

Paper presented at the John Deutsch Institute Conference, "Retirement Policy Issues in Canada", October 26-27, 2007 at Queen's University. The final version is published in a book entitled *Retirement Policy Issues in Canada*, edited by Michael G. Abbott, Charles M. Beach, Robin W. Boadway and James G. MacKinnon, 2009 (Kingston: John Deutsch Institute, Queen's University). Published in cooperation with McGill-Queen's University Press and available at: <http://mqup.mcgill.ca> .

Remain, Retrain or Retire: Options for older workers following job loss

Christine Neill
Department of Economics
Wilfrid Laurier University
cneill@wlu.ca

and

Tammy Schirle
Department of Economics
Wilfrid Laurier University
tschirle@wlu.ca

October, 2007

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This paper has been prepared for the John Deutsch Institute Conference on Retirement Policy Issues in Canada, held in Kingston, Ontario on October 26-27, 2007.

1. Introduction

As the Canadian population continues to age, so does its workforce. There are concerns among policy makers that stark labour shortages may occur as the baby boomers enter retirement. There are also concerns that an ageing workforce is less mobile, less able to adjust to technological change and other shocks to the economy, and may be particularly hard hit by job loss. Policies designed to reduce the costs to older individuals affected by such labour market shocks could potentially improve the adjustment of the economy over the long run, and have been the subject of considerable recent policy interest.

A recent Canadian policy initiative is the Targeted Initiative for Older Workers (TIOW) which has allocated \$70 million over two years in funds for community-based training and re-employment programs targeted at older workers – those aged 55 and over. The aim of this program is to help to reintegrate back into the labour force those workers who have lost their jobs due to industrial restructuring.

Recently, another option has been circulating in US policy discussions. LaLonde (2007) has made the case for providing wage insurance – similar in concept to unemployment insurance, but with payments made to workers after they find another job if it offers a lower wage than the worker's initial job. LaLonde argues that the losses from a lifetime of lower wages are a considerably higher cost of displacement than temporary income lost due to unemployment, and that those potential losses are not insurable at present.

Both these policies involve substantial targeting of resources to older workers. Is such targeting of resources toward older workers merited or even useful? Could these resources be used more efficiently elsewhere? The goal of this study is to review the existing evidence we have about older workers' experiences following job loss, highlight areas where evidence is lacking, and fill some of the existing knowledge gaps.

Currently, little is known about the labour supply and training decisions made by

workers who lose their job when near retirement age, or about the consequences of those decisions. Here, we focus on workers who are displaced – they lost their job due to company closure or business slow-down rather than simply being laid off. We begin by presenting evidence on the incidence of job loss among older workers. We then examine several options available to older workers, including the options of retirement, remaining in the labour force or retraining at older ages to improve future labour market outcomes. This is followed by a discussion of these options in the context of various policies available to policy makers.

2. The incidence of job loss among older workers and the options they face

Current evidence suggests that older workers are slightly less likely to experience a permanent layoff than their younger counterparts. In Figure 1, we show the layoff rates constructed by Morissette et al (2007).¹ On average, 7% of older male workers (age 50-64) are permanently laid off in any given year.² This is consistently lower than the layoff rates for younger men, among whom 8% experience a permanent layoff. There do not appear, however, to be such differences between younger and older women. Furthermore, there are no consistent differences in the displacement rates (permanent layoffs due to firm closure or mass layoff) between younger and older workers. Both groups of men experience such displacements at an average rate of 1.6%. It seems likely, therefore, that the permanent layoff rate for younger workers is higher because they are still in the process of finding a position with a good fit between their skills and those required by the job, while older workers are more likely to have found a good match.³

¹ The figure is based on data found in Table 1a and Appendix Table 1a in Morissette et.al. (2007). Their results are based on a Longitudinal Worker File sample of individuals employed outside the public sector in firms with at least two employees.

² Workers are defined as permanently laid off when they do not return to their former employer in the same year or in the year following layoff (Morissette et al 2007).

³ Jovanovic (1979) provides the classic model of job matching. Here, permanent layoff would become less likely with high seniority as good employer-employee matches are the most likely to survive.

Who is likely to become displaced? The first two columns of Table 1 describe the characteristics of older workers who experience displacement from full time work when over the age of 50 and their counterparts who continue in full time employment.⁴ Displaced older workers are only slightly older, and tend to be among the less educated workers. It is very unlikely that older public sector, unionized, and high-seniority workers will become displaced. Across industries there are not many differences. There appears to be higher likelihood workers in manufacturing to become displaced, while workers in health care industries are unlikely to become displaced.⁵

So what happens to these workers following job loss, and what makes them different from younger workers in the same position? Older displaced workers effectively have three options available to them: remain in the labour force; take time away from the labour force and undertake training for a new occupation; or enter early retirement. This last option is not typically available to younger workers, and it is this option that really complicates the decisions of older workers and the policy response. Rowe and Nguyen (2002) have found Canadian workers age 50-65 have much lower re-employment rates following involuntary job separations than the rest of the labour force.⁶ Recent Canadian evidence from Gray and Finnie (2007) suggest many older displaced workers immediately enter retirement following displacement, as nearly one third of older laid off workers reported receiving a private pension after job loss. Further, education participation rates are lower for older displaced workers - for individuals aged 55-64 at

⁴ Using the panel data from SLID, individuals are observed over a 5 year period and classified as displaced from full-time work if they were separated from a job due to company closure or business slowdown and return to full time employment in that 5 year period. They hold continuous full-time work if over the 5 year period they have held the same full time job.

⁵ Note that construction workers and agriculture workers have been omitted from this sample, as separating layoffs due to business slowdown and seasonal work is not entirely clear.

⁶ Rowe and Nguyen (2002) find that 60% of job separations among worker age 50-65 were involuntary. Using the Canadian Labour Force Survey, the authors do not observe transitions into retirement following an involuntary job loss. They are able to observe voluntary retirements. Among men age 50-65, 16% of job separations were retirements. Among women age 50-65, 12% of job separations were retirements.

⁸ The sample used to estimate the model is based on the observation of individuals over a five year period. This sample includes individuals displaced from a full-time job when over the age of 50 and are observed returning to full time employment. Their comparison group in this sample includes all individuals over age 50 that held continuous employment in the same full-time job over the 5 years. See the note to Table 1 and Schirle (2007) for a more thorough discussion of sample selection for this model.

the time of displacement, around 2¼ per cent are undertaking formal education at a post-secondary institution in the year after displacement, compared with 6 per cent of 40-55 year olds.

In the following sections, we examine each of the three options available to older displaced workers in more detail. What are the costs and benefits of each option? While the necessary information is often not available to provide precise answers, we have attempted to provide a discussion of these options with the intention of informing the policy debate.

A. Remain in the labour force

Most workers with a strong labour force attachment will choose to remain in the labour force following displacement. Among full-time workers who are displaced this typically involves the worker enduring a spell of unemployment followed by a return to full time employment. However, the post-displacement experiences of older workers may differ substantially from the experiences of their younger counterparts.

There is evidence that workers will experience longer spells of unemployment at older ages. In Figure 2 we plot the average weeks of unemployment duration among unemployed men and women for various age groups. Between 2001 and 2006, men aged 55-64 had an average unemployment duration of 31 weeks, 10 weeks longer than the average 25-54 year old unemployed man. Older women have similar experiences, with women aged 55-64 experiencing unemployment spells that are on average 25 weeks in duration (between 2001-2006), 7 weeks longer than women aged 25-54. The longer duration of unemployment spells among the oldest workers may in part reflect a greater need for skill upgrading among older workers.

