c]		Men & Women[d]		Men[e]		Women[f]	
	Grand Mean: $15.36		Grand Mean: ln 2.50		Grand Mean: ln 2.68		Grand Mean: ln 2.46	
	Adjusted Dev'n	Beta	Adjusted Dev'n	Beta	Adjusted Dev'n	Beta	Adjusted Dev'n	Beta
Gender								
Men	3.08		.07					
Women	-.74	.11*	-.02	.05				
Child <15								
No	-1.60		-.09		-.08		-.10	
Yes	1.88	.13**	.11	.16**	.18	.16	.10	.17**
Housework								
No hours	7.75		.35		.19		.45	
< 5 hours	1.90		.07		.01		.09	
5 - 14 hrs	-.78		.00		-.14		.05	
15 - 29 hrs	-.83		-.06		.27		-.07	
30 or more	-.54	.15*	-.02	.15	-.51	.24	.01	.15
Supervised								
No	-.88		-.03		-.04		-.03	
Yes	3.70	.13**	.13	.10*	.12	.08	.13	.10
Education								
< high school	-3.38		-.25		-.26		-.25	
high school	-2.60		-.10		-.11		-.08	
post secondary	-.52		.03		-.21		.07	
university deg	8.39	.30***	.36	.32***	.39	.35*	.33	.31***
Total N	385		385		75		310	
df Main Effects	12		12		11		11	
R Squared	.28***		.27***		.38***		.23***	

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001

[a] Both hourly pay measured in dollars and cents and natural log of hourly pay for pooled model.

[b] Part-time Employment: 10 to 29 hours work for pay during the reference week

[c] Covariates, currently supervising $p > .05$ (not significant), years of tenure with employer $p \leq .001$; first order interactions not significant at .01

[d] Covariates, currently supervising $p > .05$, years of tenure with employer $p \leq .001$; first order interactions not significant at .01

[e] Covariates, currently supervising $p > .05$, employment tenure $p \leq .05$; first order interactions not entered but rough checks, pair by pair, are not significant. (Model for information only. N too small for estimation.)

[f] Covariate, currently supervising $p > .05$, years of tenure with employer $p \leq .001$; first order interactions not entered (empty cells) but rough checks, with collapsed housework categories, produce non-significant interactions.

Table 4.9 Gender Beta Coefficients and Gender Pay Gap for Part-time Workers Ages 25 to 69, GSS9 1994

Model Variables	N	Gender Beta	Dollar Deviation from Grand Mean		Model R^2
			Men	Women	
Part-time, Age 25 - 69, Family Responsibility Model (No correction for skewed measure of pay)					
Gender, only	401	.21***	5.86	-1.35	.04***
add dependent child (under 15 years)	401	.23***	6.50	-1.49	.06***
add housework and home maintenance time	389	.15**	4.20	-1.00	.10***
add supervising 5 years ago, current supervisory position (covariate)[a]	386	.13*	3.65	- .88	.14***
add tenure with current employer (covariate)[a]	385	.15**	4.10	- .99	.20***
add education level completed	385	.11*	3.08	- .74	.28***
Part-time, Age 25 - 69, Family Responsibility Model (Deviations as anti-logs of natural log pay)					
Gender, only	401	.14**	1.20	-1.04	.02**
add dependent child (under 15 years)	401	.17***	1.26	-1.05	.06***
add housework and home maintenance time	389	.09	1.12	-1.03	.09***
add supervising 5 years ago, current supervisory position (covariate)	386	.07	1.09	-1.02	.13***
add tenure with current employer (covariate)	385	.09	1.12	-1.03	.18***
add education level completed	385	.05	1.07	-1.02	.27***

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001

[a] housework by supervisory experience interaction significant at $p < .01$

Notes: Grand Means, untransformed, are \$15.20 (N=401) to \$15.36 per hour (N=385). Grand Mean from all transformed models, as anti-log of natural log hourly pay, is \$12.18. Model multiple R squares include factor-by-factor first-order interaction effects.

Chapter Five

The Gender Gap in Pay when Spouses are Also Employed

Arguments explaining the influence of current family and household responsibilities upon paid employment are derived from theories about gendered relations, the construction of gender and expectations about appropriate gender responsibilities between men and women in heterosexual spousal relationships, or, alternately, from human capital explanations built on specialization by individuals and comparative advantage between individuals in spousal relationships. In this chapter, analysis of effects of gender on the pay of employed individuals whose spouses are also employed will provide further tests of the influence of unpaid domestic work upon employment earnings, appropriate and perhaps more rigorous tests than the results from the third chapter for the wider population of employed adult men and women.

The analyses so far of pay among full-time workers from the 1994 General Social Survey (Cycle 9) cannot be said to support the position that current family circumstances and family responsibilities are the force driving and sustaining the gendered pay gap. First, unpaid hours spent caring for children are not important predictors of full-time pay for adults from 18 to 24 years of age or for adults 25 to 69 years of age. Among full-time workers 25 to 69 years old, being a parent of dependent children is also not important in estimating pay with multivariate models. Second, the impact of several influences upon the size of the gender gap in pay is similar to or greater than the impact of unpaid housework time (or, in the case of young adults, the impact of being a parent of young children). Yet the significant association of unpaid household work with pay even after consideration of the effects of work interruptions, work experience, supervisory experience, and educational attainment suggests that something fundamental is embedded in the relationship between gendered differences in domestic arrangements and the

gendered gap in pay. Estimated average hourly wages in 1994 for the full-time work of women from 25 to 69 years of age are connected in some way to unpaid household work.

Restated for "dual-earner" couples, the research question here is whether women's unpaid housework is disproportionately a disadvantage for their wages when the pay of women living with husbands who are in the paid workforce is compared to the pay of men living with wives who also are in the paid workforce. The dual-career/double-day description of women's paid and unpaid work draws attention to their unpaid domestic labour time, emphasizes their disproportionate load of household work, and implies that an even greater negative association between housework and pay is the inevitable outcome for married and co-habiting women workers in comparison to the disadvantage, already demonstrated, for women within the general population of employed adults. Another outcome possible among individuals in "dual-earner" couples is mitigation of the connection between hourly pay rates and unpaid domestic labour time. When each of the partners has responsibilities within the paid workforce as well as within a domestic household, the association between pay and housework might even be eliminated if partners share housework and home maintenance tasks or if they purchase home care and home maintenance services. Previous research suggests otherwise for the likely overall effect of housework on pay (le Grand, 1991; Kalleberg and Rosenfeld, 1990; Hersch and Stratton, 1997); consequently, the results for 1994 GSS9 respondents in couples are expected to replicate the general pattern of results for the wider subsample of employed adults. When spouses participate in the paid workforce, women's household work and care of children are still likely to occupy greater amounts of time than the housework and child care taken on by men, as in the main subsample.[1] However, the apparent contribution of housework to the gendered pay gap is not a simple and direct result of different amounts of time. Even if men take on unpaid household work and child care in blocks of time similar to the amounts of time spent by women, the expected connection to hourly pay is that

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[1] See Table 3.3, Chapter Three, for discrepancies in the distributions of housework and child care hours for men and for women in the main subsample. For example, more of the men than of the women do no unpaid housework and more of the women than of the men do 30 or more hours of housework in a week.

unpaid domestic labour time will again be negatively and significantly associated with differences in pay among women but will not be associated with pay differences among men. In other words, the expected results among respondents in dual-earner spousal relationships is that the gender gap in pay would be smaller if differences in pay associated with unpaid housework time could be set aside (e.g. for the U.S., Hersch and Stratton, 1997).

A characterization of the economic nature of respondents' spousal relationships could be an indicator of variation between respondents which generates differences in domestic work loads (Brayfield, 1992; Baxter, 1997), bolsters gendered income gaps within their households (Baxter and Kane, 1995), and sustains the gendered pay gap in the wider labour force (Arber and Ginn, 1995; Winkler, 1998). In other words. if women's employment income exceeds or equals their husbands' pay, the husbands -- it is argued -- are less likely to perceive themselves to be primary breadwinners or sole providers, but rather to see themselves as co-providers along with their wives. When the advancement of women's careers is important for family financial well-being, husbands may be less likely to see themselves as "helping out" by doing housework and more likely to take on responsibility for domestic labour. Regardless of the absolute dollars involved, women could receive support that indirectly contributes to advantages in pay that are not available for other women. Winkler (1998) argues that when women's careers are the primary careers of the relationship, women's increased access to career opportunities could, in time, alter the gender gap in pay for the population.

As noted in Chapter Two, the proportional contribution of each spouse to household income cannot be calculated from either GSS9 or GSS10 data.[2] However, given the strong association of education levels with employment income, a measure comparing the educational attainments of spouses is a measure of similarity and difference in earning potential between spouses. Comparison of a respondent's education with his or her spouse's education will be

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[2] Note also that for both GSS9 and GSS10 respondents, the assumption that a spouse actually earned income from his or her employment cannot be confirmed with these data sets.

included in models of hourly pay for GSS9 data. The predicted outcome is that regardless of their education levels relative to the general population, women and men who have the same level of education as their spouses or more education than their spouses are likely to receive above average hourly pay while respondents with less education than their spouses are more likely to receive less than average hourly pay. Time spent doing unpaid domestic work is an intervening factor theoretically associated both with wages for women and with variation in spousal power relations. Brayfield (1992a) and Baxter (1997) each have results suggesting Canadian women with higher incomes than their husbands do less indoor household tasks. The same pattern is even stronger for men: Men with incomes higher than their wives do less housework than other men. The relative differences in education between spouses and their household work may be overlapping influences upon hourly pay rates. The effects of spousal educational differences on pay could eclipse the influence on pay of hours of unpaid domestic work.

Beliefs and attitudes about family and workplace responsibilities are one mechanism which may indirectly sustain a gendered inequity between unpaid domestic labour and pay for employment. The second part of this chapter uses data from the 1995 General Social Survey, Cycle 10, to investigate whether the attitudes about appropriate gender role behaviour are different among respondents with higher hourly pay rates than the attitudes of respondents with lower pay rates. Within a subsample of GSS10 respondents who are employed full-time and have spouses who are employed full-time in the paid workforce, the expected outcome is that approval of traditional gender roles (men as breadwinners and women as housewives caring for family members and keeping house) will dominate among men receiving pay above the average for the general population and above the average for men.

The expected results are extrapolated from discussions in earlier research on patriarchal household relations, spousal incomes, gender attitudes, domestic labour, and the gender gap in pay. Men receiving higher hourly pay than the mean average for men are expected to have conservative gender attitudes supporting traditional gender roles (Baxter and Kane, 1995; Arber

and Ginn, 1995) and men with conservative attitudes are likely to do less housework than men with more egalitarian gender attitudes (Kalleberg and Rosenfeld, 1990; Baxter, 1997). However, in two studies (Coverman, 1983; Baxter, 1992a) married men's attitudes are not related to their pay for full-time work. Among women who are employed full-time, conceptions of shared responsibility for earning income and of egalitarian domestic responsibilities between spouses may be more common than among women in the general adult population or among the men in the subsample. Baxter (1992a), in discussing the significant relationships between married women's attitudes and pay in Australia when there is no relationship among employed women in general, suggests that attitudes are simply more relevant when women are combining family responsibilities with employment. Among the women who are GSS10 survey participants, Ghalam (1997) has already noted a tendency for women's attitudes to correspond with work and family arrangements. To the extent that there is variation in women's gender attitudes, the relationship with hourly pay is expected to be the opposite of the relationship among men. With reference again to other research, the anticipated outcome is that women with conservative gender attitudes will do more unpaid housework than other women (Kalleberg and Rosenfeld, 1990; Brayfield, 1992; Baxter, 1997) and, therefore, will receive pay lower than the mean for women (Baxter and Kane, 1995). Married women's attitudes appear to be significantly associated with pay rates when men's are not (Coverman, 1983; Baxter, 1992a). The opposing relationships with hourly pay for men and women suggest an interaction which could cancel out or suppress the effects of attitudes upon hourly pay rates among men and women, together. At the same time, the opposite and gendered effects of attitudes would overlap with differences in pay associated with unpaid domestic work and associated with being a man or a woman. With such a result, when differences in gender attitudes are controlled, the influence of gender upon pay would be reduced.

Extended employment interruptions over entire employment histories are another new variable introduced with the analysis of GSS10 data. The expected result is a negative relationship between interruptions and pay that may be more important relative to other influences than recent

interruptions are for GSS9 respondents. Lower mean wages for those who have experienced extended interruptions will account for some of the gendered wage gap, as Fast and Da Pont (1997) speculate,[3] because women experience more interruptions than men and also experience longer work interruptions than men. In the GSS10 data, Fast and Da Pont note that women with the highest levels of education, and therefore probably higher incomes than women with less education, have had fewer interruptions than women who have less education.

Results of MCAs of differences in hourly pay follow in separate sections for GSS9 data from 1994 and GSS10 data from 1995. Analysis of the GSS9 subsample, focused upon the impacts of unpaid housework time and the difference in the educational attainment of respondents and their spouses, is a bridge from the analysis of the main GSS9 subsample in Chapter Three to the analysis utilizing the subsample of GSS10 respondents whose spouses work full-time for pay. That analysis notes the influence of life-time employment interruptions on the gender gap in pay and focuses upon of the association of gender attitudes with pay rates.

Models of Pay for GSS9 Respondents with Employed Spouses

The analysis of pay received by employed individuals whose partners are also employed in paying jobs will exclude, of course, single and separated parents. However, recall that parenthood does not distinguish the adults over age 25 receiving low hourly pay for full-time employment from those receiving high hourly pay. On the other hand, the effects of differences in marital status consistently exert some influence in models of men's hourly pay for full-time employment in this age group. The selection of a subsample of respondents in spousal couples sets aside the discrepancies in pay between marital statuses among men aged 25 to 69, particularly the negative effect associated with being a single, never-married man in the younger age cohorts.

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[3] Using the GSS10 data for women 20 years of age and older, but excluding full-time students who worked part-time at paid employment, Fast and Da Pont (1997) examined completed interruptions. They do not analyze relationships between gender, interruptions, and pay.

The respondents whose spouses have paid employment are 68.5 percent of the full-time workers with spouses in the main GSS9 subsample of 25 to 69 year olds. The women in dual-earner couples (women employed and at their jobs the week before their interviews, who usually work full-time, and who have spouses whose main activity has been working at a job or for a business during the previous year) are 83.3 percent of married or co-habiting women in the main subsample who are working full-time. Of the married or co-habiting men in the main GSS9 subsample who are working full-time, 60.1 percent have spouses or partners who also are employed as their main activity.

The estimated hourly pay for this subsample of 1588 people with employed spouses ranges from $1.11 to $54.95 with a skewness score of 1.06 (a normal distribution). The mean wage for 889 men is about $1.92 above the Grand Mean of $16.40 and the mean wage for 699 women is $2.44 less than the Grand Mean, a larger gap in dollars and cents than within the main GSS9 subsample. (Categorical deviations for gender are from zero-order MCA tables. See also Table 2.5, Chapter 2.) The percentage of women in this subsample, as noted in Chapter Two, increases four percent from the main subsample with the restriction to respondents with employed spouses.

For the most part, the distributions of these GSS9 respondents' characteristics across independent variables are unremarkable in their similarity to distributions in the main subsample. At the same time, some differences in comparison to the main subsample make sense in the switch to a subsample comprised of respondents in married and co-habiting couples: 47 percent of respondents (or almost 11 percent more than for the main subsample) live with their dependent children under 15 years old, 41 percent of respondents (almost nine percent less) do no unpaid child care, and 6.5 percent of respondents (around two percent less) do no unpaid housework or home maintenance work. On the latter variable, 10 percent of the men but only two percent of the women do not do unpaid housework. The percentage of men doing some housework or some child care is closer to the percentage of women than in the main subsample.

The 16 percent of respondents who had at least one interruption in employment during the five years before the survey is almost the same as the percentage in the main subsample. However, the 12 percent of men who recently experienced an interruption is smaller than in the main GSS9 subsample while the percentage among women, 21 percent, is a little larger. In distributions by age of respondents in dual-earner couples, 12 percent (about two percent less than in the main subsample) are in the under-30 age cohort. Smaller percentages than in the main subsample are at the other end of the distribution: three percent of respondents in dual-earner couples are aged 60 years and older, and no women are in the 65 to 69 year old age group. Eighty-four percent of the respondents, roughly as in the main subsample, were born in Canada.

The overall profiles of characteristics of their jobs are similar to the main subsample, differing by only a percent or two from distributions in the main subsample for characteristics such as collective agreement coverage, permanence of jobs, work at home, being regularly "on-call," or working flexible shifts. The percentage of self-employed respondents is almost identical to the percentage in the main subsample of respondents 25 to 69 years in age, but with a small increase in the percentage of self-employed women. Here 17 percent of the men are self-employed and 12 percent of the women. More of the respondents with employed spouses are currently in supervisory positions, 40 percent compared to 37 percent in the main subsample, and more were in supervisory positions five years ago, 36 percent compared to 33 percent in the main subsample. Forty-five percent of men in dual-earner couples and 32 percent of the women work in supervisory positions. Five years earlier, 43 percent of the men and 27 percent of the women were supervisors.

Whether men or women, twenty-two percent of these respondents have university degrees, as in the main subsample, and 55 percent of the respondents in couples have a post-secondary diploma, certificate or degree with almost a percent more of the women than of the men completing some post-secondary education programme. The greater differences between men and women are at lower levels of education. Roughly six percent more men than women did not

complete high school while about six percent more women than men received high school diplomas as their highest completed level of education.

The indicator of educational differences between GSS9 respondents and their spouses is a calculation, described in Chapter Two, that uses two variables: the highest level of education attained by spouses and the highest level attained by respondents. The education differential between spouses is a variable with three categories: more education, the same level of education, or less education for the respondent in comparison to his or her spouse's education. Whether men or women, the numbers are highest in the category for those with more education than their spouses. Greater proportions of the women than of the men are categorized as having the same level or a higher level of education than their spouses, while five percent more of the men than of the women have less education than their spouses. After missing cases are dropped,[4] the rounded percentages are 25 percent with a lower level of education than their spouses or partners, 33 percent at the same level of education, and 42 percent with more education.

Independent Variables

Tables 5.1 and 5.2 display the zero-order relationships of independent variables with hourly pay for the subsample of respondents in "dual-earner" couples. An overview of significant relationships in the pooled subsample, among men, and among women contains no surprises. The eta coefficients fall into much the same patterns as the zero-order results for the main subsample (Tables 3.1 and 3.2), although some coefficients are larger.

In Table 5.1, the eta coefficient of .27 ($p \leq .001$) for gender confirms that women receive significantly lower hourly pay than men. Although the zero-order correlations with pay for the main GSS9 subsample, in Table 3.2 of Chapter Three, provide some evidence that full-time workers with employed spouses are not significantly better or worse off in average pay in comparison to other full-time workers, the small non-significant differences for men and women add up here to a slightly larger gap than the gender gap in pay among all the full-time workers

[4] These missing cases are 34 of the 1588 respondents, or 2.1% of workers in dual-earner couples.

aged 25 to 69. (The eta value for gender is just .03 larger than the eta coefficient of .24 for gender, alone, in the main subsample.)

In Table 5.2, supervising five years ago, supervising currently, and years of tenure are each positively and significantly associated with hourly wages for men and women. Self-employment is negatively and significantly associated with pay. But, the negative correlations with gender in Table 5.2 describe differences in these characteristics between women and men. The group of women in this subsample are less likely than the men to have been supervising five years ago, to be supervising currently, or to be self-employed. The women also have fewer years of tenure with their employers and are younger than the group of men.

