Employment Equity Data Program

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Inter-Occupational Mobility of Groups Designated Under the Employment Equity Act 1986-1989

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A study prepared for

the Interdepartmental Working Group on Employment Equity Data

by

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Inter-Occupational Mobility of Groups
Designated Under the Employment Equity Act
1986-1989

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HIGHLIGHTS

- In the current structure of employment, male employees in the general population have proportionately more of the higher level jobs than do female employees, but about the same as the other designated group employees.

- Over the period 1986-1989, the pattern of change within the occupational structure was very similar among male, female and other designated group employees.

- Rates of job leaving and job change show little variation among population groups generally; however, among paid employees, rates of job leaving are higher for female and other designated group employees than for others.

- The gaps in status in the occupational hierarchy tended to narrow among male, female and other designated group employees over the four-year period.

- Women and members of other designated groups are less likely to be hired into jobs that are unionized than into non-unionized jobs or into establishments of less than 100 employees than into larger establishments. They are less likely than men to be hired into high status jobs. Women are less likely, but members of other designated groups are more likely, to be hired full-time than part-time.

- If employment equity goals had been attained, female employees changing jobs would have achieved higher-status jobs than they did - by approximately $1,700 in terms of expected annual wage income, on average. For the other designated groups, the gain is evaluated at about $1,900. Nevertheless, there is a tendency toward convergence of the distributions of the three population groups with respect to their distribution over the range of job status levels.

- Although the 12-way employment equity occupational classification appears to capture the bulk of actual progress of female and other designated group employees, it understates by half the potential progress, i.e., the progress to be expected if gains in status for male and other employees starting from the same jobs were equal.

I. INTRODUCTION

This study examines the rates and patterns of job change in Canada over the period 1986-1989 for members of groups designated in the *Employment Equity Act*. This time span corresponds approximately to the first four years in which the Act was in force. The objective of the study is to examine differences between members of designated groups[1] and the balance of the labour force in rates of hiring, job leaving, promotion and advancement through change of employers and to estimate the impact on these rates of achieving the employment equity goals of equality of access to employment. By examining differences in these components of mobility among jobs of designated group versus other employees, it may be possible to conclude whether any gaps between the two are being narrowed. This analytic approach is suitable to the statistical base available from the results of the Labour Market Activity Survey (LMAS) conducted by Statistics Canada, the source used in this study. The LMAS includes information on job characteristics and job changes over the course of the year. It is thus possible to examine changes in job status as they occur. This approach may be contrasted with examination of differences between the groups in the structure of employment, i.e., in the characteristics of jobs actually held, a type of analysis which might be employed with the aid of Census data. The structural approach would be expected to yield conclusions only when the observations are made over a lengthy period of time, since the structure changes only slowly.

There are three ways in which possible barriers to the advancement of members of designated groups, either within firms or in the external labour market may be affected and which will be examined by means of three types of indicators:

- If employers are less likely to promote members of designated groups than they are other employees, members of designated groups may try to compensate by seeking advancement through changing employers. In addition, employers may tend to lay off designated group workers sooner than other workers with comparable skills and experience. Compared with other employees, therefore, members of designated groups may be more likely to leave their positions within a given time span.

- Employers may perceive members of designated groups as being less suitable for employment for particular occupations. If so, members of designated groups may be less likely to be hired or promoted into particular types of positions.

- Even when they are hired into the firm or are promoted within the firm, members of designated groups, on account of their weaker bargaining position resulting from these perceptions, may be offered lower-status jobs by employers. Consequently, members of designated groups may, when they change jobs, achieve less of a gain in job status than do other workers.

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[1] Several of the terms used in this study are defined in the Glossary (Appendix 1).

Following a brief overview of the main components of mobility and of progress in job status over time, a model is developed which identifies and quantifies statistical differences in these components among the population groups.

The principal questions to be examined in the study as part of the interpretation of the statistical results are as follows:

- How do members of designated groups differ from the remainder of the population in their rates of change between jobs and labour force situations?

- Is the current pattern of hiring and promotion leading to a lessening or a widening in the gaps between the designated groups and the remainder of the population in terms of their standing in the occupational hierarchy?

- How do the various occupation groups compare in terms of the extent to which these gaps are increasing or decreasing?

- Are members of designated groups becoming more or less concentrated in the occupations in which they have until now chiefly been employed?

- How much better would the occupational situation of designated groups have been if employment equity goals had been achieved?

II. JOB MOBILITY AND THE STRUCTURE OF EMPLOYMENT: AN OVERVIEW

A. Patterns of Employment and Mobility

During a representative year in the Canadian labour market in the period 1986 to 1989, 53% of men and 42% of women were employed at some time during the year. Of the total population of labour force age: 48% of men and 37% of women were employed throughout the year; an additional 20% of men and of women became either employed or unemployed during the year and remained so until the end of the year; and the balance, 32% of men and 43% of women, were not employed during the year.

The main patterns of mobility by individual designated group and sex are shown graphically in Figures 1 and 2. These charts are based on the numerical information in Table 10[2]. Shown for the total population in each group in Fig. 1 are the rates of: employment throughout the year; non-employment throughout the year; and entry to ("in") and exit from ("out") employment during the year[3].

Female groups had lower rates of employment and higher rates of non-employment than their counterparts in the male population. Within each sex, the rates of employment were very similar for the general population and members of the visible minority population; but the rates of employment for members of the Aboriginal population were lower and those of persons with disabilities were lower still. Over 70% of both male and female persons with disabilities wer7/non-employed.

For the employed population as a whole, the rate of job-leaving is 36.0% annually over the period 1986-1989. With the exception of Aboriginal employees, who show relatively high rates, there are only very small differences among population groups, as shown in the accompanying tables. Female employees have a somewhat higher rate than male employees overall and within each of the population groups.

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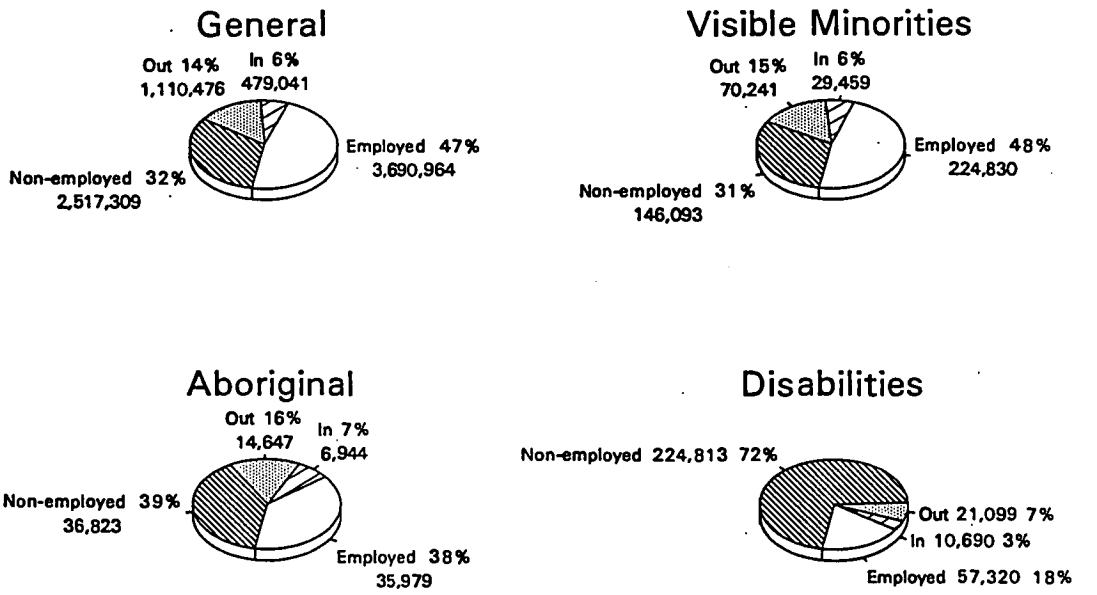
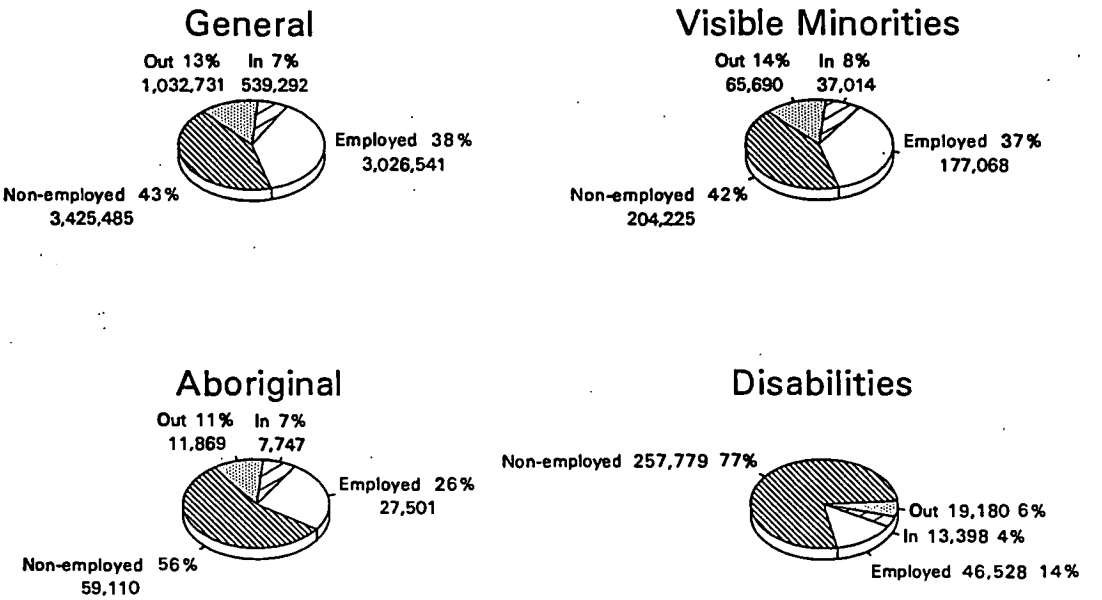
[2] All tables referred to by number in the text may be found in Appendix 3.

[3] The discrepancy between flows into and out of employment for each population group is due in part to the nature of the sample from which the data are drawn. Within each of the two-year periods covered by successive samples, persons entering the population of labour force age for the first time (principally through aging or immigration) are not included in the sample frame; whereas those included at the start but leaving the population (principally through aging, death or emigration) are at least, in part, included.

Fig. 1
Employment Status and Transition
Total Population: Male



Employment Status and Transition
Total Population: Female



Annual Rates of Job Leaving (%)

	Visible Minority	Aboriginal	Disabilities	General	Total
Male	36.1	43.6	35.3	34.4	34.6
Female	37.3	45.0	38.4	37.5	37.6

Shown in Fig. 2 are rates of job change for the continuously-employed population, excluding the self-employed. Rates for all four groups shown are very close - in the range of 15-17%. Thus, there is also very little difference in this mobility stream between designated groups and the balance of the employed population.

This brief analysis demonstrates two important facts about the attainment of employment equity goals via job mobility. First, rates of job leaving, with the one exception noted, and of job change for designated groups are very close to those of the remainder of the population, i.e., men not in any designated group. If members of designated groups, discouraged at their lesser prospects for advancement within the firm, are more likely to change jobs to achieve such advancement, their response is not evident from the overall rates[4]. It may be, however, that some portion of the lower employment rates observed for members of the Aboriginal and persons with disabilities populations, in particular, is due to the prospect of lesser access to employment. Second, only about 15% of the population in paid employment at both the beginning and end of the year and 13% of the total population of labour force age move into a new job during the year. Any disparity in job status between designated groups and the remainder of the employed population can only be eliminated by movement among jobs. In any period as short as one year, the extent of adjustment toward equality of status in employment equity is very limited, since the great majority of employed persons remain in the same job throughout the year.

B. Progress Over Time

Over time, the distributions of the various population groups in the occupational hierarchy may be expected to change. Insofar as the objectives of the Employment Equity Act are achieved, the distributions for the individual population groups may be expected to converge. In this study, the individual employee's standing in the occupational hierarchy is referred to by the term "job status". It is evaluated as the expected value of the wage rate or annual wage income associated with the job.

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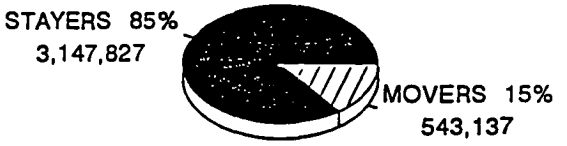
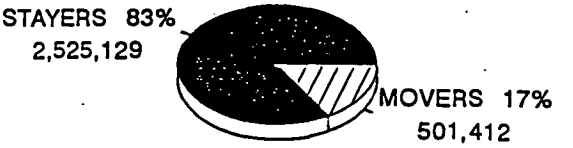
[4] This conclusion does not rule out the possibility, however, that, when adjusted for labour force characteristics, members of designated groups may be more mobile than persons in the remainder of the population. This possibility is investigated and reported in a later section.

