

Learning, Skill Acquisition and Labour Market Experience of At-risk Workers in the New Economy

Principal Investigator: Anil Verma, Professor, University of Toronto

Community Partner: United Steel Workers of America Canada: Jorge Garcia-Orgales

Introduction

The New Economy is inevitably creating winners and losers by pushing the envelopes of information, technology and knowledge creation. The post-World-WarII prosperity in Canada pulled up the standard of living of the vast majority of citizens by creating a large number of “good” industrial and public sector jobs. Unionization helped improve labour standards and workers bargaining power on bread-and-butter issues such as wages and pensions.

This prosperity is gradually losing its width and depth because the knowledge economy benefits better-educated workers more than the less educated and the less skilled. Most labour market data from the 1990s points to increasing employment and wages for workers with post-secondary education. At the same time, workers with high school education or less are losing ground in terms of wages and employment. Even those in this group who currently have a job are at increasingly higher risk of losing their jobs in the near- to mid-term future.

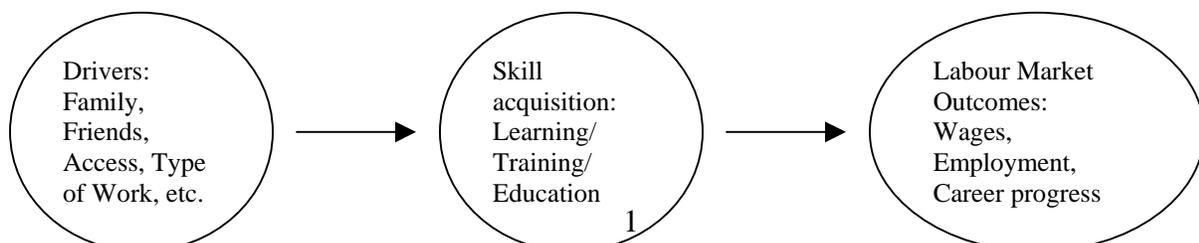
One of the most important policy issues of our generation is to examine how the broad and deep prosperity of the Canadian society can be sustained (or enhanced even further) in the New Economy. Can we help the bottom third of our workers improve their wages and their chances of “good” employment by creating opportunities for them to enhance their skills? How can we provide access to such opportunities for all segments of workers at risk? Do learning and skill upgrading experiences result in better labour market outcomes for these workers?

A Conceptual Framework

At the center of our framework are learning activities that result in enhancement of skills marketable in the New Economy. Learning can be formal or informal. Thus, it would include self-study, employer- or government-sponsored training, vocational and higher education, etc.

The study strives to link such learning and acquisition of skills to labour market outcomes such as wages, benefits, spells of unemployment, upward or downward job mobility, etc.

This study would also examine the drivers of skill acquisition processes. For example, we would like to learn about access to such learning opportunities. What role do friends and family play in this process? Does the current type of work held by an individual facilitate or hinder access to new learning? Do all groups of workers (women, immigrants, ethnic minorities, first nation peoples, disabled, etc.) have similar or access?



In order to inform our research study, it is pertinent to ask what we know already about these questions. What follows is a brief overview of the published literature on four topics. Who gets training? What types of training are popular with certain groups? The impact of training on individuals and on firm-level outcomes.

Who gets training? Employer factors, job factors and individual variables influence the likelihood of receiving training. Large employers are more likely to provide training than small firms are. Given the growth in small firms, there are future implications for reduced training opportunities (Kapsalis, 1996). The growth of 'non-standard' work may also contribute to reduced training opportunities as part-time workers are less likely to receive training (Betcherman et al., 1998). Antonji and Spletzer (1991) found that the incidence of training varied positively with verbal, math and clerical skills but varied negatively with manual skill requirements. Workers in white-collar jobs are more likely to receive training than workers in blue-collar jobs. Employed workers are far more likely to receive training than those who are unemployed. Generally speaking, employer-sponsored training is heavily oriented toward workers who already have a lot of human capital (Betcherman et al., 1998). More than 40% of workers holding a university degree received company training as opposed to only 13.5% of high school dropouts. Employers may be more inclined to invest training in workers who have higher education as this educational attainment may serve as an indicator of an aptitude or absorptive capacity to benefit from further training. Employers may also select trainees based upon their likelihood of staying with the firm long enough to repay investments in formal job training (Berg, 1970; Spence, 1974). This may explain why part-time and contingent workers are less likely to receive company training. Firms are more likely to select trainees who display good job performance, have an interest in training, have a need for training, possess greater job experience and higher seniority. Perhaps the strongest trend in company training is the so-called 'virtuous circle' of investment in human capital where employee investments in education are further augmented by employer investments in training. Jennings (1994) described this phenomenon as 'those who got, get.'