To date, there has been a lack of evidence describing the earnings losses associated with displacement among workers nearing retirement ages relative to that experienced by younger workers. Several studies (including Jacobson, Lalonde and Sullivan 1993 and Morissette Zhang and Frenette 2007) have provided evidence that displaced workers

face large and persistent earnings losses. Morissette et al's (2007) estimates suggest Canadian high-tenured men displaced between the ages of 25 and 49 face long-term earnings losses in the range of 18%-35% of their predisplacement earnings. Their female counterparts also experience long-term losses between 24% and 35% of their predisplacement earnings. Consistent with the results presented in Jacobson et al (1993), displaced workers' earnings begin to fall up to 3 years prior to displacement. Neither of these studies includes workers nearing retirement age to "ensure that workers' earnings trajectories after displacement are not contaminated by early retirement patterns" (Morissette et al 2007, page 13)

To fill this gap in the literature, we have provided estimates of the earnings losses experienced by workers displaced from full time employment between the ages of 50 and 69. We use data from the Survey of Labour and Income Dynamics, a panel data set which allows us to observe individuals' characteristics, earnings, the timing and incidence of job separation, and reasons for job separation over the course of six years.⁸ Similar to the methods used in Jacobson et al (1993) and Morissette et al (2007), the estimates are based on the simple wage regression

$$w_{it} = \sum_{k=-2}^2 D_{it}^k \delta_k + x_{it} \beta + \varepsilon_{it}$$

where w_{it} represents the individual i 's earnings at time t . The covariates D_{it}^k are dummy variables that represent the event of displacement in the period $t-k$. The parameter δ_k thus represents the effect of displacement on a worker's earnings k years following its occurrence. The wage equation also includes a set of covariates x_{it} which includes gender, age, education indicators, public sector, and union status, months of job tenure (on the current or lost job) and full set of industry, province and year dummy variables. Schirle (2007) has shown that the self-selection of displaced older workers into retirement does not result in biased estimates of earnings losses.⁹ The resulting estimates representing the earnings losses experienced by 50-69 year olds are presented

⁹ Schirle (2007) does, however, suggest that this self-selection into retirement is more generally important when estimating the wage equation in that estimates of the effect of age are biased when selection is not accounted for.

in the first column of Table 2. Comparable estimates for full time workers age 35-49 and 25-34 are provided in the second and third columns respectively. The loss estimates are duplicated in Figure 3.

The estimates suggest that male workers of all ages suffer substantial and persistent earnings losses associated with displacement, consistent with the existing literature.¹⁰ As expected, the earnings losses of displaced men age 35-49 begin in the years prior to displacement and post-displacement losses are consistently larger than the losses faced by their younger 25-34 year old counterparts. In contrast, the men age 50-69 do not experience earnings losses significantly different from zero in the years leading up to displacement. Furthermore, and perhaps contrary to expectations, men in the oldest age group are not experiencing larger wage losses than their younger counterparts.¹¹

Results for other sub-samples of displaced workers are presented graphically in figures 4-6. First, and consistent with the literature suggesting job loss results in a loss of job-specific human capital, tenure is the key factor in determining an older workers' earnings losses. Estimates suggest that high-tenured men (with more than ten years experience at the same job) experience earnings losses of over \$22,000 in the first year following displacement. Low-tenured older men face much lower losses, at just over \$10,500 in the first year following displacement.

Second, educational attainment does not appear to be as important for determining the level of wage losses as one might expect. Although individuals with higher levels of education are among the least likely to become displaced, after displacement occurs the earnings losses experienced by high and lower educated workers are not significantly different.¹² Relative to their expected earnings, however, a highly educated worker may

¹⁰ Estimates for a broader sample of workers that include women are not substantially different.

¹¹ If comparing the loss relative to expected earnings, losses among the youngest displaced workers is only slightly smaller than the losses among oldest workers.

¹² Highly educated refers to a worker that has attained more than high school graduation as their highest level of education. To note, as a percentage of expected earnings, the losses of lower educated individuals is higher than highly educated individuals.

expect losses amounting to 23% of their expected earnings while lower educated workers may expect losses closer to 40% of their expected earnings.

Finally, current policies targeting older workers would suggest we expect rural workers to experience larger wage losses than their urban counterparts, since urban displaced workers likely have a wider variety of opportunities available to them. The estimates, however, suggest that there is no significant difference between the earnings losses of urban and rural displaced workers.¹³ Rural workers, however, tend to have lower earnings than urban workers. Here, urban workers are experiencing losses under 29% of their expected earnings while rural workers are losing close to 40% of expected earnings.

Overall, older workers face large and persistent earnings losses upon displacement. While these losses appear slightly larger than those experienced by the youngest workers, they are not substantially larger than losses experienced by displaced workers between the ages of 35 and 49. Within this group of older displaced men, however, there are relatively larger proportional losses experienced by lower educated, rural workers.

B. Retrain

For those who are unable to quickly find another job and wish to return to the labour force, retraining may be a desirable option, especially if the skills the worker has acquired over their working life are not easily transferable to other available jobs. There has been an increasing focus on retraining as a way of making a worker more able to integrate into the labour market, and therefore more likely to remain in the labour force. This is reflected in recent policy developments – particularly in the TIOW program, which targets low skill older workers and requires training programs of some kind to be provided.

¹³ There is some measurement error in any such estimates since it is not clear how to treat displaced workers who move from rural to urban areas following displacement. In the estimates mentioned here, urban-rural status relates to the time period wages are observed.

A period after job loss is in many ways an ideal time to undertake training. To the extent that an individual is unable to find a position, the opportunity cost associated with studying is lower. Indeed, individuals who are not currently employed are considerably more likely to be attending a formal program of education than those who are employed (Table 3).¹⁴ However, this difference is less marked for older workers. For those between the ages of 55 and 64, being out of employment less than doubles the probability of engaging in formal education, while it almost triples the probability of studying among younger workers.

Older people are less likely to be studying, regardless of their labour force status. Less than 1 percent of currently employed individuals over the age of 55 are studying in an educational institution at any given time, compared with 6 per cent of those aged 25 to 39. This pattern has been found in every study of the training or education decisions of adults, including Gower (1997) and Jacobson et al (2003), as well as in evaluations of HRSD's training programs (HRDC, 1999). The consistency of this pattern provides extremely strong evidence to support the theoretical proposition that individuals perceive the lifetime benefits of undertaking training or education to be considerably lower when they are older than when they are younger.

It is possible that the reduced likelihood of undertaking education with age is a result of older workers leaving the labour force (retiring) in higher numbers than younger workers. A much larger proportion of the separations of 55-64 year olds are self-identified as due to retirement – 38.7 per cent of 55-64 year olds who left their job in the past year and are not currently working said it was due to retirement, compared with 5 per cent of 40-55 year olds, and essentially no-one under 40. However, of all 55-64 year olds who report that they left work in the past 12 months due to retirement, 1.6 per cent report undertaking some education. This compares with 2.2 per cent of all those who

¹⁴ This is not true of informal or on the job training, a very great deal of which is employer provided and financed. Most government training programs in the face of displacement focus heavily on such 'informal' programs. The TIOW, for instance, has a required component of help with job search, and another training component. The benefits of such programs in productivity and future earnings are not well studied.

left their job in the past 12 months and have not found a new position. While these are quite different rates, they do not suggest that retirement (albeit self-reported retirement) is the main cause of relatively low education participation rates among individuals over the age of 55.

Figure 7 shows age-education participation profiles for four groups: those currently working, those who left a position in the past year, those who are not currently working and who last worked more than 12 months ago, and those who have never worked. These profiles control for characteristics including past education levels, sex, province of residence and year. For all groups, it is clear that older workers are less likely to undertake formal education programs than younger workers. This profile is quite consistent for males and females, though adult women are substantially more likely to undertake further education than are men. The exception to this is women who are not currently employed, and who were last employed over a year ago or who have never been employed. This is particularly true among older employed women, who have education participation rates more than twice as high as those of comparable men. Controlling for the presence of children affects the female age-education participation profile slightly, but not the male profile.

We now turn to assessing the extent to which education might benefit older displaced workers. We address three questions. First, can education and training increase the incomes of older workers? Second, can education make up for lost earnings after displacement? Finally, to what extent can policy matter in the education decisions of older displaced workers?

i. Can Education Increase the Income of Older Workers?

There is considerable research interest at present in the question of the optimal time to provide education to individuals. James Heckman, in a series of papers, makes an argument that scarce education resources are best targeted to children of very young ages, in part because brain development in the early years means that early investments

in learning are more efficient and contribute to improved learning later in life.¹⁵ One might be tempted to draw a parallel and argue that among adults - those who are older are likely less quick to learn new skills than those who are younger.

However, there exists little evidence to support such a conclusion. Jacobson et al (2003) find no evidence that workers over the age of 35 have less of a productivity boost from a particular study period than workers under the age of 35 – wage increases after a period of study are similar for the two groups. Zhang and Palameta (2006) (in the only Canadian study) show that there are short-run income benefits to older adults (defined as those over 35) from completing a post-secondary certificate. Completion of a college certificate after the age of 35 raises men's hourly wage by 7.6 percent, and income by 4.5 percent. On the other hand, there are no such benefits to women, and no benefits to those who do not complete a certificate. As expected, returns to completion of university qualifications are higher than the returns to receipt of a college certificate. While these income increases are about the same for older men as younger men, the returns to younger women are much larger than those for older women. It should be noted, then, that Zhang and Palameta (2006) find no income benefits for anyone completing less than one academic year of post-secondary schooling, and the income benefits they do find are likely well below 8 percent per year of study.¹⁶

None of this provides a strong indication that older adults acquire fewer skills while studying than do younger adults. However, there are two additional concerns that suggest training and education is not likely to help displaced workers recover to the point where they can be as well off after the displacement as before. First, the losses in income from displacement due to lost wages typically dwarf the potential benefits of even extended training and education. Second, the older a worker is at the time of displacement, the smaller is the likely length of time in the workforce, which significantly reduces the potential benefits of education.