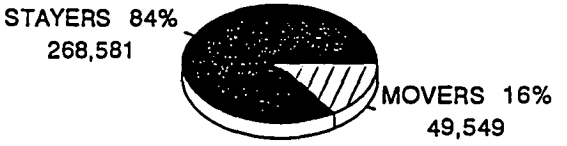
Fig. 2
Job Change
Employed Population



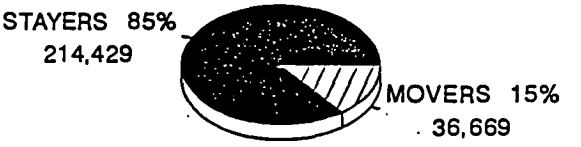
Male: General



Female: General



Male: Designated Groups



Female: Designated Groups

Progress in job status during each of the four years for male, female and other designated group employees is shown, by occupational class, in Fig. 3[5,6]. The chart is based on the numbers shown in Tables 11 and 12, which also include a breakdown by occupation. Changes over each year represent the aggregate change in status of those changing jobs divided by the total number of persons who were employed at both the beginning and end of each year. The result is the average change in status for continuously-employed workers, regardless of whether they moved or remained in their jobs[7]. The three population groups for whom trends are shown in Fig. 3 - male employees in the general population, female employees in the general population and all other designated group employees, both male and female - are also used for the subsequent analysis in this report.

Progress for both female employees from the general population and other designated group employees was greater than for male employees in both 1986 and 1987. In terms of the annual dollar value of change in job status, averaged over all employees in each group, female employees gained by nearly $100 in each of the two years. For other designated groups, gains over the two-year period were about 40% greater and for female employees about twice the gains for male employees.

In 1988, progress by male employees increased to over $200 in expected annual income, much greater than that of the other groups, more than eliminating their relative progress in the preceding two years. Other designated groups experienced a much greater decline relative to male employees than did female employees. In 1989, the three groups had very similar amounts of progress in job status at around $100 in terms of expected income. Since female employees and other designated group employees had average status levels which were 89.4% and 85.9%, respectively, of the levels of male employees, their proportionate increase in that year was actually above that of male employees. For the four-year period as a whole, male employees

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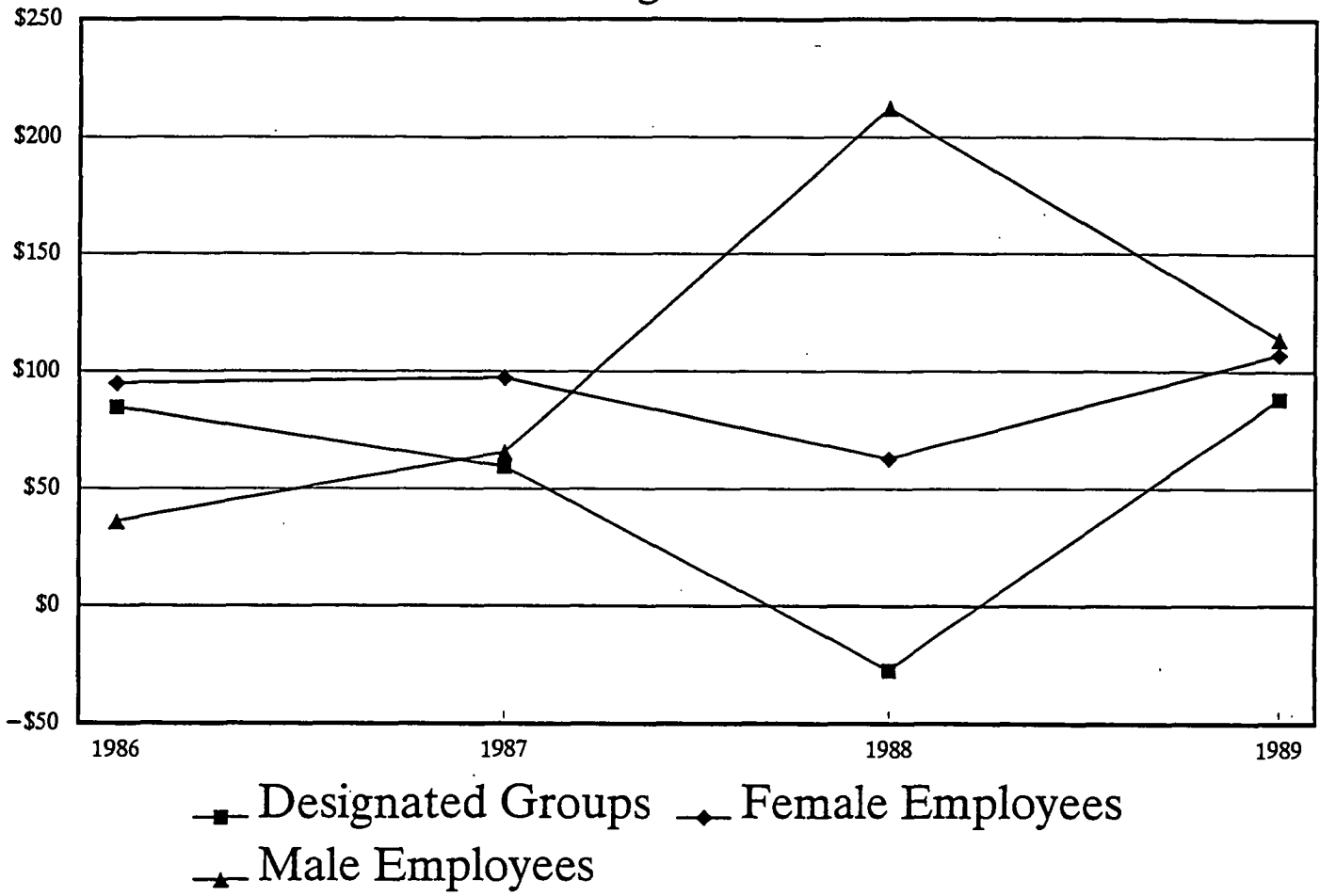
[5] In Fig. 2 and the tables included in this report, the three population groups defined for analysis are referred to as male employees, female employees and designated group employees. It is to be understood that these designations pertain, respectively, to: male employees from the general population, viz., other than members of visible minorities, Aboriginal peoples and persons with disabilities; female employees from the general population; and members, both male and female, of visible minority, Aboriginal and persons with disabilities populations. Designated groups other than female employees are combined in this and the subsequent analysis primarily because attempts to obtain regression estimates for a finer breakdown yielded insufficient numbers of observations.

[6] For this and the subsequent analysis presented in this report, a continuous scale representing the status of the occupation was constructed. The scale is in dollar terms and may be interpreted as the level of the hourly wage rate which may be expected by a worker in that occupation. The variable was constructed by calculating the mean value of the wage in each 4-digit category of the Standard Occupational Classification of Statistics Canada.

[7] Most employees have a value of zero because they did not move. Others, relatively few in number, have a value of zero because they moved to a different job at the same level. Effects of year-to-year changes in the dollar value of the status associated with each job are netted out by including only within-year changes.

Fig. 3
Change in Status



gained in status by $428, female employees by $362 and members of other designated groups by $205. Even adjusting for their lower starting values, the proportionate gain for female employees was somewhat less than, and for other designated groups was only about half, that of male employees.

One source of the differences between the designated group and male employees in their patterns of change over the four-year period is in their differing distributions among occupations. The three populations showed very similar patterns of change within individual groups across much of the range of occupations (Table 11). Employees originating in the generally lower-level service occupations - Clerical, Sales and Service - experienced steady positive growth in status. These occupations contain relatively large shares of female and other designated group employees. Employees in the higher-level occupations experienced declining status in most years and occupations. The patterns of change differed, however, between other designated group and male employees originating in the occupations associated primarily with processing. There was a mixture of gains and losses in status for female and other designated group employees; but among male employees there was uniformly positive growth except in Crafts and Trades, in which change was almost uniformly negative for all groups.

The direction of change for most occupational categories and years is reversed when the analysis is repeated with changes classified by ending, rather than starting occupation, as in Table 12. The higher occupational levels show positive signs, i.e., those moving into these jobs in these occupations gain in status. Employees moving into Clerical, Sales and Service jobs suffer losses. The processing occupations are mixed, except for Crafts and Trades, in which change is positive. There are no clear differences among population groups in these patterns.

C. Starting Job Structure

The distribution of the population among jobs at the beginning of the representative year have been summarized in three sets of regression parameters, one set for each of the population groups. Jobs are characterized by a set of dimensions which are also used subsequently in the study in conjunction with the application of the model of job mobility. Estimates of the regression parameters are shown in Table 1. Following are the principal results.

Female employees:

- are less likely, holding other job characteristics constant[8], to be found in unionized than in non-unionized and in full-time than in part-time jobs;

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[8] Regression analysis allows us, in the following discussion, to evaluate the partial effects of individual characteristics, i.e., their effects holding other job characteristics constant. Thus, e.g., the effect of an individual's being in a unionized job is evaluated by comparison with other individuals in non-unionized jobs whose other job characteristics - location, size of establishment, etc. - are the same as those for the individual in question.

- are less likely to be found in very small establishments (less than 20 employees) than in large establishments;

- held a smaller share of jobs in 1987 than in 1986 but a larger share in 1988 and 1989;

- are least likely to be found in a job in British Columbia compared with other regions; and

- are more likely to be found in Banking or Other Service industries, slightly less likely to be found in the Communications sector and much less likely to be found in the Transportation and Non-Service sectors than in Government.

The effect of job status is especially interesting, since it summarizes the effect of occupational rank. For every increase of $1 per hour in the expected wage rate associated with a job, the probability of its being occupied by a female employee declines by 2.5%. Thus, e.g., the chances that a job at $13.10, the mean value of job status for male employees, would be occupied by a female employee are 4.7% less than the chances of a job having status of $11.24, the mean value for female employees.

Employees from other designated groups:

- are less likely to be found in unionized than they are in non-unionized jobs;

- are more likely to be found in full-time than they are in part-time jobs;

- are less likely to be found in very small than in very large establishments;

- held smaller shares of jobs in 1988 and 1989 than in 1986 and 1987;

- are most likely to be found in a job in British Columbia, followed by the Prairie Provinces, Ontario, Atlantic Canada and Quebec, in that order; and

- are more likely to be found in the Other Service sector than they are in Government.

Comparing the mean starting value over the four years of jobs held by members of other designated groups, $11.68, with the corresponding value for male employees $13.1 0, it would be expected that 0.4% fewer employees would be from the other designated groups at the higher figure, adjusting for other job characteristics. Members of other designated groups therefore suffer much less segregation into lower-status jobs than do women.

III. THE MODEL

Three aspects of job mobility are embodied in the model equations:

- the rate of job leaving;
- for jobs filled during the period, the composition, by population group, of the workers filling them;
- the change in job status, for those making a move.

Each aspect is related, in the equations, to a set of explanatory variables, as follows.

The probability of employees leaving their jobs in a given period depends upon: age; industry of employment; whether the job is full-time or part-time; whether it is unionized; the size of the establishment; and the status of the job in the occupational hierarchy (job status).

- Rates of job leaving vary by **Industry** as a result of factors such as the project-orientation (as in the Construction industry), seasonality, spatial proximity of firms, etc.
- **Full-time** workers are expected to be more attached to their jobs, i.e., less mobile, than are part-time workers whose situations are more frequently temporary or at least marginal to their firms.
- **Unionization** is associated with greater job stability, hence lower rates of job leaving; however, because of the seniority provisions usually present in collective agreements, younger workers may actually have greater mobility than those in jobs not covered by such agreements.
- Except for those who are self-employed or family relations of the proprietors (classes of workers not included in the regression analysis), rates of job leaving tend to vary by **size of firm.** Employment in smaller firms is usually associated with greater mobility. Larger firms typically have greater scope to "warehouse" labour during slack times and, in general, to alter the specific duties of the job to suit current requirements; however, the larger firms and establishments offer a greater range of alternative jobs within the firm, thereby reducing the costs of mobility.
- As the level of **job status** increases, the rate of job leaving may be expected to decrease, because of the increasingly specialized nature of the employment resulting in higher search costs for the worker and greater costs for the employer of providing specialized training to increase the new jobholder's productivity.

The probability that those jobs filled during a given period will be filled by members of a particular population group (designated group or others), depends on: the industry in which the job is situated; whether it is full-time or part-time; whether unionized; establishment size; job status; and upon the share of the particular population group in the relevant labour pool.

- **Industries** may vary in their likelihood of hiring members of designated groups as a result of differences in how well the skills possessed by members of those groups fit the actual skill requirements of the industry. In addition, members of the various population groups may tend to be more or less inclined than are members of the population generally to find a job in a particular industry because of non-content job requirements, e.g., geographic location, shift work, tolerance of noise and fumes, etc.

- The **full-time vs. part-time** nature of the job may be important in relation to non-employment time commitments, most frequently for those responsible for the care of children or other family members.

- **Unionization** may work in either of two directions. It may reduce outright discrimination by encouraging unbiased hiring practices; but, particularly in the trades, by making union membership a pre-condition to hiring, may inhibit change from traditional hiring patterns.

- Insofar as members of the designated groups are found disproportionately in nonstandard, i.e., other than full-time year-round, employment, they might also be expected to move to jobs where **establishment size** is smaller more than would those not in designated groups.

- **Job status,** or position of the job in the occupational hierarchy, is expected to have a negative influence for members of designated groups if we assert that these groups do not have equal access to the better jobs. The magnitude of this effect provides a single, quantitative measure of how far behind are members of the designated groups in the level of employment of jobs they are entering, taking into account the other factors included in the equation.

