Skills Research Initiative
Initiative de recherche sur les compétences

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In the context of the federal government's innovation strategy, Human Resources and Social Development Canada (HRSDC), Industry Canada (IC) and the Social Sciences and Humanities Research Council Initiative on the New Economy (SSHRC-INE) are partnering to design and fund a multi-year skill-related research program–the HRSDC-IC-SSHRC Skills Research Initiative (HISSRI).   The research is grouped into four themes:

A.   Labour Market and Skills Implications of Population Aging;
B.   Employer-Supported Training;
C.   Adjustments in Markets for Skilled Workers;
D.   International Mobility of Skilled Workers.

Dans le cadre de la stratégie d'innovation du gouvernement fédéral, Ressources humaines et Développement social Canada (RHDSC), Industrie Canada (IC) et l'Initiative de la nouvelle économie du Conseil de recherches en sciences humaines (INE-CRSH) se sont associés pour concevoir et financer un programme pluriannuel de recherches sur les compétences, appelé Initiative de recherche sur les compétences de RHDSC-IC-CRSH. Ce programme comprend quatre grands thèmes :

A.   les incidences du vieillissement de la population sur le marché du travail et la main-d'oeuvre spécialisée;
B.   la formation en entreprise;
C.   l'adaptation du marché du travail aux travailleurs spécialisés;
D.   la mobilité des travailleurs spécialisés dans le monde.

The HISSRI Working Paper Series provides a forum for the discussion of analytical issues related to the themes covered under the research partnership. Working Papers are circulated in the language in which they were written. The papers reflect the views of the authors and no responsibility for them should be attributed to HRSDC, IC or the SSHRC. Comments on the papers are invited and may be sent directly to the authors.

La collection Documents de travail de l'Initiative de recherche servira de tribune où seront abordées plusieurs questions analytiques liées aux thèmes susmentionnés. Les documents de travail sont diffusés dans la langue dans laquelle ils ont été écrits. Les opinions qui y sont exprimées sont celles des auteurs et n'engagent pas RHDSC, IC ou le CRSH. Le lecteur est prié de faire part de ses commentaires aux auteurs.

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Brain Drain and Return:
The Effects on Individuals' Earnings

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Acknowledgements

Abstract

The infamous "brain drain" was a much-discussed issue in Canada – as elsewhere – in the latter part of the 1990s, although recent empirical evidence shows that it was not such a widespread phenomenon after all, and that rates of leaving have declined substantially in recent years. One aspect of the brain drain brain/return literature that has not yet been addressed, however, is the effect of leaving the country and then returning on individuals' earnings. Do those who leave and then return to Canada subsequently have higher earnings levels or greater earnings growth than they otherwise would have had? In short, is spending time out of the country generally a good career investment? The lack of empirical evidence on this issue stems from the unavailability of the kind of data required for such an analysis. The contribution of this paper is to exploit the unique strengths of a massive longitudinal micro file constructed from individuals' tax records to present evidence on how leaving and returning to Canada affects individuals' earnings. Models are estimated to allow for the comparisons of earnings profiles of leavers and non-leavers, and basically use movers' (relative) pre-move profiles as the basis of comparison for their post-move (relative) earnings patterns in order to control for any pre-existing differences in the earnings profiles of movers and non-movers. Overall, leaver-returners have higher earnings than non-movers, but this holds in the pre-move period as well as after. In terms of net earnings *growth,* individuals who were away 2 to 5 years seem to enjoy moderate gains in their earnings levels (in the range of 12 percent) upon their returns, while those who leave for shorter or longer periods do not do as well. Interestingly, these gains seem to be concentrated among those who had the lowest pre-move earnings levels, while those higher up the earnings ladder generally had negligible gains in earnings or even experienced losses.

Résumé

On a beaucoup parlé du fameux « exode des cerveaux » au Canada – et ailleurs – vers la fin des années 1990, même si les récentes données empiriques montrent qu'il ne s'agissait pas d'un phénomène si répandu après tout et que les taux de départ ont considérablement diminué ces dernières années. Les études sur l'exode et le retour des cerveaux n'ont pas encore porté sur un des aspects, soit l'effet sur les gains de ceux qui quittent le pays et y retournent. Ceux qui ont quitté le Canada et qui y reviennent ont-ils un revenu plus élevé ou un revenu dont le taux de croissance est plus élevé que ce qu'ils auraient eu s'ils n'avaient pas quitté le pays? Bref, le fait de passer un certain temps à l'extérieur du pays est-il généralement un bon investissement dans la carrière? Le manque de preuve empirique sur cette question s'explique par le fait que le genre de données nécessaires à l'analyse n'existent pas. La présente étude vise à exploiter les possibilités d'un vaste ensemble de données longitudinales colligées à partir des déclarations d'impôt des particuliers pour tenter d'expliquer comment le fait de quitter et de revenir au Canada influence les gains des particuliers. Les modèles sont estimés pour permettre les comparaisons entre les profils de gains de ceux qui quittent et de ceux qui restent, et les profils (relatifs) des sortants avant leur départ servent essentiellement de base de comparaison de la structure des gains (relatifs) après le départ de manière à tenir compte de tout écart existant avant le départ entre les profils de gains de ceux qui quittent

et de ceux qui restent. Dans l'ensemble, ceux qui quittent et qui reviennent ont des gains plus élevés que ceux qui ne partent pas, mais ce résultat reste le même pour la période avant le départ et la période après. Pour ce qui est de la *croissance* des gains nets, les personnes qui sont parties entre deux et cinq ans semblent bénéficier d'une hausse modérée de leur niveau de gains (de l'ordre de 12 p. 100) lorsqu'elles reviennent, alors que celles qui sont parties pour une période plus courte ou plus longue ne semblent pas avoir d'aussi bons résultats. Fait intéressant à noter, les hausses semblent être plus présentes chez ceux qui avaient les niveaux de gains les plus bas avant leur départ, tandis que ceux dont le revenu se situait dans les tranches plus élevées n'ont connu que de très modestes hausses et même des reculs.

I. INTRODUCTION

The infamous "brain drain" was a much-discussed issue in the latter part of the 1990s and at the beginning of the new millennium. The issue seems to have faded from public (and academic) discussions to a substantial degree since then, however, perhaps at least partly because recent empirical evidence has revealed that it was probably not that much of a problem after all. The overall numbers of Canadians leaving the country in any given year have been shown to be relatively low (around one-tenth of one percent of the population), and not necessarily as concentrated at the top of the occupation scale or in certain sectors as had been suggested.[1]

That said, there have been certain specific problem areas, such as health professionals, engineers, scientists, university professors, the highly skilled and high earners in general, and recent university graduates. But even here, more targeted policies seem best suited to the problem, and various policy developments have in fact gone significantly in that direction and appear to have had salutary effects. The recovery of government spending in the health sector and to a lesser degree increased expenditures on R&D (including that targeted on universities) are important specific cases in point. In any event, it would appear that the allegedly inexorable rise in the numbers of Canadians leaving the country in the 1990s has not only stalled, but even significantly reversed, especially since about 2000.[2]

But although the empirical evidence on the rates of leaving the country (and returning) has been accumulating, one aspect of the brain drain literature that has not yet been treated is the effects of leaving the country and then returning on individuals' earnings.

Do those who leave and then return to Canada earn an earnings premium for doing so? – do they arrive back with higher earnings levels, or on steeper earnings profiles (i.e., higher earnings growth rates) than they would have had they never left? Otherwise put, is spending time out of the country generally a good career investment?

While there exists much anecdotal hearsay, there is so far (at least to this author's awareness) no hard evidence on the issue – and the matter is an important one. Any finding in the affirmative

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[1] See Finnie [2001 and forthcoming (a)] for a review of the recent empirical evidence and a set of new estimates based on the same LAD dataset used in this paper. In contrast, Harris, Easton and Schmitt [2006] have recently published a set of essays on the topic which raise new concerns regarding the quantity and quality of out-flows, including among certain specific sub-populations.

[2] Finnie [forthcoming (a)] and below.

might indicate that individuals come back to Canada after living abroad relatively more productive than would have had they not left, which would have implications for the general dynamism of the Canadian economy as well as the economic well-being of the specific individuals in question. In fact, as Globerman [2000, 1999] has suggested, a finding in the affirmative might even change our general view of the whole emigration-return dynamic: if substantial numbers of those who leave eventually come back, and if their sojourns out of the country typically lead to increased productivity (and higher earnings) after their return, such a mobility dynamic might be something to worry less about – or even encourage, at least among some groups of workers.

The basic idea is simple. While out of the country, individuals might gain superior training and other kinds of work experience, develop new contacts, and enhance their productivity in other ways precisely because they are away. And when they come back to Canada, *if* the conditions are suitable (i.e., the human capital and other advantages gained abroad is valued here), that greater productivity should lead to higher earnings.

And even if there were no such productivity dynamic, finding that earnings rise for individuals who leave the country and then come back might help explain the flows that we do observe, help us predict what they may be in future years, and take any remedial policy actions deemed appropriate.[3]

The lack of empirical evidence on this issue stems primarily from the unavailability of the kind of data required for such an analysis. The contribution of this paper is to exploit the unique strengths of Statistics Canada's Longitudinal Administrative Database (LAD), constructed from individuals' tax records, to present the results of an empirical analysis of how leaving Canada and then returning affects individuals' earnings (the analysis is restricted to women for the reasons explained below). To do so, earnings profiles of those who leave and then return are compared to the profiles of those who do not leave, with movers' (relative) pre-move profiles essentially used as the basis of comparison for their post-move (relative) profiles. Not only are post-return profiles observed, but differences that already existed in the earnings profiles of movers and non-movers

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[3] If certain Canadian labour (sub)markets are relatively small, positive earnings effects might result from Canadians working outside of the country, where wages might be higher, having some sort of bargaining power in terms of being persuaded to return, thus driving up their post-return earnings even in the absence of any productivity effects.

before their moves are taken into account when assessing those later earnings patterns (i.e., leavers may have *already* been on higher or steeper earnings profiles *before* departing).

If it is found, for example, that earnings profiles of leavers are higher and steeper after their return – and *more* higher and steeper than any differences that existed in the pre-move years – this could be interpreted as showing that leaving and returning does in fact provide the sort of earnings premiums that have been hypothesized. A number of different models are estimated to implement this general idea.

The next section of the paper presents the estimation models, followed by a description of the LAD database and the samples used in the analysis, some descriptive statistics on the number of leavers and returners, the earnings effects, and then a concluding section which summarises the major findings and some of their implications.

II. THE MODELS

II.1 Earnings Levels

The estimation models used here are essentially standard human capital earnings functions adjusted to take into account the departure-return dynamic being focussed upon and the longitudinal data which are employed to that end. It may be expressed as follows:

(1) $\ln(y_{it}) = X_{it}\theta_1 + f_{dur}(\beta_k(\tau - k) + \gamma_m(T + m)) + \varepsilon_{1it}$

where $\ln(y_{it})$ represents the natural log of the earnings of individual i in year t. The model is estimated for a pooled sample that includes both "leaver-returners" and those who do not move. There is one person-year observation for each year an individual is observed in the data and passes the relevant selection criteria.[4]

The first set of variables, the X_{it}, are entered principally as controls, and include basic demographic characteristics (age, marital/family status, language spoken, immigrant status), place of residence (province/region and area size), the provincial unemployment rate, and a set of calendar year variables to further control for current economic conditions and other factors not otherwise captured in the model which vary over time. The coefficients associated with these variables are denoted as θ_1. No allowance is made for different relationships between any of these variables and moving. The moving effects are thus isolated on the move indicators themselves.

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[4] Standard errors are adjusted for the repeated observations on given individuals in different years.

The variables of focus here are those related to individuals who are observed to leave the country and then return. These consist of a set of dummy variables corresponding to the specific year of the longitudinal person-year records of such individuals. These terms are denoted as τ-k for the years before the departure (τ denoting the year the individual left the country), and T+m for the years after the return (T representing the year of return). ε_{1it} is a stochastic error term.

These variables essentially represent a detailed set of dummy variables indicating how the specific person-year observation for the mover in question corresponds to either a particular year prior to the person's departure or a particular year after their return. Individuals are tracked up to k years before their departure and up to m years after their return. These leave/return indicator variables are shown to be interacted with the number of years the individual spends out of the country, as represented by the f_{dur} term in equation 1. This allows the pre-departure and post-return earnings patterns to vary with the number of years the person spends away.

The coefficients on these pre-departure and post-return variables are indicated by the β and γ terms in equation 1. These represent vectors of coefficients that capture the differences in earnings levels in the pre-departure and post-return years for individuals who leave and then come back to the country (for different numbers of years) as compared to the general population (i.e., non-leavers).[5]

The models thus include one set of β parameters and one set of γ parameters for each duration – that is, the pre-move and post-return years for each group of individuals defined with respect to the number of years they spent out of the country. Earnings profiles are in this way tracked backward from individuals' departures from the country and forward from their returns for those who were away one year, for those who were away two years, and so on. It is important to allow for such differences because earnings profiles may differ not just with respect to whether a person left and came back, but also according to the number of years spent away.

This specification makes for a rather large number of parameters to estimate, one for each year forward and each year backward for each duration. Remarkably, the LAD database used here is more or less up to the task due to the large sample sizes of leavers/returners it provides.

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[5] The general comparison group also includes individuals who will leave and come back in later years, and individuals who left the country before they were observed to do so (i.e., before 1982 when the LAD begins) and then came back , but these numbers are small enough to not affect the fact that they are included in the vastly greater "never move" group which is the basis of the comparisons.

The model could be made much simpler by imposing a specific functional form on the pre-departure and post-return earnings patterns (e.g., linearity or a quadratic), but at least initially it seems important to allow for the completely free functional form allowed for with the set of dummy variables used here, since it is difficult to know *apriori* what particular functional form (if any) might best suit the data.

After estimating such a fully disaggregated model, other more restricted models are estimated where individuals are grouped in terms of the number of years spent away and where certain periods before the departure and after the return are treated together in order to increase sample size for the identification of a reduced number of pre-move and post-return parameters.

What is most important through all these specifications is that this model allows us to observe if individuals who left the country and then came back had higher (or lower) earnings relative to non-movers before leaving and/or after coming back. Of equal importance is that the pre-departure years of leavers are used as the control group for such individuals in their post-return period. It might well be, for example, that those who left and came back had higher earnings in their post-return years (i.e., a set of positive γ coefficients) – but this specification allows us to check the post-return profiles (the γ coefficients) against individuals' (relative) pre-departure levels (i.e., the β coefficients).