¹⁵ See for example Cunha and Heckman (2007) and Heckman (2006).

¹⁶ Completion of a certificate likely takes more than one year. Zhang and Palameta (2006) are unable to examine the returns to a completed year of study, since the data are not sufficiently detailed to allow that.

ii. Can Education Make Up for Lost Earnings After Displacement?

LaLonde (2007) argues that the up-front spending required for retraining that replaces a substantial portion of a displaced worker's lost earnings is so large that "even if older displaced workers are able to acquire new skills as efficiently as younger persons, it is still the case that their incentives to participate in retraining are less, as are the benefits society receives from their retraining." (p. 17). In what follows, we show calculations of the costs and benefits of undertaking education for displaced workers at several different ages, following LaLonde's (2007) approach.

As discussed earlier, conditional on tenure in a position, older men do not experience larger earnings losses than younger men. The estimates suggest that displacement causes a loss in annual earnings of around \$11,000. That is more than a quarter of the average earnings of non-displaced workers. One academic year of education is typically estimated to increase earnings by around 10 per cent. In order to make up for the lost earnings, then, an individual would have to train for at least 3-4 years.¹⁷ So education and training are very unlikely to provide a practical solution for completely reversing the loss of income due to displacement, particularly for older workers for whom 3 or more years out of the workforce comprise a very substantial proportion of the remaining working life.

Table 4 provides some rough calculations of the cost of losing a job at various ages (accounting for loss of tenure), and the likely effect of education in raising lifetime incomes. This assumes a 9 month training course, costing an individual \$5000 (equivalent to one academic year at a university). For the hypothetical displaced worker, this course would cost around \$22,800 in lost income and direct costs.¹⁸ Given a post-displacement income of \$23,688, plus a 10 per cent increase in salary due to one academic year of education, the lifetime income increase due to the training would only just cover the costs for a worker aged 50 at displacement, and would have negative returns for older workers. Note that this assumes rates of return to education of adult

¹⁷ These figures are very similar to those in LaLonde (2007), despite using Canadian rather than US data.

¹⁸ If the individual has no alternative job available, then the calculation of the costs of education is lower.

workers higher than those found by Zhang and Palameta (2006) or Jacobson et al (2003). Unless there are substantial external benefits to the education, the social benefits are lower, reflecting subsidies to education implicit in the current system.¹⁹

The fact that a large upfront investment – in terms of both time and money – is required for retraining, then, makes it less viable as an alternative the older an individual becomes. This is reflected in fact that individuals over the age of 50 are much less likely to be undertaking study.

iii. Can policy make a difference?

The social cost-benefit analysis is largely affected by the same considerations as the individual cost-benefit analysis. To the extent that there are any social benefits accruing to education, these are smaller the shorter is the future working life of the individual.²⁰ There are also, however, potential social benefits from individuals remaining in the labour force rather than retiring. If those individuals who receive additional education are less likely to retire, then there may be social benefits in terms of a lower dependency ratios and lower public pension payments.

However, for the social cost-benefit calculation to differ markedly from the individual calculation, these effects would likely have to be very large. Unfortunately, there is no information available on the effects of training programs on the probability of retiring from the labour force.

In addition, while policy initiatives often target workers over the age of 55, most studies of education and training decisions of older workers define ‘older’ as being over the age

¹⁹ Conservatively, we assume that the total cost of 9 months of education is \$15,000 – that is, that the government covers two thirds of the cost, and the individual one third. Government subsidies to education come from principally from direct subsidies to universities and tuition and education tax credits.

²⁰ There are some social benefits of education that are not directly related to labour force participation – including possible health and citizenship benefits – but there is no evidence of the effect of adult education on these external effects. Since most of the retraining programs focus directly on labour market outcomes, we do not consider these further here.

of 35. Clearly, it is not reasonable to expect that the lifetime benefits of training and education will be the same for a 55 year old and a 35 year old, even if there is no loss of learning ability among older relative to younger workers. The statistics above show that individuals certainly do not consider this to be true.

There is nonetheless interest in providing government assistance to individuals who have lost their jobs in the form of retraining. The TIOW is such a program, which is intended to provide employment search assistance and short-term general training programs to older individuals who formerly worked in a declining industry.²¹ The TIOW does not focus on formal retraining so much as basic skill upgrading programs. It is possible that these have larger returns per unit of time than formal academic programs, and may be less costly. These programs may therefore be economically worthwhile where formal education programs are not. It does appear that job search assistance in particular has payoffs in finding employment, although not necessarily high wage employment. LaLonde (2007) argues that re-employment services are less likely to aid displaced workers in the long run than training, because the latter has effects on long-term wages that the former does not. For other forms of training and assistance, however, the evidence is even murkier. Zhang and Palameta (2006) found that incomes typically did not rise after undertaking formal education unless it led to the receipt of a certificate.

To summarize, undertaking formal education is unlikely to be beneficial to individuals over the age of 50, given the shorter time period available to recoup the costs of education. More basic skills upgrading programs are less costly, however the chances that such training programs could make up for a drop in income of one quarter to one third of expected earnings are quite small.

²¹ While the TIOW is described as a retraining program, targeted at older vulnerable workers, it has several characteristics that suggest it is more targeted at vulnerable communities. In particular, workers from large municipalities who are displaced from their jobs are ineligible for assistance.

C. Retirement

Given the wage losses faced by older displaced workers and the relatively short time period remaining in the labour force to enjoy the benefits of retraining, many workers may find the retirement option relatively attractive. Consistent with the evidence from Gray and Finnie (2007), several U.S. studies have found lower employment rates among older displaced workers. Chan and Stevens (2001) use the Health and Retirement Study to examine the effects of involuntary job loss on employment outcomes for workers age 50 and above in the United States. Hazard model estimates indicated that even four years after a job loss, the displaced workers' employment rates are 20 percentage points lower than their non-displaced counterparts. They suggest this reflects both a reduction in the rates of return to employment after displacement and elevated rates of exit from post-displacement jobs.

The lower reemployment rates may simply reflect a lack of job prospects for displaced older workers. Hirsch et al (2000) examine the age structure of hires into different occupations and finds that employment opportunities for older individuals are restricted. Maestas and Li (2006) use a sample of non-workers from the U.S. Health and Retirement Study to examine the job search behaviour and employment outcomes of older workers. They find that only half of older searchers successfully attain jobs. Furthermore their results suggest that 13% of older job searchers become discouraged workers.

The characteristics of older displaced workers who do not return to the labour force are summarized in the third column of Table 1. These individuals are slightly older than the workers who return to full time employment following displacement. They are not very different in terms of their education levels but, perhaps surprisingly, are less likely to have had a pension plan available in their pre-displacement job. They are also more likely to be female. This might suggest that these displaced workers are 'forced' into retirement as discouraged workers rather than choosing this as a most desirable option. The displaced workers who leave the labour force appear to be worse off than their counterparts who voluntarily leave full time employment for retirement. (Their

characteristics are summarized in the last column of Table 1.) These workers are among the higher-educated workers and are much more likely to have left public sector jobs with pension benefits.

Whatever the circumstances under which they decided to enter retirement, displaced workers who take this option will have to stretch a smaller amount of retirement wealth over a longer-than-expected period of time. Several past Canadian policy initiatives – most notably the Program for Older Worker Assistance (POWA) – were designed to provide income support during the gap between displacement and retirement for certain older workers.

3. Policy Issues

i. Policy Background

For at least the past 20 years, Canadian governments have been concerned about the plight of older displaced workers. In the past they have implemented several programs specifically targeted at that group. This largely reflects the concern that “among *older displaced workers*, the financial repercussions are progressively worse, the older the workers are when they are laid off.” (HRDC 1999, p. 4).

Canadian government policies with regard to older displaced workers have passed through a number of different phases. POWA was introduced in 1986 at a time when unemployment rates had been high and long-term unemployment rates were high on the policy agenda. The aim of the program appears to have been largely to ensure that displaced older workers were not in financial hardship in the years before they became eligible for pension benefits, and evaluations suggest it successfully achieved that goal. It also potentially helped ease unemployment among younger and prime age workers, by reducing the number of older workers seeking employment.