- The share of the particular population group in the relevant **labour pool** is included as an explanatory variable to adjust for the availability of members of the individual population groups with relevant experience for the type of job. The share of each group is defined as its share of employment in jobs closely related to the job in question. Inclusion of this variable allows the estimation of short-run hiring rates, i.e., rates conditioned by the existing structure of employment and reflecting costs of adjustment to demand and supply. Without the variable, rates estimated with the model may be interpreted as being consistent with the long run, i.e., a state of equilibrium in which the employment structure is fully adapted to demand and supply.

For those moving between jobs, the difference In status between old and new jobs depends upon the type of job normally occupied by the mover, i.e., the degree of success of the mover in increasing his job status via the move depends upon where in the overall structure of jobs he/she is located.

Two versions of this equation are tested. In one version, the characteristics of the pre-move (origin) job are used in predicting the status of the post-move job. In the other, the characteristics of the post-move (destination) job are used in predicting the status of the pre-move job[9]. In addition, one formulation has, as the dependent variable, the start or end job; a second has the difference in status levels of the two jobs[10]. These two formulations may be interpreted to represent somewhat different hypotheses. Change of status being determined by starting job characteristics could be consistent with previous job experience being viewed by the employer as a potential for marginal productivity in the job into which the employee is being hired (a supply-side explanation). Determination by the characteristics of the new job could be interpreted as reflecting variation in the degree to which employers are willing to "invest" in new workers, i.e., to anticipate greater marginal productivity resulting from the new hirees' acquiring job- and industry-specific training and experience (a demand-side explanation).

- Change in status may vary by **industry** as the result of differences in job structure, e.g., the Other Services sector is composed of large numbers of sales, service and technical personnel relative to supervisory and other management personnel.

- The effect of the **full-time vs. part-time** nature of the job on the change in status may be either positive or negative. Insofar as part-time jobs are less likely to be related to a career progression, we might expect them to be associated with smaller changes in status than full-time jobs. Based on tabulations by the authors, workers leaving full-time jobs are most likely to be moving to another full-time job. Similarly, workers leaving part-time jobs are likely to be moving to another part-time job. We might thus expect persons either leaving or taking full-time jobs to have larger gains in status than those leaving or taking part-time jobs. When workers are laid off, however, they are less likely to have arranged in advance for another job of at least equal status or at least to assured themselves that such jobs would be available than would workers leaving voluntarily. They may take temporary work, full-time or part-time until they find

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[9] The regression parameters of the corresponding equations are thought to bracket the true values. Use of one or the other equation may lead to the well-know "regression fallacy." See, e.g., Friedman, "Do Old Fallacies Ever Die?, *Journal of Economic Literature*, 30(4), December 1992, pp. 2129-2132.

[10] The version including either starting or ending status as an independent variable and either ending or starting status, respectively as the dependent variable allows for scaling the difference in status levels associated with the move, i.e., the magnitude of the change in status may vary by status level of the starting or ending job. The advantage of the form in which the difference in status is the dependent variable is the greater standard deviation of the dependent variable and hence greater precision of the parameter estimates on the remaining explanatory variables.

another position more in conformance with their long-term expectations. Part-time workers who are laid off may search longer to find a better alternative job, or may be more likely to have arranged such a job in advance (having more non-work time available for searching) than do full-time workers. Part-time workers may, if we follow this reasoning, have larger increments in status resulting from the move.

- **Unionization** is associated with stability of employment and a formalized wage structure, both of which may contribute to larger gains in status when a move is made, particularly an intra-firm move. Workers with little seniority in unionized establishments, especially younger workers, may, however, be very mobile among firms and between unionized and non-unionized jobs. Those moving from unionized to non-unionized jobs would be more likely than those moving between non-unionized jobs to suffer decreases in status if the effect of unionization is to make the progression in status over the working lifetime less steep. For those moving into unionized jobs, the converse would be true.

- **Establishment size** has been shown in a number of studies to be inversely related to wage rates. The relationship with status may be similar, given that a large share of the low-wage jobs are in sectors, especially services and resources, in which, given the method used in this study for constructing the status measure, most low-status jobs are also found.

IV. RESULTS

A. Job Leaving

Annual rates of job leaving for paid employees[11] (Table 2) are higher for female employees and for other designated groups, at 27.0% and 27.7%, respectively, than the rate of 23.4% for male employees.

Unionization, full-time employment and job status all reduce the rate of job leaving, for all three groups, holding other job characteristics constant. A negative effect on job leaving is equivalent to a positive effect on job stability. For female employees and employees from the other designated groups the effects are almost identical. For male employees, the effect of unionization is 12%, compared with 16% for both other groups, indicating that unionization promotes stability and that the effect for the designated groups is greater than for the balance of the workforce.

The positive effect on job stability of full-time employment is much greater for male employees not in designated groups, at 27%, than for either female or other designated group employees, at 18%. This result suggests that women and members of the other designated groups are more likely to be laid off than are male, non-designated employees. Other factors are involved, however, including women's (possibly temporary) retirement from the labour force for child rearing.

The job leaving probability decreases by about 1% for all three groups with each $1-per-hour increase in job status; but the rate is proportionately much greater for male employees not in designated groups than for either of the designated groups, at 1.2% compared with 0.9% for women and 1.0% for other designated groups. Thus, rising job status does not bring with it job stability for designated groups to the extent it does for other employees.

Rates of job leaving are highest for all groups in the smallest classes of firms, those with fewer than 100 employees. Compared with other employees in their own population groups, male and female employees from the general population initially employed at establishments in the 100-500-employee range and other designated group employees at establishments with 500 or more employees are least likely to move.

After an initial drop in rates of job leaving between 1986 and 1987, all groups experienced a peak in 1988.

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[11] The lower rates represented by the mean values of the dependent variables in Table 2 compared with the text table shown in the section reflect the exclusion from the sub-sample used in the regression analysis of the self-employed and those whose records do not contain complete job information. Both of the excluded sub-populations have relatively high rates of job leaving.

Differences in region of employment do not appear to affect significantly the propensity to leave a job. The influence of industry sector, however, is significant for most industries and population groups. For employees from all groups, those in Banking and in Communications, in that order, are the least mobile. Compared with Government, rates for Transportation, Other Services and Non-Services are higher for male employees and other designated group employees but lower for female employees.

The regression analysis shows how the different groups respond to differences in job characteristics. It is possible, using these regression results, to estimate the impact on the individual groups of these differences in response rates, in terms of numbers and rates of job leavers. This additional analysis addresses the question: "If the designated groups had identical rates of response to job characteristics as do male employees in the general population, by how much would numbers and rates of job leavers differ from the actual amounts?" The results, shown in Table 3, are presented by occupational group as well as for the total.

Rates of job leaving for other designated group employees, adjusted for job characteristics, are so close to those of male employees that there would be very little overall impact on mobility if members of the former group moved at the same rates as did members of the latter group, the estimate being only -1,700 employees, or -0.2% of the starting population of other designated group employees. All the individual occupational group impacts are well below 2%. The actual difference in rates of job leaving between other designated group and male employees from the general population of 4.3%, is due more to the difference between the two groups in the occupational composition of starting jobs than in their propensities to leave.

For female employees, the impact is greater, at 2.9% overall, or nearly 120,000 employees. Several of the larger occupational groups, including Clerical and Sales and Services, show positive impacts in the range of 3%-5%, i.e., there is greater stability in these occupations among female than among male employees from the general population. At the higher occupational levels, including Mid-Level Managers and Professional employees, impacts are smaller, at 0.4% and 2% respectively, indicating that propensities to leave are not much different for men and women at these levels although, as in all other occupational groups, the propensity is lower for female than for male employees. Unlike the other designated groups, the higher overall leaving rate for female compared with male employees - 27% vs. 23.4% - is the result of differences in job characteristics more than compensating for a lower propensity for job leaving on the part of female employees. Women are found mainly in the low-status, high-mobility occupations. In addition, women have a greater tendency than men to enter or leave employment in the course of the year.

B. Hiring

Women and members of other designated groups are less likely to be hired into jobs that are unionized, have high job status levels and are in establishments of less than 100 employees, other job characteristics being held constant (Table 4). Women are less likely to be hired into

full-time than into part-time jobs, but members of other designated groups are more likely to be hired into part-time jobs. Job openings were more likely to be filled by women in 1989 than they were in 1986. There was a trend over the entire period to a decreasing probability of members of other designated groups being hired. Women are most likely to be hired in the Atlantic region and least likely in British Columbia. Members of other designated groups are least likely to be hired in Quebec. Women are most likely to be hired in Banking and least likely to be hired in Transportation, with Other Services, Government, Communications and Non-Service sectors falling between. For members of other designated groups there are no significant differences among sectors.

For women, changes in their share in the labour pool available for filling a job have a strong positive effect on the likelihood that they will be hired during the period. For every percentage point change in their share, the probability of their being hired into a job increases by 0.44%. This ratio is almost exactly the proportion of female employees in total employment. Thus, for every percentage point increase in the share of female employees in the relevant labour pool, the proportion of women being hired increases by 1%. This result indicates that whether a woman is hired for a particular job depends on whether it is a type of job in which a large proportion of women are found. By contrast, the effect for men is 0.37%, or, adjusted for their relative numbers, 0.8%, indicating a greater tendency to hire them into jobs for which they are in a minority of the labour pool. For other designated groups, the influence of their presence in the immediate labour pool is negative, at −.16% (adjusted for relative numbers hired = −1.9%), i.e., members of other designated groups are being hired differentially into jobs of types where they had formerly been present in relatively small proportions. This result indicates that a process of de-segregation is occurring for other designated groups.

Numbers of women hired into the Clerical and Professional categories are much larger - on the order of 100,000 and 40,000, respectively - than would be expected on the basis of job characteristics (Table 5), assuming the size of the pool of female labour is adequate to fill all job openings. In general, the higher-status occupations show greater than expected numbers of hires for female employees, while the occupations associated with processing show smaller numbers. Accounting for differences in the labour pool available to each job type reduces the difference between actual and expected numbers of hires in almost all occupations, e.g., for Clerical the gap in numbers hired is reduced by about one-quarter. This result indicates that the existing structure of employment, with the associated skill configuration, acts as a constraint on entry of women to most occupations. For the Professional, Semi-Professional and Supervisory categories, however, availability of women with appropriate skills is not a constraint on hiring.

If female employees were, hired at the same rates as male employees relative to their numbers for jobs of the same type, there would be large additional numbers of female employees in Mid-Level Management and Professional occupations - approximately 30,000 and 25,000, respectively, when job characteristics are accounted for - as well as the occupations associated with processing. The main loser, in terms of numbers of female employees hired, would be the Service Workers category.

Hirees in the other designated groups show very small differences between their actual distribution among occupations and the distribution predicted from the general equations, whether availability in the labour pool is included as an explanatory variable or not. The largest discrepancies are in the Clerical and Service Worker categories, in which fewer members of other designated groups are hired than would be expected. Proportionately, the Mid-Level Management and Professional occupations have the largest surpluses of actual hirees, adjusted for job characteristics. Hiring members of other designated groups on the same basis as male employees would bring large proportional increases to Mid-Level Management, Professional, Crafts and Trades and Semi-Skilled Worker categories.

C. Turnover

It is possible to summarize and compare the impacts of individual job characteristics on the components of job turnover, viz., inflows to jobs by means of hiring and outflows from jobs by means of job leaving relative to the composition of employment, i.e., the initial distribution of employees among jobs. The analysis compares the regression coefficients for distribution among job types (Table 1) probability of job leaving (Table 2) and the coefficients of the probability of hire equation (Table 4)[12], These impacts are shown, in terms of percentages of the pertinent population group's overall level of paid employment, in Table 13.

Unionization increases the share of male employees in total employment by 14.5% and decreases their rate of job leaving by 12.3%, while the hiring rate is increased by 2.0%. The net effect of job leaving and hiring (2.0% - (-12.3%) = 14.3%) is almost identical to the composition effect. Thus, if the other characteristics of jobs remained constant, male unionized employment would be maintained at a stable proportion of total jobs by a combination of slightly higher proportions of workers hired relative to non-unionized employment and a much larger relative retention rate (the negative of the rate of job leaving). For female employees, the small negative impact on hiring (-2.4%) is more than offset by the large positive impact on retention (15.5%), a net impact of 13.1% compared with a negative impact on composition of 13.8%. Over time, therefore, the share of female jobs which are unionized would also remain stable. For other designated groups, there is a shortfall of 5.2% in hiring. The positive impact on retention rate, while high at 15.9%, is not sufficient to stabilize or reduce the initial deficit of 18.3%. The projected share of other designated groups in unionized jobs is therefore decreasing.