None of the factors (or grouped covariates) interacts significantly with gender in two-factor MCA models predicting hourly pay rates. To maintain continuity in the presentation of results, separate models for men and women again accompany the pooled models for men and women, together, with gender entered as an independent variable. Just as in the analyses of GSS9 data in Chapter Three, first-order interaction effects between factors are included in the multivariate models and the significance levels of interactions are footnoted. To correct for a curvilinear tendency in the association of age with pay, age squared will be entered with age. For men and women together, there is a rough increase in pay over age cohorts. The pattern is more a curve for men alone because pay tends to decline for older men after peaking for the age 50 to 54 group. Among women, age is not a significant influence on hourly pay.

The educational differential between spouses is associated with pay in a positive progression from less education to more education. The pattern holds among the men. For women, the comparison with their husbands' education levels is not significantly associated with pay. Because the measure of educational differences is moderately correlated with the four

category measure of education levels, the two variables are not included in any of the models presented in detail.[5]

As with the main subsample, the eta correlation with pay for unpaid time spent caring for or helping seniors is significant at a p-value of less than .05 for men and women together, and is not entered into MCA models for dual-earner couples because etas for men and women separately are even smaller and are not significant. Being limited in activity by a long term physical condition or a health problem also has a small negative effect on pay rates, at $p \leq .05$, a zero-order correlation with pay that is not apparent within other GSS9 subsamples.[6] However, without significant correlations separately for either men or women, the effect of physical limitation will not be entered into the multivariate models in the tables to follow.

Results for GSS9 Dual-Earner Couples

The results for GSS9 respondents in dual-earner couples are presented in Table 5.3 for the family responsibility model with employment interruptions, and with adjustment for the relationships of work experience and education levels with pay. In Table 5.4, results for a variation of the family responsibility model of pay are presented with the effects of the educational differential between spouses, but without adjustment for education levels. Table 5.5 displays changes in the gender coefficient over successive parts of these models as factors and covariates are added. Because neither age nor age squared is a significant influence if entered after the measures of employment experience and education levels (in Table 5.5), the detailed models of Table 5.3 are presented without control for age differences. The first column of Table 5.4 is an expansion of the last model of Table 5.5 with education differentials between spouses. The statistically significant age cohort effects ($p \leq .05$) are included.

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[5] The consequences for the model, should the two variables be entered simultaneously, will be discussed below. For the subsample of respondents in couples, the correlation between the spousal differential and the measure of education is $r=.48$ ($p \leq .001$, $N=1554$) and for men, alone, $r=.55$ ($p \leq .001$, $N=864$). For women the correlation is lower: $r=.38$ ($p \leq .001$, $N=690$).

[6] The weak zero-order relationship of physical limitations with pay is discussed later.

Beta coefficients for gender (beta =.20, $p \leq .001$) are the same in the two expanded tables, one with respondents' education levels and the other with educational differences between respondents and their spouses. The pattern common to both versions is that being a woman or a man is significantly and consistently more important in accounting for variance in pay than the effects of unpaid housework and home maintenance. Gender is also more important than recently interrupted employment, which is not significant itself after adjustment for supervisory experience, current supervisory positions, years of tenure with current employers and either education levels or the educational differential between spouses. A notable difference between the two versions of the family responsibility model is that the impact of educational differences between spouses (beta =.10, $p \leq .001$) ranks as less important than gender in the pooled model of Table 5.4, while in the earlier pooled model (in Table 5.3), respondents' education levels (beta =.32, $p \leq .001$) have a greater impact upon pay than gender.

The separate models for men and women in Tables 5.3 and 5.4 do not include their time doing unpaid care of children.[7] For women, hours of housework remain significantly associated with pay; for men, they are not. With education levels controlled, the beta coefficient for housework among women (beta =.13, $p \leq .01$) ranks below education in importance (beta =.41, $p \leq .001$), but ranks above experience as a supervisor (beta =.09, $p \leq .05$). With the education differential between spouses controlled instead of respondents' education levels, the beta coefficient for housework among women (beta =.18, $p \leq .01$) is significant and the spousal educational differential (beta =.05, $p > .05$) has no statistically significant influence upon women's hourly wages. Recent interruptions in employment fade in importance in all these models, not achieving statistical significance as an influence on men's pay or on women's pay or on their pay together.

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[7] Not a significant influence in pooled or separate models (which are not presented here), child care categories generate empty cells when first-order interactions are entered. Dropping child care as a factor simplifies the calculation of interaction effects without distorting the results. If interactions were to be calculated for models with child care after collapsing categories of factors to eliminate empty cells, none of the interactions would be significant.

From Table 5.5, the change in the gender coefficients with adjustment for added factors and covariates shows the influence of being a man or a woman declining after adjustment for differences in pay associated with respondents' hours of unpaid housework, their employment experience and employment interruptions, and whether or not they are in supervisory positions. With further adjustment for the association between pay and completed education levels and for any relationship between age and pay that is not captured by work experience measures, the gender coefficient again increases. As in the main subsample, the gender gap in pay would be larger without the moderating effects of education on pay. The impact of education differences on pay results in an improvement in women's pay relative to men's pay.

Already noted is the ranking of gender below differences in respondents' educations in accounting for variance in pay but, in the second version of the family responsibility model, ranking above educational differences between spouses. The comparison is clear in the two sections of Table 5.5. Incorporating educational differences between spouses does not alter the magnitude of the gender coefficient, and the final model's multiple R square of .18 ($p \leq .001$) is much smaller than the multiple R square of .32 ($p \leq .001$) for the model including the effects upon pay of the spread across completed education levels.

Physical limitations were not introduced into models here. Within this subsample of GSS9 respondents in dual-earner couples, physical limitations have a weak association with pay (as with part-time workers) but a double jeopardy argument does not receive support. There is no evidence that women who are limited in their physical activity are at a disadvantage additional to the disadvantage experienced by men with physical limitations. The measure is broad, covering temporary limitations for six months or longer because of poor health as well as permanent restrictions in activity for respondents.[8] When this measure of physical limitations is added to

[8] There is a weak association of pay with recent employment interruptions but the relationship between interruptions and limitation is small, $r = .08$, although significant at $p \leq .05$.

exploratory multivariate models, the gender coefficient is not altered from the coefficients of tables here.

Discussion of Pay: GSS9 Dual-Earner Couples

One purpose of this analysis of the pay of respondents with employed spouses is to examine the effects associated with a measure intended to tap an aspect of gendered relations between spouses. But not a lot can be said about the influence on hourly pay for employment from spousal power relations within households. Whether a respondent has less, more, or the same level of education as his or her spouse, that difference or similarity -- based on the outcome of this analysis -- is a less important influence on pay than the association between pay and differences in respondents' unpaid housework time. Furthermore, both factors are far less important than the disadvantage for pay of being a woman and the advantage for pay of being a man. What is striking is that the educational differential is more important than recent work interruptions in accounting for variance in pay and remains significantly associated with pay rates even after adjustment for supervisory work experience, current supervision, tenure with the current employer, and age differences.

The effects on pay associated with the difference in education between respondents and their spouses appear to have minor consequences, if any, for the influence of gender on pay. The beta coefficient for gender does not change when the effects of this differential are controlled.

The effect of the spousal education differential on pay is of some significance within men's households, but bear in mind that the model multiple R square is .10 only. Within the women's households, having more or less education than their husbands is of no consequence for women's pay rates in comparison with other women. The more hours women spend caring for their homes and houses without pay, the lower their average hourly wage for paid employment in comparison with other women. This pattern for pay among women is not eliminated by the same sort of advantage in pay that men, in comparison with other men, derive from having more education than

their wives or the disadvantage for men's pay that is associated with having less education than their wives.

The educational differential measure, in spite of any significant contribution to model multiple R squares, simply does not make much sense as an indicator of spousal power relations alongside the more comprehensible and stronger relationship between education levels and pay rates. If educational differences between the respondents and their spouses were to be considered simultaneously with respondents' education levels in the family responsibility model of pay, the direction and the meaning of the association between spousal educational differences and pay would be reversed in the pooled subsample of respondents and among the men as a consequence of the correlation between the two measures.[9] Those with less education than their spouses would have the greatest advantage in pay (a positive deviation from the Grand Mean). Those with more education than their spouses would have the least advantage (a negative deviation from the Grand Mean). The categorical effects on pay would be somewhat flattened across the three categories of comparison between spouses while the spread of pay would be steeper across categories for the individual respondents' education levels. After adjustment for a respondent's own education, the education differential from the comparison with the respondent's spouse seems to point to a residual negative effect of low levels of education upon pay regardless of the even lower level of education of the spouse, and at the opposite end, to the positive effect of high levels of education even if that level is lower than the education of a respondent's spouse.

A respondent's education, as expected from the earlier analysis of the main subsample, ranks as more important than gender in determining hourly pay rates. Also expected is the evidence that the benefits of education attainments on pay improve women's pay more than men's pay. For the most part, this effect on the gender gap in pay is a consequence of women's completion of high school and their escape from the severe disadvantages for pay of having less

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[9] However, the interaction between respondents' education levels and the difference in educational attainment between respondents and their spouses is not a significant interaction predicting hourly pay.

than a high school education, rather than some extra advantage from higher levels of education for women.

In any case, whether a respondent's level of education or spousal educational differences are in the MCA model of pay, results concerning issues closer to the central research question for respondents in dual-earner couples are similar to results for all 25 to 69 year olds employed full-time. Unpaid housework and home maintenance hours for workers with employed spouses are consistently a significant influence on the pay of the men and women, and separately on the pay of women. On the other hand, recent interruptions in employment and unpaid child care time are not significant influences on the pay of full-time workers with spouses who are also employed. The effect of gender is altered, but only slightly in the end, through adjustment for effects on pay of other factors and covariates. Being a woman is strongly and consistently associated with a disadvantage in pay and being a man is associated with an advantage in pay.

The variance in hourly pay accounted for by housework or home maintenance time overlaps with the variance accounted for by gender, decreasing the impact of gender on pay. However, effects associated with the amount of unpaid household work along with the amount of unpaid child care absorb only a small part of the association between gender and pay. The relationship of unpaid housework and pay covers several cents more of the gap in hourly pay for women than it does for men, confirming the greater disadvantage of unpaid domestic work for women's pay. Recent employment interruptions account for far less of the gap. In the family responsibility models of pay here, interruptions are not a significant influence on hourly pay rates for men and women, whether grouped together or in separate models.

To summarize, the central research question is again answered with qualified support for the importance of unpaid domestic labour time for the gender gap in pay among full-time workers with employed spouses. As with the main subsample which includes all full-time workers, women's current unpaid domestic labour is not the sustaining force of the gendered pay gap -- but it is of some importance. Women's unpaid domestic labour time is purported to reduce the total

hours women spend at paid employment; consequently, the dependent variable is an estimation of pay with an adjustment built-in for differences in hours men and women spend at their paid employment. Still, the negative association between increasing amounts of household work and decreasing hourly pay rates is present between women and, in a less regular pattern, is present for men and women together. Even if differences in pay associated with differences in domestic labour could be set aside, a substantial gap in pay would remain among individual husbands and wives in dual-earner couples.

Analysis of Pay Among GSS10 Respondents with Employed Spouses

What in addition could be learned from analysis of General Social Survey data for 1995? The main purpose for reexamination of the influence of family responsibility and work interruptions on pay with GSS10 data is that the association of housework with pay can be examined in the context of husbands' and wives' gender attitudes. One question is whether introducing respondents' attitudes to multivariate MCA models of pay will change the impact of gender upon pay for respondents with employed spouses, while another question is whether attitudinal differences will subsume any relationship that exists between unpaid domestic labour and pay. A final question is whether the models utilizing gender attitudes as indicators of spousal power relations in the dual-earner households of GSS10 respondents are more effective models as explanations of gendered pay differences than the models of GSS9 data which instead utilize educational differences between spouses as an indicator of the power relations in dual-earner couples.

Another purpose for analysis of GSS10 data is more obvious now than it was before any analysis of the GSS9 data. Among GSS9 respondents, the association of wages with recent employment interruptions is so weak and the effect upon the gender gap in pay is so minor that a new puzzle has emerged. Is the insignificance of the effect in models with GSS9 data being generated because only recent interruptions were considered, rather than interruptions over a

lifetime of paid employment? Quite simply, some doubt about the GSS9 results can be addressed using the GSS10 data. The examination of pay among GSS10 respondents will include consideration of differences in hourly pay associated with interruptions over a respondent's entire career in the paid workforce. An association with gendered pay differences has been argued to exist because women interrupt their careers in paid employment to attend to family responsibilities.

The analysis of GSS10 data is an extension of the investigation possible with GSS9 data. First, the fit of a family responsibility model of pay is tested for GSS10 respondents aged 25 to 69 years who were employed for full-time hours, usually, and for a full-year before survey interviews in 1995, who worked for pay the week before the survey, and whose spouses were also employed full-time during the previous year. The hourly pay for this subsample of respondents in dual-earner couples is described in Chapter Two. (See Table 2.5.) The distribution ranges from $1.35 per hour to $64.10 per hour, with a skewness score of 1.3. The selection of couples in which both respondents and their spouses work full-time hours builds into models of pay some control over variation in paid hours of work within couples and in comparisons between people in couples. The second, supplementary analysis of pay introduces to the family responsibility model some differences among the same respondents in attitudes regarding appropriate work and family responsibilities for men and women.

With the restriction to a full-year of employment for these respondents and to full-time employment for their spouses, distributions on potential independent variables describe a subsample of workers comparable to the GSS9 subsample with some understandable differences. Here 13 percent of the respondents (10.5 percent of men and 16 percent of women) are in the under-30 age cohort.[10] Around one percent (a smaller group than among GSS9 respondents) are 60 years of age or older. Almost two percent of the men but just a half a percent of the women are 60 years of age or over, with none of the women ages 65 to 69. Almost 86 percent of this

[10] Note that the measure of age utilized as an MCA covariate from GSS10 data is years, decimalized, and not the five year age cohorts used in comparisons with GSS9 distributions.

GSS10 subsample were born in Canada, about two percent more than the proportion of GSS9 respondents in couples. Almost seven percent have been limited in activity for at least six months, about two percent less than among the GSS9 respondents. More of the GSS10 women than of the men are limited in activity at home or in their paid employment.

Although the percentage with a university degree in the GSS10 subsample and the GSS9 subsample is about the same (22 percent of the individual respondents in dual-earner couples), a smaller percentage (52 percent versus 55 percent) of the GSS10 respondents than of the GSS9 respondents completed post secondary education. Also in the GSS10 subsample, the percentage of women with post secondary diplomas, certificates or degrees is a couple of percent higher than the percentage of men and one percent more of the women than of the men have at least one university degree.

Among the GSS10 respondents, 62 percent are living with children under 25 years of age; however, the percentage of GSS9 respondents in couples who have children in this age group is the same. (The presence of dependent children in GSS9 households is determined with a different measure: 47 percent of the GSS9 respondents in dual-earner couples were living with at least one of their children who was under 15 years of age.)

Some differences between the GSS9 and GSS10 respondents appear in comparisons of their unpaid domestic labour time which is an indicator of family responsibilities in this research. The percentages of GSS10 respondents doing no unpaid domestic work are smaller than within the GSS9 subsample of respondents in couples, but then the percentage of men in the GSS10 subsample (50.1 percent) is also smaller than in the GSS9 subsample (56 percent). These differences are probably consequences of the full-time and full-year employment selection of GSS10 respondents and the full-time paid work of their spouses while selected GSS9 respondents are employed full-time and their spouses' paid work hours are unknown. Here about 39 percent do no child care, with only two percent less among the women (38 percent) than among the men (40 percent) compared to the six percent difference between the GSS9 women and men. The

longest child care hours are taken on by 17 percent of the GSS10 subsample, and by 22 percent of the women but by only 12 percent of men. Regarding housework and home maintenance time, only three percent of the GSS10 respondents do no unpaid housework and again the difference of roughly one percent between the percentage of the men (about four percent) and the women (about three percent) is less than the difference of eight percent for GSS9. The longest hours, at 30 or more hours a week, are put in by eight percent of the GSS10 subsample, and again among more of the women (11 percent of the women) than of the men (five percent of the men).

With alternate information in GSS10 data about extended breaks in paid employment, 38 percent of this GSS10 subsample reported being away from paid employment at least once for six months or longer during their paid work careers. The proportion is larger than the 16 percent of GSS9 respondents who recently experienced an interruption of at least three months in length. Consistency with GSS9 distributions lies in the higher proportion of interruptions among women than among men: 52 percent of GSS10 women in dual-earner couples have had one or more interruptions and 25 percent of the men have had at least one interruption. The numbers of multiple interruptions distinguish less dramatically between the men and women. Only four percent of respondents in dual-earner couples have had more than two extended interruptions since beginning regular paid employment and here percentages of men and women are close. Among all the men in the GSS10 subsample, about three percent had three or more interruptions. Among all the women, just over five percent had three or more interruptions.

The length of these past interruptions, on the other hand, seem to be distinctly longer for the women currently in dual-earner couples than for the men. For around two-thirds (67.4 percent) of the respondents who have had an extended interruption, the first interruption was one year or less in length and for over three-quarters of them (77.8 percent) that interruption was two years or less in length. Among just the men with interruptions, the first interruption was two years or less for 92 percent of them. However, among women who experienced extended interruptions, 71 percent -- or about 20 percent less than among the men -- had first interruptions

fitting within the same time span of two years or less.[11] At the higher end of the distributions, only one and a half percent of the men's first interruptions were over five years long while eight percent of women's first interruptions were over ten years long. Although the comparison identifies substantial difference between men and women in dual-earner couples in the periods of time taken for one interruption, the data set does not facilitate a useful calculation of the total time away from the paid workforce, as noted earlier.

Reasons for breaks in paid employment describe another distinction between the extended interruptions of the men and women in dual-earner couples, a distinction that suggests extended interruptions indeed are an indicator of the family responsibilities taken on by women. With reasons requested for up to four interruptions, 99 percent of women's interruptions and 97 percent of men's interruptions would be covered if respondents gave their reasons. Roughly 75 percent of women who experienced an interruption (or about 40 percent of all the women in dual-earner couples) said they stopped work at least once for a reason connected to family: marriage, maternity leave, care of children, or other personal or family responsibilities. None of the women and none of the men in this subsample stopped work to care for an elderly person. Among the men, the distribution is extremely skewed. One man has taken a paternity leave but only four percent (six men altogether) of the men who experienced extended interruptions gave a family-related reason for one or more of those interruptions. A negative association with pay is expected for a characteristic which describes 40 percent of women yet is almost absent among men in this GSS10 subsample. At the same time, family-related reasons for extended interruptions would account for variance in pay that is overshadowed by the variance accounted for by gender. With cell sizes too small for MCAs, interrupting employment for family reasons is not a factor in multivariate MCAs.

The last section about distributions on independent variables concerns the attitudes regarding work and family responsibilities that are used as indicators of gender attitudes in the

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[11] The addition of another year to the length covers 75 percent of women's first interruptions.

analysis of 1995 data. GSS10 survey participants were asked if they "strongly agree," "agree," "disagree," or "strongly disagree" with each statement. A "no opinion" response could also be recorded.[12] On the five statements introduced in Chapter Two for 18 to 69 year old respondents in paid employment, the differences between the proportions of men and women in agreement, either agreeing or strongly agreeing, are not as great here among the 25 to 69 year olds whose spouses are also in paid employment.[13] Such a change is not surprising when respondents and their spouses are all in full-time paid employment. On the statements with more men in agreement, the percentages agreeing that preschoolers suffer when both parents work (55 percent of men and 40 percent of women) or that a man's role is to earn enough money to keep his family comfortable (25 percent of men and 15 percent of women) are lower for both men and women in the subsample restricted to respondents in dual-earner couples. On two statements with more women in agreement, the percentages for men and women draw closer together mainly because a larger proportion of the men agree that an employed mother can have warm, secure relationships with her children (72 percent of men and 81 percent of women) and that both men and women should contribute to the household income (76 percent of men and 80 percent of women). On the fifth statement, the percentages of men and women in agreement change a little, with 56 percent of men and 61 percent of women agreeing that a job is the best way for a woman to be independent.