Clearly, such a program makes sense in times of high unemployment. Its abolition in 1997 was undoubtedly partly due to evaluations that had shown that labour force participation rates of those who claimed POWA were half those of other older workers who had lost jobs but were not eligible for POWA. While this was a key advantage of the program in 1987, it was a disadvantage by 1997 when unemployment rates were falling and older workers were a substantially larger and rapidly increasing share of the labour force. Furthermore concerns about increases in the dependency ratio and fiscal sustainability of public pension programs were on the rise.

Programs established during the 1990s have focused more on the reintegration of displaced workers – among them older workers – into the labour market. The Employability Improvement Project (EIP) was instituted in 1991, and was funded through the EI system. It provided employment development services, including some training elements, and was found to increase weeks worked and annual earnings among older workers (HRDC 1999). Assessments of such programs typically find that reintegration is facilitated by job search assistance. While it does appear this increases the probability of re-employment, however, there is little evidence that it can make up for lost wages (LaLonde, 1995).

Currently, with unemployment rates at a 30 year low, more emphasis is being placed on training older displaced workers – the recent TIOW being on example. This appears to be in part a result of an increasing concern that slower overall population growth and the increasing share of older workers in the population mean that future increases in the economy's human capital stock are likely to come through education of the current adult population, rather than increasing levels of education among the current youth cohort. This is somewhat odd, coming at a time when the gap between education levels of older workers and those of younger workers is closer than at any time in the past 30 years (see Figure 9).

ii. Do We Need Policies Directly Targeted at Displaced Older Workers?

It is somewhat uncomfortable to suggest that age should play a role in determining government assistance to displaced workers. There are three reasons why this might be important, however. First, older displaced workers themselves as a group systematically choose different options from younger displaced workers – they are more likely to retire and less likely to take advantage of training and education programs. These decisions likely do not reflect simple ‘barriers’ to reintegration into the labour force, so much as they reflect different profiles of lifetime benefits and costs from each path. In this sense, any policy designed to reintegrate displaced workers is likely to have different outcomes for individuals of different ages. Policies targeted at income replacement may, for instance, give younger workers time to find better paying jobs, but provide older workers with a financial bridge to retirement.²²

Second, the fact that public pensions are available to older workers and those pensions may cause some distortions to older workers’ labour market behaviour (see Milligan and Schirle, 2006), makes these older workers different from younger workers. Policy development should account for this and may need to account for those aspects of pension policies that lower labour force participation.

Third, there is a general perception that older workers face losses of a different order of magnitude than younger workers, as suggested by HRDC (1999). There is some dispute as to whether this is the case, however: Consistent with the evidence presented in earlier sections, LaLonde (2007) notes that the per period cost of displacement is not necessarily higher for older workers, since younger workers experience income losses almost as large as those of older workers, and these income losses are also highly persistent. Thus, it is possible that the lifetime loss from job loss is higher for someone

²² Of course, not all older workers - nor younger workers - are the same. Some 60 year olds may be planning to remain employed on some basis for a further 20 years, and some 50 year olds may wish to retire tomorrow. Any policy evaluation will mostly pick up on average effects. Equally, however, policies have to be designed taking into account a typical response, even when potentially allowing for heterogeneous responses.

who loses that job at age 40, with potentially 25 more years of income earning potential, than someone who loses that job at age 60.

What policies are then ideal in helping older workers adjust after displacement? The answer depends on whether the key goal is to ensure they are reintegrated into the labour market, or whether the goal is to alleviate the personal financial hardship. In general it is difficult to design policy that would simultaneously achieve both goals. Rather, tradeoffs are expected.

Policies designed to help reintegrate older workers into the labour market can scarcely expect to make up for the wages lost due to displacement, even if they incorporate a substantial training and education component. The existing evidence suggests that although some older workers may wish to retrain and begin a new type of job, the vast majority do not consider this a worthwhile investment. Any effort to make training or education a central component of a program is unlikely to be effective, largely due to low interest in retraining among older workers themselves.

Policies implemented to reduce financial hardship have tended to reduce labour force participation rates among older displaced workers. A policy option which may help to boost incomes while minimizing labour supply disincentive effects (associated with past income support policies) is a wage subsidy scheme. In such a scheme, displaced workers would be paid a percentage of the difference between their pre-displacement wages and their post-displacement wages. LaLonde (2007) has suggested such a scheme, funded by payments from currently employed individuals in a way similar to unemployment insurance systems. He argues that for displaced workers, the majority of the costs are not due to wage losses during the short period in which they are typically out of work, but longer run losses associated with lower lifetime wages.²³ Since such a scheme would not make payments to individuals who were not employed, it would encourage, rather than discourage, continued labour force attachment.

²³ Note that this is not an income subsidy, so would not be expected to lead to an increase in individuals choosing to work on a part-time rather than full-time basis.

Such a scheme would have its disadvantages, however. First, it would be quite costly to introduce. Second, there are likely to be some distortions to individual decisions on the type of job taken – both pre- and post-displacement. It would constitute an effective transfer from individuals employed in industries that are relatively stable to individuals employed in industries that are relatively unstable. In part, this is an advantage – it means that workers are not discouraged from working in industries that are likely to be in flux, and thus it may encourage dynamism in the broader economy. On the other hand, it may also discourage adjustment in some ways – workers may, for instance, choose to stay at a low paying job in their local community rather than taking a more lucrative job at some distance.²⁴ Equally, such wage subsidy schemes would reduce the incentive for younger displaced workers to engage in education and training. Indeed, any action which entails up-front costs to achieve longer run wage increases is likely discouraged in the presence of a wage subsidy scheme. Although LaLonde intends this program to principally benefit workers who are middle-aged when they lose their jobs, rather than older workers, it may be less distorting if eligibility is restricted to relatively older workers.

Finally, it is also important to ensure that policy measures account for provisions found in public and private pension schemes. If, for example, older displaced workers are encouraged to take on part time employment to supplement their earnings, it is important to recognize that this may hamper their eligibility for pensions. A wage subsidy scheme may have important long-term effects on pension eligibility, for instance, if public pensions are only based on earned income. Here, the wage subsidy scheme may reduce pension eligibility for affected individuals in the long run.

4. Conclusion

In this paper, we have shown that the costs of displacement for older workers are not substantially greater than the costs of displacement for younger workers. Both younger

²⁴ For instance, a displaced worker in New Brunswick may be less reluctant to move to Alberta for employment if a wage subsidy is available for a relatively low paying local job.

and older workers are likely to experience large and persistent earnings losses following job displacement. Because older workers have a shorter expected remaining working life, their responses to displacement will systematically involve a higher retirement rate and lower rate of participation in training and education.

Developing an appropriate policy response to assist older displaced workers is a complex task. Policies designed to reintegrate older workers into the labour market will not make up for earnings losses associated with displacement, even if substantial training and education is involved. Income support policies have serious disincentive effects, which can be minimized using wage subsidy schemes or eliminated in the case of income support that is not conditional on employment status. Unfortunately, the lack of detailed study of the labour market decisions of displaced workers over the age of 50 means that there is relatively little hard evidence on which to base policies for this group.