For male employees, the compositional surplus of full-time compared with part-time jobs of 11.7% may be compared with the positive impacts on the retention rate of 26.8% and the hiring rate of 6.5%. Male employees tend to stay in their full-time jobs, requiring only a small proportion, relative to part-time jobs, of replacement workers. The large net inflow implied,

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[12] The coefficients of the probability-of-hire equations were transformed for this purpose both to represent rates relative to the numbers employed in each group and to take account of the lower numbers for hires than for job leavings, i.e., the coefficients were adjusted to be consistent with a "steady state" - equality between the two flows for each population group.

if these rates continue, means that male employees will increasingly be full-time employees. For female employees, the hiring shortfall of 8.2% is more than overcome by the high impact on the rate of job retention, 18.1%, for an impact on net flow of nearly 10%. The result is that, even though female differential rates of retention of and hiring into full-time versus part-time jobs are less than those of male employees, their shortfall in the proportion of full-time jobs, currently at 17.8% is tending to be reduced. For other designated groups, the large positive impact on employment of full-time work 20.3% is much greater than for the other groups. The impact of full-time employment on job retention is about the same as for female employees, at 18.3%. While the estimated impact on hiring is not statistically significant, given the likely range of values it is to be assumed that the current high level of the impact on composition is being maintained for other designated groups.

As job status increases, the impact on composition is positive for male employees, at the rate of 5.7% of their numbers for each dollar per hour, but negative for female (-6%) and for other designated groups (-0.8%). The net impact on male employees of job leaving and hiring is approximately neutral, indicating a tendency away from an employment structure in which increasing status is associated with increasing male proportions. For female employees, conversely, the net impact of leaving and hiring, while slightly negative, is still less than the effect of composition, hence a tendency toward greater female representation with increasing status. For other designated groups, the net impact of leaving and hiring is nearly neutral, indicating, as with female employees, a lessening of the negative effect of job status. There is, in summary, a tendency toward convergence of the distributions of the three population groups with respect to their distribution over the range of job status levels.

It is possible to compare the components of turnover among industry sectors of male and female employees, but not those of other designated groups, for whom the much smaller numbers of observations have yielded non-significant estimates. As with job status, there is a tendency to convergence in the distributions of male and female employees among industries. For male employees, compared with the large positive impacts (relative to Government as the reference sector) on composition in the Transportation (44.8%) and Non-Service (21%) sectors and the large negative impacts in Banking (-44.2%) and Other Services (-37.4%), the net impacts of leaving and hiring are small, ranging from -2.6% in Banking to 5.7% in Non-Service Industries. In Communications, the net flow impact of 8.3% is larger than the compositional impact of 4.3%. For female employees, the net impacts of leaving and hiring are generally greater than for male employees, but much smaller than the compositional impacts. These larger flow impacts reflect a greater tendency to move between industries. Banking and Transportation with positive and negative compositional impacts, respectively, of about 53% have flow components of 27.7% and -12.5%, respectively. Other Services and Non-Service, with a compositional impacts of 41.7% and -25.6%, respectively, have relatively small flow impact rates of the same respective signs, while the flow impact in Communications is neutral, compared with a -5.1% compositional impact. Hence, the overall effect of job changes is toward a more homogeneous industry employment structure for male and female employees.

D. Change in Status: Movers by Starting Occupation

Among male employees from the general population changing jobs during the year, change in job status is less where their starting job is full-time, in smaller establishments, or located in Ontario than it is for other male movers, in at least one form of the model equation (Table 6)[13]. There is no clear influence of the industry sector.

For female employees from the general population, by contrast, the only consistently significant estimates relate to the industry sector. The largest gains were among those who started in the Banking sector and, to a lesser extent, in the Government, Other Services and Non-Service sectors. Transportation and Communication were associated with the smallest gains. Other estimates for one of the forms of model equation show greater gains for unionized than for non-unionized, for full-time than for part-time, for Ontario than for other and for small establishment than for large establishment employees.

For members of other designated groups, only the positive effect of unionization and the negative effects of location in Quebec and British Columbia are consistent in the regression results. Thus, other designated group employees are less likely to be hired into unionized jobs than are male employees, but those who are so hired are likely to realize a larger gain in status from a subsequent job move than are those hired into non-unionized jobs. The evidence for the same pattern among female employees is mixed, however.

The regression results have been used to compare actual change in status over the four-year period, measured in terms of the average change in expected annual wage income, with expected values based on job characteristics (Table 7). Calculations have been made for total job movers and separately for those moving within and between the 12 occupational categories. It is desired to estimate the additional impact on mobility of including in the analysis those employees moving within any of the 12 groups, since they have not been included in employment equity reporting heretofore.

Both for female employees and for employees from the other designated groups, numbers of workers moving between pairs of the 12 occupation categories exceed those moving within those categories by 13-15%. Among the larger occupational categories, the ratios of inter-occupational to intra-occupational movers are highest, for female employees, among Sales Workers and Services Workers. Employees in these groups have the most to gain by switching occupations. Among Clerical workers, the largest single occupation for both population groups, and among Professionals, the numbers of those moving within occupation exceed the numbers moving between occupations. These last two groups might therefore appear to have lower relative mobility in an analysis limited to the 12-way classification.

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[13] Some of this effect is due to general increases in wage rates, since the expected wage associated with each job was calculated separately for each year.

Overall, female employees who moved gained an average of just over $1,000, or 5%, in job status, while other designated group employees gained less than $900, or 4%. While numbers of intra- and inter-occupational movers are of about equal orders of magnitude, for both groups the bulk of the gain in status is attributable to employees moving between pairs of the 12 occupational classes. Female employees who moved between classes gained more than $1,700 while for those who moved within their occupation, job status increased by less than $300 on average. Job status for other designated group employees moving within their occupation showed less than a $100 increase, compared with over $1,500 for those moving between categories. In the aggregate, 89%, for female employees, and 94%, for other designated group employees, of the total increase in job status was accounted for by those who moved between categories.

Female employees moving between occupational groups achieved gains in status amounting to about $500 more in expected income than would be predicted on the basis of the characteristics of their starting jobs, while those moving within groups achieved gains amounting to about $500 less. Somewhat surprisingly, therefore, the impact of assuming equal influence of the various dimensions of the starling job on male and female employees is nearly the same for intra- as for inter-occupational female movers. The figure is close to $1,700 for both groups. Thus although the 12-way classification appears to capture the bulk of actual progress of female employees[14], it accounts for little more than half the potential progress, i.e., the progress to be expected if gains in status for male and female employees starting from the same jobs were equal.

For other designated group employees the gain in status for those moving between occupational groups is only slightly greater than what would be predicted on the basis of their starting job characteristics. For those moving within occupations, this difference is negative, i.e., the actual gain is less than the expected gain. The net gain in status for the former relative to the latter group is about $400. The impact for those moving within occupations of assuming equality of other designated group and male response to the characteristics of the starting job is actually larger for those moving within than for those moving between occupations, at $3,300 versus $2,000. Thus, use of the 12-way classification for measuring progress for the other designated groups overstates the average progress made by members of the group only slightly; but it understates by over 50% the gap in potential progress.

Among female movers, those moving from jobs in Supervisory and Services occupations showed the largest gains in status, at about $4,000, the proportionate gain being much greater for the latter than for the former. Those in Middle-Level Management showed the greatest decline, followed by Professionals. For Service and Supervisory workers, the actual gains in status are 25% and 11%, respectively, greater than the values that would be predicted on the basis of their starting job characteristics. Among other designated group employees, of the occupations with sufficient numbers of observations, the largest loss of job status, about 5%, was in the

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[14] Based upon female inter-occupational movers as representing 53% (244.8/458.5) of total female movers the calculated gain, in terms of expected income, for all female movers would be $937 (1,057 X 0.53) compared with the actual figure of $1,057.

Professional category, while the largest increase, 23% was for Service workers. For both population groups, a positive change in status by starting occupation was associated with a predominance of inter-occupational moves while a negative change in status was associated with a predominance of intra-occupational moves.

If female movers had realized gains in job status equal to those of male employees with the same job characteristics at the start of the period, their average increase in status would have been an additional 10-12% in the Supervisory, Clerical, Sales and Services occupations. For other designated group employees the potential gains if rates of increase had been equal to those of male employees with the same job characteristics would have been large, at least in those occupations for which there are adequate numbers of observations. In Services the gain would have been 20% greater and in the Clerical and Other Manual Worker occupations 11-12% greater.

E. Change In Status: Movers by Ending Occupation

For male employees from the general population, the same general pattern of influences on change in status prevails from the point-of-view of the job of destination as was observed for the job of origin. The main exceptions are industry sector and unionization. The influence of each of unionization, presence in small and medium-sized relative to very large establishments and presence in the Banking sector relative to Government is to decrease the gain or increase the loss in status and in most cases is consistent between the two forms of the equation employed to derive the estimates. This result indicates that male employees moving to new jobs with these characteristics are less likely to have large gains in status as the result of a move than are those moving to jobs that are non-unionized or in very large establishments. Few of the parameter estimates other than the end-of-year job status are significant in the equation for predicting the start-of-year status; but unionization and location in the Banking sector are significant and have signs consistent with those in the difference form.

As in the case of male employees from the general population, the difference form of the equation for female employees shows somewhat better results for the individual explanatory variables when these variables pertain to the end-of-year or post-move job compared with the equation containing start-of-year or pre-move job characteristics. This result gives some slight support to the hypothesis of wage-change determination being a demand side phenomenon (see discussion in Section III, above).

For female employees, being hired into full-time jobs increases the size of change in expected wage rate relative to being hired into part-time jobs, as does being hired into small-to-medium size firms relative to large firms.

For employees from the other designated groups, there are significant and negative effects on change in status where the destination job is unionized, in establishments of less than 100 employees or located in Central Canada. For full-time jobs, the effect is positive.

Female employees entering the Clerical and Service occupations and members of other designated groups entering Sales and Service jobs suffer large declines in status, particularly in the Service occupation (Table 9). By contrast, female employees moving to Mid-Level Management, Professional and Semi-Professional occupations and members of other designated groups moving to Mid-Level Management jobs appreciate large gains in status.

For female employees, the impact of adjusting for job characteristics is to exaggerate the gap between the high and low status occupations, possibly revealing the importance of the demand-side and the price of human capital. The impact of applying across occupation categories in dollar terms, hence greater in percentage terms in the lower-status occupations. This result shows that the degree of disadvantage for female employees due to lack of job access is proportionately greater in the lower-status than in the higher-status occupations.

For other designated groups, a comparison of impacts among occupations is not possible because of the small numbers of observations available.

V. CONCLUSIONS

Rates of job leaving and of job change for other designated group employees are very close to those of the remainder of the population, i.e., men not in any designated group. If members of designated groups, discouraged at their lesser prospects for advancement within the firm, are more likely to change jobs to achieve such advancement, their response is not evident from the overall rates. It may be, however, that some portion of the lower employment rates observed for members of the Aboriginal and persons with disabilities populations, in particular, is due to the prospect of lesser access to employment. Moreover, where only the population of paid employees is considered, rates of job leaving are higher for female and other designated group employees than for male employees.

In any period as short as one year, the extent of adjustment in the overall structure of employment toward equality of status in employment equity is limited, since the great majority of employed persons remain in the same job throughout the year.

Women tend to be hired or promoted into types of job in which large proportions of women are employed, reinforcing the existing concentration in relatively few occupations. By contrast, for men there is a greater tendency to be hired or promoted into jobs for which they are in a minority of the relevant labour pool. For members of other designated groups, a process of de-segregation is occurring.

The chances of being hired or promoted into a full-time job are less for both women and other designated groups than are their chances of being in a full-time job initially; however, taking into account female employees' low rate of job leaving, their incidence of full-time job holding is approaching that of male employees, other dimensions of the employment structure being held constant.

If the hiring and promotion patterns which prevailed during the period 1986-1989 continue, the profiles of status in the job hierarchy of male, female and other designated group employees will converge, although slowly, over the coming years.

If the other characteristics of jobs remained constant, male and female unionized employment would be maintained, in future, at close to the present proportions of total jobs, while the proportion of other designated groups would decrease.

If employment equity goals had been attained, female employees changing jobs would have achieved higher-status jobs than they did - by approximately $1,700 in terms of expected annual wage income, on average. For the other designated groups, the gain is evaluated at about $1,900.

The gap in the extent to which female employees changing jobs are able to improve their job status relative to male employees is about the same over the range of occupations; hence, for lower-level occupations the gap is proportionately greater.

The 12-way classification used in employment equity reporting appears to capture the bulk of actual progress in job status of female employees; but it accounts for lime more than half the potential progress. Use of the 12-way classification for measuring progress for other designated groups overstates slightly the average progress made by members of the group; but it understates by over 50% the gap in potential progress.

APPENDIX 1

GLOSSARY

Population

Designated groups: Under the *Employment Equity Act*, four population groups have been designated for whom the objective of greater access to employment has been set. These groups are: women, Aboriginal peoples, visible minorities and persons with disabilities. In most of the discussion of this report, distinctions are drawn among three groups, referred to, for ease of exposition, as male, female and other designated groups. The term "other designated groups" denotes both male and female members of the Aboriginal, visible minorities and persons with disabilities populations.

General population pertains to that portion of the total population not in the Aboriginal, visible minorities and persons with disabilities populations.

Labour market characteristics

Job status refers to the position in the hierarchy of jobs. In order to compare status levels among jobs, a scale was created to represent the expected wage for an occupation, i.e., the wage level experienced by the typical worker in that occupation. The set of values was derived by calculating the mean value of reported wages in each detailed (4-digit level in the Standard Occupational Classification) occupational category or grouping of categories.