In short, even if the γ_j are in fact found too be greater than 0, this finding is only meaningful in terms of judging the effects of being away on individuals' earnings – as opposed to being higher for other reasons (i.e., unobservables not controlled for in the model) – if they are "*more* higher" in the post-return years than in the pre-departure years. Testing for the effects of leaving and coming back thus consists of comparing the β and γ sets of coefficients. In certain specifications, such tests are carried out explicitly.

This specification also allows us to track individuals' earnings profiles on a precise year by year basis: one year before departure, two years before, and so on backward in time; and one year after the return, two years after, and the other years after the return. This permits the identification of the *slopes* of earnings profiles as well as the levels: indeed, in the simple earnings level form of this first model, the former (i.e., the slopes in earnings profiles) can be deduced from the patterns of the latter (the levels) over time. We can thus determine if leaving and coming back has an effect on the earnings *levels* at the point of return, or on the post-entry *slopes*. A purely level effect would be seen in a jump in the earnings levels from the pre-departure years to the post-return years, and a slope

effect by a change in the rate at which earnings increase from one year to the next from the pre-departure period to the post-return period.

The following figure shows the relationships in question graphically:
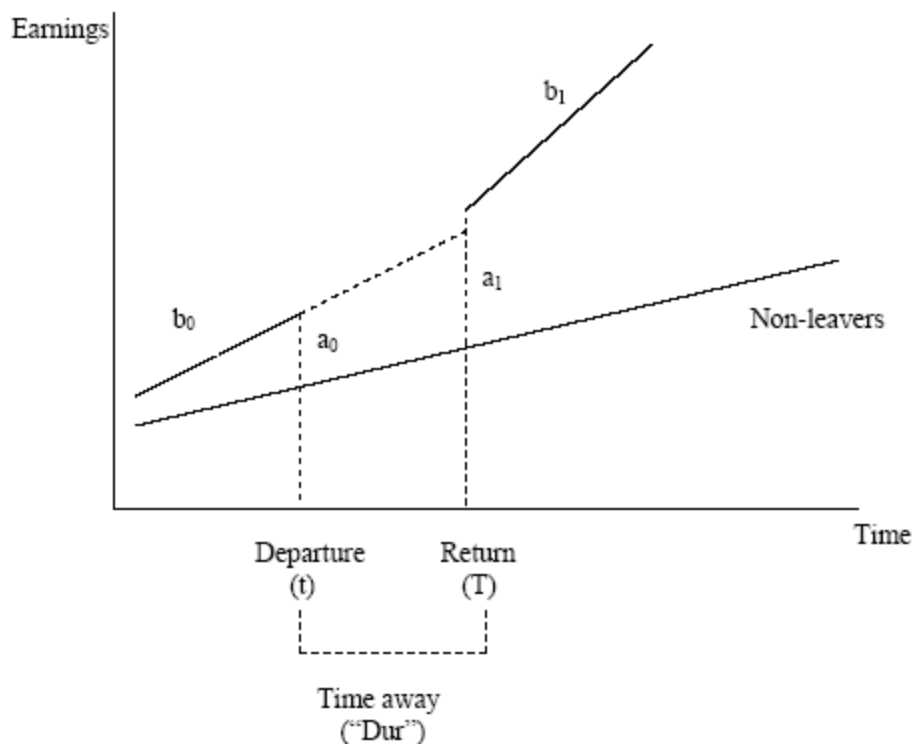
Leavers can be compared to non-leavers in terms of their pre- and post-move earnings profiles. The controls included in the model (including age), can be thought of as tracing out a standard age-earnings profile, as indicated by the straight line shown here for non-leavers (in practice it needn't be linear and non-linearities in age are in fact allowed for in the estimation). The *a* and *b* labels then indicate the different levels (the *a* terms) and slopes (the *b* terms) of those who leave the country and then return – both before and after the move – as compared to those who do not move.

If movers had higher earnings levels and steeper earnings increases over time than non-leavers even before their moves, then the a_0 and b_0 terms shown in the figure would be positive. Using the notation of equation 1, such a situation would correspond to a set of increasingly positive β coefficients on the pre-move year indicators. If being away then had a positive effect on leavers' profiles, this would be seen in the graphic as $a_1 > a_0$ and $b_1 > b_0$, or increasingly higher coefficients on the γ_j terms in the earlier notation.

II.2 A Difference Model

An alternative approach is to use a difference set-up which estimates the level (or "shift") and slope effects of moving more directly:

(2) $\ln(y_{it}) - \ln(y_{it-1}) = X_{it}\theta_2 + g_{dur}(\alpha_k(\tau-k) + \sigma_m(T+m))_+ \varepsilon_{2it}$

(3) $\ln(y_{iT}) - \ln(y_{i\tau}) = h_{dur}(X_{it}\theta_3 + \delta mover) + \varepsilon_{3it}$

Equation 2 represents the model by which the earnings "slope" effects are estimated more directly. Individuals' year-to-year earnings growth $(\ln(y_{it})-\ln(y_{it-1}))$ is specified to be a function of a general set of common X factors which apply equally to the general population and movers, plus an extra set of indicators which will pick up the differences in earnings growth both before leaving and after coming back for those who left and then returned to the country. The set-up is thus similar to equation 1 except we are dealing with the changes in earnings instead of levels. If the σ terms are positive, *and* generally larger than the α terms, the growth profiles of mover-returners are (relatively) steeper (again as compared to non-movers) before leaving the country, but even "*more steeper*" after coming back than before the departure.

Equation 3 then identifies the "shift" effects of moving, defined here as the change in earnings between the last full year in Canada and the first full year back. The model consists of estimating the change in earnings over the number of years away (dur), with the δ term capturing the earnings growth of those who left and returned as compared to non-movers. To implement this model, a separate regression is estimated for each of the different possible numbers of years individuals were away (1 year, 2 years, etc.), represented by the *h*(dur) term. For movers, each specific model represents the change in log earnings corresponding to the period of time spanning the last year before leaving to the first full year (back $\ln(y_{iT})-\ln(y_{i\tau})$) – each mover-returner is included in one such model, corresponding to the number of years that person was away. Also included in these models are all the pair-wise combinations of non-movers across the same number of years (dur).[6] In each regression, the δ parameter identifies the difference in earnings growth between leaver-returners and non-movers over the relevant period of time. These models thus offer a different perspective of the "shift" effects implied by comparisons of the pre-departure and post-return slope effects represented in equations 1 and 2.

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[6] That is, the change in non-leavers' earnings are estimated across the same number of years as leavers'.

III. THE DATA

III.1 The Longitudinal Administrative Database ("LAD")

The Longitudinal Administrative Database ("LAD") is a twenty percent random sample of all Canadian tax filers (and non-filing spouses identified by tax filers) constructed from Canada Revenue Agency tax files. The LAD follows individuals longitudinally based on their SIN-based individual identifiers (SINs themselves are not used in order to protect individual confidentiality) and matches them into family units on an annual basis, thus providing individual and family-level information on incomes, taxes, and basic demographic characteristics in a dynamic framework.

Individuals are included in the LAD for all years they file tax forms and are excluded (only) for those years this is not the case. Individuals "leave" the LAD more permanently if they stop filing tax forms, the principal reasons including death and leaving the country (see below). New individuals enter the LAD if they start filing tax forms, as is the case for young people and immigrants.

The first year of the LAD is 1982 and the file ran through 2003 when this work began, thus determining the period covered by this analysis.

The LAD is uniquely well-suited to the analysis undertaken here for a number of reasons. First, the LAD is closely representative of the underlying adult population. Unlike some other countries, the rate of tax filing in Canada is very high across all income levels. Higher income Canadians are required by law to file, while lower income individuals have strong incentives to file in order to recover income tax and other payroll tax deductions made throughout the year and to receive various tax credits and other benefits (e.g., the National Child Benefit). The full set of annual tax files from which the LAD is constructed covers upwards of 95 percent of the target adult population (official population estimates), which compares favourably to survey-based datasets, and coverage is especially strong among the male working age population used here.

Furthermore, given that most individuals file tax forms every year, attrition from the LAD is quite low, meaning that it remains representative on a longitudinal basis as well as cross-sectionally. This again contrasts to survey-based databases, which typically have problems in following individuals over time, *especially* those who move, potentially introducing sample bias to any study of mobility – and its effects on earnings – such as this one.[7]

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[7] Atkinson *et al* [1992] and OECD [1996] discuss the typically better coverage and lower attrition of

A second major strength of the LAD is that its longitudinal nature and income tax basis allow for the identification of those individuals who leave the country, which is not generally possible in survey-based databases precisely because it requires tracking those individuals who are no longer in the country. And of an even greater challenge, the LAD also permits the identification of those who subsequently return to Canada, no matter how many years have passed nor where they have been or what they have been doing in the meantime.

A third advantage is the massive sample size of the LAD, as it not only allows the identification of leavers and returners, but in sufficient numbers to carry out a meaningful analysis of their earnings patterns. This again overcomes what is an impossible challenge for most general databases because relatively few individuals leave the country in any given year and even fewer return after that – even could they be identified as such.

Fourth, the LAD's extended period of coverage, from 1982 to 2003, allows for the tracking of earnings profiles of individuals for relatively long periods of time both leading up to and following a departure abroad, and this up to the recent past.

Finally, the accuracy of the income information available on the LAD, measured on a current year basis (e.g., not retrospectively), is important to a study such as this one focused on earnings – and especially the change in earnings over time.

III.2 Sample Selection and the Move Identifier

Individuals are included in the analysis – movers and non-movers alike – in a given year if they were in the LAD in that year, if they were between the ages of 25 and 54 (again in that year) and had no missing data for the variables used in the analysis. The latter resulted very few deletions because the relevant information is generally required, by law, to be provided on individuals' tax forms. Given the earnings basis of the analysis, individuals also had to have at least $1,000 (2003 constant dollars) in earnings in the year(s) in question. Current full-time post-secondary students were deleted due to the special situation of this group and the labour market focus of the present study, thus leaving students to be better treated in a separate analysis.[8] Individuals are included in

administrative databases over survey databases. See Finnie [1998] for evidence on attrition from the LAD and the limited importance of attrition to inter-provincial mobility.

[8] See, for example, Frank and Belair [1999, 2000]. Student status can be identified in the LAD using various education-related tax deductions. In general, individuals are not included in the earnings equations any year

the analysis in some years but not others, depending on whether or not they are actually in the LAD and whether they pass the other sample selection criteria for the year in question.

For individuals to be included as a mover from Canada, they had to be included in the LAD and meet the sample selection criteria for a two-year (consecutive) period and to be observed in Canada the first year and out of the country the second year. To be identified as a returner, an individual must first have been identified as a leaver, and then observed to return to Canada in a later year.[9]

The identification that a person left Canada in a given year is made through the relevant declaration on individuals' tax forms. The place for such declarations is at the top of the first page of the tax form and is therefore not easily missed. There are, furthermore, significant incentives for individuals to make such declarations if the situation applies. First, most Canadians are eligible for tax refunds at year-end, and this is especially true for those who leave the country because their annual incomes are not as high as their running (monthly) amounts would have indicated, leaving them in lower tax brackets than would have been used for their deductions – and hence eligible for greater refunds. Secondly, if an individual ever wants to return to Canada, even to visit, having one's tax matters cleanly dealt with in this way is of clear advantage.[10]

The definition of return is simply the obverse of the leaving definition, and is indicated by an individual making the analogous tax form declaration of returning to Canada

In the work presented here, the results are restricted to men. Models have been estimated for women, but generally do not perform as well – that is, the results are less clear. This is perhaps not surprising for work that focuses on the effect of moving on earnings profiles, since women are still to a significant degree "secondary workers". Hence we would expect the related earnings effects to indeed be less pronounced.

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they are identified as a student in this way.

[9] The student identifiers are used further here. Individuals are not included as leavers if they are deemed to be a student in either the year of departure or the year before that, or a student in their year of return or the year after that.

[10] See Finnie [2005] for an analysis of patterns of leaving and returning based on broader definitions of leaving and returning as well as the same ones used here, including simply having a foreign mailing address (for tax proposes). The precise definition does not affect the main findings in any important way.

III.3 The Control Variables

As mentioned, the control variables included in the models first include a range of basic demographic characteristics. These are current age (captured by a series of dummy variables), family type (couple with children, couple with no children, unattached individual, single parent), province/region of residence, an indicator of being the member of a "minority" (official) language group (English in Quebec, French outside Quebec – thus leaving the province/region variables on their own to represent the majority language group in each jurisdiction),[11] and area size of residence (rural areas and small towns, smaller cities, larger cities).

Also included are the provincial unemployment rate to control for current economic conditions and a series of calendar year dummy variables to capture any time trends (without imposing any functional form on those trends) and any other significant influences which operate at a national level and shift over time and are not otherwise captured by the variables included in the models.

Finally, a set of variables identifying recent immigrants and the number of years since immigration are included. The re-emigration of immigrants and their earnings patterns could, of course, be a subject worthy of its own treatment, but that is left for a further project.[12]

IV. RAW LEAVING AND RETURN RATES[13]

IV.1 Leaving

To place the earnings analysis which is the focus of this paper in context, some descriptive statistics of the rates of leaving and returning to Canada are first presented. Figure 1 (and its supporting table) show the annual rates of leaving Canada over the 1982-2003 period covered by the data. Overall, the rates are generally very low, ranging from a minimum of .042 percent (i.e., under

[11] The only (general) language identifiers available on the LAD are English and French, defined by the language of the tax form used by the individual. Other language minorities and other such related information is not available.

[12] The immigrant identifiers are taken from the Citizenship and Immigration Canada's IMDB ("Immigration Database"), which has recently been merged with the LAD, covering immigrants who arrived in Canada since 1980.

[13] See Finnie [forthcoming)] for more detailed treatment of the material presented in this section, which is essentially drawn from that other work.

one-half of one-tenth of 1 percent) to a high of .149 percent (about one and a half tenths of 1 percent).

These rates (and their related absolute numbers) generally correspond to other estimates in the literature for the years other data are available (Finnie [2001]). The LAD data, however, represent an annual series using a consistent definition of leaving which spans an extended period of time up to the relatively recent past such as cannot be found elsewhere.

The leaving rates follow the economic cycle to a significant degree – but far from perfectly. The substantial declines which occurred through the mid-to-late 1980s correspond to the strong growth in the Canadian economy over that period, but the rates bottom out in 1987, whereas the economy continued to grow through 1988 before beginning to stall at the end of 1989. Departures rose steadily (apart from 1990) through the first part of the 1990s, when the economy was stuck in a lingering deep recession, but continued to do so right through 1997, even though the Canadian economy began to recover quite strongly after 1996. After turning down in 1998, leaving rates stalled in 1999, then rose again in 2000.