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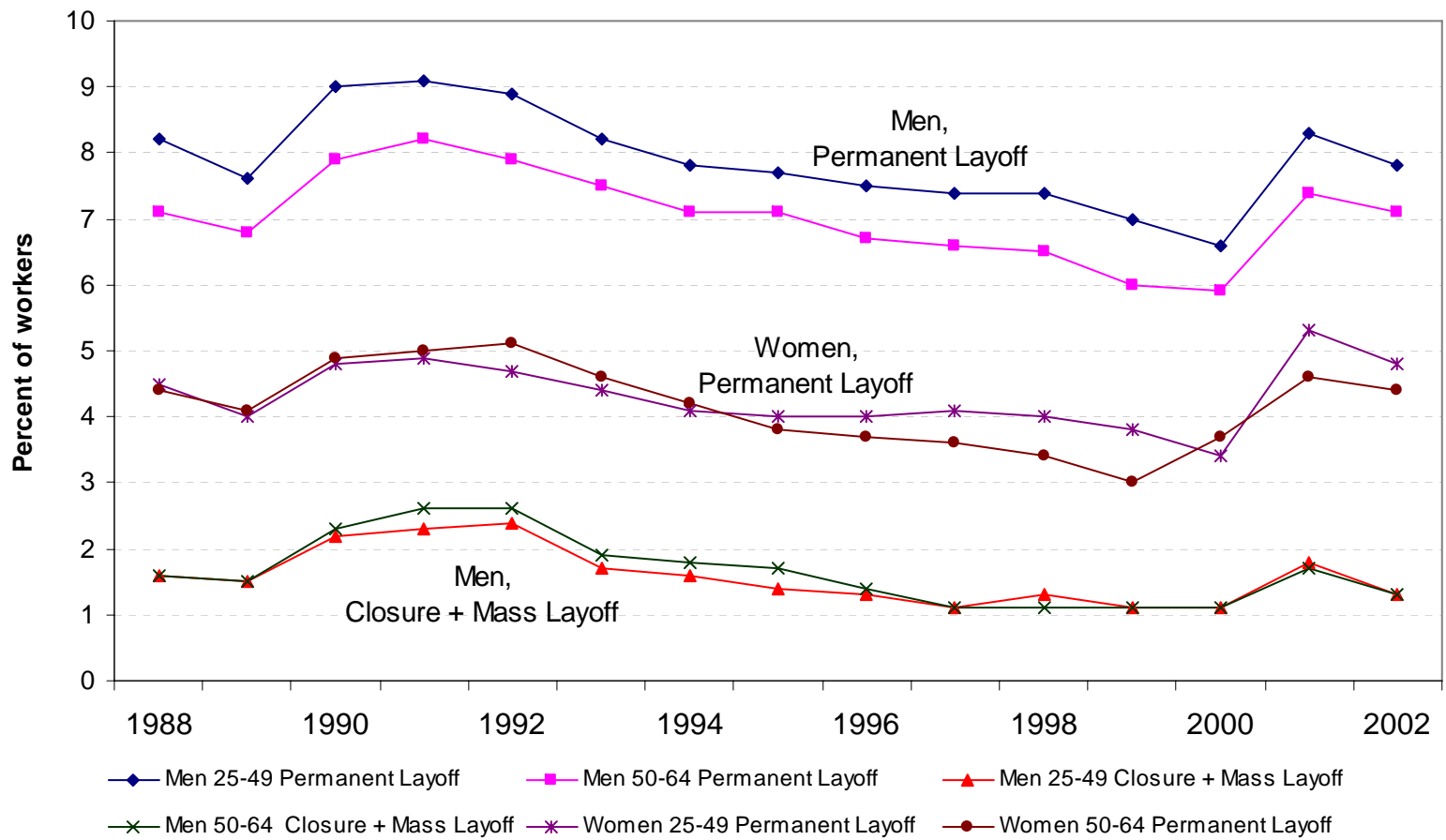
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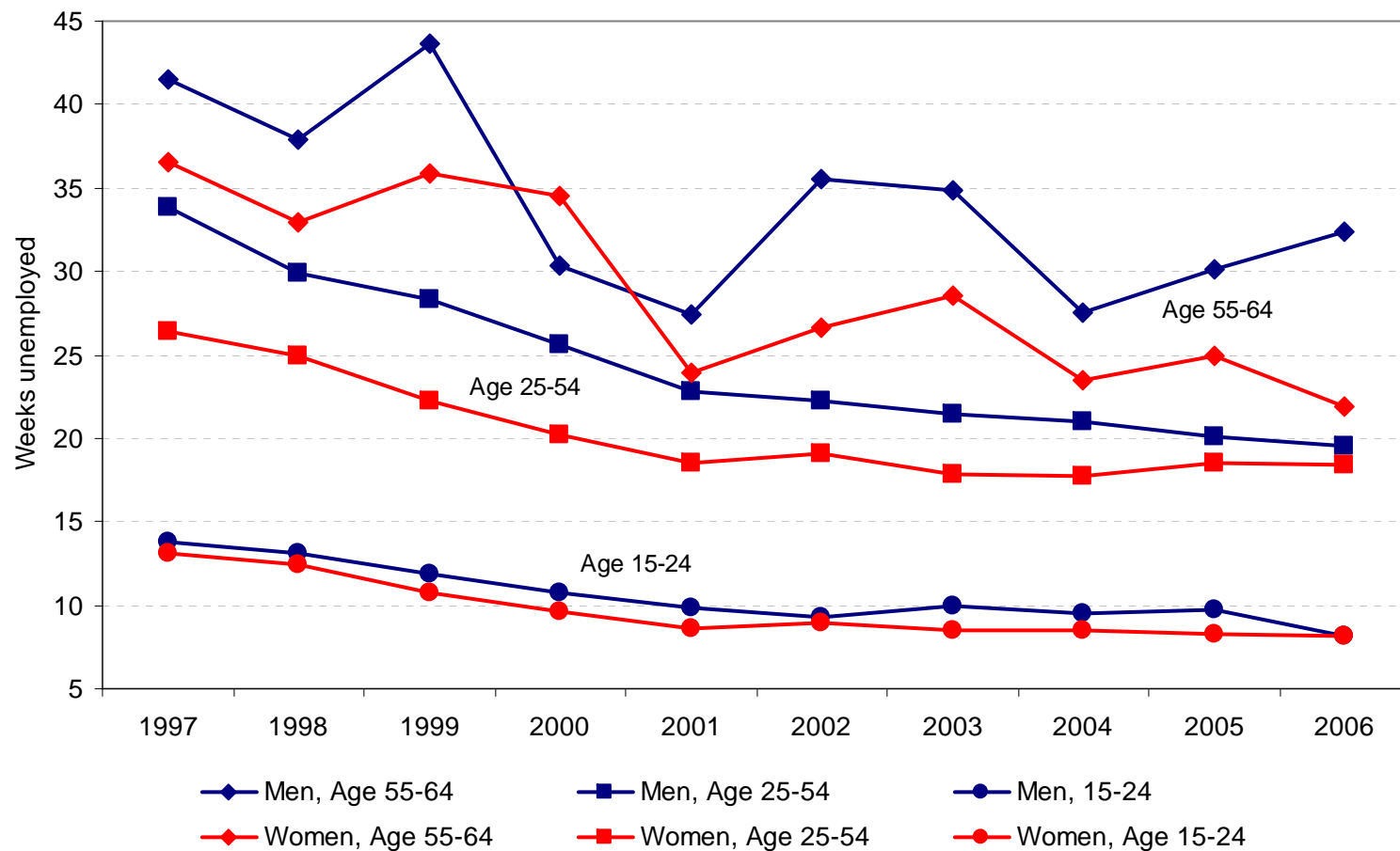
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Figure 1 – Permanent Layoff Rates and Displacement Rates



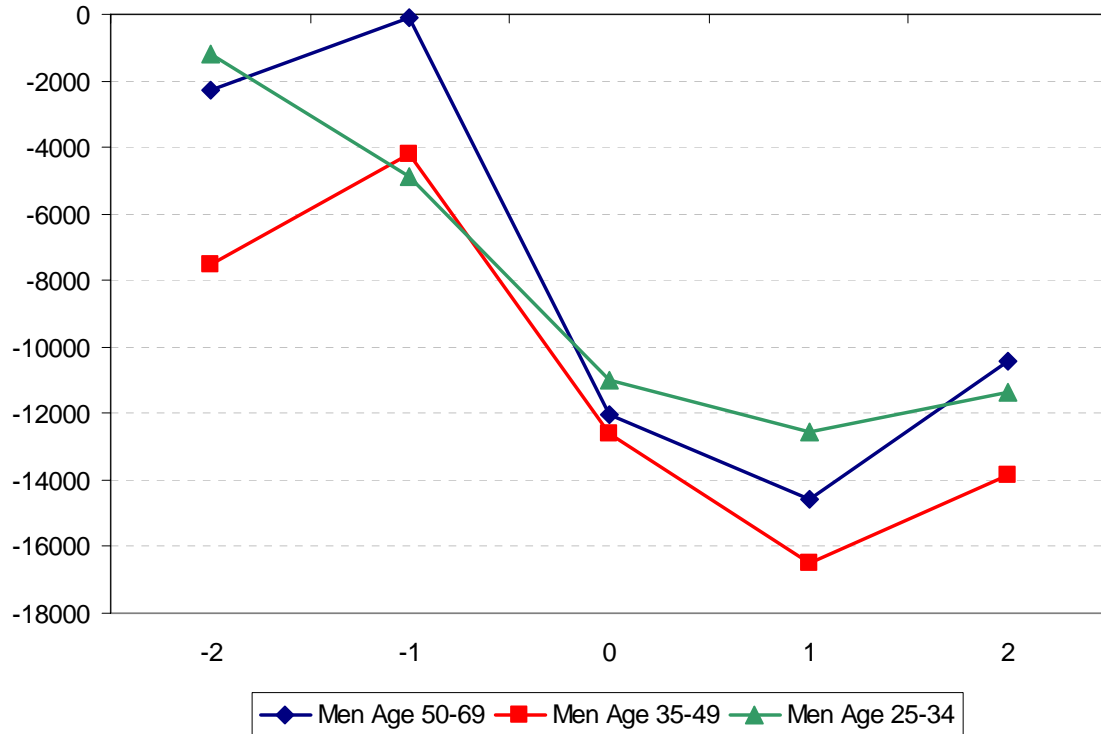
Source: Table 1 and Appendix Table 1 of Morissette et al (2007). Note this represents the percentage of workers employed outside the public service in firms with at least two employees.

Figure 2. Average unemployment duration, by sex and age



Source: CANSIM II series V2349407, V2349455, V2349479, V2349371, V2349347, V2349299

Figure 3: Earnings losses of men due to displacement, by Age group.



Note: Based on the regression results in Table 1. A person who does not experience displacement expects an earnings loss equal to zero. Here, 50-69 year old men who are displaced will observe annual earnings \$12000 less in the year of displacement ($t=0$), relative to what they would have expected if they continued working full time.

Figure 4: Earnings losses of men age 50-69, by pre-displacement tenure

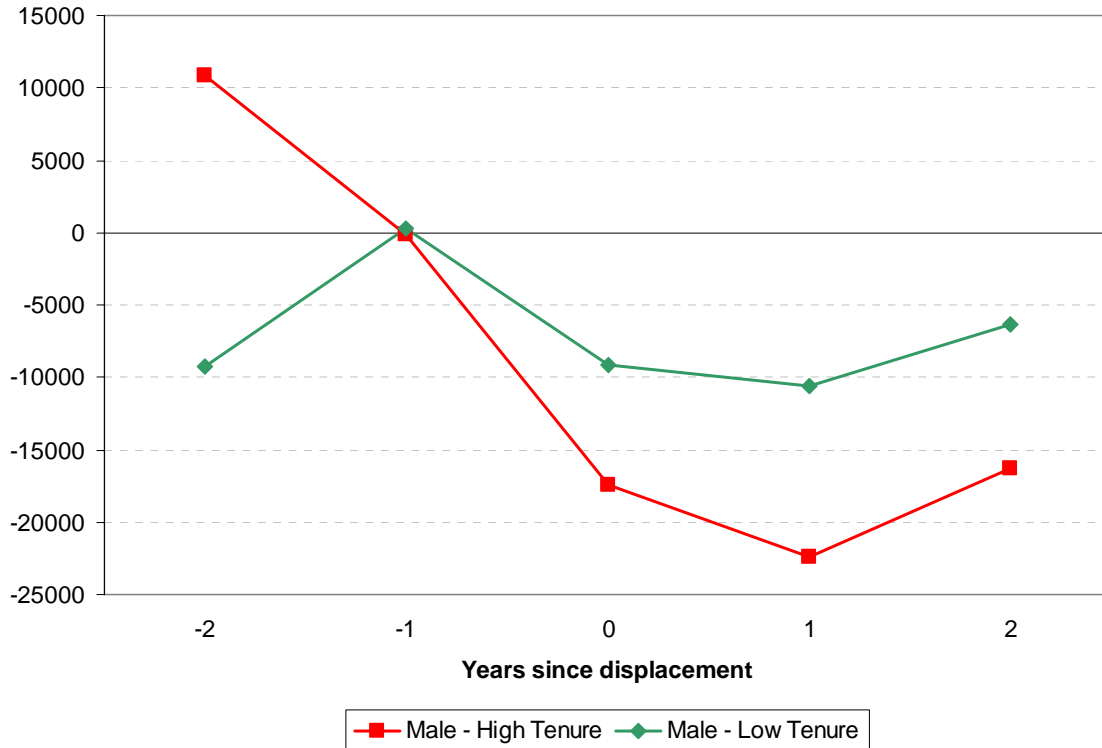


Figure 5 : Earnings losses of men age 50-69, by education level