Mobility is a general term pertaining to change of labour force or employment status and encompasses entry to and exit from the labour force or employment, and change of jobs in the internal (same employer) or external (change of employers) labour market. The model as implemented in this study deals with a period of one calendar year. Thus, e.g., a job change is defined by the individual's having a different job on December 31 than the one held on January 1 of the same year.

The **employed** population are those occupying at least one job.

Non-employed individuals have no job, either because they are in the labour force but unemployed or because, although of labour force age, they are not in the labour force.

Job leavers are those persons with a job at the start but no or a different job at the end of the year.

Hirees are employed at the end of the year, but either were non-employed or employed in a different job than at the start of the year.

Movers are employed at both the beginning and end of the year, but in different jobs. Included are those who received promotions or experienced other job change for the same employer.

APPENDIX 2

PROCEDURES

Data files on individuals constructed from the results of the Statistics Canada Labour Market Activity Survey (LMAS) for the four years were pooled for the present analysis. The records used for the regression analysis were subsets of the initial working file. The pooling was performed for two main reasons. First, it was intended to perform analysis related to job mobility, which involves in any one year only a fraction of the population employed. In addition, it was intended to apply the analysis to designated groups, which, with the exception of female employees from the general population, are also small in size relative to the total population. In order to obtain enough observations for the analysis, therefore, portions of the four annual and two-year longitudinal files were merged into a series of working files. Second, it was intended to examine whether the relationships formalized in the model had shifted with the passage of time. In particular, it was desired to find whether there had been progress toward the goals of employment equity, as revealed by these quantified relationships. In the context of regression analysis, it is possible to introduce a "shift" variable corresponding to each year. The time-period in question is of particular interest, since it corresponds approximately with the first four years of operation of the federal programs under the Employment Equity Act.

For the estimation of regression parameters, observations were excluded for a particular year for persons who were self-employed at either the beginning or end of the year or for whom, for any other reason, complete job information was not available.

The regression analysis was performed by means of weighted least squares, using the SAS statistical package.

APPENDIX 3

TABLES

Notes on Tables

The job distribution of the population by designated groups at the beginning of the representative year have been summarized in the three sets of regression parameters, one set for each population group, shown in Table 1[15]. The dependent variables are the proportions of the total population who are, respectively, male employees in the general population, female employees in the general population and all other designated group employees, both male and female[16]. In Table 1 and in the succeeding tables in this appendix, these three groups are compared in terms of the effects of a variety of possible influences on, respectively, their location in the job structure and on several dimensions of mobility.

Most of the explanatory variables are expressed as classes. Their coefficients may be interpreted as the difference in the probability between being in a job in that category and a job in the excluded, or reference, category, shown by "--" in Table 1, all other variables held constant. For example, and referring to the coefficients labelled "A", the chance that a job will be filled by a male employee, holding other characteristics of the job constant, in 1988 is 1.77% less than in 1986, by a female employee 3.14% greater and for other designated group employees 1.37% less. For each of the classes for all discrete variables, the coefficients sum to zero across population groups. The one continuous variable among the set of explanatory variables is Job Status. Its coefficient is to be interpreted as the change in probability of a job being occupied by a member of that population group for each additional dollar of expected hourly wage. The

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[15] The regressions of Table 1 and of all other tables in this report are based upon four years of data generated from observations on two samples from the labour force age population - one used for 1986 and 1987 and the other for 1998 and 1989. Consequently, the job characteristics for most persons were counted twice, since most persons remained in the same job for the two years they were in the sample. Consequently, the degrees of freedom shown in Table 1 are somewhat larger than they should be. Given the large number of degrees of freedom as stated, however, tests of significance based upon even as few as half that number would yield the same results as those shown.

[16] The equations may be used to calculate the probability that a job will be occupied by an employee from one of the three population groups by adding to the intercept term the coefficients corresponding to the characteristics of the job. Thus, e.g., for a job which is non-unionized, part-time, with an hourly wage of $10, in an establishment with 100-500 employees, in the year 1987 in the Atlantic Region and in the Banking sector, the chances of its being occupied by a male employee from the general population is 18.4% (0.049 + 0 + 0 + 0.287 - 0.005 + 0.024 + 0.050 - 0.221), by a female employee from the general population is 73.2% and by an employee from another designated group is 18.4%. The predicted values shown in the tables in the body of this report were calculated in this way. There is one redundant equation in Table 1, since the predicted values are forced, by the nature of linear regression analysis, to sum to 1.0 and the coefficients for each of the explanatory variables to sum to zero. All three are shown in order to be able to examine the significance of the estimates for each of the three groups.

sets of coefficients labelled "B" are the same coefficients divided by the respective mean values of the dependent variables, which are equal to the proportion of each group in the population of paid employees. The resulting coefficients represent the impacts of the individual explanatory variables adjusted for differences in size of the three population groups. Thus, the proportion of male employees filling a job in 1988 is 3.45% (1.77%/.5002) less than in 1986, etc.

Results of the regression analysis of the probability of leaving, during the year, a job held at the beginning of the year are shown in Table 2. The dependent variable is measured as the proportion of employees in the specific population group, rather than as the proportion of employees in all groups, as in Table 1.

In Table 3, numbers and rates (relative to the starting population) of job-leavers for female and for other designated group employees are shown for each of the 12 employment equity occupation groups. The counts and rates are annual averages over the four years. In addition to the numbers obtained directly from the sample data, two sets of estimates have been simulated, using the regression coefficients shown in Table 2. These estimates are, respectively, the numbers of employees calculated using the coefficients of their own population group ("own coefficients") and using the coefficients of male employees ("male coefficient")[17]. The actual numbers leaving their jobs by occupation may be adjusted for differences in the characteristics (unionization, size of firm, etc.) of the starting job by comparing them with the predicted change shown in the "own coefficients" row. The difference between the predicted "male coefficient" and "own coefficient" values is the impact. The impact may be interpreted as the difference in numbers of employees leaving their jobs if their propensity to leave were identical to that of male employees with the same set of job characteristics. Alternatively, a positive impact may be seen as the deficiency, or, if negative, the excess in numbers who actually did leave their jobs compared with what those numbers would have been if their propensity to leave were identical to that of male employees with the same set of job characteristics. The advantage of calculating the impact in this way, compared with simply applying the overall male rate of job leaving is that it accounts for differences between the population groups in the structure of employment, thereby eliminating the influence of differences in mobility by job type.

The estimated regression coefficients for hiring of new entrants and job movers are shown in Table 4 under the "A" headings. Each equation predicts the probability, for one of the population groups, of being hired into a job with the stated set of characteristics during the year. As in Table 1, the table also includes an alternative set of coefficients, for ease of comparison across groups. They are derived from the original coefficients by dividing each by the proportion of hires accounted for by the particular population group, e.g., by 0.4647 in the case of the equations for male employees. Thus, according to the unadjusted equations ("A"), the probability that a job will be filled, e.g., by a male employee is 13% greater if it is full-time rather than part-time, equivalent (equation "B") to 28% of male employees.

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[17] In the simulations, the characteristics of each of the sample respondents having a job at the beginning of the year are multiplied by the corresponding regression coefficient, summed and multiplied by the sample weight.

For each group there are two sets of explanatory variables - one with and one without the labour pool variable. This variable represents the proportion of the subject population group in the labour pool available for that particular class of job. The labour pool is represented by those employees found in the broad industry and occupation categories in which the subject job is situated[18]. The two versions of the equation are shown in order to gauge the effect of availability of female and other designated group employees on their chances of being hired. This definition of availability is more specific than the one generally employed in discussions of employment equity, in which total numbers of employees from a particular designated group are counted as being available for any type of job.

Table 5 shows the counts, actual and predicted, of employees being hired into jobs during a representative year, by occupation, for those occupations for which there were sufficient observations. The predicted counts are derived from the proportions, shown in the lower portion of the table, which are calculated using the estimated parameters of Table 4. The impact for each population group, summed over all occupations is forced to zero, since it is assumed that total numbers of hires for each group are not affected, but only the distribution among occupations.

The set of regression equations used in predicting the change in job status for Movers is shown in Table 6. Two forms of the equation are shown. In one, the change over the year in job status, in terms of expected hourly wage, is the dependent variable. In the second, the end-of-year value of job status is regressed upon the same set of explanatory variables plus the start-of-year value of job status[19]. The latter form is equivalent to the former when the coefficient of the start-of-year job status variable is constrained to a value of 1.0. In both forms, the explanatory variables pertain to the starting job, i.e., the one held at the beginning of the year[20].

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[18] The variable is constructed as the proportion of the population group in the same industry and occupation as the subject job. For this purpose, a set of nine occupation categories, defined by the divisions of the Standard Industrial Classification and 11 occupations defined by the employment equity groupings was constructed.

[19] The equation form in Table 6 in which end-of-year status is the dependent variable is used in calculating the predicted value of end-of-year status while its equivalent from Table 8 is used to calculate the predicted value of beginning-of-year status. The difference in the predicted values are used for the simulations shown in Tables 7 and 9.

[20] The two forms of the equation may be interpreted as representing different hypotheses about the relationship between job status and mobility. The difference form may be interpreted as stating that the change in status consequent on a move is related to the individual's potential level of status which is, in turn a function (in this case a linear combination) of age, education and the explanatory variables. The equation would be consistent, e.g., with the hypothesis that there is some threshold cost which is an increasing function of starting job status which must be overcome by an increase in expected ending status in order to precipitate a move. The alternate equation form could be interpreted as expressing a proportional-adjustment model, according to which the change in status is a fraction of the difference between potential status, as represented by the explanatory variables other than starting status, and the starting status.

The regression results of Table 6 have been used to compare actual change in status over the four-year period, measured in terms of the average change in expected annual wage income, with expected values based on job characteristics. These calculations are shown in Table 7 for total job movers and separately for those moving within and between the 12 occupational categories. Where there are sufficient numbers of observations, the analysis is shown by employment equity occupational category. As in Tables 3 and 5, there are two sets of predicted values for each category. They are obtained by multiplying the characteristics of the individual observations against the parameters, respectively, for the corresponding population group and for male employees, in this case using the predictive equations shown in Table 6[21]. The values of change in status are the differences between the predicted end-of-year status and the actual status at the beginning of the year.

The regression equations, the parameter estimates for which are shown in Table 8, are similar to those of Table 6, except that the equation form in which the dependent variable is job status (rather than change in job status) pertains to the start of the year and the explanatory variables pertain to the job held at the end of the year. The equations therefore may be employed to predict the change in job status for movers according to the characteristics of the job into which they are hired. Consistency between equation forms in parameter estimates requires that the signs be opposite, e.g., if the influence of a variable on change in status (defined as ending value minus starting value) is positive, then, holding the ending value of job status constant, the effect is to make the starting value less. Like signs could be interpreted as consistent, however, if the "reaction coefficient" of the proportional-adjustment model is allowed to be negative, an assumption which would imply, in this context, that the more an individual's status, in the destination job, falls short of the expected value for jobs in that class, the smaller the gain in status he would have appreciated with the move and conversely, the more by which actual status exceeds expected status, the greater the gain would have been.

Table 9 is based upon the same data and calculations as Table 7, but it is organized by ending, rather than starting, occupation. As in Table 7, the values of change in status are the differences between the predicted (from the regression results shown in Table 6) end-of-year status and the actual status at the beginning of the year.

Table 10 shows population counts by labour force and employment status throughout, or change of status during, the year. Tables 11 and 12 show, for movers, the change of status evaluated in dollar terms by, respectively, starting and ending occupation.

In Table 13, the impacts of the individual explanatory variables on each of the population groups are shown. These values are constructed from the regression coefficients of Tables 1, 2 and 4, dealing, respectively with the employment structure, job leaving and hiring. All impacts are expressed as a percentage of the individual sub-population of paid employees. The coefficients

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[21] The "B" form of the equations, i.e. with end-of-year status as the dependent variable, was employed for the simulation.

of the probability-of-hire equations were transformed for this purpose both to be specific to the employed population in each group and to take account of the lower numbers for hires than for job leavings, i.e., the coefficients were adjusted to be consistent with a "steady state" - equality between the two flows for each population group.