Sharp declines in leaving rates then occurred from 2000 through 2003 – and these in the absence of any correspondingly significant economic developments (i.e., the Canadian economy continued to grow as in previous years). The annual declines since 2000 in fact outstrip the substantial rises seen through most of the 1990s – which were seen by some observers as harbingers of a kind of unstoppable trend towards further rises into the future. In short, what rose so dramatically in the 1990s subsequently declined in an even more pronounced fashion.

Exit rates have not, certainly, returned to their lows of the late 1980s – and the 2003 rates are approximately double those earlier levels. But they are also down 45 percent from their year 2000 highs, and the downward trend shows no sign of levelling off through the end of the data period covered – although speculation beyond that year is of course nothing more than that.

IV.2 Returns

Figure 2 (and the supporting table there) shows the simple empirical hazard rates of returning to Canada for those men observed to have left at any time over the period of the analysis. Interestingly, individuals are more likely to return after having been away two years rather than just one, but after this the rate of return declines steadily, taking the classic negatively sloped form of

most empirical hazards. The rates vary from 3.5 percent in the first year to reach the maximum of 4.7 percent in year two, and then decline to 4.1, 2.8 and 2.3 over the following three years.[14]

One special feature of these hazard rates is that individuals are tracked over a period they are not actually observed in the data – when they are out of the country. This approach is legitimate, however, given the data employed, and facilitates the analysis in question because individuals *are* observed if and when they return to Canada – the event in question. In short, it is assumed that individuals are still out of the country (the spell in question) until a return is observed (indicating the end of that spell – the relevant transition).[15]

These hazard rates imply survivor rates (i.e., the percentage of individuals still out of the country) of 96.5, 92.0, 88.2, 85.8, and 83.8 percent over the first five years following a departure. Thus, after five years, 16.2 percent of those who had left had subsequently come back. These rates are fairly low, but represent an average over the whole period covered by the data and return rates have risen in recent years, which is in some sense consistent with the recent decline in exits [Finnie 2005].

V. EARNINGS EFFECTS

V.1 The Basic Earnings Level Model

Table 1 shows some summary statistics of the sample of leaver-returners used in the estimation of the earnings models. The table gives the number of such persons by the length of the their absence plus the associated number of person-year observations for each year observed before the departure or after the return.[16]

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[14] These empirical hazard rates are calculated in the conventional fashion as the percentage of individuals *still at risk* (in this case still deemed to be out of the country) who return in the year in question.

[15] Return rates need to be adjusted for the fact that individuals who die while out of the country would no longer be at risk of returning and should be censored at that point. This is done by applying age-specific mortality rates and censoring individuals' records at the time they are deemed to die by this probabilistic assignment. The principal findings are not, however, affected by this treatment.

[16] Recall that one observation is included for each year before the departure and after the return for individuals identified as leaver-returners according to when the person is observed in the LAD and meets the other sample inclusion criteria described above. Given the structure of the LAD, those individuals observed to leave and come back in the earlier years of the LAD tend to have relatively few pre-departure observations but more post-return observations, while the opposite holds for those observed to leave and come back towards the end of the LAD.

Table 2 shows the main results for the level model – that is, where the dependent variable is the log of earnings in the given year (equation 1 above) and the variables of interest include a set of regressors representing each year before the departure and after the return for those observed to leave and come back. The control variables behave about as expected, and the relevant results, along with the other summary statistics of the model, are not shown.[17]

The results in Table 2 thus focus on the earnings patterns – holding other factors constant – of those who left the country and then returned as compared to those who did not move. The first column identifies the number of years spent out of the country, with the results then ordered for each leaver group according to the specific year of the observation relative to the year of departure or return. The columns headed "Years Before Leaving" and "Years Since Return" then list the relevant coefficient estimates, level of statistical significance (at conventional .01, .05 and .1 significance levels), and standard errors (in parentheses). For example, the "One Year" panel of results shows the estimated relative earnings patterns for those who left for one year, with the two columns of coefficient estimates corresponding to the years before the departure and the years after the return, respectively. The other panels indicate the relative earning patterns for those who spent two years out of the country, three years, and so on out to eleven or more years (who are grouped together, as are those who left for six to ten years – these groupings not affecting any of the major findings in any way).

Figures 3a through 3g graph these results, converted into dollar values from the estimated log earnings regression coefficients. The (straight) horizontal line in each graph indicates the earnings levels of the control group of non-movers, representing the earnings of a "baseline" individual possessing (for convenience) the set of omitted characteristics of the various sets of control variables included in the models and setting the unemployment rate at its sample mean.[18] These lines are flat, even though earnings would tend to rise over time with age, because age is simply one of the factors controlled for in the models; hence the results should be interpreted as

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[17] The full set of results are included in Finnie [forthcoming (b)].

[18] Changing the baseline/comparison group (such as using the sample means of the categorical variables instead of the omitted group) would change the level of earnings of the comparison group, but would not affect the differences in earnings between movers and non-movers (before and after the moves for the latter) focused on here, because the movers' earnings effects are estimated controlling for those baseline characteristics.

basically representing the earnings of an individual controlling for age (whether a mover or not), and thus taking into account the normal growth in earnings over time.

The broken lines show the earnings profiles of leavers/returners in relation to this baseline comparison (non-mover) group. The sections of the graph lines for the years before the gap represent the pre-departure years and the sections after the gap represent the years after the return. The gaps themselves vary across the graphs according to the number of years spent away.[19] The graphs are, for convenience, restricted to the last five years before the departure and the first five years after the return.

The major findings are relatively clear. First, the earnings of those who left the country and then returned are indeed, on average, substantially higher than those of non-movers. This is seen in the almost universally positive (and statistically significant) coefficient estimates in Table 2 and in the (corresponding) graphs of movers' earnings, which are seen to be almost everywhere significantly higher than those of non-movers. There is also some indication that those who left for longer periods had generally higher earnings than those who left for shorter periods (especially those who left for just one year), but these patterns vary.

Second, the pre-move earnings profiles of movers appear in some cases to be somewhat *steeper* (i.e., as well as *higher*) than those of non-movers' (e.g., those away four years), but this is far from a general pattern, and certainly not a strong one to the degree it exists at all.

Third, the post-return earnings of movers are (again) significantly above those of non-movers, and generally also above their own earnings in the pre-departure years, but the latter differences do not appear to be particularly large, and sometimes need to be seen in a context of such individuals appearing to be on steeper slopes in the earlier period (e.g., away four years).

Finally, there are also some strange results (e.g., those who left for eleven or more years), but the numbers of such individuals are relatively small, and such lengthy departures – followed by a return – may well have occurred for specific reasons or been preceded or followed by other special circumstances (e.g., an injury or other family crisis).[20]

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[19] Earnings effects are not estimated for either the year of departure or the year of return because the reported earnings in these years are incomplete (i.e., some earnings were likely received in Canada, some abroad).

[20] See, for example, the "pre-departure dip" for those who left for eleven years or more.

Taken together, the most important general findings are that movers have generally higher earnings levels than non-movers, that there is some evidence of a modest increase in (relative) earnings levels in the post-return years relative to the pre-departure years for those who move, and no clear indication of profiles being generally steeper in either the pre-departure or post-return years for those who left and then came back to Canada relative to non-movers. The "Globerman hypothesis" referred to above would thus seem to gain at most only a little support in the data.

V.2 Aggregating the Level Model

The next step was to aggregate across pre-departure and post-return years and to change the specification a little to provide for a set of direct tests of the differences in the earnings levels of movers as compared to non-movers and any shift in these relative levels from the pre-departure period to the post-return period. More specifically, the five pre-departure years were treated together as were the five post-return years, a single "mover" variable was defined to represent any of the pre-move or post-departure years (for movers), and an additional "after return" variable was created to allow the post-return years to differ from the pre-departure years. The *mover* variable thus tests for a general difference in the earnings of leaver-returners relative to the general population, while the *after return* variable directly tests for a difference between the pre-departure and post-return years.

This model thus builds sample size on the assumption that the five pre-departure years and five post-return years can each be treated together, and provides direct tests of the differences being investigated. Table 3a reports the results for this model where the years of departure are treated as before, while Table 3b shows the findings when departures of two to five years are grouped together in order to further build sample size for the relevant tests (while reducing the dimensionality of the regressions and associated tests).[21]

We again see the general differences in the earnings levels of movers and non-movers, here captured in the positive and statistically significant mover variable coefficients. In effect, these represent the averages of the pre-move differences between movers and non-movers seen in Table 2 averaged over the five pre-move years. Note the smaller gap for those who left for only one year (a

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[21] Such tests cannot be constructed for the model as specified earlier (i.e., without something like the five-year aggregations), with "mover" and "after return" variables defined for each particular year leading up to a departure or following a return, because there is no obvious pairing of years between the pre-departure and post-return periods.

coefficient estimate of .331), who may represent different types of individuals, with different plans and objectives, than those who left for longer periods (coefficient estimates ranging between .437 and .549).

But second, we also gain a tighter view of the differences between the pre-move and post-departure years. Table 2a suggests there are only smallish and marginally significant changes in the relative earnings of movers from the pre-move to post-return period, ranging from approximately 7 percent higher earnings (on average) for those who left just one year to 17.2 percent higher earnings for those who left for four years. The longer periods, beyond five years, show no such positive differences.

Aggregating across departures of two to five years yields an average difference in earnings between movers and non-movers of .476, and a quite strongly significant increase in the relative earnings of movers of approximately 12.2 percent in the post-return period. (The other estimates do not change.) The numbers thus point to smallish but significant increases in the earnings levels of those who leave the country for a moderate number of years – increases which come on top of their generally higher earnings levels in the pre-departure period.)

V.3 The Difference Models

The difference equation results presented in Table 4 show the year-to-year earnings changes (i.e., the growth in earnings) for leaver-returners in their pre-departure and post-return years as compared to the general earnings growth patterns of non-movers over the same period of time (i.e., equation 2 above). Are earnings profiles not only higher, but also steeper for movers than non-movers in the pre- and post-move years? And if so, are they especially steeper in the post-return years, indicating that individuals get on faster earnings growth paths when they come back after having been out of the country? Here we are exploring earnings growth in a more direct fashion than trying to infer it from the earnings level equations reported above.

The results (reported only for the five years either side of the move) support the impression gained from the level equation results seen above, and indicate that the growth in earnings of movers is not significantly different than the growth in earnings of non-movers. While the coefficient estimates tend to be mostly positive, and sometimes substantially so (compare these to the intercept rate given at the top of the table), none of the differences are statistically significant.

Tables 5a and 5b then aggregate the model in the same manner as the earnings level model reported above. The findings generally point to earnings growth being marginally greater for movers as compared to non-movers in the pre-departure period (small but mostly non-significant coefficient estimates), but if anything a little lower than this in the post-return period (negative but again non-significant coefficients). In fact the only statistically significant coefficient estimate in the whole set is for the pre-departure period when aggregating over departures of two to five years.

The lack of any strong effects thus corroborates what was fond with the level equation estimates reported above.

V.4 The Pre-Departure – Post-Return Difference Models

The results for the "shift" difference models (equation 3 above) are reported in Table 6. Here the indication is that the earnings of movers do not necessarily ratchet up to any significant degree from the last (full) year before their departure to the first (full) year after their return. The growth rates of movers are found to be uniformly a little greater than those of non-movers over the various lengths of absences (coefficient estimates of from .016 to .117), but nowhere is the difference statistically significant and the patterns do not take any particularly coherent pattern across the length of the absence of the country (e.g., the gains are not greater for those away more years).

How, then, do these findings square with those of the level equations which suggest that movers do in fact have at least slightly higher (relative) earnings levels in the post-return period than in the pre-departure period? The answer lies at least partly in the fact that the earnings of movers in the first year back tend to be lower than in subsequent years. Estimating growth patterns using some aggregation scheme across years comparable to that shown in Tables 2a and b might, for example, generate more similar findings – but how to implement such an aggregating scheme is not obvious, especially when these models must, by construction, be estimated over a fixed time period in order to compare the change in earnings levels of movers and non-movers, hence rendering such aggregation problematic. In any event, especially in the absence of much in the way of significant slope effects, the earlier level equations perhaps tell us most of what we need to know about the earnings profiles of movers and non-movers.

V.5 Differences by Level of Pre-Departure Earnings

The "brain drain" idea is typically focussed on those at higher skill – or occupation – levels. Lacking measures of either of these in the LAD (since they are not reported on individuals' tax forms), the alternative approach adopted here is to analyse patterns by (pre-departure) earnings level. Individuals are classified into one of three categories according to their earnings in the last full year before leaving the country: earnings less than $60,000, earnings from $60,000 to $100,000, and earnings greater than $100,000. This is done for each of the model specifications.

The level model findings are reported in Table 7, but the results are again seen better graphically (Figures 4a through 4g). The highest earnings groups have, by construction, essentially by construction, higher earnings in the pre-departure years. Perhaps more interesting is their relative run-ups in earnings in the years leading up to their departures from the country.[22] And of even greater surprise might be that their comparative post-return earnings levels are quite varied, sometimes above, sometimes below their pre-departure levels, depending on the number of years away and the particular years before their departure or after their return being considered.

For the lowest earnings group, in contrast, pre-departure earnings levels are quite flat, as well as of course lower than the higher-earnings groups' (and about the same as the non-mover group which is not broken down by earnings level).[23] But again of more interest is that their post-return earnings are generally (relatively) *higher* than in the pre-departure years – a pattern that is all the more intriguing by the lack of any pre-departure run-up.

The middle earnings group has a pattern that lies somewhat between these two others.

These results are further borne out in the models where pre-departure and post-return patterns are tested more directly (as before). Table 8a shows significant increases only for the lowest earnings groups who were away one to four years, although it is worth noting that the effects are positively signed everywhere else except for those away the longest intervals. Aggregating across those who departed two through five years affirms the increases for the low income group, while

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[22] Recall that these groups are based on earnings in the last full year before departure and thus consist of consistent samples in the years before this.

[23] Recall that the baseline "non-movers" comparison profiles represent the earnings levels of a person of a given set of characteristics (described above), including age, as predicted by the estimated regression coefficient estimates.

also showing marginally significant increases for the medium and high earnings groups away two to five years (Table 8b).

The difference models (Table 9) to some degree further verify what is apparent in Figures 4a-g in terms of the slopes, but also seem to point out the sample size limitations finally being pressed up against as the data are sliced by earnings level. There are no statistically significant coefficients except for the greater earnings gains in the pre-departure years for the highest earnings group that left for two years. This would seem to be consistent with the "level" graphs seen above for the middle and low earnings groups, but suggests that there is perhaps simply not sufficient sample size to identify with any precision the positive pre-departure run-ups that seem evident in the graphs for most of the higher earnings groups.

These results hold with the difference model which embodies the more direct tests (i.e., the "mover" and "post-return" specification), the results for which are shown in Tables 10a and 10b: very little in the way of statistically significant results anywhere.