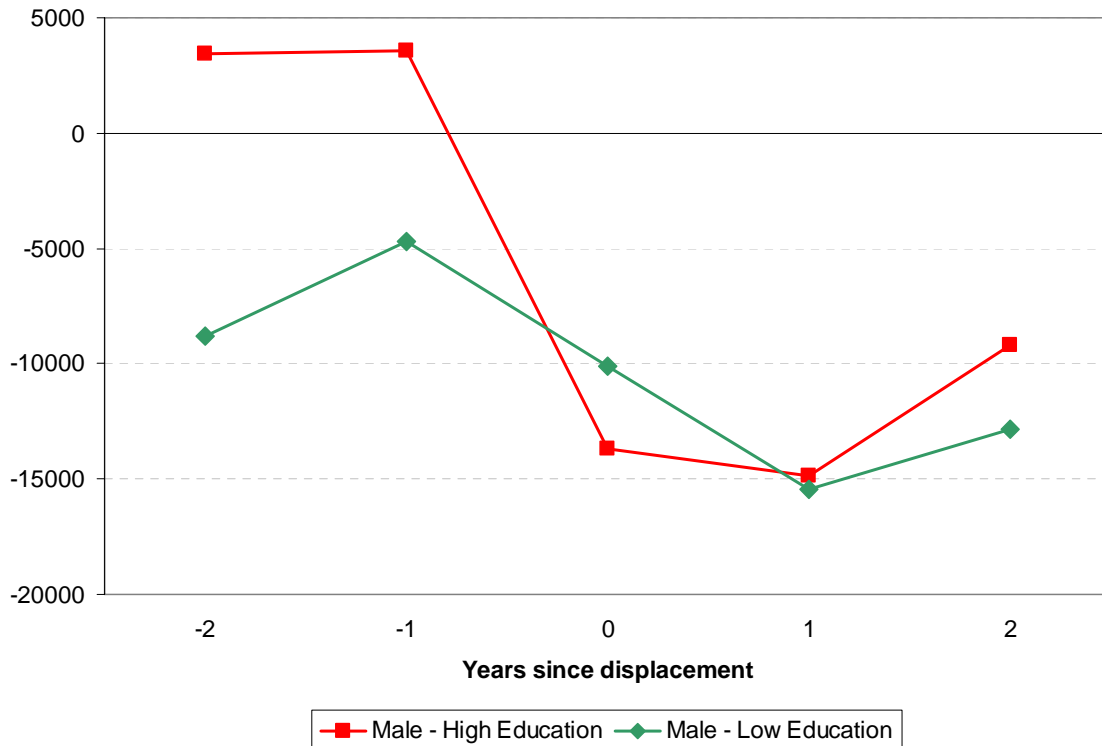


Figure 6: Earnings losses of men age 50-69, by urban-rural status

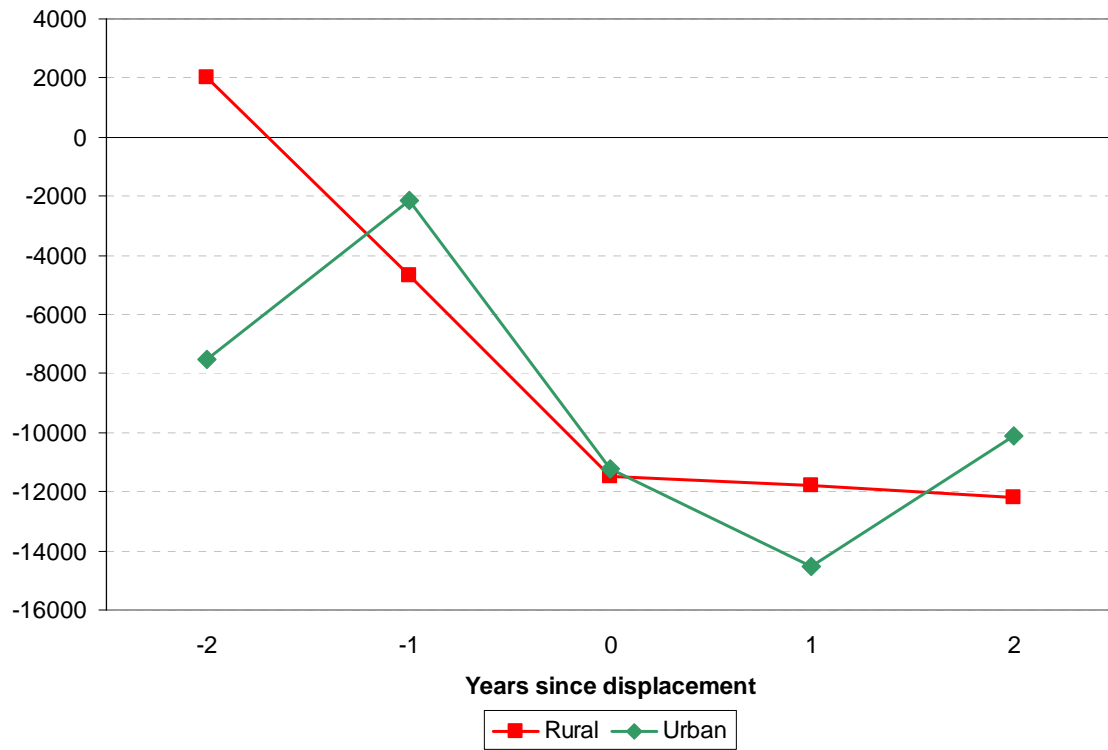
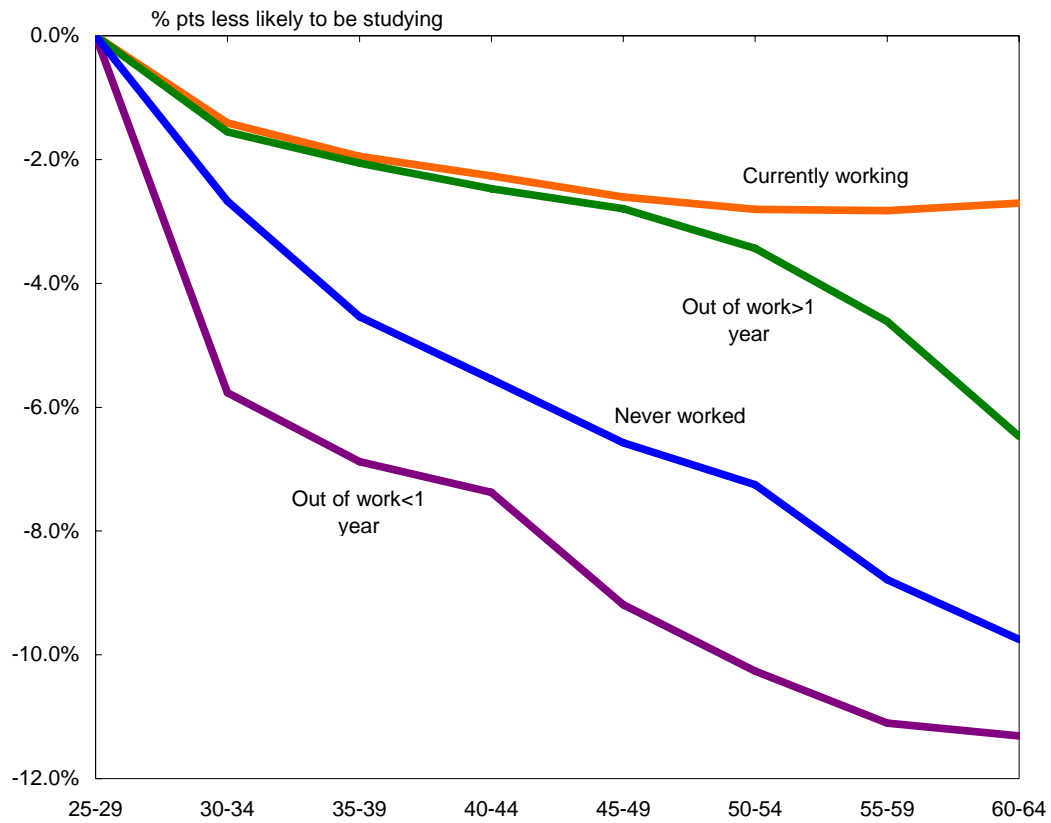
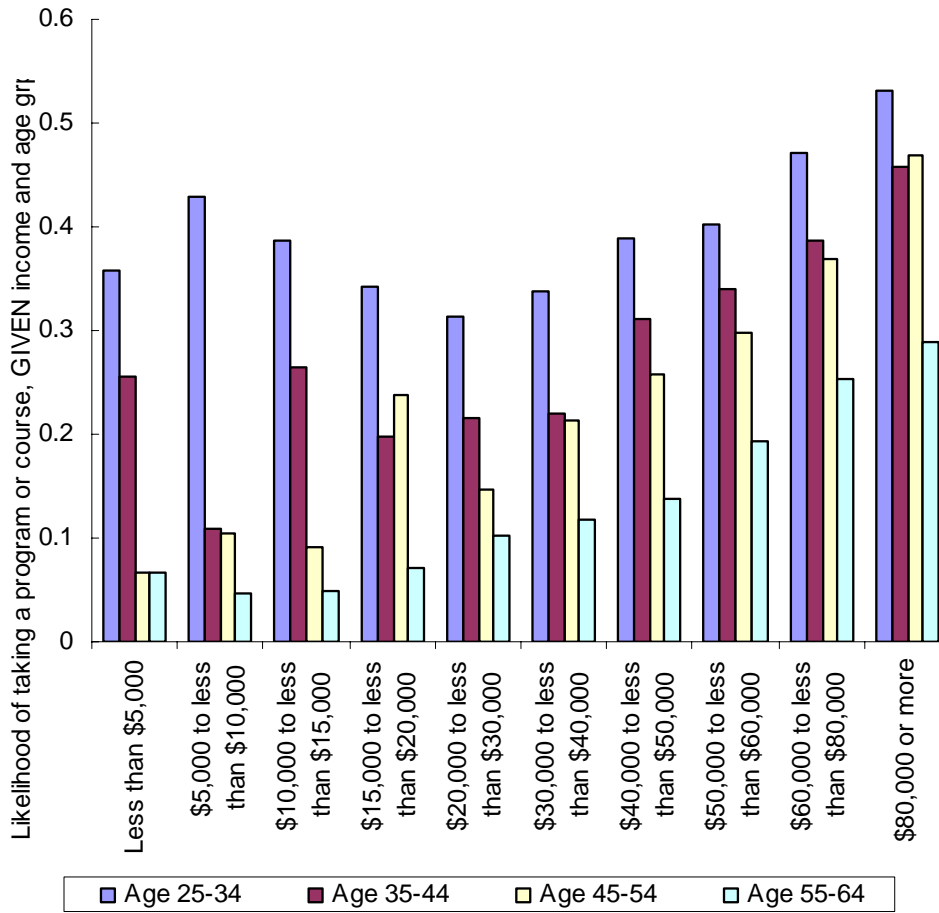


Figure 7. Effect of age on likelihood of studying relative to 25-34 year olds



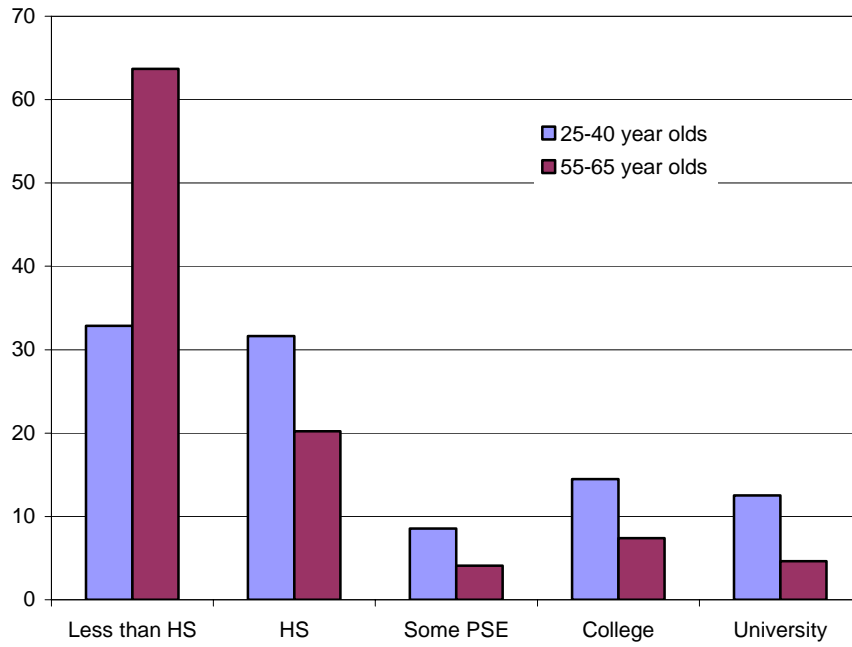
Note: Figures are regression coefficients on the probability of identifying as a student conditional on current employment status. Data is from the October Labour Force Surveys, 1997 to 2006. Regression models include fixed effects for year, province, level of education, and Canada's three largest Census Metropolitan Areas.