Two more gender role statements are of interest for assessing attitudinal effects on pay. Altogether 45.5 percent, with less than a one percent difference in the percents among women and among men, agree or strongly agree that men want job success more than a family. A greater percentage among the men (47 percent) than among the women (40 percent) agree or strongly

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[12] See Appendix C for full wording of the statements.

[13] The percents are the valid percentages of all men or women who answered the question, including those who said that they had no opinion.

agree that women want a home and children more than a job. Note that whether men or women, less than half support these traditional gender aspirations.

Cell sizes of some distributions are too small at one extreme or the other of the agreement categories for those distributions to be used in multivariate MCAs. The low percentages do make sense, again, as a correspondence between behaviour and attitudes when respondents and their husbands or wives are employed full-time. Only six respondents (a half a percent of all the respondents), four men and two women, strongly disagree that "Both the man and the woman should contribute to the household income." For background information, this indicator of egalitarian attitudes is placed in the table of zero-order associations between attitudes and pay. The attitudes about men's place in child rearing hardly vary between men and women and are not added to the table. Only three men and three women could strongly agree that "A man does not have to be very involved in sharing the everyday tasks of raising children; this is not primarily a man's responsibility." Altogether over 95 percent of respondents, whether men or women, disagree or strongly disagree with this statement.

Independent Variables: Family Responsibility Model with Interrupted Career

Coefficients for zero-order relationships of independent variables with hourly pay are displayed in Tables 5.6 and 5.7 for the subsample of GSS10 respondents in "dual-earner" couples and separately for men in couples and for women in couples. The gender gap in pay is significant (eta $=.25$, $p \leq .001$). Unadjusted category deviations for the associations of several factors with pay are provided in Table 5.8 to augment the table of eta coefficients (Table 5.6). Eta coefficients for associations between attitude differences and hourly pay are presented later, in Table 5.11.

Eta coefficients are generally similar to those of corresponding GSS9 indicators of family characteristics and responsibilities (Tables 5.1 and 5.2). The selected indicator of interrupted employment is a dichotomy: whether or not a respondent ever experienced an employment interruption lasting six months or longer since beginning regular part-time or full-time paid work. An interrupted career is a significant disadvantage for hourly pay (eta $=.13$, $p \leq .001$). The

association with pay of the number of extended breaks in paid employment, capped at six, is not a linear pattern of association and the number assists little for understanding differences in pay here.

Potential covariates are presented in Table 5.7. Significant negative correlations with gender confirm that the group of women in this subsample of respondents are younger than the men and have fewer years of paid work experience than the men. Positive correlations with gender are evidence that, in comparison with wives of respondents, the husbands of respondents work a significantly greater number of hours in the week and significantly more weeks in the year. While the number of weeks these spouses worked during the year is not associated with pay rates, the number of hours in a week they usually worked for pay is associated with respondents' pay at the zero-order level.[14] However, these hours are not controlled in the MCAs using GSS10 data. In exploratory models not presented here, adding the influence of the spouse's weekly hours as a covariate to the multivariate MCA models of tables below would not change the outcome of MCAs and the number of hours would not achieve significance at $p \leq .05$. Neither birth outside Canada nor limitations in physical activity are significantly associated with pay among these GSS10 respondents.[15] The significant influences on pay that are entered as covariates are the years since beginning regular work and the square of the years, to correct for the tendency of pay to rise and then decline as these years of work experience increase.

As with GSS9 subsamples, very few of these variables are problematic because of extreme correlation between independent variables or because of significant first-order interactions with gender. Age (in five-year cohort groups) and gender interact at $p \leq .01$ in a two-factor MCA predicting hourly pay; therefore, MCAs are again presented separately for men and for women in addition to results of models which include gender as an independent variable. To avoid serious

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[14] The spouse's hours are available in GSS10 data but not in GSS9 data. Spouses' weeks of employment are not associated with pay in the GSS9 data. (See Table 5.3.)

[15] The years since first being limited can be determined from GSS10 data but the time is not significantly associated with the hourly pay rates of the respondents with physical limitations.

violation of MCA assumptions, one of two collinear indicators, age and years of work experience,[16] is selected. The time since beginning regular paid employment appears to be a weaker influence on pay rates than a respondent's chronological age. However, the selected indicator for years in the paid workforce is the number of years since beginning work, not years of age. While the zero-order effects of age on pay are of a greater magnitude, the years of work are taken to be a measure closer to actual work experience than the years of age which capture additional cohort effects on pay and interact with gender effects on pay. The attempt in this research -- perhaps more successfully attempted with the more particular work experience measures of GSS9 data -- is to find and utilize a measure which is a measure of individual work experience rather than a summary measure of both individual life experience and social history.[17]

The family responsibility model of pay for GSS10 respondents in dual-earner couples examines the effects upon hourly pay of unpaid child care time, of unpaid housework and home maintenance time, and of ever having a break in paid employment. At the same time, the model controls for increases in pay with successively higher levels of education and for the overall positive effects on pay of years in the paid workforce (but with correction for the negative effects of large numbers of years in the workforce.) Although child care is among the independent variables entered into MCA models of pay for men and women together, child care time is not in the separate models for men and women to avoid the problem of empty cells in tests of first-order interaction effects between factors. In the table with unadjusted deviations from mean pay (Table 5.8), the unordered increases and decreases in pay that accompany increases in amounts of child care time are obvious in contrast with the ordered decreases in pay that accompany

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[16] For men and women together, the correlation between years since beginning to work and years of age is $r=.90$ ($p \leq .001$), for men, $r=.93$ ($p \leq .001$), and for women $r=.87$ ($p \leq .001$).

[17] The decision is supported by results, not documented here, with age instead of work experience as a covariate. Control of age effects does not alter the ranking by importance of influences on pay among GSS10 respondents in dual-earner couples or bring substantial change in the magnitude or significance of gender in relation to pay. For example, the multiple R squares of multivariate models in Table 4.9 would improve negligibly (.003) for the pooled models and the model of pay among men. For women, the model multiple R square improvement is slightly larger at .009.

increases in amounts of housework time. Child care hours are included for the pooled subsample mainly for comparisons with GSS9 results with adjustments for any effects on pay of unpaid child care time (Tables 5.3 and 5.4); however, those results and the unadjusted category deviations here lead to an expectation of little influence upon pay rates or upon the beta coefficient for gender.

Results of Family Responsibility Model: GSS10 Dual-Earner Couples

Table 5.9 shows the results for a model of family responsibility and work interruptions applied to GSS10 data. An extended interruption since beginning regular paid employment is negatively associated with pay within the pooled subsample and among women, but not among men. In the pooled subsample, career interruption (beta $=.11$, $p \leq .001$) is more important than either housework time or child care time, both non-significant associations with pay in this MCA which includes the significant effects of education on pay and of the number of years since a respondent's first regular paid employment.[18] Among men, only the relationships with pay of education levels and years in the workforce -- the controlled influences -- achieve significance statistically. Among the women, the difference in pay rates between women with and without interruptions in their paid employment is significant (beta $=.12$, $p \leq .05$) in addition to the influence upon pay from differences in their housework hours (beta $=.13$, $p \leq .05$). Some control for the effects of change over time -- for example, change in social policies and in employment leave benefits -- is present in the multivariate models through control for the effects on pay of years since beginning regular paid employment.

The significant negative effect on hourly pay of respondents' ever having an interruption in paid employment was anticipated for the pooled subsample of men and women. But gender effects on pay (beta $=.21$, $p \leq .001$) are still prominent, and the education effects on pay (beta $=.39$, $p \leq .001$) rank above effects of other factors, including interruptions, in importance. The pooled model in the first column of Table 5.9 is the final family responsibility model in Table 5.10

[18] The influence on pay of housework and home maintenance time is significant (at $p \leq .05$) within the pooled GSS10 subsample only when the years of work are controlled but the effects of education are not controlled.

where gender coefficients from successive MCAs demonstrate the sustained influence of gender as an independent variable despite the impact of differences in respondents' family responsibilities, work experience, and education.

The pattern of change in the gender coefficients is familiar from the GSS9 models. After control for completed education is introduced to the model, the increase in the size of the gender coefficient is evidence that variance in pay accounted for by educational achievements is separate from variance in hourly pay accounted for by gender differences and suppresses the magnitude of gender effects on pay. The positive association of education with pay and women's advantage over men both in completing high school and in completing university degrees or other post secondary education has the effect of moderating the negative effect upon pay of being a woman and the positive effect on pay of being a man. Thus, the influence of gender on pay is partially overridden by the influence of education on pay. The opposite occurs with effects of other factors on hourly pay. Variance in pay accounted for by housework, an interrupted career, and years of employment overlaps the variance accounted for by gender enough to reduce the influence of gender on pay.

Discussion of Family Responsibility Model: GSS10 Dual-Earner Couples

An interruption in paid employment, an indirect indicator of family responsibilities, is more important than current unpaid domestic labour as an influence upon pay and upon the gender gap in pay between men and women who are in dual-earner spousal relationships. Compared to the lack of change in the gender gap in pay from recent interruptions in the GSS9 data (noted most clearly in Table 5.5, above), the addition of interruptions throughout employment histories to the model of pay partially confirms the expected outcome. Interruptions in paid employment have a significant negative effect upon current hourly pay. If the effects of interruptions could be set aside, the benefit for women's pay might be a little less than the loss for men's pay because the mean pay for each group would move closer to the Grand Mean. (See Table 5.10.) In other words, an interruption does not appear to be a greater penalty for women's pay than it is for

men's pay, and an interruption may carry a slightly smaller penalty for women than men, even though career interruption makes a difference for pay between women and not between men.

Other indicators of family responsibilities are less helpful for understanding pay differences or the gender gap in pay. First of all, the presence of children under 25 years of age in respondents' households is not associated with pay rates. Second, the unadjusted zero-order association between unpaid child care hours and pay is not patterned in a way that fits with the argument that increases in unpaid time caring for children imposes a penalty of increasingly reduced wages for paid employment. Third, the unadjusted effect of unpaid housework and home maintenance time on pay, in contrast with child care time, is a disadvantage for pay that increases as amounts of housework time increase. Yet after the effects of housework time on hourly pay are adjusted for the effects of gender, career interruption, work experience, and education on hourly pay, unpaid housework and home maintenance time is not a factor significantly related to pay differences among the GSS10 full-time full-year workers in dual-earner couples. Recall that among GSS9 workers in dual earner couples, the association between pay and their housework time is weak but statistically significant (at $p \leq .05$) in the pooled family responsibility model.

When the dependent variable is the hourly pay of women, separate from the men, women's housework time is significantly and negatively associated with pay and is about as important in estimating wages among women as the negative effect of an interruption in paid employment, even after adjustment for the significant effects of differences in education levels and years of work experience. Women doing long hours of unpaid housework are likely to be receiving less than the mean hourly wage for women. Women doing comparatively little housework or no housework are likely to be receiving more than the mean hourly wage for women. Between men, housework and interruptions are of no significant consequence for pay. Neither variable is helpful, whether as an unadjusted or adjusted effect on pay, in identifying the men most likely to receive pay above or below the mean hourly rate for men.

With the focus upon the pay of men and women, together, the advantage for men and the disadvantage for women is a constant characteristic in these MCA models of hourly pay differences among GSS10 respondents in dual-earner couples, as it is among GSS9 respondents in dual-earner couples. The effect on pay of an interrupted career, as noted above, accounts for some portion of the gender gap in pay and the impact of gender on pay is further reduced by adjustment for the influence on pay of years in the paid workforce (Table 5.10). The disadvantage in mean hourly pay for women is partly the disadvantage for pay of women's unpaid domestic labour time, of their interrupted employment histories, and the lesser number of years in comparison with men since beginning paid work. In contrast, the overall effect of education is similar to earlier models in that variation in educational achievements improves women's pay relative to men's pay. In other words, the size of the gender coefficient is greater after adjustment for the strong effects of education on hourly pay, effects which suppress some of the effects of gender on pay.

Zero-Order Associations of Gender Attitudes with Pay

The final set of MCAs in Table 5.10 and in Table 5.13 bring a single attitude variable into the basic family responsibility and work interruption model of hourly pay. The measure of respondents' approval or disapproval of a traditional gender role is their agreement or disagreement with a description of men as breadwinners: "If a man brings enough money home so his wife and children have a comfortable life, he has fulfilled his role as a husband and a parent." The selection of this variable begins with examination of eta correlations of zero-order associations with hourly pay for this measure and seven other attitude measures in Table 5.11. A "no opinion" category is retained as a category in Table 5.11 along with categories for levels of agreement in tests of the significance of zero-order associations. Little change in eta coefficients would occur if respondents without opinions were dropped here.[19] The order of the

[19] For the pooled subsample of men and women together, two weak associations would be altered. One for 58 fewer cases becomes significant at .05 and another for 28 fewer cases is no longer significant.

agreement categories in tables below is the reverse of the order in the original questionnaire only to maintain a presentation order similar to the progression from absence to presence or from less to more for categories of other factors.

A "same sex" pattern is apparent in the significant associations of Table 5.11. Levels of agreement with statements about women's roles or aspirations (such as, "A job is all right, but what most women really want is a home and children") achieve statistical significance for women's pay but not for men's. The levels of agreement with a statement about men's aspirations ("Having a family is all right, but what most men really want is to be successful in their job") also follow a "same sex" pattern, achieving significance for men's pay but not for women's. The statement that a man's role is to earn enough money for his family is the only statement evoking differences in respondents' attitudes that are significantly associated with differences in hourly pay among men, among women, and within the subsample of both women and men. In spite of the gendered oppositions in statistical significance and non-significance, none of these attitudes interacts with gender in predicting pay rates for the pooled subsample. Directional patterns of the associations -- when present -- are similar for men and for women. Answers to the separate attitude questions are not highly correlated.

Unadjusted mean deviations are shown in Table 5.12 for categories of the four attitude factors in Table 5.11 that are the strongest indicators of differences in hourly pay rates. Three of the factors are levels of agreement with statements affirming traditional gender roles of men or women while the fourth statement implicitly affirms the child care component of women's traditional role. The categorical deviations provide some sense of the directional tendencies in relationships between hourly pay rates and the level of agreement with traditional gender roles. The mean pay for the category of respondents without an opinion is a fulcrum or a transitional category between disagreement category effects and agreement category effects for some, but not all, factors. If the respondents who do not express an opinion are dropped, the significant associations with pay for the four factors in Table 5.12 are clearly negative: the mean pay rate

declines from category to category as agreement with these traditional gender role statements increases. The negative pattern of association holds within the pooled subsample, among men even when the eta coefficients are not significant, and as a tendency among the women. For three of the four statements, the larger negative deviation from the Grand Mean for women is the mean pay of women who agree rather than the pay of the smaller number of women who strongly agree.

These zero-order relationships are the reverse of the outcome, at least among the men, anticipated by gender relations explanations for the gender gap in pay. Given that the stronger significant effects on pay for all these attitude indicators are in the same direction, selecting the levels of agreement with the statement affirming the male breadwinner role as the independent variable for MCAs maximizes information available to further test the importance of variation in gender attitudes in the context of other influences on pay and on the gender gap in pay. First, the indicator utilizes an unequivocal description of a gender role, one that Potuchek (1997:69) describes as "an important gender boundary." Second, the attitudes evoked from respondents generate the only significant attitude effects upon hourly pay rates in this subsample that distinguish between higher and lower pay within the separate groups of men and women as well as among men and women, grouped together. Third, a smaller percentage of cases than with other strong attitude indicators are missing either because respondents had no opinion or did not answer the question.

Results with Gender Attitudes: GSS10 Dual-Earner Couples

The questions remaining to be addressed through MCA models of pay are whether the influence of gender is a stable, significant influence on pay after gender attitudes are drawn into the analysis of pay rates among 1995 GSS10 respondents in dual-earner couples and whether pay differences associated with attitudes subsume differences associated with interruption in paid employment. The final MCA model in Table 5.13 adds the measure of respondents' agreement with men's traditional breadwinner role to the independent variables of the earlier GSS10 model: gender, housework time, interruptions, completed education levels, and as covariates, the years

since first joining the work force and the square of these estimated years of work experience. Only respondents with an opinion about men as breadwinners are included. The small number of "no-opinion" cases are dropped partly because the cases with an opinion are of more interest for the gender relations argument and partly to avoid some problems with empty cells when estimating first-order interaction effects using MCA procedures.[20] Altogether, about 2.2 percent of respondents in couples are dropped with listwise deletion in the final multivariate model. There is no evidence of interactions with gender in predicting hourly pay rates, but again separate MCAs for women and men permit comparison with earlier results and display the influences that differentiate pay levels within the group of men and within the group of women as well as the influences on the gender gap in pay between the two groups. To simplify the presentation, child care hours are not included in the pooled model here.

The association between gender attitudes and pay remains significant in the pooled model for men and women together (Table 5.13) and remains an inverse relationship between traditional attitudes and pay rates. Pay generally decreases as agreement with the traditional gender role increases, although the pattern is not as pronounced as it is in the unadjusted effects. Average pay for those most in agreement with the traditional gender role is below the Grand Mean of pay for all respondents yet is likely to be closer to the Grand Mean than the pay of respondents agreeing but not as strongly.

In comparison with the GSS10 model of pay without an indicator of gender attitudes (Table 5.9), the rank order of beta coefficients for factors other than gender attitudes is unchanged. Housework time ranks as the least important factor and is not significantly associated with wages in the pooled model or among the men. For the respondents in dual-earner couples, gender remains consistently significant (beta $=.23$, $p \leq .001$) as an influence on hourly pay rates, education remains the most important influence on hourly pay (beta $=.37$, $p \leq .001$), and the

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[20] Another characteristic of the distribution of levels of agreement with the male breadwinner role is that eighty percent of respondents with opinions fall into the two disagreement categories. Empty cells are the result when entering first-order interactions in the final model containing all the variables.

effects of gender attitudes (beta =.11, p≤.001) rank just above the beta coefficient for interruption in paid work. What does change after the incorporation of gender attitudes into the family responsibility model is the size of the gender coefficient, a change seen more readily in the summary table of gender coefficients over successive models, Table 5.10, than in the comparison between Tables 5.13 and 5.9. The size of the gender coefficient increases after adjustment for the differences in pay that are associated with gender attitudes. Then the gender coefficient does not change with the later adjustment for effects of education levels on pay in the last model of Table 5.10, which is the pooled model in the first column of Table 5.13.

Education, the strongest of the significant influences on pay, contributes to the model of pay even if the gender coefficient is not altered by the inclusion of education after other factors. In Table 5.10, the improvement in the model multiple R-square is obvious with the addition of education, confirming that the model with differences in levels of completed education accounts for a substantially greater proportion of the variance in pay than the model without education levels. However, when the focus is upon the gender gap in pay rather than upon the dependent variable (hourly pay), the increase in the size of the gender coefficient after adjustment for the effects of traditional gender attitudes on pay demonstrates that differences in gender attitudes suppress some of the relationship between pay and gender. If there were no differences between respondents in their attitudes about men's breadwinner role, the gap in pay between men and women would be even wider. The connection between gender attitudes and the gender gap in pay appears to be aligned somewhat with the adjustment of the gender gap by the effects of education on pay. In the earlier GSS10 family responsibility model, the negative influence for pay of being a woman and the positive influence of being a man were moderated by the effects of education on pay. That moderating influence from education does not occur here once gender effects on pay have been adjusted by the effects on pay of traditional gender attitudes.

Discussion of Model of Pay with Gender Attitudes for GSS10

An indicator of gender attitudes is significantly associated with pay, but these results are not quite the outcome predicted by gender relations explanations for the gendered pay gap. Less approval of a traditional gender role, men's breadwinner role, accompanies higher pay of men and women -- the relationship expected for women but not for men. For married and co-habiting men the anticipated outcome was a confluence of high pay with traditional gender attitudes and therefore, in theory, with dominance in spousal power relations. Moreover, the pay differences associated with an indicator of power relations were expected to erode the influence of gender upon pay, to account for part of the gender gap in pay. Instead, attitudes appear to override some of effect on pay accounted for by gender so that the magnitude of the gender coefficient increases with control for gender attitudes.

The inverse relationship of traditional gender attitudes with pay, an influence on pay that does not help to explain the influence of gender on pay, and the apparent alignment of effects of attitudes on the gender gap in pay with the effects of education on the gap form a pattern that is not peculiar to attitudes about men's traditional breadwinner role. Exploratory MCAs substituting other gender role indicators are no more informative regarding the effects of traditional gender attitudes and include fewer respondents. Particular attitudinal effects and rankings of influences on pay are about the same, after adjustment for the effects of other variables, as in the current final model. Alternately when an additional attitude indicator is inserted into the current family responsibility model, the added indicator is not significant in most models and significant interactions between factor effects emerge in some models.

The gender coefficient, in the end, is also adjusted for the effects of any career interruption, unpaid housework time, and the years of experience since respondents began regular paid employment. All three variables have the expected effect of reducing the impact of gender on hourly pay rates, just as in the model of pay without the gender attitudes. Housework time is not a significant influence upon pay in the final model for men and women together. The added

gender attitudes do not subsume the effects of family responsibilities on pay, and particularly not the effects of an interrupted career upon pay. The consequences of family responsibilities and of gender attitudes for the gender gap in pay are divergent -- not the anticipated outcome. Among men and women, together, career interruptions are almost a match for gender attitudes (the stronger influence) in the importance of the two influences upon pay differences. Between women, the association of their hourly pay rates with their gender attitudes is a little more important than the associations of pay with their unpaid housework hours and with interruption of their paid employment. For all workers together and for the group of women, separately, the concurrent influence of these effects points, not to an overlap, but to a separation between respondents' gender attitudes and their own employment histories.

An advantage in pay for a woman because of her non-traditional gender attitudes is not a puzzle within gender relations explanations of the gender gap in pay. The likelihood of pursuing higher-paying "non-traditional" jobs or of pursuing post-secondary education would be greater for women with non-traditional gender attitudes than with traditional attitudes. The women in agreement with traditional gender roles are likely to have lower than average pay, but they are not likely to have husbands who are paid substantially more for their employment than the women themselves are being paid. The annual household income for men and for women receiving lower hourly pay rates is significantly lower than most household incomes.[21] A reward of high pay for men with non-traditional gender attitudes seems a more problematic association with gender relations explanations of the pay gap; however, the results here suggest that the relationship of pay and attitudes is not important for the pay of men in dual-earner couples. While the same pattern of association with pay is present for men and women within the pooled subsample, the relationship of attitudes with pay is not significant for men separately, compared only with men, and the effects of gender attitudes on pay draw the mean hourly pay for men as well as the mean

[21] In unreported exploration of GSS10 data, the association of household pay with hourly pay rates is one in which pay rates decline with each drop in total household income category.

hourly pay for women closer to the Grand Mean. The association between gender attitudes and pay improves women's pay relative to men's pay.

The results for attitudes are not a match of attitudes to behaviour. Because each respondent, man or woman, is employed full-time and has a spouse who is also working full-time, the spread of people's attitudes across categories of agreement to some extent disregards their household circumstances. None of the men and none of the women's husbands is actually a sole provider, and the effects in multivariate models are adjusted for unpaid housework and child care that each person does himself or herself. At the same time, education levels are negatively correlated with attitudes about men's breadwinner role (the higher the education level, the less the agreement with traditional gender roles), but the measures are not collinear.[22] In other words, the effects of traditional or non-traditional attitudes on pay are not a duplication of the strong education effects on pay, although attitude effects probably do duplicate some education effects on the gap in pay between women and men. The portion of education effects which brings women's pay and men's pay closer together is much of the change to the gender gap in pay that occurs with adjustment for the effects on pay of traditional and non-traditional gender attitudes, even though attitudes and education are not highly intercorrelated here.

To check that the patterns of gender attitudes are not limited to the subsample of respondents in dual-earner couples, the final MCA model with gender attitudes was examined for its fit with a larger subsample of 25 to 69 year old respondents working full-time for pay over a full-year and then for all the respondents with spouses, working or not. The results, not presented in tables here, are much the same. The directional pattern for attitudes holds with the additional result that between men, attitudes and interruptions are significantly associated with pay in the subsamples with larger numbers of workers.

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[22] Non-traditional attitudes tend to accompany higher education here, but the magnitude of the correlation is modest. "There is no universal law that education leads to more progressive gender attitudes" (Clement and Myles, 1994:206). For the pooled subsample and for men the correlation between levels of education and levels of agreement with the traditional gender role is $r = -.23$ ($p \leq .001$), and for women, $r = -.22$ ($p \leq .001$).

SUMMARY

An unequal gendered distribution of unpaid work for families, the essential component of many explanations of the gender gap in pay, describes the care of children, spouses, and homes by women and men who are in dual-earner couples. The men have wives and the women have husbands who are also working at paid employment, but the women do more unpaid domestic labour than the men do. The women are also more likely than the men to have taken a break from their paid work in the most recent half decade, the interruptions identified in the 1994 GSS9 data, or at some time since beginning paid employment, the interruptions identified in the 1995 GSS10 data. There is some follow-through in the expected relationships to wages. Unpaid housework time has a negative influence on pay within the GSS9 subsample of men and women, together. But housework time is not significant in GSS10 models of pay for full-year full-time work beside other significant effects on pay, including gender effects, when both spouses in each couple are employed full-time. The presence of children, the time taken to care for children and, among GSS9 respondents, recently interrupted work are not statistically important beside other effects on wages. However, an interrupted paid work career does significantly reduce pay among GSS10 respondents.

The results for workers in dual-earner couples are not a strong endorsement of arguments that attribute gendered differences in pay to the undermining of women's accumulation of work experience by their domestic labour and family responsibilities. The disadvantage for pay associated with housework and home maintenance does overlap with the gender gap and accounts for some of the disadvantage in pay for women compared to men when spouses are employed an undetermined number of hours. However, for the men and women whose spouses are all working full-time at paid employment, pay rates and the gender coefficient are relatively insensitive in final multivariate models to differences in housework time -- a consequence, in part, of the higher percentage of men doing some housework when their wives are employed full-time. For women as a separate group, increasing amounts of unpaid housework time continue to be associated with

lower wages. The results fit the conclusions of Hersch and Stratton (1997): a significant negative effect on pay among women but not among men. The effects of interruptions, however, do not repeat Ornstein's (1983a) result of no influence on pay. Interrupting paid work for at least half a year is detrimental for pay rates. Career interruption remains significant in the final model even after adjustment for years in the work force that also serve to control for changes over time. Three-quarters of the women with an interruption in their employment histories give reasons connected to marriage and family, including the care of babies or of older children, for one or more of their interruptions. The men rarely interrupted their paid employment for family reasons. The disadvantage for pay from interrupted work is thus largely a penalty in current pay for women's past care of families. It overlaps somewhat with the gender gap in pay, accounting for some of the disadvantage in pay for women. The influence of gender on the pay of workers in dual-earner couples is significant even with control for the influence on pay of the unpaid time women spend looking after households or the work experience lost to breaks in paid employment to care for husbands and children.

As with other full-time workers, the advantage of education for pay overcomes some of the gender effect on pay among respondents in dual-earner couples mainly because the percentage of the women who have less than a high school education is lower than the percentage of the men while around the same percentages of women and men have completed at least one university degree. Whether the focus of analysis is full-time paid workers with employed spouses or the full-year full-time paid workers whose spouses are employed full-time, educational attainment ranks as more important than gender in predicting pay differences. However, with gender attitudes also considered, along with work experience and unpaid household work, the influence on pay of different levels of education does not alter the size of the gender coefficient.

Gender attitudes are a component of explanations which embed both the gendered wage gap and the gendered division of unpaid domestic labour in the power relations of heterosexual spousal relationships and the gendered hierarchy of traditional male breadwinner and female

homemaker roles. However, low wages, not high wages, are most likely to accompany workers' approval of the traditional male breadwinner role. To the extent that men's attitudes and pay are compared with those of other full-time workers, men or women, the approval of men's breadwinner role is more common among men with low wages than among men with high wages. While the pattern of association between attitudes and pay is significant among men in zero-order associations, it does not achieve statistical significance after adjustment for men's housework time, interrupted work, and the significant influence of their years in the paid workforce and of their educations. These results are not a conflation of male domestic control with men's overall income advantages. But, this lack of influence on men's pay follows the results of Coverman (1983) for married men in the U.S. and Baxter (1992a) in Australia.

A further departure from gender hierarchy and power relations explanations is that the effects on pay of attitudes do not erode the effects of gender on pay. The adjustment to the influence of gender on pay is in the opposite direction. The improvement in wages that accompanies non-traditional gender attitudes is an advantage for women's pay relative to men's pay. In other words, the greater percentage of men than of women who hold traditional gender attitudes does not account for men being paid more than women.

The women with non-traditional gender attitudes may fit Baxter's interpretation of similar results for married, employed Australian women: "women who do not define their role in terms of family responsibilities alone are likely to seek higher paid positions, and a more secure ambitious career structure than women who see themselves primarily in terms of a domestic role" (1992a:243). For women, the pattern does fit with arguments connecting egalitarian spousal power relations through non-traditional gender attitudes, in theory, to non-traditional divisions of domestic labour and to improvement in pay for employment. The results are congruent with Brayfield's (1992) or Baxter's (1992b) results for housework, but also replicate Coverman's (1983) and Baxter's (1992a) for women's pay. Women's attitudes may be particularly important in tipping, or maintaining, the balance of domestic gender hierarchies at least in so far as women

shed or retain some of their responsibility for domestic labour, an even more critical association with wages, some argue, than time put into doing housework. By agreeing that a man's adequately paid employment fulfils his role as husband and father, women exempt men from responsibility for housework and child care even though these particular women are all employed full-time all year.

Regardless of actual domestic arrangements, the depression of wages associated with approval of the traditional male breadwinner role may mean, for some men, an implicit approval of domestic patriarchy in order to protect their own poorly paid employment, perhaps asserting the importance of adequate pay for workers -- pay that is a "family wage." The total annual incomes in the households of men or women receiving low hourly wages are among the poorer household incomes here. Their wives and husbands are not earning substantially more pay than these respondents are receiving. For the women who receive low wages, being on the traditional side of this gender boundary could be their attempt to preserve their husbands' contributions of wages to low income households by not expecting additional contributions of unpaid domestic labour from them.

Low educational attainment, characteristic of low wages, comes along with the women's support of the male breadwinner role, but attitudes and education also have consequences for pay at the higher end of the pay distribution. Women who are likely to believe men have responsibilities to their families beyond earning money are women who receive above average pay for their own employment and who probably have post secondary or university educations. Indeed, differences in attitudes absorb the influence of education on pay that moderates the negative effects for pay of being a woman. Education still accounts for considerable additional variance in pay, but the effects of education upon pay do not cause adjustment to the gender coefficient for pay beyond the adjustment for the influence of gender attitudes.

To assess the possibility that the wages of women compared to men in dual-earner couples are related to differences in spousal power relations, housework responsibility, and ultimately to

employment income, the education of wives is compared to the education of their husbands. Spousal educational differentials, a measure of differences in earning potential between spouses in dual-earner couples, is the proxy in this research for relative employment incomes of husbands and wives. The information is taken from the 1994 GSS9 which is not the data set with gender attitudes. At first, because respondents with more education or the same level of education as their spouses are likely to receive above average hourly pay and those with less education than their spouses are likely to receive less than average hourly pay, the differential appears to be aligned with gender relations explanations for the gender gap in pay. With controls for unpaid housework time, unpaid child care, recently interrupted work, supervisory experience, job tenure, current supervisory work and age, the pattern holds in the pooled subsample and between men. If the men with more education are assumed to have both more earning potential and greater dominance in spousal power relations, the results using the comparison between respondents' educations and their spouses' educations partially fit gender relations arguments about the gendered pay gap. The real test is if the relationship also holds among women, and it does not. These results do not suggest that women can gain an advantage in terms of support for their employment, career development, and pay by having more education than their husbands. Doing less housework than other women provides greater benefit for women's wages than having more education than their husbands. Where support for the argument fails further is that variation from household to household on this measure, intended to tap spousal power relations, has almost no impact on the gap in pay between men and women. The gender coefficient is not altered.

For women and men in dual-earner couples, then, one clear conclusion is that the importance of gender cannot be explained away by the unequal division of domestic labour in the short term or, in the long term, by women's interrupted paid work histories. Housework or, when both spouses work full-time for pay, interruption of paid work barely alters the size of the gender gap and current child care time appears to make no difference to pay rates beside gender and housework or interruptions.

Table 5.1 Full-time Workers in Dual-Earner Couples, GSS9: Eta Coefficients on Hourly Pay

	N	Hourly Wage[a]	Men's Pay[b]	Women's Pay[c]
		Eta	Eta	Eta
Gender (0=men; 1=women)	1588	.27***		
Child under 15 yrs[d]	1588	.04	.03	.06
Child Care Hours[e]	1575	.12***	.10	.05
Housework & Home Maintenance[e]	1574	.20***	.08	.19***
Helping Elderly[f]	1584	.07*	.07	.03
Employment Interruption in Past 5 years[d]	1555	.12***	.09**	.09*
Supervising 5 years ago[d]	1580	.21***	.18***	.18***
Education Level Completed[g]	1588	.40***	.43***	.43***
Education vs Spouse[h]	1554	.10***	.15***	.05

* F significant p value ≤ .05
** F significant p value ≤ .01
*** F significant p value ≤ .001

[a] Pay in dollars and cents
[b] Men: N = 889
[c] Women: N = 699
[d] 0 = no; 1 = yes
[e] Child care or housework: 0 = none; 1 = < 5 hours; 2 = 5-14 hours; 3 = 15-29 hours; 4 = 30 or more hours
[f] Elderly time: 0 = none; 1 = < 5 hours; 2 = 5 or more hours
[g] Education completed: 1 = > high school; 2 = high school diploma; 3 = post secondary certificate/diploma; 4 = university degree
[h] Education compared to spouse: -1 = less than spouse; 0 = same level as spouse; 1 = more than spouse.

Table 5.2 Full-time Workers in Dual-Earner Couples, GSS9: Covariate and Dichotomous Variable Correlations with Gender and Hourly Pay

	N	Gender[a] (Women)	Hourly Wage[b]	Men's Pay[c]	Women's Pay[d]
Weeks Spouse Worked	1574	.02	.05	.05	.07
Supervising 5 years ago[e]	1580	-.16***	.21***	.18***	.18***
Tenure (years) with Current Employer	1581	-.11***	.22***	.17***	.27***
Age Group (5 year intervals)	1588	-.14***	.13***	.12***	.05
Age Squared	1588	-.15***	.12***	.11***	.04
Supervising in Current Job[e]	1585	-.13***	.22***	.19***	.18***
Collective Agreement[e]	1585	-.03	.20***	.16***	.27***
Self employed[e]	1588	-.07**	-.13***	-.16***	-.15***
Limited Physically[e]	1588	.01	-.05*	-.04	-.07
Canadian Born[e]	1585	.02	-.01	.01	-.03

* p value ≤ .05
** p value ≤ .01
*** p value ≤ .001

[a] Coding: 0 = men; 1 = women
[b] Pay in dollars and cents
[c] Men: N = 889
[d] Women: N = 699
[e] 0 = no; 1 = yes

Table 5.3 Family Model with Housework and Recent Work Interruption, MCA of Hourly Pay for Full-time Workers, Age 25 to 69, with Spouse Employed, GSS9 1994

	Men & Women[a]		Men[b]		Women[c]	
	Grand Mean: $16.53		Grand Mean: $18.50		Grand Mean: $14.03	
	Adjusted Deviation	Beta	Adjusted Deviation	Beta	Adjusted Deviation	Beta
Gender						
Men	1.45					
Women	-1.83	.20***				
Child Care Hours						
No hours	-.23					
< 5 hours	-.72					
5 - 14 hrs	.69					
15 - 29 hrs	.76					
30 or more	-.25	.06	------		------	
Housework & Home Maintenance						
No hours	.73		.26		2.28	
< 5 hours	1.04		.55		1.95	
5 - 14 hrs	.02		-.07		.18	
15 - 29 hrs	-.44		-.48		-.16	
30 or more	-1.27	.08*	-.86	.05	-1.52	.13**
Interruption in Past 5 Years						
No	.11		.09		.12	
Yes	-.60	.03	-.65	.03	-.43	.03
Supervising 5 years ago						
No	-.43		-.44		-.38	
Yes	.76	.07**	.58	.06	1.00	.09*
Education						
<High School	-4.05		-4.35		-3.34	
High School	-1.72		-1.77		-1.66	
Post Secondary	-.23		-.05		-.38	
University Degree	5.53	.41***	5.90	.42***	4.85	.41***
Total N		1527		856		678
df Main Effects		16		11		11
R Square[d]		.32***		.24***		.30***

* F significant, p value ≤.05; ** F significant, p value ≤.01; *** F significant, p value ≤.001

[a] Covariates: supervising currently (no=0; yes=1) p≤.01; years of tenure with current employer, p≤.001.
[b] Covariates: supervising currently (no=0; yes=1) p≤.05; years of tenure with current employer, p≤.001.
[c] Covariates: supervising currently (no=0; yes=1) p>.05 (not significant); tenure with employer, p≤.001.
[d] Model multiple R squares include first-order factor-by-factor interactions. None is significant at p≤.01.

Table 5.4 Family Model with Spousal Education Difference, MCA of Hourly Pay for Full-time Workers, Age 25 to 69, with Spouse Employed, GSS9 1994

	Men & Women[a]		Men[b]		Women[c]	
	Grand Mean: $16.60		Grand Mean: $18.62		Grand Mean: $14.06	
	Adjusted Deviation	Beta	Adjusted Deviation	Beta	Adjusted Deviation	Beta
Gender						
Men	1.43					
Women	-1.77	.20***				
Child Care Hours						
No hours	-.30					
< 5 hours	-.60					
5 - 14 hrs	.47					
15 - 29 hrs	.48					
30 or more	.15	.05	-------		-------	
Housework & Home Maintenance						
No hours	-.24		-1.10		2.75	
< 5 hours	1.70		.88		2.92	
5 - 14 hrs	.26		.22		.29	
15 - 29 hrs	-.69		-.71		-.29	
30 or more	-2.10	.13***	-1.46	.09	-2.04	.19***
Interruption in Past 5 Years						
No	.17		.17		.12	
Yes	-.86	.05	-1.27	.06	-.44	.03
Education Difference						
Less than Partner	-1.27		-1.63		-.60	
Same as Partner	.16		.22		.11	
More than Partner	.66	.10***	.94	.13***	.24	.05
Total N		1496		833		670
df Main Effects		17		12		12
R Square[d]		.18***		.10***		.14***

** F significant, p value ≤.01; *** F significant, p value ≤.001

[a] Adjusted for supervising 5 years ago (no=0; yes=1) beta =.09, p≤.001; supervising now (no=0; yes=1) p≤.001; years with current employer, p≤.001; age (5 year intervals) p≤.05; age squared p≤.05.