Finally, the pre-departure versus post-return difference "shift" models also generally verify what has been reported above (Table 11). The only significant increases – indicating a "ratchet effect" from the last full year before leaving to the first full year back – are for the low earnings groups who were away one, two or three years.

VI. CONCLUSION

This paper has exploited the unique combination of attributes of the tax-based Longitudinal Administrative Database (LAD) to provide empirical evidence on the earnings patterns of those individuals who leave Canada, spend some time out of the country, and then return. Are the earnings profiles – levels and growth rates – of movers different from those of non-movers? If so, in what way? Do they, in particular, indicate that leaving the country for a period of time might be a good investment in a person's career? Does any such benefit depend on how long a person was away or their general earnings level?

Overall, the data indicate that movers have substantially higher earnings levels than non-movers, and this appears to be particularly true for those who leave the country for greater numbers of years. But these higher earnings levels hold in the pre-move years as well as in the post-move years, thus forcing us to probe more deeply for any actual shifts in earnings profiles associated with leaving and coming back to the country.

And here the findings are more mixed. In some cases the post-return earnings *levels* of movers are (relatively) higher than they were before they left (after taking into account the natural growth in earnings that occurs with age – which is a control variable in all the models), but in other cases they are not. The effects appear to be greater for those who were away greater numbers of years, but the patterns appear to be non-linear, with those away the shortest and longest periods not doing as well as those away a middle period of time (e.g., 2-5 years). The effects of moving on the *growth* in individuals' earnings, as observed in the patterns of earnings levels over time and estimated more directly with a set of difference models, are even more mixed. The "shift" effects estimated as the change in movers' earnings from the last full year in the country to the first full year back are even less decisive, with no statistically significant differences are found.

It is only when the differences in pre-departure and post-return profiles are tested directly (with the former still judged against the latter – and both are seen in comparison to the general population of non-movers) that more categorical answers are found, even as precision is necessarily lost as years are aggregated across the pre-departure and post-return periods. Overall, those who left the country two to five years are estimated to have approximately 12 percent higher earnings in their first five years back relative to their last five years before leaving (again after accounting for the normal growth in earning associated with ageing as well as the other factors that affect earnings as represented by the regressors included in the models). The effects are estimated to be smaller for those who leave for just one year, and appear to be negative for those away six years or more. Furthermore, these appear to be "shift" rather than "slope" effects, since earnings growth rates do not seem to be any greater in the post-return period.

Breaking these results down by pre-departure earnings level generates the perhaps surprising result that the gains seem to be greater for those at lower earnings levels to start with, while those at the highest earnings levels appear to have sharper increases in earnings in the pre-departure period – although only some of the low earnings shift effects and none of the higher earnings pre-departure growth rate differences are statistically significant, calling attention to sample size issues as the data are divided according to pre-departure earnings levels.[24]

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[24] The results by pre-departure earnings level might potentially represent a regression to the mean process, but the general patterns of both pre-departure and post-return earnings levels and slopes do not seem to point to this in any consistent manner. Testing such a proposition is, furthermore, problematic, since it is unclear how one would classify non-movers into comparable low/middle/high earnings categories since they don't have such a thing as "the year before leaving" comparable to movers.

The general conclusion of this paper is, then, that there appear to be at most only limited benefits associated with leaving the country and then coming back in terms of post-return earnings levels and earnings growth rates, and to the degree such benefits do exist, they appear to be concentrated among those at lower income levels who leave for only a moderate number of years.

Perhaps we should not be surprised at such a finding for a couple of reasons. First, it is possible that those who return to Canada over-represent those who did not fare well in other countries – although it would have to be explained why in fact such individuals would be more likely to return rather than just stay on in their new countries. Second, those who have been away may have lost some of their "country specific human capital", but again it would have to be explained how this explanation would fit into the observed dynamic in a coherent way. In any event, it has been more often supposed that being away and then coming back would be associated with *positive* earnings effects, which might itself help explain why some Canadians do leave the country (and then come back), and it is interesting to conclude that this is generally not the case, at least not to a particularly large degree.

Further work could go in a variety of ways. Models could be estimated for different, even more specific groups of workers, such as for particular age groups, those living in particular regions, or individuals who speaking one or the other of the official languages. Other extensions could be imagined. In the meantime, this paper has provided new and original evidence on a specific brain drain issue of continued importance that at could at least provide a starting point for further analysis.

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Table 1 – Sample Distribution, Number of Persons and Person-Years								
		Duration of Absence						
		1	2	3	4	5	6-10	11+
Persons	**Number**	1190	1465	1130	655	480	970	285
	% of Total	19.27%	23.72%	18.30%	10.61%	7.77%	15.71%	4.62%
Person-Years (Number)								
Years Before Leaving								
	Eleven or More	1895	2475	1845	965	585	690	
	Six to Ten	2875	3900	3015	1840	1290	2200	235
	Five	745	960	725	445	305	620	105
	Four	800	1040	790	470	335	660	130
	Three	850	1100	855	485	355	720	160
	Two	930	1210	915	525	375	785	205
	One	975	1285	990	555	415	830	235
Years Since Return								
	One	955	1165	840	475	340	635	160
	Two	850	1025	745	400	295	500	110
	Three	745	900	635	355	240	415	80
	Four	650	805	545	305	195	330	60
	Five	580	695	460	245	155	260	40
	Six to Ten	2005	2340	1510	850	495	775	70
	Eleven or More	1670	1760	1010	525	200	230	

Table 2 – Earnings Level Model, Basic Specification					
Duration of	Years Before Leaving			Years Since Return		
Absence	Estimate		StdErr	Estimate		StdErr
Intercept	10.551	***	(0.005)			
One Year						
1	0.386	***	(0.091)	0.402	***	(0.091)
2	0.366	***	(0.095)	0.393	***	(0.097)
3	0.325	***	(0.102)	0.414	***	(0.104)
4	0.303	***	(0.108)	0.368	***	(0.112)
5	0.320	***	(0.114)	0.431	***	(0.120)
6 to 10	0.394	***	(0.061)	0.506	***	(0.065)
11 +	0.389	***	(0.075)	0.577	***	(0.079)
Two Years						
1	0.538	***	(0.078)	0.558	***	(0.082)
2	0.509	***	(0.082)	0.591	***	(0.087)
3	0.490	***	(0.088)	0.586	***	(0.094)
4	0.468	***	(0.093)	0.611	***	(0.099)
5	0.448	***	(0.099)	0.622	***	(0.107)
6 to 10	0.431	***	(0.051)	0.641	***	(0.059)
11 +	0.426	***	(0.066)	0.732	***	(0.072)
Three Years						
1	0.504	***	(0.088)	0.524	***	(0.096)
2	0.527	***	(0.094)	0.629	***	(0.102)
3	0.480	***	(0.099)	0.652	***	(0.111)
4	0.478	***	(0.106)	0.593	***	(0.120)
5	0.483	***	(0.112)	0.636	***	(0.131)
6 to 10	0.477	***	(0.059)	0.669	***	(0.074)
11 +	0.483	***	(0.076)	0.743	***	(0.104)
Four Years						
1	0.494	***	(0.120)	0.557	***	(0.132)
2	0.491	***	(0.126)	0.612	***	(0.145)
3	0.428	***	(0.133)	0.648	***	(0.156)
4	0.421	***	(0.137)	0.684	***	(0.171)
5	0.515	***	(0.145)	0.758	***	(0.189)
6 to 10	0.525	***	(0.073)	0.706	***	(0.104)
11 +	0.568	***	(0.104)	0.651	***	(0.139)
Five Years						
1	0.413	***	(0.137)	0.526	***	(0.151)
2	0.418	***	(0.144)	0.541	***	(0.161)
3	0.436	***	(0.152)	0.654	***	(0.181)
4	0.434	***	(0.157)	0.549	***	(0.202)
5	0.468	***	(0.169)	0.674	***	(0.224)
6 to 10	0.485	***	(0.086)	0.701	***	(0.136)
11 +	0.479	***	(0.130)	0.597	***	(0.254)

… Table 2 (cont.)						
Duration of	Years Before Leaving			Years Since Return		
Absence	Estimate		StdErr	Estimate		StdErr
Six to Ten Years						
1	0.478	***	(0.099)	0.359	***	(0.119)
2	0.484	***	(0.102)	0.460	***	(0.134)
3	0.516	***	(0.108)	0.510	***	(0.147)
4	0.501	***	(0.115)	0.563	***	(0.167)
5	0.452	***	(0.120)	0.633	***	(0.192)
6 to 10	0.531	***	(0.066)	0.494	***	(0.113)
11 +	0.541	***	(0.125)	0.399	*	(0.224)
Eleven or More Years						
1	0.441	**	(0.187)	0.159		(0.271)
2	0.512	**	(0.205)	0.073		(0.328)
3	0.498	**	(0.237)	0.137		(0.367)
4	0.578	**	(0.264)	0.272		(0.421)
5	0.681	**	(0.314)	0.670		(0.564)
6 to 10	0.614	***	(0.197)	0.448		(0.432)
11 +						
Notes * Indicates significance at the 10% level						
** Indicates significance at the 5% level						
*** Indicates significance at the 1% level						

Table 3a – Earnings Level Model, Mover and Post-Return Specification					
Duration of	Mover			After Return		
Absence	Estimate		StdErr	Estimate		StdErr
One Year	0.331	***	(0.052)	0.070		(0.070)
Two Years	0.482	***	(0.045)	0.108	*	(0.061)
Three Years	0.494	***	(0.051)	0.107		(0.071)
Four Years	0.463	***	(0.068)	0.172	*	(0.097)
Five Years	0.437	***	(0.078)	0.140		(0.112)
Six to Ten	0.490	***	(0.056)	-0.015		(0.086)
Eleven or More	0.549	***	(0.124)	-0.357	*	(0.203)

Table 3b – Earnings Level Model, Mover and Post-Return Specification with Aggregation by Duration of Absence					
Duration of						
Absence	Estimate		StdErr	Estimate		StdErr
One Year	0.331	***	(0.052)	0.070		(0.070)
Two to Five	0.476	***	(0.028)	0.122	***	(0.039)
Six to Ten	0.490	***	(0.056)	-0.015		(0.086)
Eleven or More	0.549	***	(0.124)	-0.357	*	(0.203)

Table 4 – Difference Model, Basic Specification				
Duration of	Years Before Leaving		Years Since Return	
Absence	Estimate	StdErr	Estimate	StdErr
Intercept	0.040 ***	(0.003)		
One Year				
1			0.013	(0.062)
2	0.026	(0.061)	0.010	(0.066)
3	0.055	(0.065)	-0.036	(0.072)
4	0.072	(0.069)	0.070	(0.077)
5	0.033	(0.073)	0.016	(0.081)
Two to Five Years				
1			0.062	(0.036)
2	0.022	(0.033)	0.002	(0.039)
3	0.064 *	(0.035)	-0.001	(0.042)
4	0.060	(0.037)	0.033	(0.045)
5	0.045	(0.039)	0.004	(0.050)
Six to Ten Years				
1			0.082	(0.085)
2	0.041	(0.066)	0.053	(0.094)
3	0.042	(0.069)	0.041	(0.106)
4	0.085	(0.073)	0.035	(0.120)
5	0.060	(0.078)	-0.003	(0.130)
Eleven and More Years				
1			-0.073	(0.209)
2	0.024	(0.132)	0.123	(0.236)
3	0.035	(0.152)	-0.074	(0.270)
4	0.058	(0.166)	-0.015	(0.353)
5	0.031	(0.206)	-0.014	(0.430)
Notes * Indicates significance at the 10% level				
** Indicates significance at the 5% level				
*** Indicates significance at the 1% level				

Table 5a – Difference Level Model, Mover and Post-Return Specification				
Duration of	Mover		After Return	
Absence	Estimate	StdErr	Estimate	StdErr
One Year	0.047	(0.034)	-0.028	(0.048)
Two Years	0.060	(0.029)	-0.038	(0.042)
Three Years	0.042	(0.033)	-0.004	(0.049)
Four Years	0.040	(0.044)	-0.011	(0.067)
Five Years	0.031	(0.050)	-0.021	(0.077)
Six to Ten	0.057	(0.036)	-0.004	(0.062)
Eleven or More	0.042	(0.081)	-0.059	(0.159)

Table 5b – Difference Level Model, Mover and Post-Return Specification with Aggregation by Duration of Absence					
Duration of					
Absence	Estimate		StdErr	Estimate	StdErr
One Year	0.047		(0.034)	-0.028	(0.048)
Two to Five	0.047	***	(0.018)	-0.021	(0.027)
Six to Ten	0.057		(0.036)	-0.004	(0.062)
Eleven or More	0.042		(0.081)	-0.059	(0.159)

Table 6 – Pre-Departure - Post-Return Difference Models, Basic Specification			
Duration of Absence	Estimate		StdErr
One Year			
Intercept	0.076	***	(0.004)
Mover	0.048		(0.080)
Two Years			
Intercept	0.083	***	(0.005)
Mover	0.026		(0.073)
Three Years			
Intercept	0.084	***	(0.005)
Mover	0.016		(0.091)
Four Years			
Intercept	0.105	***	(0.005)
Mover	0.020		(0.127)
Five Years			
Intercept	0.134	***	(0.006)
Mover	0.117		(0.150)
Notes * Indicates significance at the 10% level			
** Indicates significance at the 5% level			
*** Indicates significance at the 1% level			

Table 7 – Earnings Level Model by Pre-Departure Earnings Level					
Duration of	Years Before Leaving			Years Since Return	
Absence	Estimate		Absence	Estimate		Absence
One Year						
Low						
1	-0.195		(0.125)	0.084		(0.129)
2	-0.196		(0.139)	0.060		(0.136)
3	-0.250		(0.153)	0.135		(0.148)
4	-0.280		(0.172)	0.126		(0.156)
5	-0.204		(0.185)	0.188		(0.167)
6 to 10	-0.079		(0.106)	0.303	***	(0.091)
11 +	-0.007		(0.136)	0.462	***	(0.108)
Medium						
1	0.781	***	(0.165)	0.679	***	(0.178)
2	0.710	***	(0.168)	0.696	***	(0.188)
3	0.639	***	(0.180)	0.683	***	(0.199)
4	0.567	***	(0.182)	0.644	***	(0.221)
5	0.513	***	(0.192)	0.698	***	(0.241)
6 to 10	0.510	***	(0.101)	0.745	***	(0.127)
11 +	0.434	***	(0.134)	0.656	***	(0.185)
High						
1	1.424	***	(0.215)	1.201	***	(0.247)
2	1.209	***	(0.223)	1.202	***	(0.272)
3	1.149	***	(0.231)	1.181	***	(0.297)
4	1.071	***	(0.240)	1.181	***	(0.335)
5	0.977	***	(0.247)	1.283	***	(0.359)
6 to 10	0.867	***	(0.120)	1.346	***	(0.213)
11 +	0.694	***	(0.130)	1.905	***	(0.280)