TABLE 1
Probablity of Being in a Population Group: Regression Results

	GENERAL POPULATION		DESIGNATED GROUPS
	Male	Female	
Intercept	**0.0491 ***	**0.7887 ***	**0.1622 ***
Unionization			
Unionized	0.0726 *	−0.0579 *	−0.0147 *
Non−Unionized	−−	−−	−−
Full−Time/Part−time			
Full−time	**0.0584 ***	**−0.0747 ***	**0.0163 ***
Part−time	−−	−−	−−
Job Status	0.0287 *	−0.0252 *	−0.0035 *
Size of establishment			
1−19	**0.0010**	**0.0136 ***	**−0.0146 ***
20−99	0.0103 *	−0.0075	−0.0028
100−500	**−0.0058**	**0.0095 ***	**−0.0037**
500+	−−	−−	−−
Year			
1986	−−	−−	−−
1987	**0.0249 ***	**−0.0421 ***	**0.0172 ***
1988	−0.0177 *	0.0314 *	−0.0137 *
1989	**−0.0334 ***	**0.0458 ***	**−0.0125 ***
Region			
Atlantic	0.0503 *	0.0053	−0.0556 *
Québec	**0.0476 ***	**0.0123 ***	**−0.0599 ***
Ontario	−0.0001	0.0090	−0.0089 *
Prairies	−−	−−	−−
British Columbia	**0.0159 ***	**−0.0306 ***	**0.0147 ***
Sector			
Banking	−0.2211 *	0.2228 *	−0.0017
Transportation	**0.2243 ***	**−0.2206 ***	**−0.0037**
Communications	0.0214 *	−0.0212 *	−0.0002
Other Services	**−0.1869 ***	**0.1748 ***	**0.0120 ***
Non−Service	0.1050 *	−0.1073 *	0.0023
Government	−−	−−	−−
Adjusted R^2	**0.1395**	**0.1273**	**0.0090**
Dependent Mean	0.5002	0.4195	0.0803
No. of Observations	**130,536**	**130,536**	**130,536**

* − Significant at 5% level

TABLE 2
Probablity of Leaving a Job: Regression Results

	GENERAL POPULATION		DESIGNATED GROUPS
	Male	Female	
Intercept	0.5846 *	0.5449 *	0.4283 *
Unionization			
Unionized	−0.1227 *	−0.1552 *	−0.1586 *
Non−Unionized	−−	−−	−−
Full−Time/Part−time			
Full−time	−0.2675 *	−0.1808 *	−0.1826 *
Part−time	−−	−−	−−
Job Status	−0.0120 *	−0.0093 *	−0.0104 *
Size of establishment			
1−19	0.0531 *	0.0156 *	0.0559 *
20−99	0.0099 *	0.0071	0.0237
100−500	−0.0232 *	−0.0158 *	0.0332 *
500+	−−	−−	−−
Year			
1986	−−	−−	−−
1987	−0.1830 *	−0.0987 *	−0.1089 *
1988	0.0513 *	0.0616 *	0.1319 *
1989	0.0364 *	0.0221 *	0.0832 *
Region			
Atlantic	0.0119	0.0106	0.0580
Québec	0.0152 *	−0.0105	0.0085
Ontario	0.0053	0.0020	0.0010
Prairies	−−	−−	−−
British Columbia	0.0178 *	−0.0122	0.0303
Sector			
Banking	−0.0729 *	−0.1643 *	−0.1415 *
Transportation	0.0012	−0.0475 *	0.0691 *
Communications	−0.0308 *	−0.0684 *	−0.0515
Other Services	0.0324 *	−0.0241 *	0.0421 *
Non−Service	0.0135 *	−0.0441 *	0.0286
Government	−−	−−	−−
Adjusted R^2	0.1265	0.0793	0.0923
Dependent Mean	0.2336	0.2696	0.2774
No. of Observations	65,379	56,769	8,388

* − Significant at 5% level

TABLE 3
LEAVERS: by Start Occupation

	MLM	PROF.	S–PROF	SUPER.	CLC	SW	SVCW	C&T	SSW	OMW	TOTAL[1]
DESIGNATED GROUP EMPLOYEES											
COUNTS											
Starters	54,987	117,028	33,079	17,960	129,303	47,984	100,525	41,406	59,268	147,755	768,514
Leavers											
Actual	10,067	20,043	–	–	36.636	16,852	36,550	12,128	17,741	42,048	207,525
Predicted											
Own coefficients	14,090	21,066	–	–	36,378	17,322	35,755	8,487	15,075	40,287	206,279
Male general coefficients	13,136	20,349	–	–	37.658	17,815	37,426	7,924	14,234	39,102	204,586
Impact	−954	−716	–	–	1,280	493	1,671	−563	−842	−1,185	−1,692
RATES (%)											
Actual	18.3	17.1	–	–	28.3	35.1	36.4	29.3	29.9	28.5	27.0
Predicted											
Own coefficients	25.6	18.0	–	–	28.1	36.1	35.6	20.5	25.4	27.3	26.8
Male general coefficients	23.9	17.4	–	–	29.1	37.1	37.2	19.1	24.0	26.5	26.6
Impact	−1.7	−0.6	–	–	1.0	1.0	1.7	−1.4	−1.4	−0.8	−0.2
FEMALE EMPLOYEES											
COUNTS											
Starters	335,539	745,820	237,551	106,241	1,294,598	349,040	502,273	30,483	61,989	326,669	4,028,187
Leavers											
Actual	66,277	132,570	58,270	21,612	332,958	120,374	183,527	8,631	24,291	94,341	1,050,788
Predicted											
Own coefficients	75,602	134,429	57,640	27,986	352,806	116,748	172,179	6,930	16,684	85,852	1,054,707
Male general coefficients	76,842	149,705	64,064	30,335	392.901	132,907	197,616	7,476	18,339	96,884	1,174,476
Impact	1,240	15,275	6,424	2,349	40,095	16,159	25,437	546	1,655	11,033	119,769
RATES (%)											
Actual	19.8	17.8	24.5	20.3	25.7	34.5	36.5	28.3	39.2	28.9	27.5
Predicted											
Own coefficients	22.5	18.0	24.3	26.3	27.3	33.4	34.3	22.7	26.9	26.3	26.1
Male general coefficients	22.9	20.1	27.0	28.6	30.3	38.1	39.3	24.5	29.6	29.7	29.0
Impact	0.4	2.0	2.7	2.2	3.1	4.6	5.1	1.8	2.7	3.4	2.9

MLM: MID–LEVEL MANAGER
PROF: PROFESSIONAL
S–PROF: SEMI–PROFESSIONAL
SUPER: SUPERVISORY
CLC: CLERICAL WORKERS
SW: SALES WORKERS
SVCW: SERVICE WORKERS
C&T: CRAFTS AND TRADES
SSW: SEMI–SKILLED WORKERS
OMW: OTHER MANUAL WORKERS

1. The occupational categories do not sum to Total because of the omission of: Upper Level Management; and Foreman/Forewoman.

TABLE 4
Conditional Probability of Being Hired: Regression Results
(Without Labour Pool)

	GENERAL POPULATION				DESIGNATED GROUPS	
	Male		Female			
	A	B[1]	A	B[1]	A	B[1]
Intercept	−0.0357	−0.0768	0.8475 *	1.8817 *	0.1882 *	2.2167 *
Unionization						
Unionized	0.0557 *	0.1199 *	−0.0407 *	−0.0904 *	−0.0160 *	−0.1885 *
Non−Unionized	−−	−−	−−	−−	−−	−−
Full−Time/Part−time						
Full−time	0.1294 *	0.2785 *	−0.1364 *	−0.3028 *	0.0070	0.0824
Part−time	−−	−−	−−	−−	−−	−−
Job Status	0.0255 *	0.0549 *	−0.0229 *	−0.0508 *	−0.0026 *	−0.0306 *
Size of establishment						
1−19	0.0577 *	0.1242 *	−0.0197	−0.0437	−0.0380 *	−0.4476 *
20−99	0.0803 *	0.1728 *	−0.0553 *	−0.1228 *	−0.0250 *	−0.2945 *
100−500	0.0166	0.0357	0.0008	0.0018	−0.0174 *	−0.2049 *
500+	−−	−−	−−	−−	−−	−−
Year						
1986	−−	−−	−−	−−	−−	−−
1987	0.0371 *	0.0798 *	−0.0263 *	−0.0584 *	−0.0108 *	−0.1272 *
1988	0.0184	0.0396	0.0011	0.0024	−0.0194	−0.2285
1989	0.0082	0.0176	0.0180	0.0400	−0.0263 *	−0.3098 *
Region						
Atlantic	0.0139	0.0299	0.0306	0.0679	−0.0445 *	−0.5241 *
Québec	0.0330 *	0.0710 *	0.0234	0.0520	−0.0564 *	−0.6643 *
Ontario	−0.0114	−0.0245	0.0178	0.0395	−0.0064	−0.0754
Prairies	−−	−−	−−	−−	−−	−−
British Columbia	0.0443 *	0.0953 *	−0.0546 *	−0.1208 *	0.0103	0.1213
Sector						
Banking	−0.1974 *	−0.4248 *	0.1880 *	0.4174 *	0.0094	0.1107
Transportation	0.0274 *	0.0590 *	−0.2894 *	−0.6425 *	0.0150	0.1767
Communications	0.1025 *	0.2206 *	−0.1094 *	−0.2429 *	0.0072	0.0848
Other Services	−0.0833 *	−0.1793 *	0.0782 *	0.1736 *	0.0050	0.0589
Non−Service	0.1409 *	0.3032 *	−0.1379 *	−0.3062 *	−0.0033	−0.0389
Government	−−	−−	−−	−−	−−	−−
Adjusted R^2	0.1123	0.1123	0.1037	0.1037	0.0068	0.0068
Dependent Mean	0.4647	1.0000	0.4504	1.0000	0.0849	1.0000
No. of Observations	23,583	23,583	23,583	23,583	23,583	23,583

* − Significant at 5% level

1. Divided by Dependent Mean

TABLE 4
Conditional Probability of Being Hired: Regression Results
(With Labour Pool)

	GENERAL POPULATION				DESIGNATED GROUPS	
	Male		Female			
	A	B[1]	A	B[1]	A	B[1]
Intercept	**−0.1359 ***	**−0.2924 ***	**0.5480 ***	**1.2167 ***	**0.2010 ***	**2.3675 ***
Unionization						
Unionized	0.1473 *	0.3170 *	−0.0300 *	−0.0666 *	−0.0152 *	−0.1790 *
Non−Unionized	−−	−−	−−	−−	−−	−−
Full−Time/Part−time						
Full−time	**0.0979 ***	**0.2107 ***	**−0.1006 ***	**−0.2234 ***	**0.0082 ***	**0.0966 ***
Part−time	−−	−−	−−	−−	−−	−−
Labour Pool	0.0037 *	0.0080 *	0.0044 *	0.0098 *	−0.0016 *	−0.0188 *
Job Status	**0.0201 ***	**0.0433 ***	**−0.0163 ***	**−0.0362 ***	**−0.0028 ***	**−0.0330 ***
Size of establishment						
1−19	0.0470 *	0.1011 *	−0.0086	−0.0191	−0.0379 *	−0.4464 *
20−99	**0.0778 ***	**0.1674 ***	**−0.0400 ***	**−0.0888 ***	**−0.0251 ***	**−0.2956 ***
100−500	0.0181	0.0389	0.0034	0.0075	−0.0175 *	−0.2061 *
500+	−−	−−	−−	−−	−−	−−
Year						
1986	−−	−−	−−	−−	−−	−−
1987	0.0042	0.0090	0.0126	0.0280	−0.0100	−0.1178
1988	**0.0172**	**0.0370**	**0.0044**	**0.0098**	**−0.0153**	**−0.1802**
1989	−0.0252	−0.0542	0.0584 *	0.1297 *	−0.0225 *	−0.2650 *
Region						
Atlantic	**−0.0020**	**−0.0043**	**0.0524 ***	**0.1163 ***	**−0.0440 ***	**−0.5183 ***
Québec	0.0281 *	0.0605 *	0.0307 *	0.0682 *	−0.0566 *	−0.6667 *
Ontario	**−0.0109**	**−0.0235**	**0.0197**	**0.0437**	**−0.0064**	**−0.0754**
Prairies	−−	−−	−−	−−	−−	−−
British Columbia	0.0323 *	0.0695 *	−0.0380 *	−0.0844 *	0.0105	0.1237
Sector						
Banking	−0.1765 *	−0.3798 *	0.1630 *	0.3619 *	0.0103	0.1213
Transportation	**0.2226 ***	**0.4790 ***	**−0.2201 ***	**−0.4887 ***	**0.0149**	**0.1755**
Communications	0.0875 *	0.1883 *	−0.0771 *	−0.1712 *	0.0090	0.1060
Other Services	**−0.0539 ***	**−0.1160 ***	**0.0441 ***	**0.0979 ***	**0.0047**	**0.0554**
Non−Service	0.1315 *	0.2830 *	−0.1170 *	−0.2598 *	−0.0028	−0.0330
Government	−−	−−	−−	−−	−−	−−
Adjusted R^2	0.1357	0.1357	0.1330	0.1330	0.0072	0.0072
Dependent Mean	**0.4647**	**1.0000**	**0.4504**	**1.0000**	**0.0849**	**1.0000**
No. of Observations	23,583	23,583	23,583	23,583	23,583	23,583

* − Significant at 5% level

1. Divided by Dependent Mean

TABLE 5
Hirees: Group Share of Total

FEMALE EMPLOYEES	MLM	PROF.	S–PROF	SUPER.	CLC	SW	SVCW	C&T	SSW	OMW	TOTAL[1]
COUNTS											
Actual	63,965	123,144	48,879	14,809	287,161	93,573	135,610	6,322	12,099	65,012	856,339
Predicted (Labour Pool)											
Own coefficients	47,910	86,573	42,738	13,305	181,629	80,767	148,103	28,234	48,014	104,870	856,339
Male general coefficients	78,248	111,411	41,404	10,898	183,938	94,641	73,618	59,303	67,302	115,650	856,339
Impact	30,338	24,838	−1,334	−2,407	2,309	13,874	−74,485	31,069	19,288	10,780	0
Predicted (No Labour Pool)											
Own coefficients	46,731	88,021	47,121	13,505	166,867	79,093	158,085	33,030	56,874	118,549	856,339
Male general coefficients	86,743	119,962	45,341	10,602	171,667	94,441	62,742	72,791	80,668	128,510	856,339
Impact	40,011	31,941	−1,780	−2,903	4,800	15,349	−95,343	39,761	23,794	9,961	0
RATES (%)											
Actual	43.5	53.9	47.8	54.9	76.2	48.7	54.8	5.4	7.9	23.7	45.1
Predicted (Labour Pool)											
Own coefficients	32.6	37.9	41.8	49.3	48.2	42.0	59.8	24.1	31.3	41.1	45.1
Male general coefficients	53.2	48.8	40.5	40.4	48.8	49.3	29.7	50.7	43.9	42.2	45.1
Impact	21	11	−1	−9	1	7	−30	27	13	1	0.0
Predicted (No Labour Pool)											
Own coefficients	31.8	38.6	46.0	50.1	44.3	41.2	63.8	28.2	37.1	43.3	45.1
Male general coefficients	59.0	52.6	44.3	39.3	45.6	49.2	25.3	62.2	52.6	46.9	45.1
Impact	27.2	14.0	−1.7	−10.8	1.3	8.0	−38.5	34.0	15.5	3.6	0.0

MLM: MID–LEVEL MANAGER
PROF: PROFESSIONAL
S–PROF: SEMI–PROFESSIONAL
SUPER: SUPERVISORY
CLC: CLERICAL WORKERS
SW: SALES WORKERS
C&T: CRAFTS AND TRADES
SVCW: SERVICE WORKERS
SSW: SEMI–SKILLED WORKERS
OMW: OTHER MANUAL WORKERS

1. The occupational categories do not sum to Total because of the omission of: Upper Level Management; and Foreman/Forewoman.