[b] Adjusted for supervising 5 years ago (0,1) p>.05 (not significant); supervising now (no=0; yes=1) p≤.001; years with employer, p≤.01; age (5 year intervals) p≤.05; and age squared p≤.05.

[c] Adjusted for supervising 5 years ago (0,1) beta =.09, p≤.05; supervising currently (0,1) p>.05; years of tenure with employer, p≤.001; age (5 year intervals) p>.05; age squared p>.05.

[d] Model multiple R squares include first-order factor-by-factor interactions. None is significant at p≤.01.

Table 5.5 Gender Beta Coefficients and Hourly Pay Gap for Full-time Workers in Dual-Earner Couples, GSS9 1994

Model Variables	N	Gender Beta	Dollar Deviation from Grand Mean		Model R^2
			Men	Women	
Full-time, Age 25 to 69 and Spouse Employed: Family Responsibility Model					
Gender, only	1567	.27***	1.91	-2.44	.07***
add child care, housework and home maintenance	1567	.23***	1.60	-2.04	.09***
add employment interruption in past 5 years	1537	.23***	1.59	-2.03	.10***
add supervising 5 years ago, and supervising currently (as a covariate)	1532	.20***	1.39	-1.76	.14***
add tenure with current employer (covariate)	1527	.19***	1.32	-1.67	.16***
add education level completed	1527	.20***	1.45	-1.83	.32***
add age group, age squared (covariates)	1527	.21***	1.46	-1.84	.32***
Full-time, Age 25 - 69 and Spouse Employed: Model with Spousal Education Difference					
Gender, only	1554	.28***	1.98	-2.47	.08***
add education compared to partner's education (less than, the same, or more than)	1554	.28***	2.02	-2.53	.09***
add child care, housework/home maintenance	1536	.23***	1.68	-2.11	.11***
add employment interruption in past 5 years	1506	.23***	1.66	-2.08	.11***
add supervising 5 years ago, and supervising currently (as a covariate)	1501	.20***	1.46	-1.83	.15***
add tenure with current employer (covariate)	1496	.19***	1.40	-1.75	.18***
add age group, age squared (covariates)	1496	.20***	1.43	-1.77	.18***

*** F significant p value ≤ .001

Notes: Grand Means for family responsibility models, from \$16.42 (N=1567) to \$16.53 (N=1527); and for models with education differential, from \$16.47 (N=1554) to \$16.60 (N=1496). Model multiple R squares include factor-by-factor first-order interaction effects. No interaction is significant at p≤.01 in these models.

Table 5.6 Full-time Full-year Workers in Dual-Earner Couples, GSS10, with Spouse Employed Full-time: Eta Coefficients on Hourly Pay

	N	Hourly Wage[a]	Men's Pay[b]	Women's Pay[c]
		Eta	Eta	Eta
Gender (0=men; 1=women)	1156	.25***		
Child under 25 yrs[d]	1156	.04	.08	.00
Child Care Hours[e]	1151	.12**	.12	.08
Housework & Home Maintenance[e]	1145	.14***	.07	.19***
Employment Interruption Since Began Work[d]	1153	.13***	.04	.08
Times off (0 to 6+)	1144	.12**	.10	.11
Education Level Completed[f]	1156	.36***	.35***	.45***

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001

[a] Pay in dollars and cents
[b] Men: Total N = 588
[c] Women: Total N = 568
[d] 0 = no; 1 = yes
[e] Child care or housework: 0 = none; 1 = < 5 hours; 2 = 5-14 hours; 3 = 15-29 hours; 4 = 30 or more hours
[f] Education completed: 1 = > high school; 2 = high school diploma; 3 = post secondary certificate/diploma; 4 = university degree

Table 5.7 Full-time Full-year Workers in Dual-Earner Couples, GSS10, with Spouse Employed Full-time: Correlations with Hourly Pay

	N	Gender[a] (Women)	Hourly Wage[b]	Men's[c] Pay	Women's[d] Pay
Weeks Spouse Worked	1153	.12***	.02	.04	.06
Usual Hours per Week Spouse Works	1156	.29***	-.13***	-.01	-.11*
Years since began Regular Paid Work	1148	-.14***	.12***	.12**	.03
Work Years Squared	1148	-.13***	.08**	.09*	.02
Age in Years (decimalized)	1156	-.11***	.19***	.22***	.09*
Age Squared	1156	-.11***	.17***	.20***	.07
Limited Physically[e]	1156	.07*	.00	.04	.00
Canadian Born[e]	1156	.07*	-.01	.04	-.03

* p value ≤ .05
** p value ≤ .01
*** p value ≤ .001

[a] Coding: 0 = men; 1 = women
[b] Pay in dollars and cents
[c] Men: Total N = 588
[d] Women: Total N = 568
[e] 0 = no; 1 = yes

Table 5.8 Eta Coefficients and Category Deviations for Hourly Pay of Full-time Full-Year Workers, Age 25 to 69, with Spouse Employed Full-time, GSS10 1995

		All Men and Women (Mean hourly wage $17.53)			Men (Mean hourly wage $19.74)			Women (Mean hourly wage $15.26)		
		N	Deviation	Eta	N	Deviation	Eta	N	Deviation	Eta
Gender	Men	588	2.21							
	Women	568	-2.29	.25***						
Child Care Hours	No time	445	-.15		233	-.17		212	-.25	
	< 5 hrs	103	-.43		61	-1.17		42	-.23	
	5 - 14 hrs	211	1.98		130	1.90		81	.89	
	15 - 29 hrs	200	-.17		95	-.87		105	.75	
	30 or more hrs	192	-1.43	.12**	68	-.80	.12	124	-.72	.08
Housework & Home Maintenance	No time	36	1.93		22	.02		14	3.78	
	< 5 hrs	202	.99		130	-.76		72	2.50	
	5 - 14 hrs	489	.61		273	.52		216	.23	
	15 - 29 hrs	330	-.88		130	.12		200	-.69	
	30 or more hrs	88	-3.15	.14***	28	-2.14	.07	60	-2.39	.19***
Any Interruption Since Began Work	No	713	.88		444	.23		269	.62	
	Yes	440	-1.42	.13***	144	-.70	.04	296	-.57	.08
Education Level Completed	< High School	159	-4.12		100	-4.10		59	-5.61	
	High School	393	-1.50		187	-1.23		206	-1.46	
	Post Secondary	352	-.60		176	-.61		176	-.51	
	University Degree	252	5.77	.36***	125	5.97	.35***	127	5.69	.45***

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001
Total N's vary from 1145 to 1156. Mean wage is for maximum number of cases (1156), altogether, and for maximum number of men (588) or women (568).

Table 5.9 Family Model with Career Interruption, MCA of Hourly Pay for Full-time Workers, Age 25 to 69, with Spouse Employed Full-time, GSS10 1995

	Men & Women[a]		Men[b]		Women[c]	
	Grand Mean: $17.56		Grand Mean: $19.70		Grand Mean: $15.35	
	Adjusted Deviation	Beta	Adjusted Deviation	Beta	Adjusted Deviation	Beta
Gender						
Men	1.78					
Women	-1.69	.21***				
Child Care Hours						
No hours	-.45					
< 5 hours	-.64					
5 - 14 hrs	.42					
15 - 29 hrs	.54					
30 or more	.35	.05	------		------	
Housework & Home Maintenance						
No hours	1.47		.30		2.76	
< 5 hours	.33		-.71		1.83	
5 - 14 hrs	.13		.28		-.22	
15 - 29 hrs	-.01		.51		-.09	
30 or more	-2.03	.07	-2.02	.07	-1.75	.13*
Interruption after Regular Work						
No	.73		.34		.97	
Yes	-1.19	.11***	-1.07	.07	-.88	.12**
Education						
<High School	-5.10		-4.69		-5.45	
High School	-1.47		-1.37		-1.58	
Post Secondary	-.28		-.20		-.40	
University Degree	5.57	.39***	5.98	.37***	5.51	.44***
Total N		1136		578		559
df Main Effects		15		10		10
R Square[d]		.25***		.17***		.26***

* F significant, p value ≤.05; ** F significant, p value ≤.01; *** F significant, p value ≤.001

[a] Covariates: years since began regular employment, p≤.001; years of employment squared, p≤.001.
[b] Covariates: years since began regular employment, p≤.001; years of employment squared, p≤.01.
[c] Covariates: years since began regular employment, p≤.001; years of employment squared, p≤.001.
[d] Model multiple R squares include first-order factor-by-factor interactions. None is significant at p≤.01.

Table 5.10 Gender Beta Coefficient and Hourly Pay Gap for Full-time Full-year Workers in Dual-Earner Couples, GSS10 1995

Model Variables	N	Gender Beta	Dollar Deviation from Grand Mean		Model R^2
			Men	Women	
Full-time Full-year, Age 25 to 69 & Spouse Employed Full-time: Family Responsibility Model					
Gender, only	1144	.25***	2.14	-2.22	.06***
add child care, housework and home maintenance	1144	.23***	1.95	-2.02	.08***
add employment interruption, 6 months or longer	1141	.21***	1.78	-1.86	.08***
add years since first regular employment, employment years squared (covariates)	1136	.19***	1.64	-1.69	.10***
add education level completed	1136	.21***	1.78	-1.83	.25***
Full-time Full-year, Age 25 - 69 and Spouse Employed Full-time: Gender Attitude Model					
Gender, only	1130	.26***	2.24	-2.31	.07***
add "a man's role is to bring enough money home"	1130	.29***	2.49	-2.57	.10***
add housework or home maintenance time	1120	.26***	2.28	-2.37	.11***
add employment interruption, 6 months or longer	1118	.25***	2.15	-2.23	.11***
add years since first regular employment, employment years squared (covariates)	1113	.23***	1.98	-2.04	.14***
add education level completed	1113	.23***	1.98	-2.05	.26***

*** F significant p value $\leq$ .001

Notes: Grand Means for family models, from \$17.53 (N=1144) to \$17.56 (N=1136). Grand Means for gender attitude models, from \$17.82 (N=1130) to \$17.60 (N=1113). Model multiple R squares include factor-by-factor first-order interaction effects, except final attitude model with education levels. No interaction is significant at $p \leq .01$ or, in the final attitude model, is significant in rough checks with collapsed categories.

Table 5.11 Full-time Full-year Workers in Dual-Earner Couples, GSS10: Eta Coefficients for Agreement with Gender Attitudes on Hourly Pay

	N	Hourly Wage[a]	Men's Pay[b]	Women's Pay[c]
		Eta	Eta	Eta
Employed mother & child can have warm relationship	1138	.09*	.12	.19***
A preschooler suffers if two parents are employed	1109	.11**	.11	.23***
Woman independent with job	1132	.08	.07	.13*
Keeping house fulfilling	1118	.09	.06	.16**
Women want a home and children	1109	.12**	.12	.20***
Men want job success	1129	.13***	.16**	.11
Both should contribute to household income	1129	.08	.11	.07
Man's role to bring enough money home for family	1144	.15***	.19***	.22***

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001

[a] Pay in dollars and cents.
[b] Men: Total N = 588
[c] Women: Total N = 568

Attitude codes: 1 Strongly disagree; 2 Disagree; 3 No opinion; 5 Agree; 6 Strongly Disagree.

Table 5.12 Eta Coefficients and Category Deviations of Gender Attitudes for Hourly Pay of Full-time Workers, Age 25 to 69, in Dual-Earner Couples, GSS10 1995

		All Men and Women (Mean hourly wage $17.53)			Men (Mean hourly wage $19.74)			Women (Mean hourly wage $15.26)		
		N	Deviation	Eta	N	Deviation	Eta	N	Deviation	Eta
Preschooler suffers if parents employed	Strongly Disagree	60	3.83		21	4.37		39	4.65	
	Disagree	501	.11		224	.06		277	.66	
	No Opinion	34	-.93		15	-3.13		19	1.34	
	Agree	427	-.36		253	.07		174	-1.93	
	Strongly Agree	109	-.92	.11**	62	-1.24	.11	47	-1.12	.23***
Women want a home and children	Strongly Disagree	42	3.23		17	1.23		25	5.31	
	Disagree	529	.58		237	1.17		292	.51	
	No Opinion	58	-.21		39	-.62		19	-1.78	
	Agree	430	-.68		231	-.91		199	-.81	
	Strongly Agree	50	-2.76	.12**	28	-2.31	.12	22	-3.99	.20***
Men want job success	Strongly Disagree	42	4.02		26	3.66		16	3.31	
	Disagree	556	.68		278	1.10		278	.35	
	No Opinion	40	-1.68		23	-1.16		17	-3.08	
	Agree	427	-.88		224	-1.43		203	-.42	
	Strongly Agree	64	-1.63	.13***	25	-2.21	.16**	39	-.38	.11
A man's role is to bring enough money home	Strongly Disagree	258	1.69		105	2.83		153	1.69	
	Disagree	647	.18		326	.27		321	.15	
	No Opinion	14	-1.71		9	-2.41		5	-2.15	
	Agree	202	-2.30		129	-2.35		73	-3.83	
	Strongly Agree	23	-2.91	.15***	14	-4.41	.19***	9	-1.73	.22***

* F significant p value ≤ .05; ** F significant p value ≤ .01; *** F significant p value ≤ .001

Total N's vary from 1109 to 1144. Mean wage is for maximum number of cases (1156), altogether, and for maximum number of men (588) or women (568).

Table 5.13 Model with Gender Attitude and Career Interruption, MCA of Hourly Pay for Full-time Full-year Workers, Age 25 to 69, with Spouse Employed Full-time, GSS10 1995

	Men & Women[a]		Men[b]		Women[c]	
	Grand Mean: $17.60		Grand Mean: $19.77		Grand Mean: $15.36	
	Adjusted Deviation	Beta	Adjusted Deviation	Beta	Adjusted Deviation	Beta
Gender						
Men	1.98					
Women	-2.05	.23***				
Men's Role=Bring Home Money						
Strongly Disagree	1.32		1.91		.93	
Disagree	.02		-.13		.15	
Agree	-1.68		-1.03		-2.60	
Strongly Agree	-.71	.11***	-1.76	.11	-.42	.14**
Housework & Home Maintenance						
No hours	1.47		.34		2.60	
< 5 hours	.33		-.68		1.85	
5 - 14 hrs	.13		.24		-.24	
15 - 29 hrs	-.01		.40		-.06	
30 or more	-2.03	.07	-1.30	.05	-1.81	.13*
Interruption after Regular Work						
No	.67		.30		.95	
Yes	-1.09	.10***	-.96	.06	-.86	.12**
Education						
<High School	-4.91		-4.65		-4.98	
High School	-1.44		-1.33		-1.48	
Post Secondary	-.24		-.14		-.48	
University Degree	5.52	.37***	5.77	.36***	5.22	.41***
Total N		1113		565		548
df Main Effects		14		13		13
R Square[d]		.26***		.20***		.28***

* F significant, p value ≤.05; ** F significant, p value ≤.01; *** F significant, p value ≤.001

[a] Covariates: years since began regular employment, p≤.001; years of employment squared, p≤.001.

[b] Covariates: years since began regular employment, p≤.001; years of employment squared, p≤.001.

[c] Covariates: years since began regular employment, p≤.001; years of employment squared, p≤.001.

[d] Model multiple R squares here do not include first-order factor-by-factor interactions. Models for all respondents without education or a final model with collapsed categories for attitudes adding education have no interactions significant at p≤.01. As a rough check, pair-by-pair interactions between factors for men and for women are not significant.

Chapter Six

Conclusions

Unpaid domestic labour has a prominent place in theoretical discussions of reasons for the gap between women's pay and men's pay. If a gendered pay gap exists even in situations where women's and men's educations and work experiences are comparable, human capital theories and feminist theories both propose that women's family responsibilities may be one source of the gap. They argue that some of the gap results from women's responsibility for unpaid housework and care of children and from interruptions to paid employment women require in order to care for their children. With my research, I have been able to help address the question of whether it is reasonable to argue that the gender gap in pay in Canada is being driven by and sustained by women's disproportionate load of unpaid domestic labour and the interruptions in women's paid work experience that, in large part, are a consequence of women's unpaid work for their families.

Review of the Purposes of the Analyses

Within human capital explanations of the gender gap in pay (e.g., through Becker 1957; 1964), women's rational choices to accomplish unpaid domestic work are located outside a competitive labour market and outside the economy. The argument is that because of their actual or anticipated family responsibilities, women invest in and accumulate less human capital -- that is, education and work experience -- than men. In the competitive labour market of neo-classical economic theory, discrimination would lead to reduced profits and could not last. In refining his earlier theory, Becker (1985) builds on the notion that individual resources include limited physical and mental energy. He contends that because of the effort child care and housework require, married women cannot put as much effort as married men into each hour of paid work. (This difference of effort was refuted in subsequent research by Bielby and Bielby, 1988.) However, if the connection from effort to reduced productivity and pay were to hold, men's housework time

and child care time should compromise men's productivity and reduce their wages in a similar way to the effects for women. Such similarity is not the case in my research for Canada.

Contrary to human capital theory, feminist theories of gender relations describe a gender hierarchy in which the disadvantage of family work for women's pay is greater than any disadvantage for men who do the same amount of housework. The genesis of the pay gap is said to be found, not in women's choices about actual or expected future care of children or in women's "comparative advantage" in child care and housework, but in the encumbrances surrounding their decisions. At the overly simplified core of these explanations, women's unpaid domestic work is of benefit to men at home and provides support for men's paid work (e.g., Hartmann, 1976; Smith, 1977; Reskin, 1993).

Canadian research establishes differences in the type of household work done by men and women, not just in the amounts they do (e.g. Meissner et al., 1975; Shaw, 1988; Clement and Myles, 1994). These differences are integrated into my research whenever possible. For example, because men are more likely to do fatherwork than housekeeping tasks, I have considered separately the association of child care with pay and the association of housework with pay. Because mothers rather than fathers are the parents more likely to interrupt their paid work careers to care for families, past interruptions to paid work are considered along with current domestic responsibilities as predictors of pay. These influences are examined within what is described as a "family responsibility model" of pay along with human capital variables: employment experience, job tenure, education.

In addition, I set up "life cycle models of pay" to test suggestions from the education attainment literature of an inherited "same-sex" effect on pay from parental educations and occupations. Some workplace characteristics of benefit for pay, such as unionization and being an employee rather than self-employed, are also examined and controlled. Then I ask again, through the life-cycle model, if any of the gendered effects on pay can be accounted for by the effects of housework and child care on pay.

The main analysis using "family relations models" is conducted for a subsample of 25 to 69 year old men and women who are employed full-time and are not students. I test for unpaid household work effects on the gendered pay gap, looking for results consistent with hierarchical gendered relations. Younger adults employed full-time constitute another subsample for a similar test of unpaid work effects on pay. Separate analysis of these workers is pursued because the initial gap between young women's and young men's pay is much narrower than the gender gap in pay among the older workers. Part-time employment is often described as a form of work for women balancing unpaid care of families with paid work. Therefore, the "family responsibility model" is also considered separately for part-time workers, ages 25 to 69. Eighty percent of them are women.

Questions about some other predictors of gendered pay emerge from a compelling response to Becker's theory. In *The Gender Factory*, also published in 1985, Berk argues that gender itself is produced by the division of domestic labour between husbands and wives. Therefore, the disadvantage of housework for women's pay, but not for men's pay, is not the outcome of a predetermined gender hierarchy but is a component of everyday interactions constructing (and reconstructing) gender. If only household goods and services were being produced, according to Berk, husbands and wives would arrange more efficient and equitable divisions of household tasks and family responsibilities.