… Table 7 (cont.)					
Duration of Absence	Years Before Leaving			Years Since Return		
	Estimate		Absence	Estimate		Absence
Two Years						
Low						
1	-0.030		(0.116)	0.231	*	(0.122)
2	-0.007		(0.126)	0.306	***	(0.129)
3	-0.015		(0.140)	0.344	***	(0.139)
4	-0.098		(0.153)	0.363	***	(0.151)
5	-0.098		(0.167)	0.389	***	(0.164)
6 to 10	-0.036		(0.092)	0.460	***	(0.093)
11 +	0.126		(0.122)	0.680	***	(0.118)
Medium						
1	0.787	***	(0.133)	0.749	***	(0.144)
2	0.722	***	(0.139)	0.794	***	(0.154)
3	0.624	***	(0.149)	0.753	***	(0.164)
4	0.605	***	(0.155)	0.805	***	(0.172)
5	0.561	***	(0.165)	0.793	***	(0.183)
6 to 10	0.476	***	(0.087)	0.755	***	(0.098)
11 +	0.450	***	(0.124)	0.872	***	(0.127)
High						
1	1.377	***	(0.173)	1.222	***	(0.214)
2	1.185	***	(0.176)	1.182	***	(0.235)
3	1.116	***	(0.183)	1.183	***	(0.259)
4	1.074	***	(0.186)	1.074	***	(0.275)
5	0.978	***	(0.191)	1.172	***	(0.309)
6 to 10	0.831	***	(0.091)	1.234	***	(0.213)
11 +	0.632	***	(0.105)	1.427	***	(0.297)

… Table 7 (cont.)					
Duration of	Years Before Leaving			Years Since Return	
Absence	Estimate		Absence	Estimate		Absence
Three Years						
Low						
1	-0.130		(0.131)	0.164		(0.142)
2	-0.060		(0.142)	0.273	*	(0.149)
3	-0.154		(0.155)	0.273	*	(0.163)
4	-0.155		(0.172)	0.201		(0.178)
5	-0.097		(0.190)	0.305		(0.192)
6 to 10	-0.067		(0.106)	0.442	***	(0.111)
11 +	0.075		(0.143)	0.533	***	(0.167)
Medium						
1	0.773	***	(0.160)	0.650	***	(0.185)
2	0.751	***	(0.172)	0.823	***	(0.199)
3	0.703	***	(0.181)	0.862	***	(0.212)
4	0.651	***	(0.191)	0.823	***	(0.232)
5	0.567	***	(0.201)	0.734	***	(0.253)
6 to 10	0.475	***	(0.108)	0.830	***	(0.146)
11 +	0.511	***	(0.154)	0.871	***	(0.214)
High						
1	1.367	***	(0.181)	1.220	***	(0.226)
2	1.280	***	(0.188)	1.271	***	(0.247)
3	1.161	***	(0.188)	1.393	***	(0.274)
4	1.106	***	(0.194)	1.264	***	(0.296)
5	1.027	***	(0.198)	1.408	***	(0.325)
6 to 10	0.890	***	(0.093)	1.126	***	(0.204)
11 +	0.714	***	(0.112)	1.093	***	(0.411)

… Table 7 (cont.)					
Duration of	Years Before Leaving			Years Since Return	
Absence	Estimate		Absence	Estimate		Absence
Four Years						
Low						
1	-0.107		(0.175)	0.158		(0.193)
2	-0.129		(0.193)	0.272		(0.210)
3	-0.199		(0.208)	0.332		(0.224)
4	-0.213		(0.222)	0.284		(0.244)
5	-0.062		(0.245)	0.404		(0.272)
6 to 10	0.100		(0.131)	0.489	***	(0.147)
11 +	0.338		(0.186)	0.633	***	(0.210)
Medium						
1	0.800	***	(0.222)	0.795	***	(0.270)
2	0.759	***	(0.231)	0.767	***	(0.304)
3	0.674	***	(0.244)	0.770	***	(0.331)
4	0.651	***	(0.250)	0.865	***	(0.349)
5	0.627	***	(0.258)	0.943	***	(0.398)
6 to 10	0.509	***	(0.130)	0.820	***	(0.237)
11 +	0.445	**	(0.208)	0.703	*	(0.402)
High						
1	1.299	***	(0.245)	1.240	***	(0.288)
2	1.228	***	(0.250)	1.350	***	(0.324)
3	1.111	***	(0.253)	1.460	***	(0.364)
4	1.057	***	(0.257)	1.787	***	(0.440)
5	1.069	***	(0.262)	1.850	***	(0.483)
6 to 10	0.954	***	(0.125)	1.721	***	(0.311)
11 +	0.832	***	(0.165)	1.389	***	(0.566)

… Table 7 (cont.)					
Duration of	Years Before Leaving			Years Since Return	
Absence	Estimate		Absence	Estimate		Absence
Five Years						
Low						
1	-0.199		(0.193)	0.124		(0.207)
2	-0.138		(0.207)	0.130		(0.221)
3	-0.073		(0.225)	0.233		(0.265)
4	-0.093		(0.241)	0.215		(0.295)
5	0.030		(0.264)	0.311		(0.335)
6 to 10	0.120		(0.136)	0.320		(0.212)
11 +	0.220		(0.209)	0.318		(0.386)
Medium						
1	0.731	***	(0.251)	0.809	***	(0.293)
2	0.649	***	(0.263)	0.820	***	(0.315)
3	0.543	*	(0.279)	0.808	***	(0.333)
4	0.535	*	(0.282)	0.707	*	(0.369)
5	0.528	*	(0.301)	0.822	**	(0.391)
6 to 10	0.535	***	(0.156)	0.793	***	(0.232)
11 +	0.451	*	(0.232)	0.461		(0.533)
High						
1	1.515	***	(0.310)	1.534	***	(0.409)
2	1.409	***	(0.318)	1.518	***	(0.425)
3	1.283	***	(0.313)	1.607	***	(0.451)
4	1.213	***	(0.317)	1.329	***	(0.522)
5	1.121	***	(0.337)	1.519	***	(0.651)
6 to 10	0.925	***	(0.158)	1.694	***	(0.453)
11 +	0.898	***	(0.244)			

… Table 7 (cont.)					
Duration of	Years Before Leaving			Years Since Return	
Absence	Estimate		Absence	Estimate		Absence
Six to Ten Years						
Low						
1	-0.148		(0.142)	-0.108		(0.165)
2	-0.099		(0.154)	0.076		(0.185)
3	-0.053		(0.172)	0.180		(0.203)
4	0.005		(0.191)	0.241		(0.237)
5	-0.102		(0.199)	0.269		(0.265)
6 to 10	0.044		(0.126)	0.163		(0.156)
11 +	0.185		(0.258)	0.246		(0.354)
Medium						
1	0.771	***	(0.192)	0.724	***	(0.254)
2	0.714	***	(0.195)	0.889	***	(0.287)
3	0.640	***	(0.200)	0.863	***	(0.314)
4	0.569	***	(0.206)	0.938	***	(0.373)
5	0.529	***	(0.220)	1.020	***	(0.453)
6 to 10	0.525	***	(0.118)	1.025	***	(0.297)
11 +	0.521	**	(0.240)	0.203		(0.789)
High						
1	1.353	***	(0.195)	1.321	***	(0.294)
2	1.241	***	(0.200)	1.390	***	(0.373)
3	1.159	***	(0.200)	1.246	***	(0.415)
4	1.034	***	(0.208)	1.199	***	(0.446)
5	1.035	***	(0.216)	1.435	***	(0.515)
6 to 10	0.897	***	(0.107)	1.842	***	(0.440)
11 +	0.733	***	(0.179)			

… Table 7 (cont.)				
Duration of	Years Before Leaving		Years Since Return	
Absence	Estimate	Absence	Estimate	Absence
Eleven or More Years				
Low				
1	-0.135	(0.266)	0.086	(0.339)
2	-0.010	(0.307)	0.210	(0.409)
3	-0.016	(0.372)	0.176	(0.454)
4	-0.023	(0.464)	0.222	(0.525)
5	0.183	(0.583)	0.737	(0.759)
6 to 10	0.115	(0.366)	0.243	(0.704)
11 +				
Medium				
1	0.760 **	(0.359)	0.499	(0.746)
2	0.740 *	(0.387)	0.629	(1.097)
3	0.573	(0.453)	0.023	(1.090)
4	0.620	(0.480)	0.914	(1.442)
5	0.717	(0.554)	0.834	(1.702)
6 to 10	0.645 *	(0.345)		
11 +				
High				
1	1.287 ***	(0.387)	0.128	(0.948)
2	1.203 ***	(0.423)	-0.667	(1.036)
3	1.192 ***	(0.461)	-0.507	(1.424)
4	1.092 ***	(0.480)	0.351	(1.968)
5	1.041 *	(0.555)	1.476	(2.822)
6 to 10	0.931 ***	(0.340)	1.349	(2.822)
11 +				

Table 8a – Earnings Level Model by Pre-Departure Earnings Level, Mover and Post-Return Specification						
Duration of	Mover			After Return		
Absence	Estimate		StdErr	Estimate		StdErr
One Year						
Low	-0.230	***	(0.080)	0.342	***	(0.103)
Medium	0.614	***	(0.090)	0.066		(0.128)
High	1.108	***	(0.118)	0.097		(0.177)
Two Years						
Low	-0.046		(0.073)	0.362	***	(0.096)
Medium	0.636	***	(0.076)	0.141		(0.105)
High	1.093	***	(0.092)	0.081		(0.146)
Three Years						
Low	-0.113		(0.081)	0.350	***	(0.109)
Medium	0.675	***	(0.093)	0.097		(0.133)
High	1.147	***	(0.096)	0.150		(0.154)
Four Years						
Low	-0.154		(0.108)	0.427	***	(0.147)
Medium	0.682	***	(0.123)	0.134		(0.190)
High	1.118	***	(0.128)	0.334		(0.207)
Five Years						
Low	-0.078		(0.1160	0.258		(0.163)
Medium	0.568	***	(0.141)	0.229		(0.206)
High	1.260	***	(0.161)	0.250		(0.266)
Six to Ten Years						
Low	-0.065		(0.089)	0.154		(0.127)
Medium	0.619	***	(0.103)	0.233		(0.176)
High	1.122	***	(0.103)	0.195		(0.202)
Eleven or More Years						
Low	0.008		(0.199)	0.190		(0.283)
Medium	0.666	***	(0.230)	-0.162		(0.536)
High	1.143	***	(0.238)	-1.299	**	(0.634)
Notes * Indicates significance at the 10% level						
** Indicates significance at the 5% level						
*** Indicates significance at the 1% level						

Table 8b – Earnings Level Model by Earnings Level, Mover and Post-ReturnSpecification with Aggregation by Duration of Absence					
Duration of Absence	Estimate		StdErr	Estimate		StdErr
One Year						
Low	-0.230	***	0.080	0.342	***	0.103
Medium	0.614	***	0.090	0.066		0.128
High	1.108	***	0.118	0.097		0.177
Two to Five Years						
Low	-0.090	**	0.045	0.358	***	0.060
Medium	0.646	***	0.050	0.136	*	0.071
High	1.135	***	0.056	0.167	*	0.089
Six to Ten Years						
Low	-0.065		0.089	0.154		0.127
Medium	0.619	***	0.103	0.233		0.176
High	1.122	***	0.103	0.195		0.202
Eleven or More Years						
Low	0.008		0.199	0.190		0.283
Medium	0.666	***	0.230	-0.162		0.536
High	1.143	***	0.238	-1.299	**	0.634

Table 9 – Difference Model, by Pre-Departure Earnings Level				
Duration of Absence	Years Before Leaving		Years Since Return	
	Estimate	StdErr	Estimate	StdErr
One Year				
Low				
1			0.022	(0.089)
2 to 5	0.002	(0.052)	0.029	(0.052)
6 to 10	0.015	(0.068)	-0.020	(0.061)
11 +	-0.007	(0.089)	-0.009	(0.075)
Medium				
1			0.048	(0.120)
2 to 5	0.063	(0.057)	-0.002	(0.071)
6 to 10	0.025	(0.065)	0.003	(0.085)
11 +	0.041	(0.086)	0.017	(0.131)
High				
1			-0.044	(0.168)
2 to 5	0.112	(0.074)	0.020	(0.107)
6 to 10	0.082	(0.076)	-0.015	(0.145)
11 +	0.020	(0.083)	0.069	(0.185)
Two Years				
Low				
1			0.107	(0.083)
2 to 5	0.021	(0.047)	0.011	(0.050)
6 to 10	0.015	(0.060)	0.015	(0.063)
11 +	-0.016	(0.079)	-0.024	(0.083)
Medium				
1			0.023	(0.096)
2 to 5	0.064	(0.048)	0.001	(0.056)
6 to 10	0.060	(0.055)	-0.014	(0.066)
11 +	0.045	(0.080)	0.013	(0.088)
High				
1			-0.019	(0.147)
2 to 5	0.115 **	(0.058)	0.029	(0.092)
6 to 10	0.069	(0.058)	0.027	(0.145)
11 +	0.037	(0.066)	0.065	(0.212)

… Table 9 (cont.)				
Duration of	Years Before Leaving		Years Since Return	
Absence	Estimate	StdErr	Estimate	StdErr
Three Years				
Low				
1			0.121	(0.096)
2 to 5	-0.009	(0.052)	0.015	(0.059)
6 to 10	0.035	(0.069)	0.017	(0.076)
11 +	0.020	(0.091)	0.057	(0.123)
Medium				
1			0.127	(0.125)
2 to 5	0.059	(0.058)	-0.009	(0.076)
6 to 10	0.031	(0.069)	0.010	(0.100)
11 +	0.023	(0.098)	0.028	(0.149)
High				
1			0.102	(0.152)
2 to 5	0.091	(0.060)	0.013	(0.096)
6 to 10	0.055	(0.059)	-0.047	(0.139)
11 +	0.042	(0.071)	-0.104	(0.281)
Four Years				
Low				
1			0.028	(0.134)
2 to 5	0.006	(0.070)	0.035	(0.081)
6 to 10	-0.005	(0.084)	0.044	(0.101)
11 +	0.017	(0.117)	0.024	(0.151)
Medium				
1			-0.007	(0.186)
2 to 5	0.044	(0.077)	-0.004	(0.117)
6 to 10	0.058	(0.083)	-0.019	(0.171)
11 +	0.020	(0.132)	-0.003	(0.290)
High				
1			0.022	(0.198)
2 to 5	0.079	(0.081)	0.077	(0.133)
6 to 10	0.037	(0.080)	-0.068	(0.214)
11 +	0.040	(0.107)	0.111	(0.396)

... Table 9 (cont.)				
Duration of	Years Before Leaving		Years Since Return	
Absence	Estimate	StdErr	Estimate	StdErr
Fives Years				
Low				
1			-0.014	(0.142)
2 to 5	-0.032	(0.075)	0.045	(0.099)
6 to 10	-0.007	(0.089)	-0.075	(0.148)
11 +	0.025	(0.138)	0.057	(0.302)
Medium				
1			0.030	(0.194)
2 to 5	0.067	(0.088)	-0.059	(0.117)
6 to 10	0.025	(0.099)	0.099	(0.161)
11 +	0.035	(0.145)	0.017	(0.400)
High				
1			0.040	(0.270)
2 to 5	0.096	(0.101)	0.058	(0.171)
6 to 10	0.051	(0.101)	0.132	(0.333)
11 +	0.021	(0.152)		
Six to Ten Years				
Low				
1			0.101	(0.118)
2 to 5	0.014	(0.057)	0.043	(0.077)
6 to 10	-0.011	(0.082)	-0.029	(0.113)
11 +	0.017	(0.171)	0.053	(0.290)
Medium				
1			0.072	(0.179)
2 to 5	0.069	(0.064)	0.027	(0.123)
6 to 10	0.035	(0.075)	-0.064	(0.218)
11 +	0.048	(0.156)	0.458	(0.700)
High				
1			0.123	(0.220)
2 to 5	0.099	(0.065)	0.007	(0.150)
6 to 10	0.062	(0.069)	0.062	(0.345)
11 +	0.016	(0.114)		

… Table 9 (cont.)				
Duration of	Years Before Leaving		Years Since Return	
Absence	Estimate	StdErr	Estimate	StdErr
Eleven or More Years				
Low				
1			0.029	(0.270)
2 to 5	0.001	(0.129)	-0.001	(0.187)
6 to 10	0.129	(0.233)	0.164	(0.779)
11 +				
Medium				
1			-0.125	(0.626)
2 to 5	0.051	(0.144)	0.095	(0.514)
6 to 10	0.018	(0.218)		
11 +				
High				
1			-0.502	(0.649)
2 to 5	0.086	(0.148)	-0.056	(0.609)
6 to 10	0.020	(0.215)		
11 +				
Notes	* Indicates significance at the 10% level			
	** Indicates significance at the 5% level			
	*** Indicates significance at the 1% level			

Table 10a – Difference Model by Earnings Level, Mover and Post-Return Specification				
Duration of Absence	Estimate	StdErr	Estimate	StdErr
One Year				
Low	0.002	(0.052)	0.026	(0.069)
Medium	0.063	(0.057)	-0.052	(0.084)
High	0.112	(0.074)	-0.110	(0.117)
Two Years				
Low	0.021	(0.047)	0.015	(0.064)
Medium	0.064	(0.048)	-0.058	(0.068)
High	0.115 **	(0.058)	-0.100	(0.098)
Three Years				
Low	-0.009	(0.053)	0.053	(0.073)
Medium	0.059	(0.059)	-0.032	(0.088)
High	0.091	(0.061)	-0.052	(0.102)
Four Years				
Low	0.006	(0.070)	0.027	(0.099)
Medium	0.044	(0.078)	-0.049	(0.126)
High	0.079	(0.081)	-0.019	(0.137)
Five Years				
Low	-0.032	(0.076)	0.058	(0.111)
Medium	0.067	(0.089)	-0.103	(0.135)
High	0.096	(0.102)	-0.043	(0.177)
Six to Ten Years				
Low	0.014	(0.058)	0.046	(0.087)
Medium	0.069	(0.065)	-0.027	(0.121)
High	0.099	(0.065)	-0.055	(0.141)
Eleven or More Years				
Low	0.001	(0.129)	0.008	(0.202)
Medium	0.051	(0.144)	-0.044	(0.424)
High	0.086	(0.149)	-0.351	(0.470)

Table 10b – Difference Model by Earnings Level, Mover and Post-ReturnSpecification with Aggregation by Duration of Departure					
Duration of Absence	Estimate		StdErr	Estimate	StdErr
One Year					
Low	0.002		(0.052)	0.026	(0.069)
Medium	0.063		(0.057)	-0.052	(0.084)
High	0.112		(0.074)	-0.110	(0.117)
Two to Five Years					
Low	0.002		(0.029)	0.035	(0.040)
Medium	0.060	*	(0.031)	-0.054	(0.046)
High	0.098	***	(0.035)	-0.062	(0.059)
Six to Ten Years					
Low	0.014		(0.058)	0.046	(0.087)
Medium	0.069		(0.065)	-0.027	(0.121)
High	0.099		(0.065)	-0.055	(0.141)
Eleven or More Years					
Low	0.001		(0.129)	0.008	(0.202)
Medium	0.051		(0.144)	-0.044	(0.424)
High	0.086		(0.149)	-0.351	(0.470)

Table 11 – Pre-Departure - Post-Return Difference Models by Pre-Departure Earnings Level			
Duration of Absence	Estimate		StdErr
One Year			
Intercept	0.076	***	(0.004)
Low	0.263	**	(0.111)
Medium	-0.139		(0.142)
High	-0.261		(0.194)
Two Years			
Intercept	0.083	***	(0.005)
Low	0.209	*	(0.111)
Medium	-0.025		(0.120)
High	-0.279		(0.165)
Three Years			
Intercept	0.084	***	(0.005)
Low	0.245	*	(0.136)
Medium	-0.134		(0.162)
High	-0.211		(0.184)
Four Years			
Intercept	0.105	***	(0.005)
Low	0.247		(0.185)
Medium	0.002		(0.242)
High	-0.088		(0.250)
Five Years			
Intercept	0.134	***	(0.006)
Low	0.314		(0.212)
Medium	-0.022		(0.268)
High	-0.175		(0.346)
Notes	* Indicates significance at the 10% level		
	** Indicates significance at the 5% level		
	*** Indicates significance at the 1% level		

Figure 1 – Rates of leaving Canada, 1982 - 2003
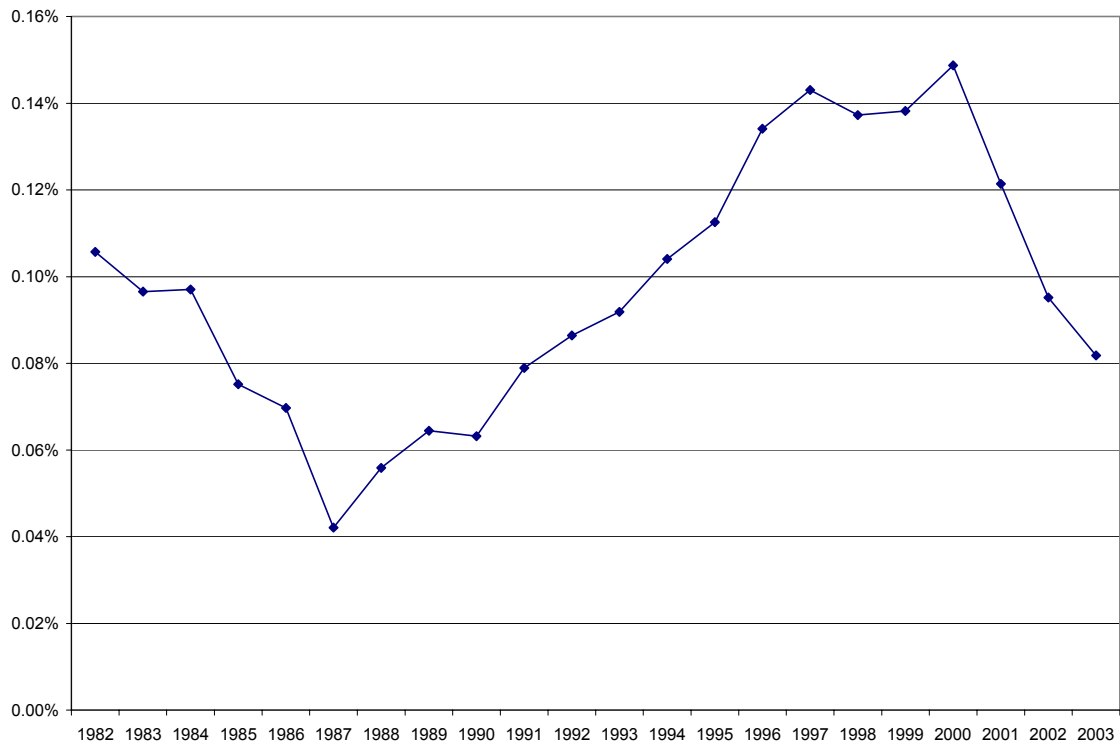
Rates of Leaving Canada, 1982 - 2003			
Year	Rate	Year	Rate
1982	0.11%	1993	0.09%
1983	0.10%	1994	0.10%
1984	0.10%	1995	0.11%
1985	0.08%	1996	0.13%
1986	0.07%	1997	0.14%
1987	0.04%	1998	0.14%
1988	0.06%	1999	0.14%
1989	0.06%	2000	0.15%
1990	0.06%	2001	0.12%
1991	0.08%	2002	0.10%
1992	0.09%	2003	0.08%

Figure 2 – Empirical Return Rates (Years Since Departure)
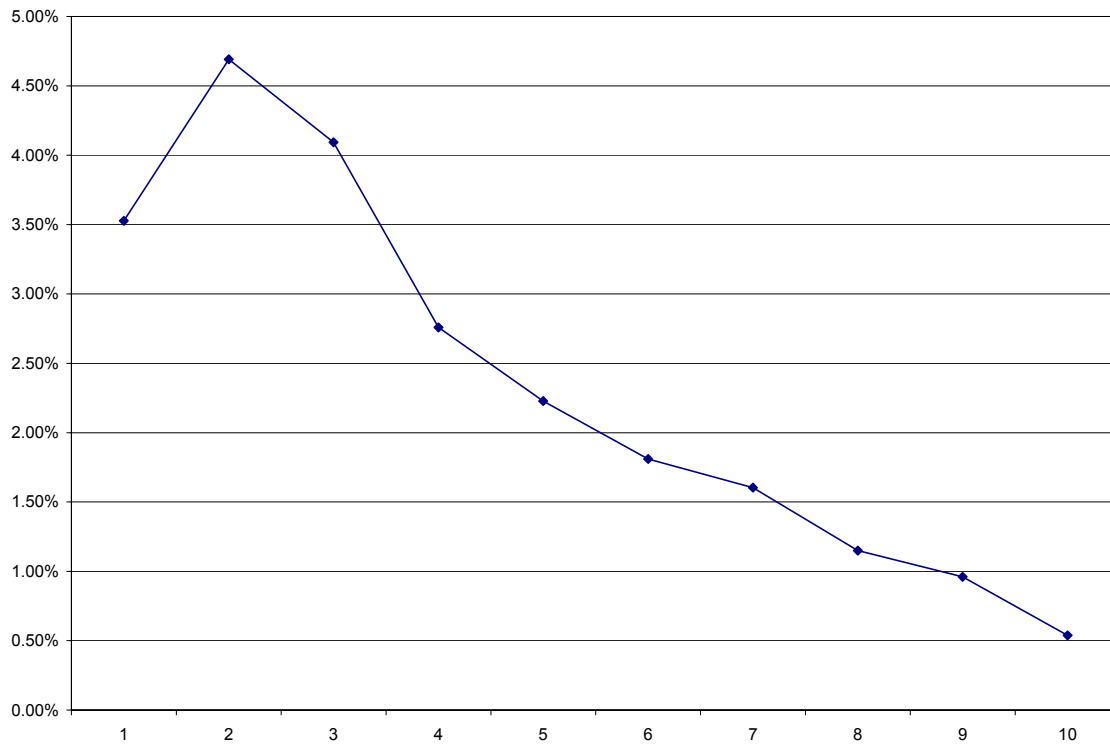
Empirical Return Rates (Years Since Departure)										
	1	2	3	4	5	6	7	8	9	10
Rate	3.53%	4.69%	4.09%	2.76%	2.23%	1.81%	1.60%	1.15%	0.96%	0.51%

Figure 3a - Earnings Level Equation, Away One Year
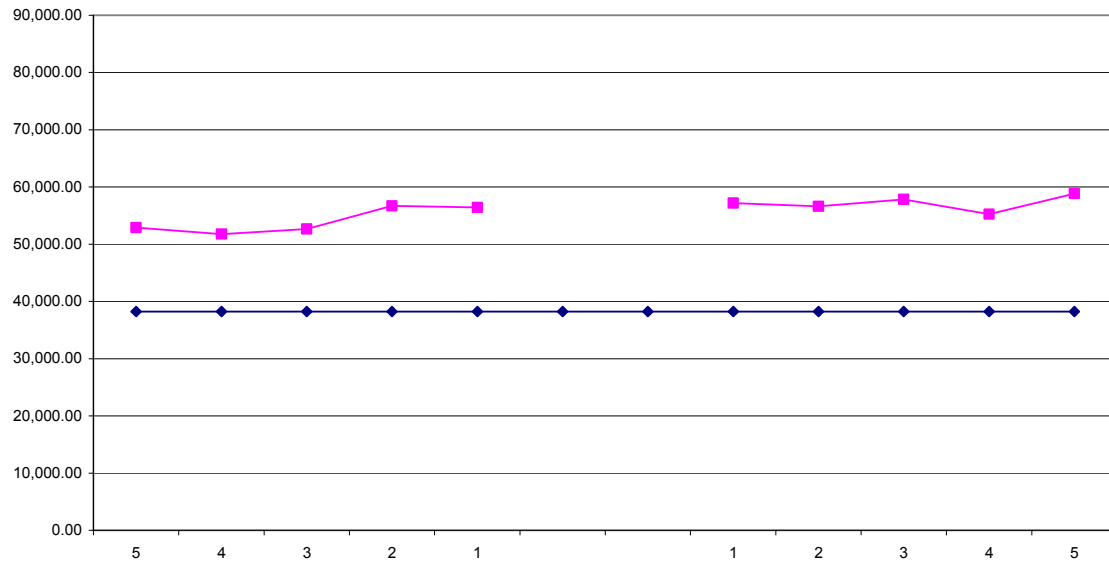
Figure 3b - Earnings Level Equation, Away Two Years
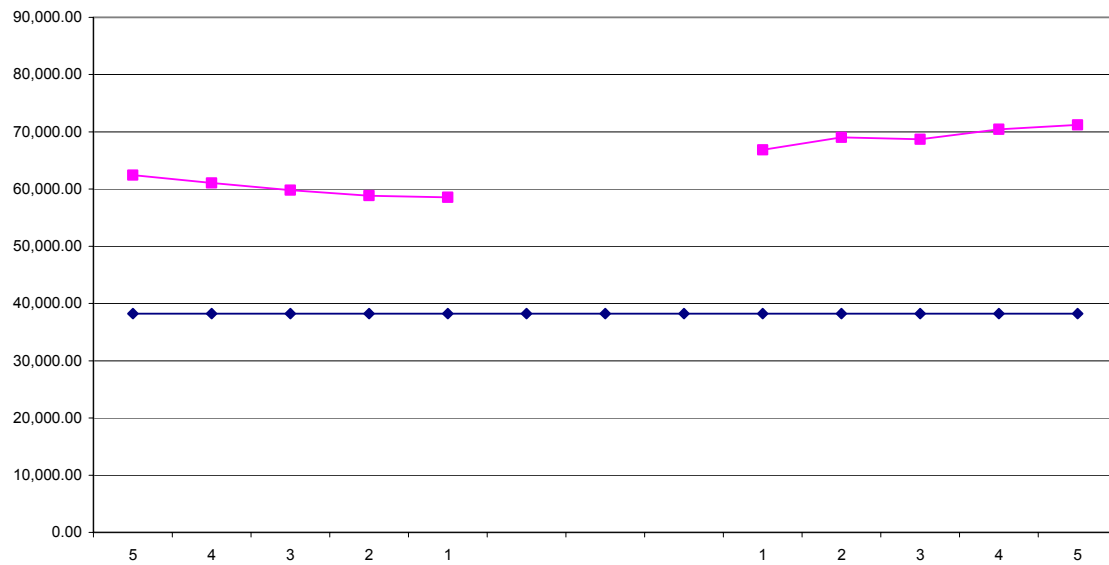
Figure 3c - Earnings Level Equation, Away Three Years
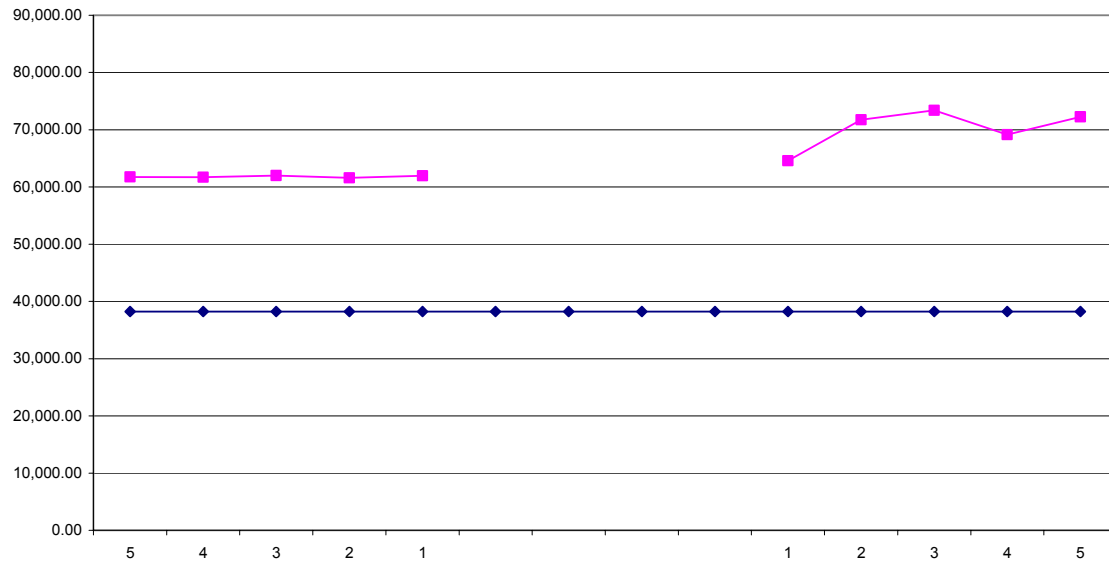
Figure 3d - Earnings Level Equation, Away Four Years
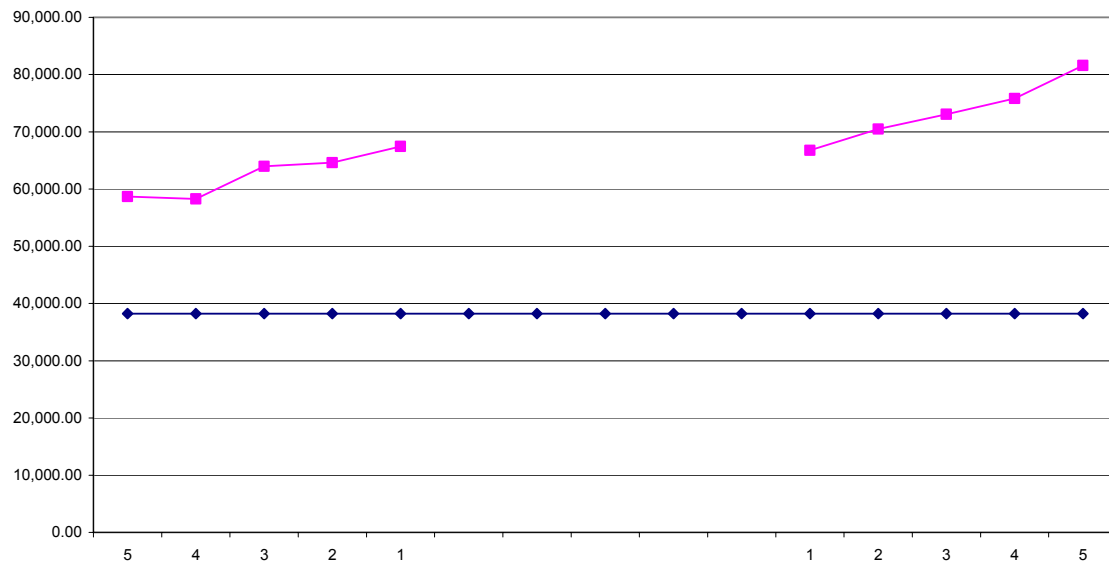
Figure 3e - Earnings Level Equation, Away Five Years
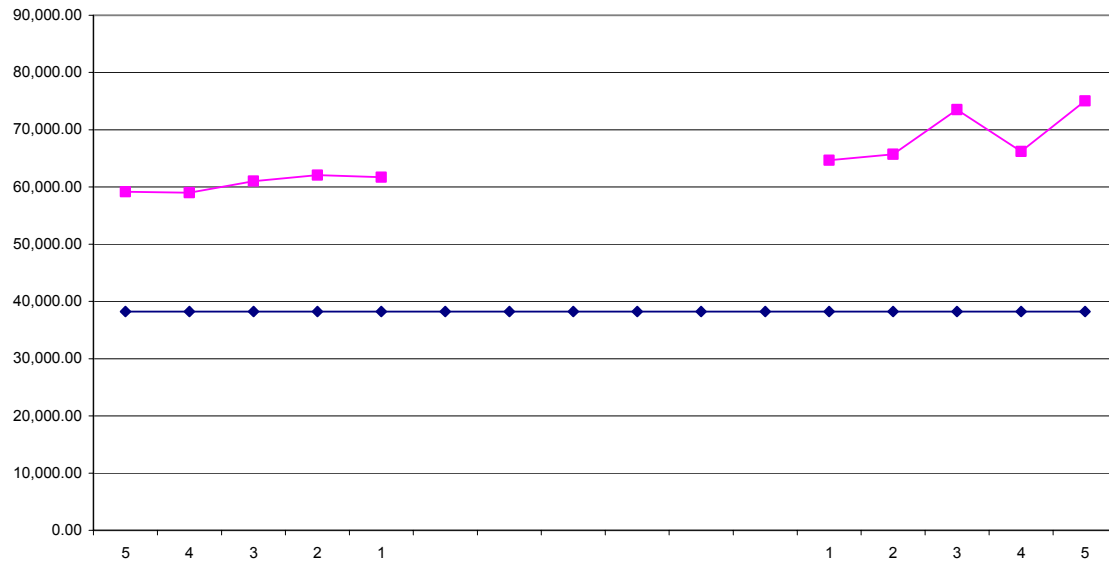
Figure 3f - Earnings Level Equation, Away Six to Ten Years
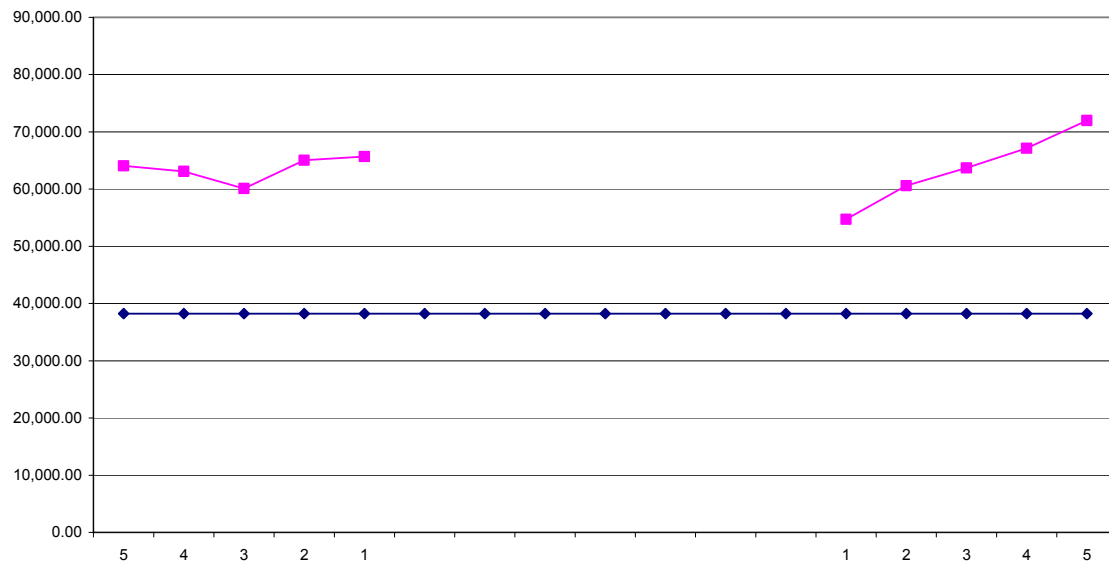
Figure 3g – Earnings Level Equation, Away Eleven or More Years
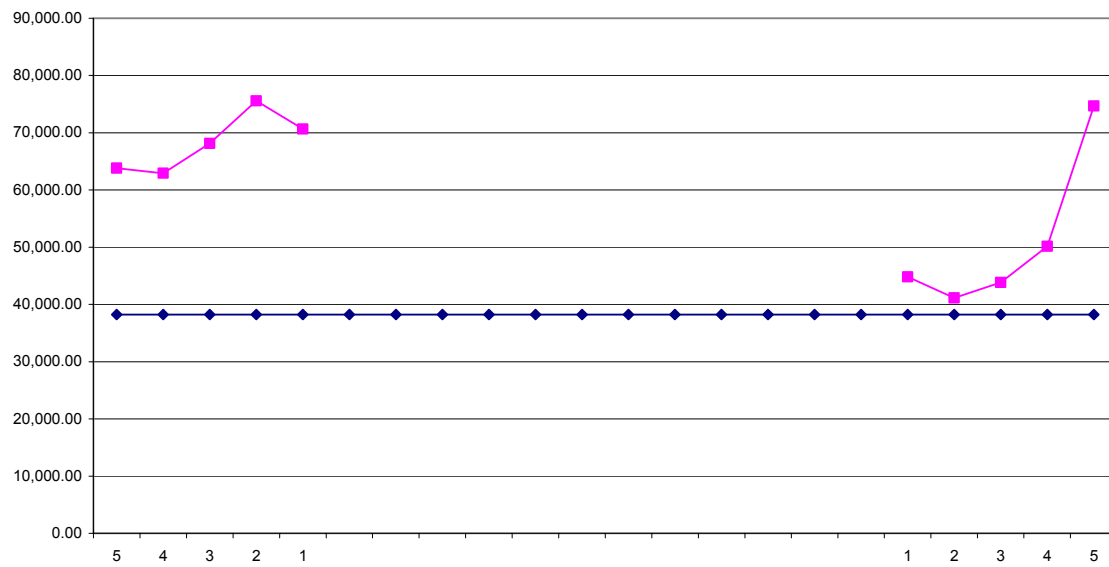
Figure 4a - Earnings Level Equation by Earnings Level, Away One Year
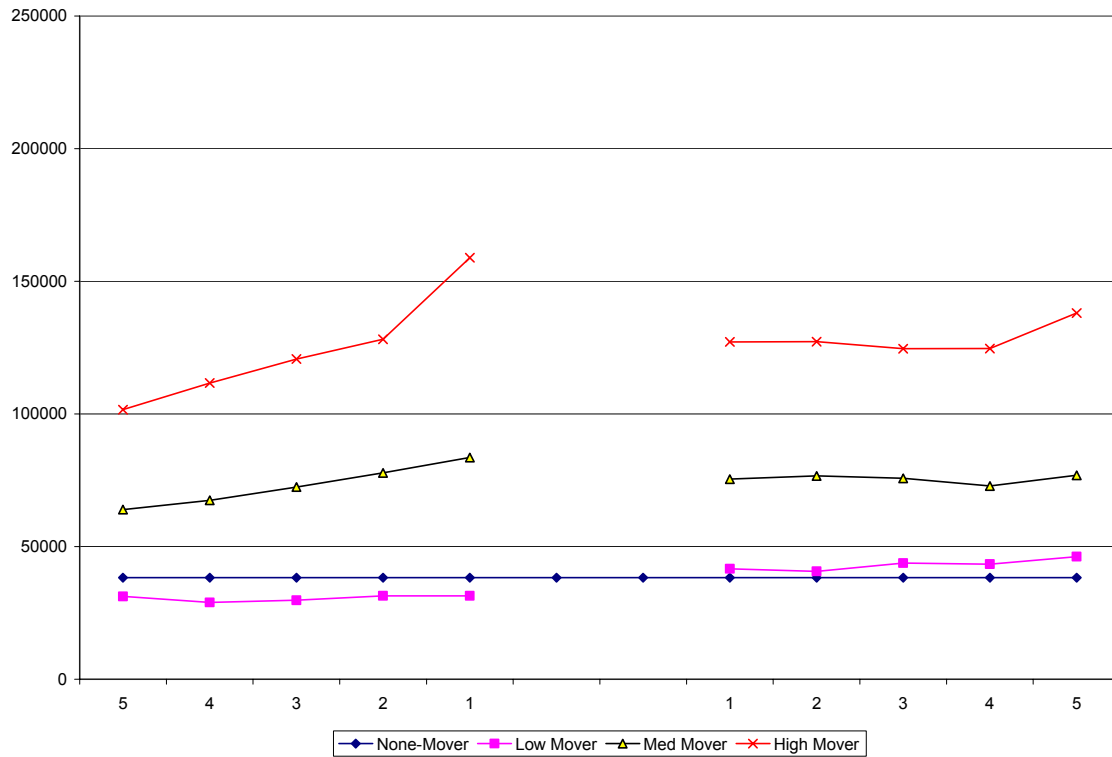
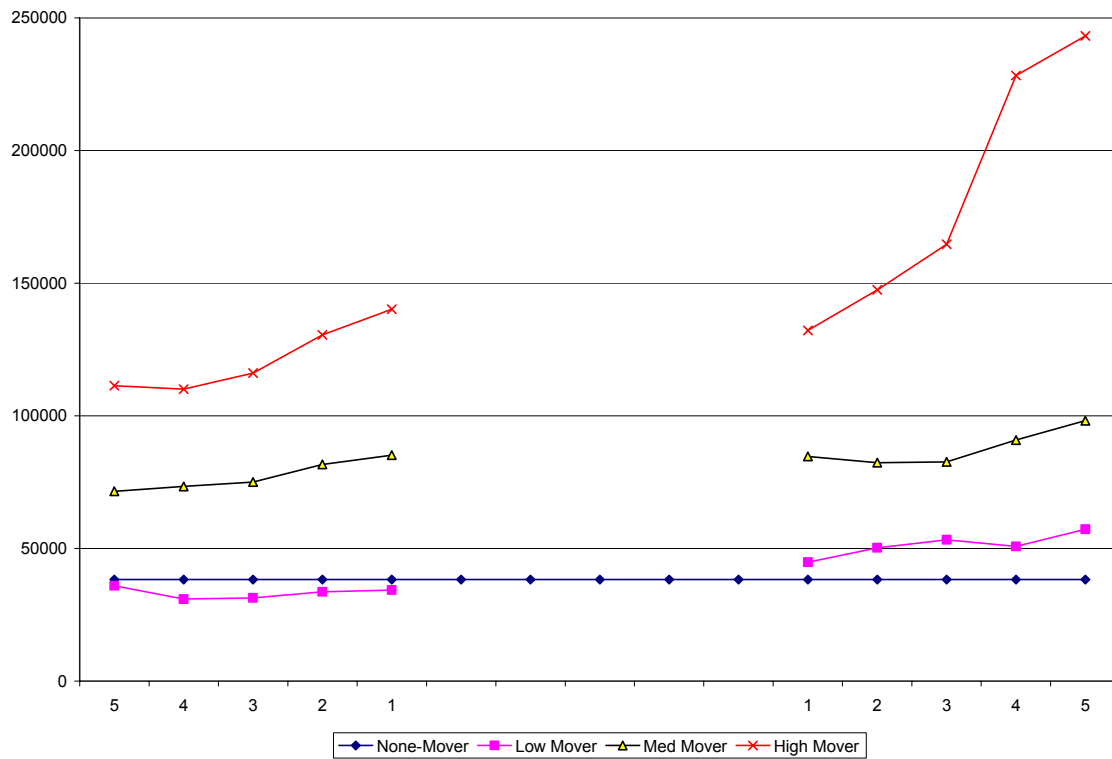**Figure 4b - Earnings Level Equation by Earnings Level, Away Two Years**
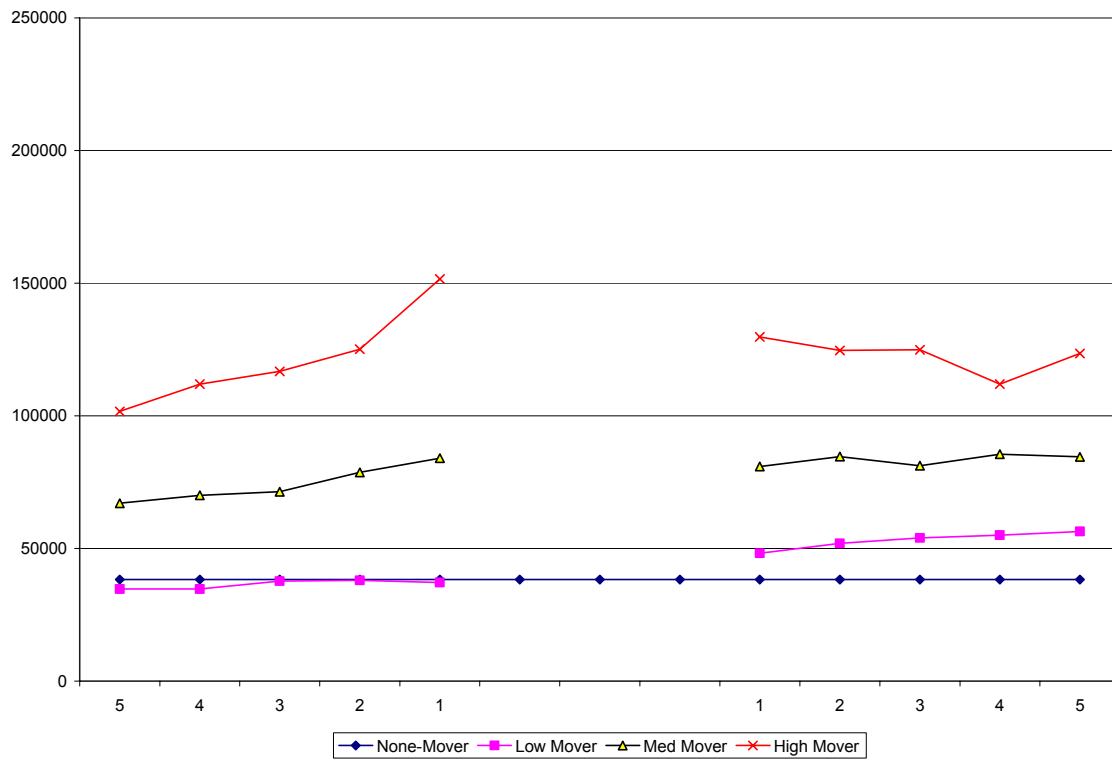
Figure 4c - Earnings Level Equation by Earnings Level, Away Three Years
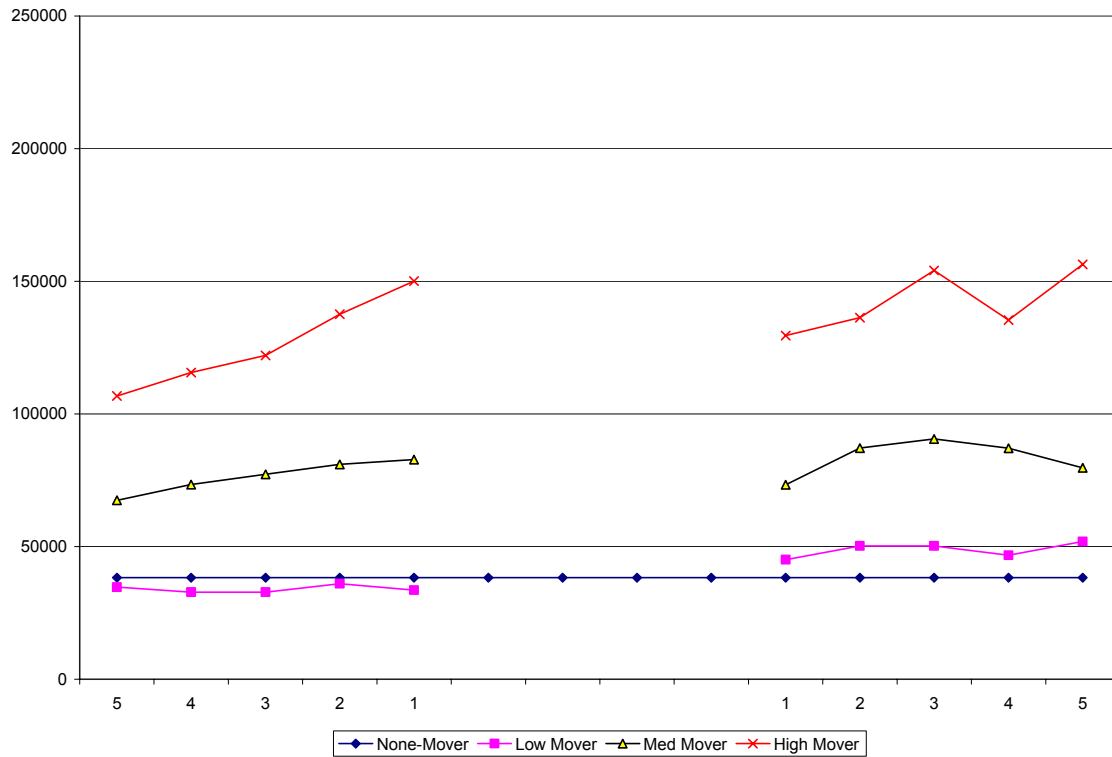
Figure 4d - Earnings Level Equation by Earnings Level, Away Four Years