TABLE 6
Change in Status of Movers From: Regression Results

	GENERAL POPULATION				DESIGNATED GROUPS	
	Male		Female			
	A[1]	B[2]	A[1]	B[2]	A[1]	B[2]
Intercept	964	15,505 *	−353	12,143 *	1,701	7,561 *
Unionization						
Unionized	−332	275	−128	1,304 *	1,769 *	1,872 *
Non−Unionized	−−	−−	−−	−−	−−	−−
Full−Time/Part−time						
Full−time	−931 *	−187	24	499 *	−1,492 *	−510
Part−time	−−	−−	−−	−−	−−	−−
Job Status	−−	861 *	−−	953 *	−−	1,299 *
Size of establishment						
1−19	−1,182 *	−2,997 *	−402	−1,960 *	15	−678
20−99	−1,215 *	−2,511 *	272	−1,248 *	−515	−994
100−500	−722	−1,044 *	−459	−927 *	−671	−319
500+	−−	−−	−−	−−	−−	−−
Year						
1986	−−	−−	−−	−−	−−	−−
1987	322	1,192 *	458	1,346 *	−308	219
1988	1,663 *	2,817 *	−142	676	−172	1,829
1989	1,360 *	3,526 *	690	2,419 *	1,205	3,890 *
Region						
Atlantic	239	271	299	186	−537	1,389
Québec	368	91	−240	394	−2,268 *	−2,295 *
Ontario	894 *	841 *	255	874 *	−679	−276
Prairies	−−	−−	−−	−−	−−	−−
British Columbia	715	639	529	−330	−3,249 *	−2,569 *
Sector						
Banking	−1,552	689	3,240 *	1,944 *	−4,640	−3,492
Transportation	27	−926	−1,893 *	−2,220 *	−2,824	−3,262
Communications	−2,326 *	−368	−1,871	−2,538 *	−822	493
Other Services	660	−1,155 *	1,247 *	−517	764	−636
Non−Service	770	−306	1,130 *	−373	−219	−389
Government	−−	−−	−−	−−	−−	−−
Adjusted R^2	0.1550	0.2832	0.0105	0.3243	0.0526	0.43
Dependent Mean	1,499	25,577	1,057	22,463	864	22,786
No. of Observations	6,092	6,092	5,520	5,520	776	776

* − Significant at 5% level

1. Difference in expected wage
2. Ending expected wage

TABLE 7

MOVERS: Change in Status by Start Occupation

FEMALE EMPLOYEES	MLM	PROF.	S–PROF	SUPER.	CLC	SW	SVCW	SSW	OMW	TOTAL[1]
COUNTS										
Between Occupations	29,767	58,622	26,783	10,128	146,296	61,091	78,976	8,698	29,031	458,537
Within Occupations	18,699	21,095	14,948	8,925	54,743	44,786	46,494	8,123	20,003	244,810
	11,068	37,527	11,835	–	91,553	16,305	32,482	–	9,028	213,727
CHANGE IN STATUS ($)										
Total										
Actual										
Predicted	−4,395	−2,653	−409	4,118	2,181	1,813	3,949	−725	1,298	1,056
Own coefficients	−3,275	−3,980	−636	1,836	2,035	36	404	640	2,671	1,055
Male general coefficients	−1,788	−3,163	694	4,160	3,902	2,263	2,026	3,011	4,527	2,759
Impact	1,487	817	1,330	2,324	1,867	2,227	1,621	2,372	1,856	1,704
Between Occupations										
Actual	−6,566	−8,319	−304	4,759	5,494	2,444	6,350	−817	1,485	1,767
Predicted	−3,250	−4,702	−339	1,801	2,350	2,116	4,322	664	2,351	1,285
Own coefficients	−1,958	−3,863	1,178	4,109	4,163	4,360	5,892	3,040	4,202	3,033
Male general coefficients	1,292	839	1,517	2,308	1,813	2,244	1,570	2,376	1,851	1,748
Impact										
Within Occupations	−727	532	−542	–	200	79	512	–	884	243
Actual	−3,316	−3,574	−1,011	–	1,846	1,114	4,397	–	3,380	791
Predicted	−1,502	−2,769	84	–	3,746	3,293	6,092	–	5,247	2,444
Own coefficients	1,815	805	1,095	–	1,900	2,179	1,694	–	1,867	1,653
Male general coefficients										
Impact										
CHANGE IN STATUS (%)										
Total										
Actual										
Predicted	−14.6	−8.3	−1.7	20.0	11.1	9.4	27.6	−3.4	7.0	4.9
Own coefficients	−10.9	−12.5	−2.6	8.9	10.4	0.2	2.2	3.0	14.5	4.9
Male general coefficients	−5.9	−9.9	2.8	20.2	19.9	10.7	11.1	13.9	24.5	12.9
Impact	4.9	2.6	5.4	11.3	9.5	10.5	8.9	11.0	10.0	8.0
Between Occupations										
Actual	−22.3	−25.4	−1.3	22.9	28.7	13.0	44.0	−3.8	7.8	8.5
Predicted	−11.1	−14.3	−1.4	8.7	12.3	11.3	29.9	3.1	12.4	6.2
Own coefficients	−6.7	−11.8	4.9	19.8	21.8	23.2	40.8	14.1	22.1	14.6
Male general coefficients	4.4	2.6	6.3	11.1	9.5	12.0	10.9	11.0	9.8	8.4
Impact										
Within Occupations	−2.3	1.7	−2.1	–	1.0	0.4	3.6	–	5.1	1.1
Actual	−10.6	−11.4	−4.0	–	9.3	5.3	31.2	–	19.5	3.6
Predicted	−4.8	−8.8	0.3	–	18.9	15.6	43.2	–	30.2	11.1
Own coefficients	5.8	2.6	4.3	0.0	9.6	10.3	12.0	0.0	10.8	7.5
Male general coefficients										
Impact										

MLM: MID–LEVEL MANAGER
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SSW: SEMI–SKILLED WORKERS
OMW: OTHER MANUAL WORKERS

1. The occupational categories do not sum to Total because of the omission of: Upper Level Management; Foreman/Forewoman; and Crafts and Trades.

TABLE 7

MOVERS: Change in Status by Start Occupation

DESIGNATED GROUP EMPLOYEES	MLM	PROF.	S–PROF	SUPER.	CLC	SW	SVCW	SSW	OMW	TOTAL[1]
COUNTS	–	9,019	–	–	16,181	–	15,520	–	12,002	81,780
Between Occupations	–	–	–	–	–	–	8,638	–	–	43,683
Within Occupations	–	–	–	–	9,479	–	–	–	–	38,097
CHANGE IN STATUS ($)										
Total										
Actual	–	−1,589	–	–	1,625	–	3,464	–	86	864
Predicted										
Own coefficients	–	−3,195	–	–	1,726	–	3,048	–	1,320	863
Male general coefficients	–	−3,858	–	–	4,051	–	6,023	–	3,581	2,725
Impact	–	−663	–	–	2,325	–	2,975	–	2,261	1,862
Between Occupations										
Actual	–	–	–	–	–	–	5,890	–	–	1,539
Predicted										
Own coefficients	–	–	–	–	–	–	3,322	–	–	1,281
Male general coefficients	–	–	–	–	–	–	6,196	–	–	3,229
Impact	–	–	–	–	–	–	2,874	–	–	1,948
Within Occupations										
Actual	–	–	–	–	−210	–	–	–	–	87
Predicted										
Own coefficients	–	–	–	–	1,441	–	–	–	–	382
Male general coefficients	–	–	–	–	3,857	–	–	–	–	2,147
Impact	–	–	–	–	2,416	–	–	–	–	1,764
CHANGE IN STATUS (%)										
Total										
Actual	–	–	–	–	8.1	–	22.9	–	0.4	4.0
Predicted										
Own coefficients	–	–	–	–	8.6	–	20.2	–	6.6	3.8
Male general coefficients	–	–	–	–	20.3	–	39.8	–	17.8	12.4
Impact	–	–	–	–	11.7	–	19.7	–	11.2	8.6
Between Occupations										
Actual	–	–	–	–	–	–	38.6	–	–	7.3
Predicted										
Own coefficients	–	–	–	–	–	–	21.8	–	–	6.5
Male general coefficients	–	–	–	–	–	–	40.6	–	–	15.0
Impact	–	–	–	–	–	–	18.8	–	–	8.5
Within Occupations										
Actual	–	–	–	–	−1.0	–	–	–	–	0.4
Predicted										
Own coefficients	–	–	–	–	7.1	–	–	–	–	0.9
Male general coefficients	–	–	–	–	19.0	–	–	–	–	9.4
Impact	–	–	–	–	11.9	–	–	–	–	8.5

MLM: MID–LEVEL MANAGER
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1. The occupational categories do not sum to Total because of the omission of: Upper Level Management; Foreman/Forewoman; and Crafts and Trades.

TABLE 8
Change in Status of Movers to: Regression Results

	GENERAL POPULATION				DESIGNATED GROUPS	
	Male		Female			
	A[1]	B[2]	A[1]	B[2]	A[1]	B[2]
Intercept	3,297 *	11,901 *	708 *	12,259	3,828 *	4,159
Unionization						
Unionized	−492 *	1,005 *	1,137	5 *	−888 *	1,270
Non−Unionized	−−	−−	−−	−−	−−	−−
Full−Time/Part−time						
Full−time	−673 *	−472 *	2,046 *	−3,912 *	745 *	−1,951
Part−time	−−	−−	−−	−−	−−	−−
Job Status	−−	874 *	−−	903	−−	1,158 *
Size of establishment						
1−19	−1,744 *	−607 *	−562 *	−1,834	−2,601 *	2,184
20−99	−1,402	19 *	−548 *	−1,191	−1,160 *	1,367
100−500	−1,222	418 *	−446 *	−724	−1,077	1,541
500+	−−	−−	−−	−−	−−	−−
Year						
1986	−−	−−	−−	−−	−−	−−
1987	725	341 *	346 *	710	44	362
1988	1,468	1,019 *	−808 *	2,464	−517 *	3,297
1989	1,707 *	1,597 *	−11 *	2,834	1,437	2,502
Region						
Atlantic	192	−66	334	−226	−641	2,404
Québec	246	−517	−42	197	−3,646 *	2,718 *
Ontario	712	−477	395	197	−1,743 *	1,678 *
Prairies	−−	−−	−−	−−	−−	−−
British Columbia	942	−617 *	646 *	−1,238	−3,570 *	3,256 *
Sector						
Banking	−4,741 *	4,939 *	1,343	−1,712 *	−2,175	−56
Transportation	−1,081	−68	−9 *	419	1,716	−1,593
Communications	−1,038	1,006	2,088	−2,983 *	1,575	178
Other Services	−2,928	744 *	−476 *	−270	−1,494	−65
Non−Service	−1,137	317 *	306	−834	−162	−435
Government	−−	−−	−−	−−	−−	−−
Adjusted R^2	0.0226	0.2449	0.0182	0.3411	0.058	0.4273
Dependent Mean	1,499	24,018	1,057	21,406	864	21,922
No. of Observations	6,092	6,092	5,520	5,520	776	776