I set up "gender relations models of pay" to consider aspects of spousal gender relations for men and women whose spouses are also employed. In one model, I look particularly for effects on the gendered pay gap from attitudes about the breadwinner role. Potucheck (1997), among other researchers adopting Berk's arguments, notes the difficulty with which women and men perceive women's paid employment to be "breadwinning." The breadwinner role is, in Potucheck's terms, "an important gender boundary." The effects of attitudes are tested for 25 to 69 year olds in dual-earner couples with both spouses employed full-time.

Some Canadian research links, not pay rates, but gendered differences in housework within dual-earner couples to attitudes about appropriate gender roles and to the relative incomes of spouses. Others (e.g., Winkler, 1998) suggest that when the wife's employment income exceeds the husband's employment income, the wife's career is more likely to be perceived as the primary career rather than as a secondary career. Her employment is more likely to be perceived as "breadwinning," and more likely to receive the sort of support dual-earner couples usually reserve for the husband's career. In another "gender relations model," I look for consequences in the gendered pay gap from differences in potential earnings between spouses in dual-earner couples. To test for improvement in accounting for the gendered gap in pay, spousal education differentials replace individual educational achievement as a predictor in this gender relations model of pay.

Review of the Results

"Disliking housework excuses men, but not women, from doing it" (Ferree 1991:177).[1] The time employed Canadian women and men put into doing unpaid housework is just one example of the inequitable division of domestic labour in industrialized countries where women's participation in the paid workforce has been steadily increasing. "To varying degrees, men everywhere still do less than their fair share of housework and child care, even if their wives work full-time" (Beck, 1998:14). The Canadian pattern is not the most extreme. Beck reserves that spot for Japan. However, a major feature of my research is the repeated presence of a combination of housework and home maintenance time in accounting for a small portion of the gender gap in hourly pay for 25 to 69 year old workers in Canada. Separate from housework but within the same model of pay, the time doing unpaid child care is less important as a contribution to the gendered gap in pay. The time helping seniors is an even weaker predictor of pay differences. In the 1994 GSS9 data, recent interruptions have some influence on pay and on the gap in pay between men and women. In the 1995 GSS10 data for individual men and women in

[1] This is one of Ferree's conclusions after interviews of Connecticut couples in 1989.

dual-earner couples, interruption at some time in a career overshadows current housework as an influence on overall pay rates for men and women, together. Yet among the women, alone, housework time and past interruption of paid work are similar in the importance of their effects on women's pay.

While the results around housework time and family responsibilities are of particular interest, the significant effects of gender on pay cannot be overlooked. Lower mean hourly pay for women's full-time work than for men's is consistently the outcome within three models of pay: the "family responsibility model," the "life cycle model" and, for dual-earner couples, the "gender relations model." The influence of gender is eroded very little by other factors in models of pay for full-time workers and persists after consideration of domestic labour, family responsibilities, recent or lifetime interruption of paid work, employment experience, education, and even the additional influences on pay within life cycle models from parental occupations and education and from unionized workplaces and self-employment. When either gender role attitudes or education differences between spouses are variables also incorporated into gender relations models of pay, gender effects on pay are still significant influences. Further explanation of gendered pay differences is more likely to be found in women's paid work than in their unpaid domestic work. The segregation of occupations and of jobs within occupations into women's work and men's work are obvious explanations to investigate, yet alteration to the influence of gender would be muted in models already incorporating education effects on pay. Less obvious explanations are the interactive processes producing gender in workplaces and sustaining gendered employment. Ridgeway (1997) describes such processes in theory, as Berk (1985) did for the production of gender in the division of household labour.

The exception to the strong gender influence on pay lies in the multivariate family responsibility model for part-time workers. An initial, zero-order disadvantage for women in part-time pay is accounted for largely by education effects. Without education effects, the gendered difference in part-time pay would still be eclipsed by effects of housework time and supervisory

experience on pay. The exception to the influence of housework is in zero-order associations with the pay of younger adults. Among 18 to 24 year olds, family responsibility indicated by the presence of young children is positively and significantly associated with women's pay.

Gender, Family Responsibilities, and Pay

For this research not only is information about housework time available, but also known is the time spent caring for and helping children, the time helping seniors, the occurrence of interruptions in paid work either recently or since beginning regular work, and the presence of dependent children. Other multivariate analyses of the gender gap in pay in Canada have extrapolated from results for marital status and the presence of children to effects of family responsibilities.

Women who appear to be getting ahead of the average pay level for the workforce in Canada, and ahead of the average pay for women, are not likely to be doing large amounts of housework. Men do some housework in most Canadian family households, but in contrast with women, the time that men put into doing housework, home maintenance, and yard work is likely to be far less than the time involved for women. Furthermore, men's unpaid household work does not make any difference for pay in comparison with the pay of other men. Beside housework, child care is of less use statistically in accounting for the gap in hourly pay between women and men employed full-time, whether from the 1994 GSS9 data or the 1995 GSS10 data. The care of children in the past, however, may have lingering negative consequences for women's pay if the extended interruptions which compromise women's pay have occurred so that women could care for children.

Child Care and Pay

This research offered a rare opportunity to examine the argument that caring for children holds Canadian women's wages below the wages that men with roughly similar experience and education receive for their employment. At the zero-order level of association, child care time is a significant influence on the hourly pay rates of adults aged 25 and over and employed full-

time. But with housework time, past interruptions, education, indicators of work experience and gender in the multivariate models, the association between pay and time spent caring for children is displaced as a significant predictor of pay rates. Among young adults employed full-time or among older adults employed part-time, the zero-order associations between child care time and pay are not statistically significant. Having dependent children under 15 years of age living in the household is also not significantly associated with pay rates for full-time workers over 25 years of age, an outcome consistent with results from around the same time period (Coish and Hale, 1994) and from about a decade earlier, in 1983 (Rosenfeld and Kalleberg, 1990). When the presence of dependent children is a significant predictor of hourly pay, as it is for part-time workers and among young adults, being a mother contributes not to a reduction in women's hourly pay but to an increase. The part-time results repeat an earlier result for Australia (McAllister, 1990). For women who are mothers, such results suggest that having children fosters a commitment to paid employment and provides a motivation to seek good wages that is often attributed only to fathers. For McAllister (1990) the positive association between women's pay for part-time work and the presence of children is taken as evidence that children provide a motive to earn money.

As a determinant of women's lower pay for full-time work, the care of husbands may be a more important factor than the unpaid care of young children, or at least the care of children concurrent with paid employment. Among 25 to 69 year olds employed full-time, even among just those in dual-earner couples, the time doing housework emerges as a stronger negative influence on pay than time caring for children. After paid work experience and education are considered, a deficit in pay among women remains tied to unpaid domestic work that could be done by almost any adult and not to time caring for dependent children. The result is a reminder of long-standing insights about women's unpaid domestic labour. Smith (1977, 1987) and Hartmann (1981), for example, have argued that much of women's unpaid household work assists men, advances their careers and, indirectly, provides benefits to men's employers.

This division of household work, gendered not only in who does it but in who benefits most from it, may be perpetuated by decisions closely connected to care of dependent young children. Fox (1990) provides an example. Even with non-traditional sharing of household work before becoming parents for the first time, women interviewed by Fox took on a greater share of the housework after becoming mothers and their husbands did a much smaller portion of the housework. If the fathers do domestic work, they are more likely to do some of the child care and not to take on additional housework. The consequence of a pivotal life event can be a traditionally gendered division of household work lasting far beyond the years of child-bearing and child-rearing. When current care of children has little relevance for pay, earlier decisions regarding housework may have long-term indirect effects upon women's and men's pay.

Housework and Pay

The persistent negative effects of housework time on pay are most obvious in the life cycle model of pay. Current unpaid housework time is a significant influence on pay that accounts for a small part of the influence of gender on pay even within the life cycle model after consideration of inherited effects on a worker's pay from parental occupations and educations as well as effects from work experience and education, and from unionization or self-employment. Housework is significantly associated with pay for men and for women together in pooled models, but only for women in the separate models. Among women, housework time is almost as important an influence on pay as their fathers' occupations, and recent interruptions are not significantly associated with women's pay.

Although the repeated significance of household work is notable, the magnitude of the contribution to the gender gap in pay in Canada is modest among full-time workers from the 1994 GSS9 data. Whether under or over 25 years of age, being a woman persists as a more important factor than increases in housework time for predicting lower pay. In family responsibility models using the 1995 GSS10 data, housework still is a disadvantage for pay among women whose husbands are in full-time paid employment although housework time does not predict pay above

or below average among all full-year full-time workers whose spouses are employed full-time. Whether the results are from 1994 or 1995 GSS data, the pattern does not fit the interpretation of housework effects on pay from Becker (1985) as the consequence of limits to individuals' time. If unpaid housework time detracts from the time and energy available for paid work, the time men spend doing housework should be the same sort of disadvantage for pay as women's housework time -- a point made clearly by Hersch and Stratton (1997).

My results using Canadian data are comparable to some of Hersch and Stratton's (1997) results with data from a U.S. national sample for the years from 1979 through 1987. They describe housework time as robust in the significance and magnitude of the negative effect on pay for women, but not for men. Coverman (1983), also with data from a U.S. sample, is frequently cited for finding significant negative housework effects on both men's pay and women's pay. Less noticed is her comment that a significant negative effect on weekly wages exists only for women's pay, but not for men's pay, if child care is excluded. The exclusion of child care is comparable to my research strategy with results for housework in the same directions as Coverman's without child care. In the two U.S. studies, the number of children is an influence considered along with housework, but otherwise the selected independent variables are similar.

A one-way relationship between domestic labour and pay is assumed for my research, following Baxter (1992a), Coverman (1983), and Hersch and Stratton (1997), but with awareness that hours of housework, child care, and paid work as well as pay for employment would have undergone interconnected adjustments prior to the point in time represented by the cross-sectional data. In most models of pay for full-time employment in my research, unpaid child care time is controlled.[2] The negative influence of pay on women's housework time, as well the relationship from housework to pay, could be an exaggerated effect -- a negative bias because higher income

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[2] First-order interactions between child care and housework are not significant after including differences in education and experience, except among women (as a separate group) aged 25 to 69 and employed full-time. That interaction between child care time, which on its own is not significantly associated with pay, and housework, a significant influence on pay, has the overall effect of flattening the pay differences across categories for both variables.

earners can purchase goods or services to substitute for unpaid household work. Such reciprocal effects between women's pay and their unpaid housework are not supported by Hersch and Stratton's (1997) analysis using U.S. longitudinal panel data or by evidence earlier from Coverman (1983), also using U.S. data, and Bäxter (1992a), using Australian data. After investigating the possibility that unknown characteristics explain the association of household work with women's pay, Hersch and Stratton (1997) are convinced that such an interpretation is unlikely. The association between housework and pay is not explained either by observed human capital characteristics in their models or by other unobserved characteristics of workers. In addition, an analysis of housework among Canadians by Davies and Carrier (1999), using 1982 data, suggests that women's income is not a significant influence on household tasks. Men with high incomes are inclined to do more, not less, "male-typed" household work than men with lower incomes. Men's incomes do not affect the likelihood that they will do "female-typed" tasks.

There are other ways in which deeply gendered workplaces still could explain some of the relationship between housework and the gendered pay gap, even if women's pay rates were to have no effect on their hours of housework. Noted as a possible explanation for the negative effect of housework on pay is the possibility that employers regard women's and men's household work differently (e.g., Hersch and Stratton, 1997). Past statistical discrimination by employers in promotions, for one thing, in response to women who have domestic responsibilities, might explain part of the negative effect of housework on women's pay in the present. Regardless of a man's participation in child care or other household work, employers may see his domestic work as an optional activity. They may not see him as responsible for doing that unpaid domestic work. Women may be seen as being more encumbered by the domestic tasks they do, as indeed they are according to gender relations explanations of differences in unpaid household work.

Interrupted Employment and Pay

Interruptions capture an adjustment to cumulative work experience that is more likely for women than for men in the mid-1990s, as it was in the early 1970s in Canada (Goyder, 1981).

In the analyses from the 1995 GSS10 of workers in dual-earner couples with both spouses working at full-time paid employment, the interruption of employment at least once for a half-year or longer brings a significant negative influence to pay in family responsibility and gender relations models of pay. More women's careers than men's careers have been interrupted, and women's interruptions can be traced mostly to personal or family reasons including maternity leaves and child care. In a separate model for women where their current housework time (a slightly more important association with pay for women than the interruption) is controlled, women's current hourly pay appears to be significantly diminished by their past family obligations. But among men, an interrupted career is not significantly associated with pay. Of the men in dual-earner couples who at some time had an interruption in paid work, very few -- only four percent -- had interrupted their careers for personal or family reasons.

With unpaid child care and housework considered or with traditional gender role attitudes as well as domestic work considered, the size of the gendered pay gap is changed a little by interrupted careers. However, recent interruptions (within the previous five years) have less impact on pay. Among 1994 GSS9 workers in dual-earner couples, experiencing a work interruption recently is not a significant predictor of wages in multivariate models of pay. For all full-time workers from the 1994 GSS9 and separately for men, the recent interruption of paid work is a significant but small influence on hourly pay rates. The effects of recent interruptions on pay bring no change in the gendered pay gap after unpaid domestic work is considered. For women, recently interrupted employment does not significantly influence pay rates. Housework time is much more important.

Ornstein (1983a) considers effects of the number of years of interruptions on pay, but he does not restrict his analysis to a sample of workers in dual-earner couples as I do for the career interruption variable in my research. The results are not the same. In Ornstein's study, the years of interruptions from paid work had no significant impact on pay after consideration of job characteristics which are similar to those in my GSS9 models including women's job tenure. In

addition he controls for occupation, economic sector, and proportion of women in industries. The difference could lie in difference in samples and measures. However, the difference could also be a change over time. The participation rate of women in the workforce grew steadily during the 1980s and declined slightly in the early 1990s. The greatest changes, for women 25 to 54 and for mothers of young children (Bassett, 1994) would mean an increase, compared to earlier times, in the number of women returning to paid work following interruptions.

At critical junctures in the past, of course, women's pay could help determine who in a couple took long-term interruptions to care for children, spouses, and homes. Such explanations tend to revolve around relative income differences between spouses, not around absolute income. For example, the spouse with the higher pay level is not likely to take parental leave. Even though fathers have been entitled to paternity leave benefits through Unemployment Insurance since 1990, less than five percent of the leaves were being taken by men in the mid-1990s (Philp, 1998).

Gender Relations and Pay

Attitudes about Men as Breadwinners

Gender role attitudes were brought into the analyses of pay with the intention of examining the consequences for the gender gap in pay of men's dominance in domestic gender relations, a dominance which would be indicated by the significant association of men's approval of a male breadwinner role with high rates of pay. This association does not occur. Among workers in dual-earner couples, agreeing that men do enough for their families if they earn sufficient money for their families to live comfortably is an attitude more likely among the workers receiving pay that is below the mean for full-time employment than among those receiving pay above the mean. Being a man remains a better predictor of high wages than gender attitudes. Among men, whether their attitudes are supportive of domestic patriarchy or are supportive of non-traditional households

is not important for their pay compared to other men's pay. Men's education levels and work experience are far more important.

Women who agree that men do enough by being breadwinners are likely to receive less than the mean hourly pay for the full-time workforce and less than the mean for women, even after adjustment for the significant effects of women's housework time, career interruptions, education and work experience. Such results are consistent with the argument that responsibility for domestic labour has negative consequences for women's pay. Women's approval of the male breadwinner role, as it is measured in this research, seems to exempt their husbands from some or all responsibility to do housework and child care, even though the women are themselves working full-time hours for the whole year. The women who reject the breadwinner role as the only role for their husbands receive better hourly pay than most other women and many men.

These Canadian results are similar to those for married workers in Coverman's (1983) analysis of a 1977 U.S. sample and in Baxter's (1992a) analysis of a 1986 Australian sample. Their models of men's and women's pay include housework time, number of children, education, and age. Hours of work are controlled and both studies contain an indicator of class and control for workplace characteristics in more detail than is possible with GSS10 data. Even with the additional consideration of class and job characteristics in the models, gender role attitudes are significantly associated with women's earnings but not with men's earnings in these studies. The pattern is consistent: the women with less traditional gender role attitudes are likely to receive higher wages than women with more traditional attitudes.

Disagreeing with a traditional, patriarchal gender role is associated with benefits in pay for a greater proportion of the women in dual-earner couples than of the men. Without an adjustment for differences in gender role attitudes, the overall disadvantage for pay of being a woman would be greater. Once attitudes are considered, education does not further alter the influence of gender on pay -- although education has further direct effects on pay rates. Some key variables are closely ranked in their importance, after education and gender, in accounting for variance in

hourly pay. In declining order of importance, they are gender role attitudes, housework and home maintenance, and then interrupted work. Note that the association between attitudes and pay does not disappear when housework is in the same model.

Of course, a reciprocal relationship between pay and attitudes is possible, with women's higher than average pay fostering perceptions of independence from a husband's wages and expectations that a husband's family obligations can include more than earning money. Women who earn little and do more of the housework than women with better pay may be inclined to accept the male breadwinner role by way of promoting an adequate wage for their husbands and a decent income for their households. The absence of additional adjustment to gender effects on pay from education effects could suggest such an interpretation because the gendered gap is not affected further by an influence solidly related to pay rates.

Spousal Education Differential and Pay

In another attempt to examine the influence of spousal power relations on pay rates and on the gendered pay gap, women's educational attainment is compared with their husbands' educations and men's educational attainment is compared with their wives' educations. The spousal education differential is taken to be a measure of relative earning potential between spouses. Associated with actual pay, it works out as if an indicator of male dominance, but it does not follow through to account for the gender gap in pay. For women's pay, compared only to other women's pay, having more or less education than husbands is not significantly associated with pay rates even when considered apart from any other influences on pay. Among men, in contrast, the spousal education differential is significantly and positively associated with pay. Men receive better than the mean pay for their employment if their earning potential is the same as or is better than their wives' potential and receive less than the mean when their earning potential is less.

The argument is extended from resource theories of spousal power relations (Blood and Wolfe, 1960), from Clement and Myles' (1994) results on decision-making in Canada, and from

additional studies of housework in Canada by Brayfield (1992) and Baxter (1997). A non-traditional division of domestic labour is more likely within dual-earner households when women's resources -- here their educations -- are equal to or exceed their husbands' resources. Both men and women would be more likely to approve of and promote wives' paid work. The wives could better pursue opportunities and, consequently, receive pay increases that are not available to a woman whose career is perceived to be less important than her husband's career. The results for women here do not support arguments based on relative spousal resources, but could be seen to provide some support for gender relations explanations of pay differences. The significant effects for men are evidence of an association between husband dominance in spousal relationships and men's pay. Women with an advantage in education, or potential employment income, relative to their husbands do not receive significantly more pay than other women. The results bear some similarity to Brayfield (1992) and Baxter (1997) in that the association between having the higher income and doing less indoor housework is weaker among women than among men.

However, the education differential brings little adjustment to the importance of gender for pay. Furthermore, when the effects on pay of a man's or a woman's own education level is controlled, the spousal educational differential no longer has a significant effect upon men's pay. What remains of the categorical effects is a residual negative effect of low levels of education upon pay that occurs even if a man has more education than his wife, and a residual positive effect of higher education, even if a man's high education level is somewhat lower than his wife's education.

Helping the Elderly and Pay

The effects of unpaid assistance to seniors on pay for employment and on the gendered pay gap were investigated in this research. Because women rather than men are likely to assume responsibility for unpaid care-giving work, the care of elderly relatives is argued by several analysts to be unpaid work that is on the increase for women as health care is deinstitutionalized in Canada (e.g. Luxton, 1990; Ursel, 1992; Armstrong and Armstrong, 1994). However, no

substantial effects upon hourly pay rates are evident. Even at the zero-order level of association when a significant negative effect is noted for full-time workers, the relationship with pay is weak and small. Among part-time workers, men or women, no significant connections to pay appear. Among the men and women with spouses employed full-time, no one reported ever interrupting his or her paid work to care for an elderly person.