Figure 4e - Earnings Level Equation by Earnings Level, Away Five Years
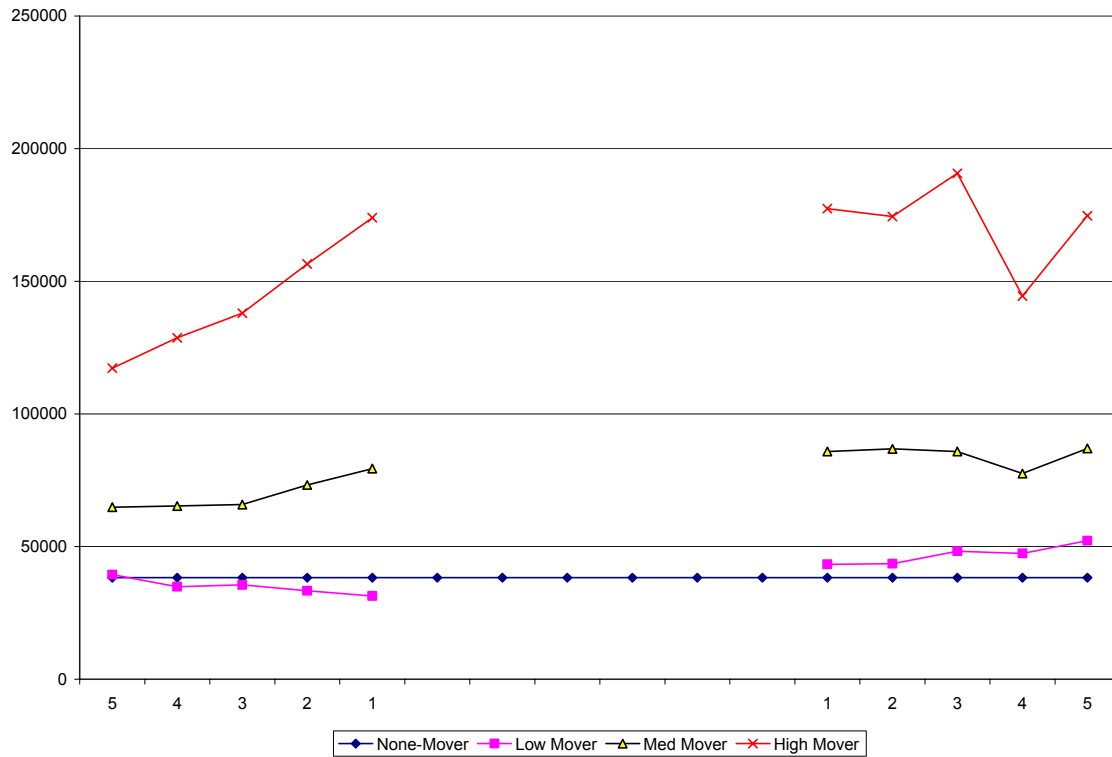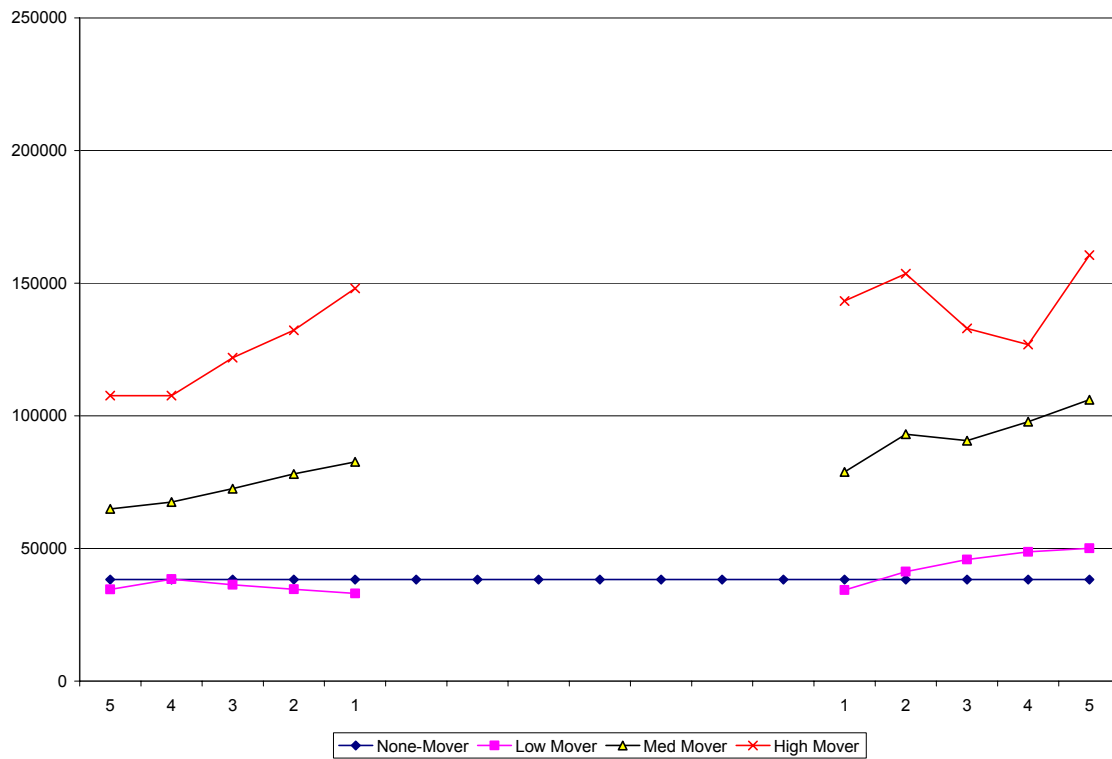

Figure 4f - Earnings Level Equation by Earnings Level, Away Six to Ten Years

Figure 4g – Earnings Level Equation by Earnings Level, Away Eleven or More Years