What types of training are popular with certain groups? Jennings (1994) also suggested that there is a dual training model whereby more experienced workers receive frequent, shorter training sessions and younger, less experienced workers receive infrequent, broader skills training. However, it is most likely that this 'broader skills' training is job oriented as less than 3% of U.S. establishments and less than 1% of Canadian employers engage in basic literacy training in spite of their strong belief that schools do not prepare students adequately for the workplace. In the U.S., most firms view the training and placement of displaced workers as beyond their purview, while in Canada, these issues have been addressed by sectoral councils that are made up of representatives of labour and management. In industries that have experienced wide spread downsizing, sectoral councils typically have an adjustment committee that provides a variety of career planning skills and services. Most sectoral councils also have a training committee that develops a variety of general and specific training programs for employees in that industry. The upward technological trajectory of modern industry has created a requirement for mild skills upgrading (Osterman, 1995). Training that is related to increases in technology does replace existing training but rather, creates a need for additional training. Baldwin, Gray and Johnson (1995) showed that up to three quarters of technology using plants reported an increase in their education and training costs. The recent emphasis on the impacts of

technology has shifted attention from the importance and rising demand for so-called 'soft skills' (Moss and Tilly, 2001.) Levine (1998) suggests that the new economy has increased the demand for team and problem solving skills. These skills are important in team oriented manufacturing jobs, as well as in jobs that deal with information, computers and customer service. A service economy and broader job duties generates a need for both hard and soft skills. Some firms are reluctant to train and have cited the threat of poaching, as well as the lack of information about government assistance and training programs as their main barriers to training (Betcherman et al., 1997).

Impact of training on firm-level outcomes? Becker (1975) the concept of general training and specific training. He suggested that general training raises productivity by equal amounts in the firm where it was provided and in other firms. Specific training only raises productivity in the firm where it was provided. However, contrary to Becker's hypothesis, Loewenstein and Spletzer (1999) did not find any systematic difference in returns on general and specific training. Several researchers have determined positive links between training and productivity. Holzer, Block, Cheatham and Knott (1993) and Bartell (1994) found evidence of a direct link between training and productivity. A 1993 survey of 215 Irish firms found positive and significant impacts on productivity growth resulting from general and specific training.

Impact of training on individuals? Osberg, Apostle and Clairmont (1986) found that the impact of training on the individual depended upon the labour market 'segment' of the individual. Training of peripheral workers increased their mobility while training of core employees reduced mobility. Levine (1993) found that employees who received high levels of training were relatively unlikely to quit. This phenomenon has been explained both in terms of increased job satisfaction as a result of training and by an increased feeling of employee commitment to the employer due to the employer's investment in the employee. Gunderson and Riddell (2001) assessed the impacts of training on wage and employment gains. They determined that basic skills training had no impact while institutional classroom training had a small positive impact, especially for youths and females who were re-entering the workforce. Their research showed that industrial, work-related training combined with work experience had the largest positive impact. They found that the largest gains were found in training for skills that were short in supply yet high in demand. They established that gains were greater for individuals who already had higher skill levels and were advantaged in the labour market. The gains from training tend to be greatest in a more buoyant labour market.

Research Methodology

It is proposed to carry out this study in collaboration with the United Steel Workers of America Canada (USWA). The USWA is one of the largest unions of the industrial era that has been quite successful in branching out from its core membership in the metal manufacturing sectors to organize workers in service industries. Because of its coverage across manufacturing and services and in the traditional industries such as steel as well as the emergent sectors of technology-based businesses, they afford us a unique opportunity to study learning processes within the work context.

Research Methodology. A three-pronged method would be employed. First, it is proposed to carry out interviews with employers to obtain basic information on the changing nature of work, technology and markets in their industry. We also propose to gather information on demographic composition of their workforce. Such information helps us understand the context within learning takes place. This information would be used to design the format and composition of focus groups, the second component of our study. The purpose of the focus groups is to obtain a rich and detailed map of the processes that facilitate or hinder learning among the participants.

Lastly, based on the employer interviews and the focus groups we propose to design a mail survey that will be sent to approximately 2000 workers. We expect a response rate of 50%, giving us a sample of 1000 usable surveys for data analysis. The survey would contain questions in the three areas outlined in our conceptual framework: the type and incidence of skill upgrading, the drivers of those learning activities and the labour market experience of the respondents over the last few years. It is expected that roughly 600 of the 1000 respondents would need assistance with filling out the surveys.

There are three target groups of workers for the study. Each of these groups can be viewed as being "at-risk" in the New Economy. They have chosen to represent workers in the Canadian economy who are at risk either of not benefiting from the new prosperity or of losing the jobs they may have held in a long-term career pattern.

1. Nursing Home / Retirement Home Workers. There are about 8 USWA locals in the Ottawa area with 30-70 members each. Workforce is typically female, middle-aged with high school education. Eight employers interviews would be conducted, one in each local. Two focus groups with about 8-10 workers each would be organized and the survey mailed to about 500 workers.
2. Two mid-size light manufacturing plants in the Toronto area. One example would be an auto-parts plant employing 200-300 workers. Workforce would be mixed by gender and constitute a significant number of immigrants. Education levels would be mixed with underemployment being wide-spread. Four-to-six employers interviews would be conducted, 2-3 at each plant. One focus group with about 8-10 workers would be organized at each plant. The survey would be mailed to about 250 workers at each plant for an expected return of 250 in total.
3. USWA Local 1005 at Stelco in Hamilton. This is a large manufacturing facility with a long history. Both the principal investigator of this component of the study and David Livingstone, the principal investigator of the entire project have done work with this local in the past. We hope to conduct five employers interviews and hold four focus groups with about 8-10 workers. The survey would be mailed to about 1000 workers.

The analysis of the data collected would strive to build links between the question of type of training/learning that takes place and its antecedents (drivers) and the consequences (labour market outcomes). In terms of policy implications, we hope to uncover some of the strategies that individuals and employers use to facilitate skills upgrading and upward career progress. An

understanding of these links is vital to ensuring that the New Economy benefits the lower layers of the workforce.

References

- Altonji, J., G., & Spletzer, J., R. (1991). Worker characteristics, job characteristics, and receipt of on-the-job training. *Industrial and Labor Relations Review*, 45(1), 58-79.
- Baldwin, J. R., Gray, T., & Johnson, J. (1995). *Technology use, training and plant-specific knowledge in manufacturing establishments* (86). Ottawa: Statistics Canada.
- Barrett, A., & O'Connell, P. J. (2001). Does training generally work? The returns to in-company training. *Industrial and Labor Relations Review*, 54(3), 647-662.
- Bartel, A. (1994). Productivity gains from the implementation of employee training programs. *Industrial Relations*, 33(4), 411-425.
- Becker, G. S. (1975). *Human Capital 2nd ed.* New York: Columbia University Press.
- Berg, I. (1970). *Education and jobs: The great training robbery.* New York: Praeger.
- Betcherman, G., Davidman, K., & McMullen, K. E. (1998). *Training for the new economy : A synthesis report.* Ottawa: Canadian Policy Research Networks Inc.
- Betcherman, G., Leckie, N., & McMullen, K. E. (1997). *Developing skills in the Canadian workplace: The results of the Ekos Workplace Training Survey* (CPRN study No. W 02). Ottawa: Canadian Policy Research Networks.
- Gunderson, M., & Riddell, C. (2001). Training in Canada. In A. Berry (Ed.), *Labour Market Politics in Canada and Latin America* (pp. 243-265). Boston: Klywer Academic Publishers.
- Holzer, H. J., Block, R. N., Cheatham, M., & Knott, J. H. (1993). Are training subsidies for firms effective? The Michigan experience. *Industrial and Labor Relations Review*, 46(4), 625-636.
- Jennings, P. (1996). *Employer-sponsored training in Canada: Evidence from the 1994 Adult Education and Training Survey* (working paper W-96-4E). Hull, PQ: Applied Research Branch, HRDC.
- Kapsalis, C. (1996). The role of employees in training decisions in Canada. *Canadian Business Economics*, 5(1), 83.
- Levine, D. I. (1998). *Working in the twenty-first century: policies for economic growth through training, opportunity, and education.* Armonk, N.Y.: M.E. Sharpe.
- Livingstone, David W. (1996). *Steel Work: Recasting The Core Workforce At Hilton Works, 1981-96.* Final Report of the Workplace Change Section of the Steelworker Families Project, 1983-96. Toronto: OISE, University of Toronto.
- Loewenstein, M., A., & Spletzer, J., R. (1999). General and specific training: Evidence and implications. *Journal of Human Resources*, 34(4), 710-733.
- Moss, P. I., & Tilly, C. (2001). *Stories employers tell: Race, skill, and hiring in America.* New York: Russell Sage Foundation.
- Osberg, L., Apostle, R., & Clairmont, d. (1986). The incidence and duration of individual unemployment: Supply side or demand side. *Cambridge Journal of Economics*, 10(1), 13-33.
- Osterman, P. (1995). Skill, training and work organization in American establishments. *Industrial Relations*, 34(2), 125-147.
- Spence, M. (1974). *Market signalling: Information transfer in hiring and related processes.* Cambridge, Mass.: Harvard University Press.