In spite of these results, the relationship between pay and the unpaid assistance of seniors should be re-examined in future research. Several interpretations could explain the lack of association with pay. The question which gathers information about unpaid work is very broad. It potentially includes the close and constant supervision of a frail, disoriented elderly person as well as driving an independent, healthy elderly person to and from a grocery store. If the more demanding and obligatory work, such as caring for the frail elderly, is more likely to be done by women while men are likely to take on less demanding and optional tasks, the measure of unpaid work time may have obscured the gendered dimensions of this work. A gendered difference in the strain for unpaid caregivers is obvious in Cranswick's (1997) report from 1996 data: 27 percent of women caregivers, compared to 12 percent of men, report effects on their health from informal unpaid work as caregivers for others of any age.

Other explanations could also apply. The care of seniors may be more common among women and men who are not employed for pay than among people who are employed, and women are less likely than men to participate in the paid workforce. Women who for other reasons already are not in the paid workforce could take on the unpaid work of caring for seniors with no apparent effect on current pay levels from this gendered division of labour. Another consideration is that the greatest time demands to care for elderly family members may be, like many major life events, inevitable for most people over their lifetimes yet unusual for most people at any particular point in time. For this reason, the unpaid care of elderly family members would have little or no affect on pay or on the gendered pay gap in the general population, even if the unpaid time is

mainly women's time. It is also possible that projected consequences of changes in institutional health care had not yet unfolded by 1994 or 1995.

Other Factors Associated with Pay

How do the results on other independent variables compare to results from comparable research? Comparable studies use Canadian data from the early 1970s (Goyder, 1981) or from the early 1980s (Ornstein, 1983a; Rosenfeld and Kalleberg, 1990). More recently, Coish and Hale (1994) use January, 1993 data. None of the studies draws upon information about time doing unpaid household work or attitudes about breadwinning in relation to wages.[3] Unlike the earlier studies but similar to my research, Coish and Hale (1994) do not adjust pay differentials for the influence of occupation or industry. "[T]heir inclusion may mask earnings discrimination because of a matching process of workers and jobs that is conditioned by gender" (Coish and Hale, 1994:41), a reason taken from Wannell (1989). Without occupation here, the effects of post secondary education among women and associations with pay of the less-examined division of domestic labour or interruptions to paid work are not obscured. Job segregation is considered in my models of pay in so far as the effects of current supervisory work are controlled.

The patterns of effects of education, a strong predictor of hourly pay in this research, appear to have changed over time. In earlier results (Goyder, 1981; Ornstein, 1983a), education makes little difference for women's pay relative to men's pay in models including occupation. Without occupation effects, improvement in education meant greater increases in pay for men than for women in Ornstein's study of 1981 data. He observes that for men, education affected their pay through their occupations.

In my research, a worker's education level is more important than being a man or a woman as a predictor of pay rates, and without education effects on pay, the gendered gap in pay would be larger. The greater proportion among men than among women who have not completed

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[3] The 1973 data for Goyder's analysis were, as he points out, unusual because both women and men were respondents in the survey sample. Earlier surveys had asked men to respond for women.

high school draws away some of the advantage in pay for men. Women's greater likelihood than men's of graduation from high school and their slightly greater likelihood of having a university degree counteract some of the disadvantage for pay of being a woman. The overall effect of women's advancement in educational attainments over the years is a moderation of the effect of disadvantage in women's hourly pay. Coish and Hale (1994) point to the disproportionate number of men who have many years of schooling associated with high hourly pay rates or a few years of schooling and, consequently, low wages. Postgraduate degrees are not separated from undergraduate degrees in my analysis; however, the differences between men and women at the highest levels of education would partly explain the higher wages for men who completed university, compared to other men, than the advantage for women with university degrees compared to other women.

Consistent with other research, men receive more pay for each year of work experience than women receive. Therefore, the effects of experience are controlled in my models. My results for job tenure -- the years of experience with the current employer apart from other work experience -- are similar to results from Rosenfeld and Kalleberg (1990): women receive better pay for added years of experience with an employer than men receive. The influence on pay appears to be of greatest magnitude among women in dual-earner couples. Ornstein's (1983a) results are different, with women receiving less pay from experience in their current jobs and in their past employers. But at the same time, Ornstein reported no significant association between withdrawal from the workforce and pay, a potential influence not considered by Rosenfeld and Kalleberg (1990). The apparent conflict in results is, perhaps, resolved in the effect of job tenure on the gendered pay gap in my results. Women might gain more from their experience with their present employers yet, overall, have less accumulated experience with employers than men have. That difference in overall experience still explains some of women's lower mean wages and part of the influence of gender on pay. With career interruptions in one set of data and job tenure in

the other, comparison of these changes in employment histories with Ornstein's results for 1981 are not possible using the GSS9 and GSS10 data.

Supervisory experience is another specific type of work experience affecting pay. The effects of current supervisory positions are also in my models of pay as a control variable. Now, as in the past, women do not receive the same advantage in pay as men do from supervising others in their workplaces (Ornstein, 1983a; Boyd et al.,. 1997). The more unusual variable in an analysis of the gendered pay gap is supervisory experience, indicated here by work as a supervisor five years before the 1994 GSS9 survey. Supervisory experience ranks at about the same level of importance as housework time: slightly more important than housework in the general population of full-time workers and slightly less important in the subpopulation of men and women whose spouses are working for pay. The combination of smaller percentages of women in supervisory positions currently and in the past are one reason women's mean hourly pay is less than men's hourly pay.

Self-employment, included in the life cycle models in my research, is notable in the tendency to provide a counter-influence to gender effects on pay. Self-employment is a disadvantage for pay that is more likely to affect men than women because a greater percentage of men than women are self-employed. Women gain a relative benefit in mean pay compared to men, but the consequent adjustment to the influence of gender on pay is minor. Concerned about confounding effects on pay through other variables, researchers often exclude self-employed workers (Rosenfeld and Kalleberg, 1990; Boyd et al., 1997). In Ornstein's (1983a) analysis, self-employed business ownership was advantageous for men owning large firms. However, the number of employees was not considered in my research. Because the analysis samples contain only workers reporting employment income, the relationship of self-employment and gender effects on pay in this analysis would not likely be changed.

Another income analysis by Ornstein (1983b) is a comparison for the outcome on pay for the education and occupation of a worker's mother and father.[4] With 1979 data including the mother's education, Ornstein found that gender is more important than a status attainment model in predicting income. My results concur when also including the mother's occupation and education. Gender is much more important for determining pay than inherited effects from parental status and education. The most notable effects, from a father's occupation for either a son's or daughter's pay, are not the same-sex effects which were anticipated. However, a same-sex effect is obvious among young adults, who are not included in the other analyses. Young women's pay is significantly influenced by their mother's occupations with the greatest advantage occurring when the mothers are in professional, semi-professional, or managerial occupations. The stronger effect from mothers to daughters than from fathers to sons is anticipated by education attainment research (e.g. Guppy and Arai, 1993). Young men and women are far closer in mean pay than older adults, to begin with, and gender is slightly less important than the mothers' occupations in the multivariate model.

After other influences on pay are considered, age differences add little information to the models of hourly pay, yet any small influence on pay from age has the effect of moderating the gender gap among the men and women working full-time hours (although not necessarily a full-year). Simply being young appears to be a positive attribute when only the magnitude of the influence of gender is being considered. However, average wages among younger workers are low in comparison to older workers. The difference between the mean pay of women and the mean pay of men is smaller among workers under 25 and in full-time employment in 1994. For the 20 to 24 year old cohort, women are being paid 91 percent of the mean hourly wage men receive. Unlike older workers, young women are not disadvantaged in pay by household work

[4] Both mother's and father's educations are in Coish and Hale's (1994) model of pay, but the results are not presented.

and young men do not gain advantages for pay from marriage. Neither factor is significantly associated with wages.

Housework and Pay among Part-time Workers

The women Pupo interviewed about part-time paid employment "see themselves as striking a delicate balance between the benefits of paid employment (personal autonomy, economic productivity and a measure of independence) and their responsibilities in the family" (1989:99). Part-time paid employment is the work of women, mainly, and is often described as one way women arrange for time to be with their children, to do unpaid housework, and to work for pay. The distribution of time between unpaid and paid work does not substitute for inquiry into their expectations and attitudes regarding gender relations. Women's balance between family work and paid work, Pupo (1989:99) concludes, "is not based on, is not intended to safeguard, a traditional division of domestic labour. In general, these women strive to establish a relatively egalitarian division of domestic chores."

For the workers employed part-time, less than 30 hours a week, gender is not a significant influence on pay in the full models of pay with family influences, education, and paid work experience. Housework time is more important as a negative effect on pay for part-time work than being a woman, and the deficit in hourly pay that accompanies increasing housework time contributes to the gap between women's and men's part-time pay. However, housework time, like gender, is not a significant influence on wages for part-time work after taking into account other significant influences (the presence of children in the household, years of job tenure, and education).[5] In my research, differences in education explain some of the gap in pay between men and women working part-time. This pattern is the opposite of education and gender effects on full-time pay. Among people employed part-time, women's lower education levels draw their pay down relative to men's pay. A greater proportion of the women than of the men working

[5] Without adjustment for the extremely skewed pay distribution, both gender and housework still would be weak influences, significant only at $p \leq .05$, in the full model.

part-time have not completed high school. A greater proportion of men than of women hold university degrees; thus, the gains in hourly pay for completing university go more to men than to women among part-time workers.

Having dependent children is significantly and positively associated with part-time hourly pay of women but not men, a suggestion that mothers in part-time employment have been able to reduce hours of work when their jobs pay better than the average hourly wage. (The time caring for children, correlated with the presence of children, is a weaker predictor of pay in zero-order associations and was not selected for the multivariate models.) Other evidence in this research undercuts notions that part-time paid employment is the exclusive domain of involuntary, marginal employment for women. The workers, almost all women, who for personal or family reasons have less than full-time hours of paid employment are likely to receive better pay for each hour of work than other part-time workers. Some explanation of pay differences may lie within the organization of workplaces and occupations open to women and men with post secondary diplomas and university degrees. Well-paid workers who are valuable to their employers may be able to negotiate alternatives to full-time hours, a possibility that should be pursued in other investigations of gender, part-time work, and pay. On the other hand, women and men who would prefer to be employed full-time are likely to be receiving significantly less than the mean pay for part-time hours. A reasonable assumption is that the low rate of pay for many part-time jobs cannot possibly add up to an adequate annual income. Consequently, many part-time workers are seeking better overall income. Workers wanting full-time employment are a large group of part-time workers, 32 percent of the women employed part-time and 42 percent of the men. Investigation of reasons for working part-time alongside questions about domestic labour was precluded for my research by the size of the sample of part-time workers, especially the small number of men.

Revisiting the Models and Theory

A pattern of results implied by human capital theory -- significant negative associations for both women and men between unpaid time expended for domestic work and pay for concurrent employment -- is not found in this research. Gendered differences in pay prove to be tied not only to differential effects on pay of housework for women and men but also to differential effects of job tenure and of career interruption for women and men. Such gendered effects on pay, providing advantages for men and disadvantages for women, are more consistent with gender relations theory than human capital theory. Moreover, education, with adjustment for other influences in family responsibility and gender relations models, does not become the sort of problem predicted by human capital theories for the average pay of women among full-time workers. Women's completed education mitigates the influences of gender on pay for full-time employment. Further, among part-time workers education more or less accounts for the gap between the average pay of women and average pay for the small proportion of men among part-time workers. Without education controls, the effects of housework would also account for much of the influence of gender on hourly pay for part-time work, even after incorporating a small positive effect on pay associated with being a mother of a dependent child or children.

When unpaid child care time is considered simultaneously with unpaid housework time in models of pay for full-time employment, the results need to be interpreted carefully and clearly. Time caring for children, whether no hours, a few hours or many hours, is not a statistically significant factor accounting for pay differences if housework time and interruptions from paid work are also included in the "family relations," "life cycle," or "gender relations" models of pay for full-time employment. Yet, those results are consistent with gender relations theory. The results suggest the conclusion that women's lesser pay is more the result of unpaid work of benefit to men than of unpaid work of benefit to children.

The effect of past child care arrangements is suggested in models of pay for dual-earner couples with both spouses currently working full-time. The results show the importance of child

care and parenting for long-term consequences on pay. The gendered effects are consistent with gender relations theories. However, there may be shortcomings in my procedure for estimation of effects of past interruptions on current pay for employment. I did not separate maternity leave and child care from other reasons for interruptions in my analyses, but rather settled for the knowledge that seventy-five percent of women interrupted their employment at least once for reasons connected to family responsibilities. A further break-down of the data might have better clarified the gendered association between career interruptions and current pay.

None of the multivariate models account for more than a modest amount of the variance in hourly pay -- whether for men and women together or among women or among men on their own. Little of the effect of gender on pay is accounted for by adjustment for the influence of other variables in the family responsibility models or in the life cycle versions of the family responsibility models. Adding indicators of spousal gender relations to the gender relations models of pay for full-time workers in dual-earner couples does not improve the level of explanation of pay differences. In terms of the multiple R square, the gender relations model incorporating attitudes about men's breadwinning role compares satisfactorily with the family responsibility model for full-time workers whose spouses are also employed full-time. The model with spousal educational differences, without a workers' personal educational attainment, is a poorer model than the family responsibility one in explaining variance in pay. The life cycle model for full time workers accounts for much the same variance in pay as the family responsibility model.

However, we should not conclude that the modest explanatory power of the models, and the slight contribution of the indicators of spousal gender relations to an explanation of pay differences, represent a failure of gender relations theory. My "gender relations models" and "family responsibility models" are very focused and constrained. The objective of these models was to test narrowly specified explanations about pay associated with gendered patterns of unpaid domestic work in family households or with spousal gender relations. While some results are not

fully as expected, particularly regarding men's attitudes, the results are generally consistent with gender relations explanations of the gendered gap in pay.

Alternate Explanations of the Remaining Gender Gap in Pay

With the controls in the family responsibility models and gender relations models for full-time workers the influence of gender on pay changes little compared with no controls. The persistent gender effect may in part be the consequence of limitations of the measures used in these models. But, a problem could also be my limited application of gender relations theory. Alternative explanations of gendered pay differences turn more to women's paid work than their unpaid domestic work. Extending Berk's (1985) analysis, Ridgeway's (1997) theoretical analysis of workplace gender relations identifies interactions and processes that produce and reproduce gender and gendered jobs in the workplace. The segregation of occupations and of jobs within occupations into women's work and men's work may provide some of the explanation of the gender gap in pay (Walby, 1988; Armstrong and Armstrong, 1994; Reskin and Padavic, 1994). These processes are not measured or tested in the present analysis. While improvement in total explained variance in pay would likely occur with inclusion of occupation measures for the models and subpopulations considered, explanation of gender effects depends on capturing aspects of processes. The impact of gender may be altered modestly if new models simply add occupational categories to the models with education. In Ornstein's (1983a) research, discussed earlier, a gender effect on pay remains in spite of adjustment for the effects of education and occupational groupings or even with adjustment for the proportion of women in an occupation. Multivariate analyses with the fine distinctions of job categories within occupations as controls would require a larger national sample than currently drawn for the GSS.

As Ornstein and Stewart (1996) suggest in their analysis of gendered pay among Canadian university faculty members that analysis of workplace influences should consider organizational characteristics, including bureaucratization and formalization. Bridges and Nelson (1989) argue

that gender discrimination can survive readily in bureaucracies of gendered organizations. Bureaucracies can, for example, slow the implementation of formal equity policies. Anderson and Tomaskovic-Devey's (1995) findings suggest a contrary effect on pay from formalization, apart from other characteristics of bureaucratization. They argue that formalization of the relationships between employer and employee will reduce gendered wage inequalities by reducing the gendered evaluation of jobs. Managers loose individual discretion when there are very explicit criteria for hiring, wages, promotion, and benefits such as paid leaves related to family responsibilities. To some extent, educational or occupational effects may be accounted for by differences between the organizational form of workplaces where high-levels of education among workers and high-paying occupations are typical. Thus, the sources of gendered differences in pay rates could be better understood, and more variance may be explained, in models incorporating more characteristics of the workplace.

Workplaces will also differ in their exemptions from equal pay legislation and their speed in implementation of equal pay policies. Slow change in the gender gap in pay over time could, in part, also be a lag related to the employment backgrounds of men and women working. Equal pay legislation was in place in some Canadian jurisdictions in the early 1950s. However, the concept of equal as "equal value," rather than "similar" or "substantially the same," first appeared in 1956 federal legislation and, next, in 1964 with the first equal pay law for Quebec (Gunderson, 1985). In the current paid workforce, the men who began their paid employment between the mid-1950s and early 1960s are likely to have good hourly pay in comparison with other men while the women's pay is below the mean average for women. These men and women are beginning to move out of the workforce and into retirement. The younger cohorts of women moving into the workforce have greater average educational achievements than the women approaching retirement and are similar to their age peer men in education levels. A greater percentage of women than of men 20 to 29 years of age had completed a university degree in 1996 (Statistics

Canada, 1998b). These cohort processes, too, are implicated in the contemporary gendered wage gap for all workers.

Continuing workplace discrimination by employers and co-workers in hiring, promotion, training, and allocating pay increases is emphasized within gender relations explanations of the gendered pay gap. In discussing responsibilities for unpaid domestic work, I have already suggested that employers may regard women's household work as a responsibility constraining their commitment to paid work but may not perceive men's commitment to household work as a similarly constraining responsibility. We should note, again, Ornstein and Stewart's (1996) caution about the interpretation of residual effects -- or, in my models, the remaining association of gender effects with pay after controls. They point to multiple sources of gendered discrimination not captured in the gender coefficient.

Further, day-to-day processes constructing gender in workplaces over time cannot be fully captured in cross-sectional analyses such as those presented here. Cross-sectional analyses certainly do not allow estimates of the effects on current pay of women's socialization in families and in educational systems. That is, the early experiences of discrimination, the formation of expectations for employment, and decisions regarding employment and education that are unmeasured in the present analyses. Each of these factors, too, may play some part in accounting for the gender gap in pay, as gender relations theories suggest.

Recall, also, that a narrowing of the gendered pay gap in 1995 is in part the result of a decline in men's, especially young men's, average income. The increasing proportion of the workforce of men in part-time employment also reduced the gap between men's and women's average wages for full-time full-year work. The five-year trend in annual earnings is similar from 1990 to 1995. While the proportion of men in full year full-time work declined, men's annual earnings for full-time work and for part-time work declined, but women's earnings increased (Statistics Canada, 1998c). These changes may be temporary or they could be enduring, substantial changes in the source of gendered differences in pay for work.

LIMITATIONS OF THE RESULTS

My analysis of GSS data is limited not only because the data are cross-sectional but, as with any secondary analysis, it is also limited to the information provided in the existing data sets. The results regarding child care need, particularly, to be approached with awareness of potential limitations of the data. The GSS questions may be introducing distortion into the analysis. The extent of the coverage of the unpaid work questions was noted in describing the data sources in Chapter Two. In particular, time at unpaid work for only the members of a worker's immediate household cannot be identified separately. The measures of unpaid assistance to children are also too coarse to differentiate between minding children and being a parent. Because there is not information on the ages of young children in the GSS9, any distinct patterns in pay associated with the unpaid care of infants or other young children versus older dependent children have been obscured. With information the exact ages of children, or the number of children under five of six, testing for different effects could occur. In the GSS9 data, the youngest age grouping for children is under 15 years of age.

Results indicating a reduction in the influence of unpaid child care time on pay relative to the influence of other factors in multivariate analysis does not imply that the presence of children in households and parenting have no impact upon paid work behaviour. My research asks questions about influences on the pay of men and women in the paid workforce. It moves in for closer study of those men and women who are working full-time and of men and women in dual-earner couples with wives or husbands also working full-time. The people with children must, under these circumstances, have made prior arrangement for the care of their children while they, the parents, are working. How couples arrive at those arrangements is not measured the GSS data. We know that for women, especially, part-time paid employment is one way to accommodate the care of children. Part-time employment, like interruptions to employment to care for children, means lost occupational opportunities for most workers and a far greater likelihood of receiving low hourly pay for their employment.

The presence of children and the parenting of children affect access to the workforce and the job mobility of most women who are mothers. Mothers do not have the same opportunities as fathers who remain in the workforce while their children are young. The questions and response categories on these issues are too general for accurate, even if limited, interpretation of results. A "personal or family responsibilities" category as a reason for part-time employment (in Appendix B) or as the purpose of a break in paid work (in Appendix C) does not permit identification of an explanation linked to family structures and family responsibilities. The care of a worker's immediate family household could also be entwined with the care of extended families and other households.

Distinctions across the changing ages of children, corresponding changes in the paid and unpaid work, and changing effects on pay and holding employment cannot be traced with the GSS data sets. Our analysis of pay differences for people already working are "late" in the process of obtaining work and pay. The process leading up to full-time employment, by gender, needs to be carefully studied. For such research, longitudinal panel data are needed.

Processes leading to women's decisions to work in part-time rather than full-time employment, or decisions to remain outside the paid workforce, are also part of underlying processes needing investigation. Information is lacking in these surveys on the availability to individual workers of governmental or employer benefits which are likely to inform work behaviour and decisions about interruptions. Some retrospective information on employment, recent interruptions, and change in pay (increased, decreased or the same) is available in the 1994 GSS9 data, but the dynamics involved in the history of employment and pay are not known. No data are available to calculate effects at various times and change between times for employment and pay.

Further, information about husbands and wives of workers is insufficient to examine associations, even at one point in time, of spouses' occupations, employment incomes, and attitudes about work and family.

The set of statements used to generate attitude scales are also a troublesome part of the 1995 GSS10. (See Appendix C.) For respondents in dual-earner families, most items are ambiguous and invite respondents to express opinions about "others." For either men or women, responses to this survey may not pertain to beliefs about their personal responsibilities. Ambiguous statements lead to strained interpretation by respondents and by analysts. Answers are omitted, "no opinion" responses increase, and poor inter-item reliability curtails the development of multi-item scales. I use the degree of agreement with men's breadwinning role to predict pay differences, yet what is absent from my research are women's expectations of husbands and fathers beyond earning money if the primary breadwinner role is not adequate. Also missing is some insight into what contributions of paid and unpaid work women expect from themselves for their families. In addition, with the cross-sectional data the causal order of associations relating attitudes to pay cannot be established. Again, longitudinal analyses, with attitudes and patterns of pay and work repeatedly researched, are clearly needed.

Suggestions for Future Research

While the detrimental effect of housework on women's pay is slighter in magnitude than anticipated from the perspective of gender relations explanations of the pay gap and from the seeming intransigence of gendered responsibility for unpaid household work, the relationship between housework and employment income in Canada should be re-examined in future research. The questions about unpaid housework and child care time incorporated into the long form of the 1996 Census of Canada are one new resource for researchers.

Other data are needed for information about the responsibilities for housework of both spouses in dual-earner couples. From my research, results for career interruptions and gender attitudes among workers in dual-earner couples suggest that responsibility for housework is related to gendered pay differences. Baxter (1992a) both argues and demonstrates that Australian women's responsibility for indoor household tasks is more important in reducing their pay than

the actual time they spend doing housework. Women can reduce their time doing housework by doing less themselves or by hiring help to do the housework or by purchasing substitute goods and services more easily than the division of domestic labour can be reorganized to reduce women's responsibility for doing housework. To determine responsibility, Baxter (1992a) uses questions about who in the couple does routine indoor housework tasks. Hersch (1991) separates domestic labour time on "job days" from time on "non-job days" for tasks involved in housework, yard work, repairs, shopping, and family accounts. In her non-representative sample, the only significant association with pay is the negative association between women's wages and their housework on "job days." Questions determining men's and women's perceptions of their obligation to do household tasks or their freedom of choice, gendered differences noted by Shaw (1988), could provide other measures of gendered responsibility for housework which may be related to pay. Responsibility for housework would also include who in a couple hires and fires any paid domestic workers.

Finer distinctions concerning housework and responsibilities might contribute little more than my current research yields in explaining gendered pay differences. However, further insight might be gained into connections between the production of gender within households and the gendered pay gap. Brayfield (1992) comments that some men and women may balance responsibilities for paid employment, housework, and child care over time so that they share responsibilities in the long-term rather than at particular points in time. "For some couples, a norm of relative equity may operate over a span of several years, through the conscious sequencing of career priorities and family responsibilities. Housework duties may shift with the exchange of career priorities" (Brayfield 1992:29). The characteristics of men and women in couples who do alternately support a wife's career and a husband's career and the relationship of those characteristics with the gendered pay gap are, again, material important for further research. Longitudinal data with income, employment, and unpaid housework information for both spouses

in a household would need to be obtained (from one spouse or preferably from both spouses) in order to undertake such an investigation.

In short, a sustained longitudinal panel study is needed to approach just the issues of unpaid household work, paid work, domestic relations, and pay for employment that are encompassed within gender relations theories. Differences associated with pay could be determined before, as well as after, women make compromises between their hours of work, arrangements to care for family members, and pay for employment. Changes in the perceived distribution of responsibility for housework and for child care between spouses could be made visible. Expectations and attitudes about housework and parenting for oneself and one's spouse would be gathered at different points in time. Changes in income and occupations could be tracked over time. An event history analysis would then be needed to explore the information on forced choices regarding changes in employment. Further, when considering gender relations explanations of the gendered pay gap, it would be instructive to know when and why men and women came to be working full-time or not working full-time at different points during their life spans and if temporary withdrawals are supported by employment benefits. Starting with early attitudes, insight could be gained into the formation of attitudes and expectations learned in the workplace and as an adult within families. Changes in attitudes and in domestic divisions of labour when first becoming a parent and then as children grow older could be explored within such an analysis.

Still untested is the suggestion that changes in women's actual wages relative to their husbands' wages could change the mean wage for women within the subpopulation of dual-earner couples and, in turn, for women in the general population. Relative income measures cannot be constructed for recent years using existing national-level Canadian data.[6] For cross-sectional

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[6] Brayfield (1992) calculated a measure of relative income between spouses from mid-points of 12 income categories in the early 1980s Canadian data from the Comparative Project on Class Structure and Class Consciousness. The original categories are not noted in Brayfield's article predicting domestic labour differences. A relative difference of estimated incomes which are category mid-points is a crude measure, at best, but may also seriously mislead if differences of $10,000 or $20,000 or more become equivalent

survey data, a simple query to one spouse in a dual-earner couple would be helpful: "Did you earn more than, less than, or about the same amount as your spouse over the past year?" Alternatively, knowing the percentage of a woman's contribution to the total household income would give a more detailed indicator of relative economic power of the spouses.

Looking Ahead

One proposition to be investigated with measures of the relative income of spouses is that a woman's participation in the paid workforce is likely to receive the sort of support given to a man's career in most households only if a wife's employment income matches or exceeds her husband's employment income. Women and their husbands are then more likely to perceive the wives' pay to be critical for family well-being, women are likely to be involved in financial decisions, and housework is likely to be less gendered both in who does it and in who benefits from it. Winkler's (1998) position is that the overall gendered pay gap could be affected if women's careers were the primary careers within families, not so much because the domestic division of labour would be altered, but because women's position in the workplace would change. They would be less likely to move to advance their husbands' careers rather than their own or, given opportunity to investigate alternative jobs, would have more bargaining power with current employers than women do when their careers are secondary.

But if Potuchek's (1997) conclusions can be a guide to expected results, spousal pay differentials do not have an impact on the pay gap that is obvious, because perceptions and attitudes regarding breadwinning get involved. The construction and reconstruction of breadwinning is complex and contentious for the couples Potuchek interviewed. Their perceptions, attitudes, and behaviour do not intersect neatly. Her research suggests that women and men may more easily perceive themselves to be co-providers, both breadwinners, than to define a wife as

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through grouping and estimating with mid-points, while differences of much smaller amounts are placed into different categories and become a relative income difference.

the primary provider for even a short time span. Their on-going interactive construction of gender and their decisions would have to defer to the development of her career while probably compromising support for the husbands' career.

Yet in the day-to-day paid and unpaid work life of many Canadian families, women's paid employment is critical for family well-being. As Lero (1996) notes in her overview of the current economic environment for dual-earner couples, in many low income families both a wife's pay and a husband's pay are necessary to keep families out of poverty. Even when family income is more comfortable, the possibility of unpredicted unemployment may keep both spouses working at paid employment when they both have jobs. While husbands and wives may not see women as the primary breadwinner in these situations, the economic interdependence of spouses, at least, seems more likely to be recognized by husbands and wives. My research suggests that women's perceptions both of economic interdependence with spouses and their own economic independence as individuals are aligned with good pay for full-time work.

At the end of a lifetime's employment, the gender gap in pay can mean something rather more serious than the benign scenario in which long-surviving spouses share two pensions and two investment incomes at retirement, with the wife's total personal income in a lower tax bracket than her husband's income. The evidence from my research is that having one career interruption or more has long-term compromising effects on the pay of full-time workers. The slightly greater cost of an interruption for women's pay than for men's pay explains some of the gap in hourly pay between women and men. But at retirement, the gap between women's pay and men's pay can be substantial even if women do not take extended breaks from paid employment in order to care for children. McMullin and Ballantyne (1995) cite a British source indicating that women who worked to retirement without interruptions still have lower incomes in retirement than men who had interrupted their paid work (Bone et al., 1992). Looking at the incomes of older Canadians, McMullin and Ballantyne (1995) describe the disadvantage for women as "bleak." For

the many women whose hourly pay is at the lower end of the pay distribution, the gender gap in pay adds to a lifelong struggle for self-sufficiency.

Some narrowing of the gendered pay gap depends upon a continuation of improvement in women's completion of university degrees, even though the advantages in women's pay for all degrees combined together are not now the equivalent to men's. Only a small reduction in the gap could occur if men took on additional responsibility for household work. Far greater improvement in women's pay is likely to accrue from changes in gendered relations in workplaces than from changes in gendered divisions of domestic labour.

The current pattern of pay across age cohorts suggests that in time the situation for women should improve. The disadvantage in pay for women is less among the youngest adults, under 25 years of age, than among workers aged 25 and older. Students at university or in other post secondary studies are excluded from the younger group; however, the entry into the workforce of increasing numbers of women with education beyond high school would further erode the gender gap among full-time workers. Unadjusted for any other influences, the gap between men's and women's pay in the 1994 GSS9 data is greatest among full-time workers born before 1940. The pay for women under the age of 30 is below the mean for women, but women's pay improves in their thirties to remain better than the average for women until age 55 and over. Unlike women's wages, the low wages for men -- wages below the mean for men -- extend into the 34 to 39 year old age group. While in each age cohort women's average hourly pay is below men's pay, the possibility of continued, slow reduction in size of the gendered pay gap lies in the narrower gaps for the younger women.

APPENDIX A

Selections of Cases

from

1994 General Social Survey, Cycle 9 and 1995 General Social Survey, Cycle 10

The following tables illustrate the development of the main subsamples for the analyses. The rows indicate successive steps in the selection of cases. The first row of each table, Table A.1 and Table A.2, is the first selection: 18 to 69 year old respondents who reported income from employment. Subsequent rows detail selection from GSS9 and GSS10 data based on characteristics of respondents' pay and employment. Columns present the number and percentage of men and women and the declining total number of cases at each step.

Table A.1 Case Selection, 1994 General Social Survey, Cycle 9

Selection Criteria	Men N	Men %	Women N	Women %	Total N
Adult ages 18 to 69, with information on pay (employment earnings and pay period) and earned income from employment (remove cases reporting earnings of zero)	3145	(51.7)	2933	(48.3)	6078
Not retired (retirement was not the main activity of the past 12 months), and held a job last week	2761	(52.0)	2546	(48.0)	5307
Usually work at least 10 hours per week at the job held last week and earned at least $1.00 per hour (if more than one job last week, hours and income are for job at which spent the most hours)	2692	(52.6)	2426	(46.4)	5118
Worked at a job or for a business or was self-employed last week, usually work at least 10 hours at that job for at least $1.00 per hour	2558	(53.1)	2261	(46.9)	4819
Completed studies (not an active student) and not retired, aged 18-69, at work last week and usually work at least 10 hours a week for at least $1.00 per hour	2327	(54.3)	1955	(45.7)	4282
Full-time work (usually work 30 hours or more per week) for at least $1.00 per hour, at work last week, aged 18 to 69, not a student, and not retired	2234	(58.6)	1577	(41.4)	3811
Age 25 years to 69 years (remove under 25 years of age) and, as above, full-time	2068	(59.2)	1424	(40.7)	3492

Table A.2 Case Selection, 1995 General Social Survey, Cycle 10

Selection Criteria	Men N	Men %	Women N	Women %	Total N
Adult ages 18 to 69, with information on personal income and earned income from employment (remove cases reporting income of zero and cases whose personal income does not include employment earnings)	2937	(52.6)	2651	(47.4)	5588
Employment is the only or the most important source of income	2770	(53.5)	2410	(46.5)	5180
Worked at a job or for a business or was self-employed in the past 12 months, main activity in past 12 months was not retirement, and employment was the only or the most important source of income	2750	(53.5)	2386	(46.5)	5136
Usually work at least 10 hours per week, earned at least $1.00 per hour (usual hours per week and number of weeks in past 12 months), at work last week, and worked the full-year (49 to 52 weeks in past year)	2057	(54.4)	1722	(45.6)	3779
Completed studies (not an active student) and not retired, aged 18-69, at work last week and for full-year, usually work at least 10 hours a week for at least $1.00 per hour	1665	(55.5)	1336	(44.5)	3001
Full-time work (usually work 30 hours or more per week) for at least $1.00 per hour, at work last week, worked a full-year, aged 18 to 69, not a student, and not retired	1626	(58.7)	1144	(41.3)	2770
Age 25 to 69 years of age (remove under 25 years) and, as above, full-year full-time	1529	(58.7)	1077	(41.3)	2606

APPENDIX B

Selected Questionnaire Items from 1994 General Social Survey, Cycle 9

Income

For all those who worked at a job, or business, the previous week or who had a job to return to (unless that job was a seasonal business or a new job that would start in the future):

> "What is your current wage or salary before deductions from all sources?"
>
> Or, if the respondent had more than one job: "What is your current wage or salary coming from the job at which you spend the most hours, before deductions from all sources?"

Employment income reported in dollars, in one of the following metrics:

> Hourly
> Daily
> Weekly
> Every two weeks
> Twice a month
> Monthly
> Yearly
> Other

Current Occupation

Collapsed from 33 occupation codes of data set derived from four-digit Standard Occupation Codes 1980

1) Manager, administrators; management, & administration related
2) Life sciences, maths, computer science; architects, engineers, & related
3) Social Science, religion
4) Teaching related
5) Medicine and health
6) Artistic, literary and recreation
7) Stenographic, typing; bookkeeping, account-recording; EDP operators, material records; reception, information, mail, message; library, file, other clerical
8) Sales, commodities; sales, services
9) Services: protective, food, beverage, accommodation, personal, apparel
10) Farm occupations
11) Primary occupations
12) Manufacturing and processing
13) Construction
14) Transport operating occupations
15) Material handling; other crafts and equipment

Part-time Hours

"Why do you usually work less than 30 hours per week?" (Enter maximum of 3 reasons)

Own illness or disability
Personal or family responsibilities
Going to school
Could only find part-time work
Did not want full-time work
Full-time work under 30 hours per week
Other

Mother's Occupation

Those living at age 15 with their mothers or a mother substitute were asked:

"When you were 15 years old, was your mother's (or mother's substitute) main activity working at a job or a business, looking for work, going to school, keeping, retired or something else? (Enter one only.) (If sickness or short-term illness is reported, ask for usual major activity.)

Pineo Soci-economic Classification of Occupation:

Self employed professionals
Employed professionals
High-level management
Semi-professionals
Technicians
Middle management
Supervisors
Forewomen and Foremen
Skilled clerical/sales/service
Skilled crafts and trades
Farmers
Semi-skilled clerical/sales
Semi-skilled manual
Unskilled Clerical/sales/service
Unskilled manual
Farm labourers

Father's Occupation

Those living at age 15 with their fathers or a father substitute were asked:

"When you were 15 years old, was your father's (or father's substitute) main activity working at a job or a business, looking for work, going to school, keeping, retired or something else? (Enter one only.) (If sickness or short-term illness is reported, ask for usual major activity.)

Classification and Categories as for mother's occupation (above).

APPENDIX C

Selected Questionnaire Items from 1995 General Social Survey, Cycle 10

Income

"What is your best estimate of your total personal income before deductions from all sources during the past 12 months?"

No income
Less than $2,000
$2,000 to $4,999
$5,000 to $6,999
$7,000 to $9,999
$10,000 to $14,999
$15,000 to $19,999
$20,000 to $24,999
$25,000 to $29,999
$30,000 to $34,999
$35,000 to $39,999
$40,000 to $44,999
$45,000 to $49,999
$50,000 to $54,999
$55,000 to $59,999
$60,000 to $69,999
$70,000 to $74,999
$75,000 to $79,999
$80,000 to $99,999
$100,000 and more

The "no income" category is dropped and category mid-points, with $1,000.00 assigned to the lowest category and $100,000 to the highest category, are used to construct a continuous variable.

(For additional definition of the dependent variable, see Appendix A, Table A.2.)

Work Interruptions

Since starting to work at a job or business on a regular basis, at full-time or part-time job lasting six months or longer,

"Since that time have you ever stopped working for a period of six months or longer?"

Yes
No

For each of the first four interruptions, the reason for the interruption: "Yes" "No" response each variable.

Your own illness, disability or accident
Temporary layoff/End of contract
Lack of work
Business or company closure
Maternity/Paternity leave
Child care
Care of the elderly
Personal or family responsibilities (other than child care and care of the elderly)
Returned to school
Retired
Seasonal work
Moved/transferred*
Marriage*
Immigration*
Other

* Variables created because of high frequency of responses in the "specify" field.

Work and Family Attitudes

Eleven questions about gender roles were asked with a random starting point. In addition, the order of the sixth and seventh questions was alternated as well as the order for the tenth and eleventh questions:

For each of the questions, the response categories are:

Strongly agree
Agree
Disagree
Strongly disagree
No opinion

1) "An employed mother can establish just as warm and secure a relationship with her children as a mother who does not work for pay"
2) "Having a job is the best way for a woman to be an independent person"
3) "Keeping a house is just as fulfilling as working for pay"
4) "Both the man and the woman should contribute to the household income"
5) "A pre-school child is likely to suffer if both parents are employed"
6) "A job is alright, but what most women really want is a home and children"
7) "Having a family is alright, but what men really want is to be successful in their job"
8) "A man doesn't have to be very involved in the everyday tasks of raising children; this is not primarily a man's responsibility"
9) "If a man brings enough money home so his wife and children have a comfortable life, he has fulfilled his role as a husband and a parent"
10) "A man should refuse a promotion at work if it means spending too little time with his family"
11) "A woman should refuse a promotion at work if it means spending too little time with her family"

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