Figure 8. Effect of age and on likelihood of undertaking any training

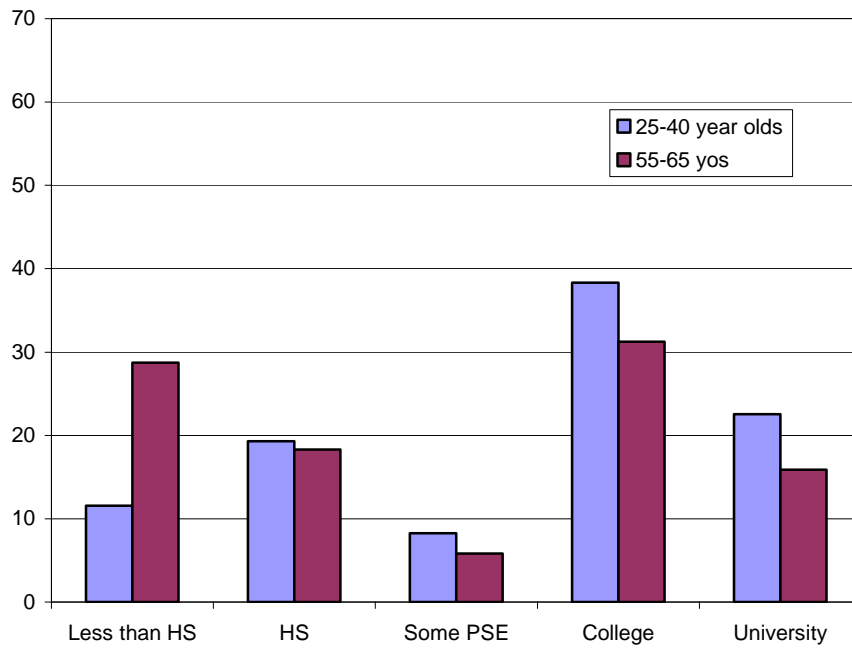


Source: Authors' calculations using the Adult Education and Training Survey.

Figure 9. Education levels of the Canadian population, by age group
a. 1976-1980



b. 2001-2006



Source: Authors' calculations, Labour Force Survey, various years.

Table 1. Characteristics of workers observed in full time work age 50-69, by Work Status over a 5 year period.

	Displaced from FT Work (1)	Continuous from FT Work (2)	Displaced from FT, Retired (3)	Voluntarily Retired (4)
Number of observations	1,013	7,046	689	3,186
Wages and Salaries	21,219	39,487	-	-
Age	54.9	52.9	56.1	58.9
Male	0.66	0.64	0.50	0.55
<i>Education</i>				
Less than high school	0.34	0.20	0.35	0.28
High school graduate	0.14	0.18	0.20	0.18
Some post-secondary	0.10	0.09	0.07	0.07
Post-secondary	0.33	0.35	0.31	0.29
University	0.09	0.18	0.07	0.18
<i>``Lost'' Job:</i>				
Public sector	0.06	0.30	0.08	0.35
Unionized	0.27	0.50	0.21	0.52
Job tenure (months)	90	232	108	214
Pension Plan	0.32	0.59	0.23	0.62
<i>Industry</i>				
Forestry, Fishing...	0.06	0.03	0.03	0.02
Utilities	0.01	0.01	0.02	0.02
Manufacturing	0.28	0.20	0.23	0.17
Trade	0.17	0.14	0.22	0.11
Transportation...	0.06	0.06	0.06	0.06
FIRE	0.06	0.06	0.06	0.07
Professional...				
services	0.07	0.05	0.02	0.03
Business... support	0.06	0.02	0.04	0.03
Education	0.02	0.10	0.02	0.14
Health \& Soc.				
Assistance	0.03	0.12	0.06	0.12
Culture \& Rec	0.03	0.03	0.03	0.05
Accomm. \& Food				
Services	0.07	0.02	0.08	0.05
Other services	0.06	0.06	0.09	0.05
Public administration	0.04	0.10	0.04	0.09

Note: Categories are based on the observation of individuals in full-time employment over a 5 year period. Column (1) represents workers displaced from full-time employment who return to full-time employment while workers in column (3) did not return. Column (2) represents workers who remained in the same full-time job for the five years. Column (4) represents workers who voluntarily left a full time job and did not return in the 5 year period.

Table 2. OLS Results
Dependent variable: annual earnings

Sample: Male	Age 50-69	Age 35-49	Age 25-34
<i>Displaced</i>			
~~ 2 years before	-2263 (6128)	-7541 *** (2249)	-1207 (2785)
~~ 1 year before	-85 (3700)	-4209 ** (1939)	-4901 ** (2386)
~~year of displacement	-12036 *** (3635)	-12625 *** (1654)	-11011 *** (1803)
~~ 1 year after	-14565 *** (2365)	-16470 *** (1740)	-12549 *** (1897)
~~ 2 years after	-10417 *** (2419)	-13851 *** (1978)	-11375 *** (1969)
Age	-791 *** (165)	60 (96)	764 *** (175)
<i>Education</i>			
~~ High School	2646 (1876)	878 (1077)	2659 ** (1336)
~~ Some PS	8398 *** (2759)	6495 *** (1316)	3625 ** (1440)
~~ Post-secondary	7218 *** (1466)	8412 *** (1004)	6495 *** (1174)
~~ University	22050 *** (2575)	19746 *** (1779)	15102 *** (2301)
Public sector	10033 *** (2005)	6010 *** (1774)	2550 (2655)
Unionized	6883 *** (1430)	3320 *** (917)	5424 *** (1196)
Tenure	27 *** (5)	39 *** (5)	52 *** (14)
Constant	72989 *** (9294)	24078 *** (4134)	-137 (5417)
Industry	Yes	Yes	Yes
Province	Yes	Yes	Yes
Year	Yes	Yes	Yes

Notes: Robust standard errors are in parentheses.
 ***, **, * indicate significance at the 1%, 5%, and 10% levels.

Table 3. Percentage of individuals attending a formal education program, by age group and working status

	TOTAL	Currently working	Not currently working and last worked:		
			Less than a year ago	More than a year ago	Never
All individuals					
25-39	8.5%	6.1%	22.3%	15.3%	22.2%
40-55	3.0%	2.4%	7.9%	4.5%	7.6%
55-64	1.0%	0.9%	2.0%	0.9%	1.5%
Males					
25-39	7.5%	5.1%	23.2%	22.2%	31.1%
40-55	2.1%	1.6%	6.6%	4.8%	9.1%
55-64	0.7%	0.6%	1.6%	0.7%	2.8%
Females					
25-39	9.5%	7.3%	21.5%	12.8%	18.5%
40-55	3.9%	3.3%	9.1%	4.4%	7.1%
55-64	1.3%	1.3%	2.4%	1.1%	1.2%

Source: Authors' calculations, Labour Force Survey, October, 1997-2006.

Table 4 Costs and Benefits of Education for Older Displaced Workers.

Individual characteristics					
	Age	40	50	55	60
	Tenure	6	16	21	26
Estimated cost of displacement					
	Pre-displacement earnings	35,000	35,520	35,780	36,040
	Post-displacement earnings	23,688	23,688	23,688	23,688
	Years of working life left	25	15	10	5
	Lifetime income lost	196,978	141,250	103,147	56,569
Estimated benefits of education					
	Foregone earnings			17,800	
	Cost			5,000	
	Total cost			22,800	
	Annual benefits (\$)			2,400	
	Discounted lifetime benefits	41,200	28,300	20,200	10,800
	NPV (individual)	18,500	5,500	-2,600	-11,900
	NPV (total, assume no externalities)	8,500	-4,500	-12,600	-21,900
Assumptions					
	Wages				
	Earnings at age 35	35000			
	Return to tenure	52			
	Displacement cost	11000			
	Retirement age	65			
	Discount rate	3%			
	Effects of education				
	Cost to individual	5000			
	Government subsidy	10000			
	Length of time (yrs)	0.75			
	Assumed rate of return	10%			

Note: return to tenure, displacement cost and earnings at age 35 are taken from Schirle (2007). The assumed rate of return of 10% to one academic year of study is at the upper range of the estimates of the benefits of education, and is used by LaLonde (2007). It is well above returns to certificates estimated by Zhang and Palameta (2006) for adult Canadians, particularly on a per year basis.