* − Significant at 5% level

1. Difference in expected wage
2. Starting expected wage

TABLE 9
MOVERS: Change in Status by Ending Occupation

FEMALE EMPLOYEES	MLM	PROF.	S-PROF	SUPER.	CLC	SW	SVCW	SSW	OMW	TOTAL[1]
COUNTS	43,847	70,037	27,495	8,132	158,419	46,112	64,021	–	28,159	458,792
Between Occupations	32,779	32,510	15,660	–	66,866	29,814	31,539	–	19,131	245,072
Within Occupations	11,068	37,527	11,835	–	91,553	16,305	32,482	–	9,028	213,727
CHANGE IN STATUS ($)										
Total										
Actual	5,378	4,731	2,094	−723	−515	425	−2,205	–	777	1,056
Predicted										
Own coefficients	−389	−1,410	241	1,106	1,508	1,639	3,036	–	2,796	1,055
Male general coefficients	1,320	−242	1,720	2,891	3,378	3,529	4,837	–	4,548	2,759
Impact	1,709	1,168	1,479	1,785	1,870	1,890	1,800	–	1,753	1,703
Between Occupations										
Actual	7,439	9,577	4,086	–	−1,493	615	−5,003	–	727	1,767
Predicted										
Own coefficients	599	1,088	1,187	–	1,046	1,926	1,634	–	2,520	1,285
Male general coefficients	2,273	2,675	2,957	–	2,875	3,658	3,544	–	4,218	3,033
Impact	1,673	1,586	1,770	–	1,829	1,732	1,909	–	1,699	1,748
Within Occupations										
Actual	−727	532	−542	–	200	79	512	–	884	243
Predicted										
Own coefficients	−3,309	−3,574	−1,011	–	1,846	1,114	4,397	–	3,380	791
Male general coefficients	−1,494	−2,769	84	–	3,746	3,293	6,092	–	5,247	2,444
Impact	1,815	805	1,095	–	1,900	2,179	1,694	–	1,867	1,653
CHANGE IN STATUS (%)										
Actual	21.5	17.5	9.2	−3.4	−2.5	2.1	−12.9	–	4.4	4.9
Predicted										
Own coefficients	−1.6	−5.2	1.1	5.2	7.4	8.3	17.8	–	15.8	4.9
Male general coefficients	5.3	−0.9	7.5	13.5	16.6	17.8	28.4	–	25.7	12.9
Impact	6.8	4.3	6.5	8.3	9.2	9.6	10.6	–	9.9	8.0
Between Occupations										
Actual	32.5	43.8	19.5	–	−7.1	3.2	−24.9	–	4.1	8.5
Predicted										
Own coefficients	2.6	5.0	5.7	–	5.0	10.1	8.1	–	14.1	6.2
Male general coefficients	9.9	12.2	14.1	–	13.6	19.2	17.7	–	23.6	14.6
Impact	7.3	7.3	8.4	–	8.7	9.1	9.5	–	9.5	8.4
Within Occupations										
Actual	−2.3	1.7	−2.1	–	1.0	0.4	3.6	–	5.1	1.1
Predicted										
Own coefficients	−10.5	−11.4	−4.0	–	9.3	5.3	31.2	–	19.5	3.6
Male general coefficients	−4.8	−8.8	0.3	–	18.9	15.6	43.2	–	30.2	11.1
Impact	5.8	2.6	4.3	–	9.6	10.3	12.0	–	10.8	7.5

MLM: MID-LEVEL MANAGER
PROF: PROFESSIONAL
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1. The occupational categories do not sum to Total because of the omission of: Upper Level Management; Foreman/Forewoman; and Crafts and Trades.

TABLE 9
MOVERS: Change in Status by Ending Occupation

DESIGNATED GROUP EMPLOYEES	MLM	PROF.	S–PROF	SUPER.	CLC	SW	SVCW	SSW	OMW	TOTAL[1]
COUNTS	7,786	7,787	–	–	18,500	8,387	12,198	–	10,381	81,860
Between Occupations	–	–	–	–	9,021	–	–	–	–	43,763
Within Occupations	–	–	–	–	9,479	–	–	–	–	38,097
CHANGE IN STATUS ($)										
Total										
Actual	4,825	3,666	–	–	15	−1,502	−1,414	–	−249	864
Predicted										
Own coefficients	−275	−2,059	–	–	1,681	1,157	2,022	–	1,377	863
Male general coefficients	1,083	−2,376	–	–	3,929	3,386	4,961	–	3,744	2,725
Impact	1,358	−317	–	–	2,248	2,229	2,940	–	2,367	1,862
Between Occupations										
Actual	–	–	–	–	251	–	–	–	–	1,539
Predicted										
Own coefficients	–	–	–	–	1,932	–	–	–	–	1,281
Male general coefficients	–	–	–	–	4,005	–	–	–	–	3,229
Impact	–	–	–	–	2,072	–	–	–	–	1,948
Within Occupations										
Actual	–	–	–	–	−210	–	–	–	–	87
Predicted										
Own coefficients	–	–	–	–	1,441	–	–	–	–	382
Male general coefficients	–	–	–	–	3,857	–	–	–	–	2,147
Impact	–	–	–	–	2,416	–	–	–	–	1,764
CHANGE IN STATUS (%)										
Total										
Actual	19.0	11.6	–	–	0.1	−7.2	−8.3	–	−1.3	4.0
Predicted										
Own coefficients	−1.1	−6.5	–	–	8.4	5.5	11.9	–	7.0	3.8
Male general coefficients	4.3	−7.5	–	–	19.6	16.2	29.3	–	19.1	12.4
Impact	5.4	−1.0	–	–	11.2	10.6	17.3	–	12.0	8.6
Between Occupations										
Actual	–	–	–	–	1.3	–	–	–	–	7.3
Predicted										
Own coefficients	–	–	–	–	9.8	–	–	–	–	6.5
Male general coefficients	–	–	–	–	20.2	–	–	–	–	15.0
Impact	–	–	–	–	10.5	–	–	–	–	8.5
Within Occupations										
Actual	–	–	–	–	−1.0	–	–	–	–	0.4
Predicted										
Own coefficients	–	–	–	–	7.1	–	–	–	–	0.9
Male general coefficients	–	–	–	–	19.0	–	–	–	–	9.4
Impact	–	–	–	–	11.9	–	–	–	–	8.5

MLM: MID–LEVEL MANAGER **S–PROF: SEMI–PROFESSIONAL** **CLC: CLERICAL WORKERS** **SVCW: SERVICE WORKERS** **OMW: OTHER MANUAL WORKERS**
PROF: PROFESSIONAL **SUPER: SUPERVISORY** **SW: SALES WORKERS** **SSW: SEMI–SKILLED WORKERS**

1. The occupational categories do not sum to Total because of the omission of: Upper Level Management; Foreman/Forewoman; and Crafts and Trades.

TABLE 10
Labour Force and Job Mobility, 1986–1989 (annual average)
Male Employees

	Visible Minority	Aboriginal	Disabilities	Others	TOTAL
Same Employer, Change Occupation	–	–	–	49,104	53,145
	–	–	–	0.63	0.61
Same Employer, Change Industries	–	–	–	13,930	15,626
	–	–	–	0.18	0.18
Same Employer, Change Both	–	–	–	85,124	91,647
	–	–	–	1.09	1.06
Same Employer, No Change	187,277	28,532	50,762	3,147,827	3,414,398
	39.96	30.24	16.17	40.46	39.36
Different Employer, Change Occupation	–	–	–	33,014	35,477
	–	–	–	0.42	0.41
Different Employer, Change Industries	–	–	–	54,695	61,584
	–	–	–	0.70	0.71
Different Employer, Change Both	15,538	–	–	247,393	270,126
	3.32	–	–	3.17	3.11
Different Employer, No Change	–	–	–	59,878	65,081
	–	–	–	0.77	0.74
Into Employment	29,459	–	10,690	479,041	526,133
	6.29	–	3.41	6.14	6.07
Into Non Employment	70,241	14,647	21,099	1,110,476	1,216,463
	14.99	15.52	6.92	14.24	14.02
Non Employed	146,093	36,823	224,813	2,517,309	2,925,038
	31.18	39.01	71.61	32.28	33.72
TOTAL	468,613	94,344	313,922	7,797,790	8,674,719
	100	100	100	100	100

TABLE 10
Labour Force and Job Mobility, 1986–1989 (annual average)
Female Employees

	Visible Minority	Aboriginal	Disabilities	Others	TOTAL
Same Employer, Change Occupation	–	–	–	50,589	53,117
	–	–	–	0.63	0.59
Same Employer, Change Industries	–	–	–	14,235	15,153
	–	–	–	0.18	0.17
Same Employer, Change Both	–	–	–	69,513	75,082
	–	–	–	0.87	0.84
Same Employer, No Change	152,314	21,634	40,481	2,525,129	2,739,558
	31.47	20.37	12.02	31.55	30.68
Different Employer, Change Occupation	–	–	–	47,726	29,648
	–	–	–	0.60	0.33
Different Employer, Change Industries	–	–	–	49,947	53,399
	–	–	–	0.62	0.60
Different Employer, Change Both	8,772	–	–	214,752	231,422
	1.81	–	–	2.68	2.59
Different Employer, No Change	–	–	–	54,651	60,011
	–	–	–	6.91	6.86
Into Employment	37,014	7,747	13,398	539,292	597,450
	7.65	7.29	3.98	6.74	6.69
Into Non Employment	65,690	11,869	19,180	1,032,731	1,129,469
	13.57	11.17	5.69	12.90	12.65
Non Employed	204,225	59,110	257,779	3,425,485	3,946,594
	42.20	55.65	76.52	42.80	44.19
TOTAL	483,991	106,226	336,886	8,003,799	8,930,901
	100	100	100	100	100

TABLE 11 . CHANGE IN STATUS($): Starting Occupation

OCCUPATION	Designated Group Employees 1986	1987	1988	1989	Female Employees 1986	1987	1988	1989	Male Employees 1986	1987	1988	1989
Upper Level Manager	–	–	–	–	−428	−1,047	−265	−601	−712	−13	−433	−139
Mid Level Manager	−479	20	289	−399	−358	−245	−291	−310	−154	−19	−49	−129
Professional	−178	−27	−373	207	−159	−120	−249	−80	−139	−243	−152	−74
Semi−Professional	−294	52	−108	−277	−35	174	−198	62	−108	−9	144	−280
Supervisors	358	207	460	835	15	183	666	−13	147	−169	150	63
Foremen/Forewomen	−257	0	−126	−197	−220	0	−212	0	−182	−59	−99	11
Clerical Workers	450	170	66	122	189	160	182	189	334	173	694	198
Sales Workers	360	66	−252	200	350	198	239	341	508	183	1,215	580
Service Workers	477	480	326	272	674	553	548	463	567	583	1,056	1,049
Crafts and Trades	−260	−100	15	0	−207	−116	−520	−1,183	−158	−31	−148	−59
Semi−Skilled Workers	142	−29	−168	−42	−101	13	−464	369	44	58	70	205
Other Manual Workers	166	−104	−123	84	−28	−27	84	154	55	207	331	119
TOTAL	85	59	−27	88	95	97	63	107	36	66	212	114

TABLE 12 . CHANGE IN STATUS($): Ending Occupation

OCCUPATION	Designated Group Employees 1986	1987	1988	1989	Female Employees 1986	1987	1988	1989	Male Employees 1986	1987	1988	1989
Upper Level Manager	–	–	–	–	1,672	633	357	447	525	20	2,210	−24
Mid Level Manager	982	116	258	380	675	373	448	591	290	114	272	156
Professional	−20	132	17	338	299	365	277	344	289	155	623	380
Semi−Professional	−2	225	516	74	263	124	246	129	−192	198	239	204
Supervisors	949	143	−1,463	−704	22	84	9	−197	−490	203	10	13
Foremen/Forewomen	504	107	65	0	0	299	443	263	196	35	127	96
Clerical Workers	−263	178	7	133	−46	−38	−103	11	−293	33	−67	−13
Sales Workers	−222	−215	−274	50	−27	201	10	−96	−378	−99	13	−152
Service Workers	−174	25	−271	63	−284	−220	−367	−280	−163	−129	−287	−357
Crafts and Trades	557	191	51	0	284	71	15	374	237	223	282	202
Semi−Skilled Workers	−63	49	91	−266	−84	190	271	259	−45	−14	238	286
Other Manual Workers	82	−95	−27	17	−3	−26	197	101	−51	21	−8	−10
TOTAL	85	59	−27	88	95	97	63	107	36	66	212	114

TABLE 13
Compositional and Flow Impacts (%)

	Male			Female			Designated Groups		
	Comp.	Leave	Hire	Comp.	Leave	Hire	Comp.	Leave	Hire
Unionization									
Unionized	14.5	-12.3	2.8	-13.8	-15.5	-2.4	-18.3	-15.9	-5.2
Non-Unionized	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Full-Time/Part-Time									
Full-time	11.7	-26.8	6.5	-17.8	-18.1	-8.2	20.3	-18.3	2.3
Part-Time	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Job Status	5.7	-1.2	1.3	-6.0	-0.9	-1.4	-4.4	-1.0	-0.8
Sector									
Banking	-44.2	-7.3	-9.9	53.1	-16.4	11.3	- - -	- - -	- - -
Transportation	44.8	0.1	1.4	-52.6	-4.8	-17.3	- - -	- - -	- - -
Communications	4.3	-3.1	5.2	-5.1	-6.8	-6.5	- - -	- - -	- - -
Other Services	-37.4	3.2	-4.2	41.7	-2.4	4.7	- - -	- - -	- - -
Non-Service	21.0	1.4	7.1	-25.6	-4.4	-8.3	- - -	- - -	- - -
Government	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -