

Developing Skills in the Canadian Workplace

The Results of the Ekos Workplace
Training Survey

GORDON BETCHERMAN
NORM LECKIE
KATHRYN McMULLEN

CPRN Study No. W|02|

ISBN 1-896703-15-1
© Canadian Policy Research Networks Inc., 1997

Available from:
Renouf Publishing Co. Ltd.
5369 Canotek Road
Ottawa, ON K1J 9J3
Tel.: (613) 745-2665
Fax: (613) 745-7660

The findings of this paper are the sole responsibility of the authors and, as such, have not been endorsed by the individuals and agencies mentioned at the end of this publication.

Contents

Executive Summary	vii
Foreword	xv
Acknowledgments	xvii
1 Introduction	1
2 A Synthesis of the Literature on Workplace Training	3
The Incidence of Training	3
Types of Training	6
The Training Process	6
Training Impacts	7
3 Research Design and Databases	9
Core Research Topics	9
Conceptual Framework	10
An Overview of the Study Database	10
Establishment Telephone Survey	13
Establishment Mail Survey	15
Case Studies	15
The Employee Survey	17
4 Patterns of Training Activity	21
Training Incidence	21
Use of Formal and Informal Training	25
Training Intensity	29
Describing Formal Training Programs	33
Training Expenditures	36
Time Trends in the Incidence of Formal Training	38
Training Clusters	41

Summary	45
5 The Training Process	49
Training Decision-Making Patterns	49
Decomposing the Training Decision	52
Obstacles to Training	57
Unions and Training in the Workplace	59
Sector and Community Training Councils	61
Conclusion	62
6 Impacts of Training	65
Impacts on Employees	66
Impacts on Establishments	71
Conclusion	80
7 Conclusions and Policy Implications	81
Key Research Findings	81
Polarization in the Training Market	82
Small Firms	82
Employees without Access to Training	83
Future Research Needs	83
Appendices	85
A Workplace Training Survey (Employers): Telephone Questionnaire	87
B Industry Grouping	
C WTS Sample Representativeness (Employers)	113
D Workplace Training Survey (Employers): Mailback Questionnaire	
E Site-Visit Interview Guide	
F Workplace Training Survey: Employee Questionnaire	
G Factor Analysis of Management Philosophy Data	
Notes	
References	147

**Advisory Committee Members
Employment and Training Project**

CPRN Funding Sources

Executive Summary

The issue of workplace training has been the subject of considerable debate in Canada. A commonly expressed view is that Canadian employers do not invest enough in developing the knowledge and skills of workers. The evidence does suggest that the overall level of training expenditures in Canadian workplaces is less than that in Japanese, European or American industry. However, most studies of workplace training in Canada focus on “first-generation” issues – how many firms provide training, how many employees receive it, what types of formal programs are undertaken. In order for employers, workers, and governments to make effective training choices, information is needed on “second-generation” issues – what drives the training decision, what works, what factors determine the effectiveness of training, and, ultimately, how more effective training can be achieved in the future.

This study is comprehensive in that it empirically addresses both first- and second-generation issues and involves an ambitious research design that collected both quantitative and qualitative training data. The main components of the database include:

- a 1995 telephone survey of 2,500 establishments of all sizes in all regions and in virtually all industries, with a more detailed mail follow-up to about one-third of these organizations;
- longitudinal data for over 1,000 establishments that had been part of a 1993 Ekos training survey, which allowed us to track training behavior over the 1993-95 period;
- detailed case studies of 18 diverse establishments with a range of training experiences; and
- an employee training database covering over 400 workers in these case study organizations.

Following a review of the literature and a discussion of the conceptual framework that underlies the study design, the report details the key research findings. These findings are summarized as follows:

The Incidence of Training

- Most establishments undertake some training, with 70 percent reporting some formal or informal training in the 12 months preceding the survey; these establishments account for nearly 90 percent of all workers in the establishment database.
- The incidence of training tends to be higher in larger establishments; in organizations that are part of multi-establishment firms; in establishments in non-market services industries; in Ontario and the West; where technology is changing; where turnover is high; where high-performance human resources management practices have been introduced; and where the management philosophy is people-oriented.
- Most training is informal. However, the incidence of formal training is high in some segments of the economy – typically, the most active segments in terms of overall training activity.
- The incidence of formal training is greater for men than for women and for workers who have more than a high school education.
- Highly skilled employees – managerial, professional and technical workers – are most likely to receive training, but training duration is greatest for those production workers who participate in formal training programs.
- The most frequently reported type of training was for professional and technical skills; least frequent was training for basic skills. The most common method of training, especially in small firms, was on-the-job training. Large firms were just as likely to use on-site classrooms or a training facility as they were to use on-the-job training.
- Another perspective on types of training and variation in access across individuals is provided by the employee survey. Training for teamwork, problem solving and communication, for management and supervisory skills, and for new technology was reported predominantly by those with a postsecondary education and in management or professional positions. Training for occupational health and safety and environmental training was more commonly reported by males, employees with a high school education or less, older workers, and those in primary industry or trades and equipment operators. Orientation and professional/technical skills training was more likely to be reported by males, those who had been with the company for less than five years, and in managerial and professional positions.

- Most establishments do not systematically track expenditures on training. Among those that do, there is wide variation in the accounting methods used. As a consequence, it is difficult to draw firm conclusions about spending on training. However, the data do suggest that while large establishments spend more on training in absolute terms, expenditures per employee or per trainee are up to two times higher in small establishments. This leads to the conclusion that large firms are able to exploit economies of scale when providing training in the workplace – economies that are not available to small organizations.
- The longitudinal analysis suggests that the incidence of formal training decreased between 1993 and 1995. Firms that dropped training were, for the most part, small and in certain service industries. However, establishments that continued to train in fact deepened their commitment. Although the time period covered was only two years, these opposing trends raise the prospect of a growing polarization in the training market.
- Survey establishments were grouped into five training types, based on a number of training indicators. These groups extend along a training continuum defined by the level of commitment to training and formalism of training activities. The “high-trainer” group accounted for about 13 percent of respondents; because many of these were large establishments, they accounted for about one-third of total employment in the establishment sample.

The Training Process

- Three general patterns characterize how firms make decisions about, and thus investments in, training. In each case, the company’s attitude to training reflects its overall attitude to competition and change.
- The first pattern – incidental learning but no formal investment – characterizes companies in which there is rarely a conscious decision to train but training nevertheless does take place through informal, or incidental, learning on the job. The overall business strategy appears to be one of retrenchment, focusing internally on processes and practices that had been part of the company for years. When combined with a low-turnover work force, this stability means that neither management nor employees see any need for continuous or formal training. Any training that does take place is in response to a specific obligation (such as required health and safety training), or at least a compelling need.
- The second group – event-triggered training – consists of companies in which formal training is undertaken only in response to specific events like the introduction of a new technology or a new piece of equipment or some reorganization in the workplace. Training is seen as an episodic activity to address a specific situation or problem. This group includes a wide range of company types, from small firms in traditional industries to larger establishments in technology-based industries.

- The third group – “commitment to a learning organization” – includes establishments in which continuous learning has become a natural part of the business and the workplace. Training tends to be institutionalized; there is likely to be a formal budget for training, a formal process for needs assessment, and evaluation of outcomes. Again, a range of company types can be characterized as “learning organizations,” including some in the high-tech sector as well as some in more traditional industries in the resource, manufacturing, and service sectors. The consistent factor linking these companies is a strongly-held belief by senior management that training, employee involvement, motivation, accountability, and the ability to be self-managing all are critical and complementary ingredients of company success. This then permeates the whole organization, affecting both day-to-day operations and the longer-run strategic orientation.
- In all types of firms, training tends to be very much a top-down decision, with strategies and funding levels being determined by senior management. In multi-establishment firms, training strategy was determined primarily by head office management rather than on site. Very few firms engage in formal training-needs assessment, with more formal approaches likely to be found in larger organizations and in non-market services.
- No one problem stands out as being a significant obstacle to training; rather, it seems that the overall determinant of training is the perception on the part of senior management of a need to train. This is consistent with the conclusion that training decisions are made in the context of the overall business strategy and management attitudes.
- Effective training is one element of a broader business strategy that is designed to achieve the goal of excellence. Training needs are determined strategically and training plans are developed systematically for individual employees so that new skills are added in a logical and progressive fashion. In learning organizations, training, and learning more broadly, become a “natural” part of the enterprise. When that is combined with a shared understanding of the strategic goals of the organization, employers and managers together take ownership of training.
- The case studies highlight the importance of communicating business strategy, goals for individual employees, and employees’ current skills and abilities and training needs. Communication works from both the top down and the bottom up.

Impacts of Training

- Consistent with the findings reported in the literature by other researchers, we find that employees who had received training have higher wages than employees who had not – our calculations show a wage premium of about 33 percent. However, while the analysis also found that employees who had received training had more rapid wage growth than employees who had not, this finding was not

statistically significant once both individual and establishment characteristics were taken into account.

- On the establishment side, there is evidence of a positive association between training and economic performance. Based on managers' self-assessments of revenue and productivity trends over the previous three years, we find that establishments with training programs performed better than the non-trainers. Moreover, this advantage was greatest for those respondents with the strongest commitment to training.
- The finding that respondents in the "high-trainer" cluster experienced better performance trends than other establishments was confirmed in the econometric analysis. Status as a "high-trainer" overruled any effects associated with establishment size, technology, and human resource practices.
- We note that, on both the establishment and the employee side, the direction of causality between training and performance is difficult to disentangle. While the quantitative analysis is consistent with the hypothesis that training generates favorable outcomes, there is an alternative interpretation that more successful firms (employees) provide (receive) training.

Conclusions and Policy Implications

Polarization

- There are large differences in training behavior, especially in the formal side. Further, the longitudinal data suggest that these differences may be widening over time.
- A key lesson that emerges is that training is managed not by companies, but by people. Therefore, the amount and type of training and its place in the corporate culture is highly dependent on the attitudes and behaviours of the individuals involved. The attitudinal and behavioural dimensions of training have received very little attention in the literature and are often overlooked in discussions about whether Canadian companies' training effort is at an appropriate level.
- A strong association exists between the commitment to training and the application of a broader high-performance workplace model that also includes the use of new technology, new organizational and human resource models, and aggressive strategies to address the complexity and turbulence in the business environment.
- Advocating the wholesale adoption of such a high-performance model by all firms may not be the best policy approach, however. For some firms, not taking the high-performance route may be a mistake that relegates them to the status quo and eventual decline. But, for many firms, especially those that are small and

based on traditional technologies, training, at least in the formal sense, may not be the best use of resources.

- Nevertheless, accepting the fact that not all firms will be active participants in formal workplace training, there remain two key segments of the economy that should be sources of concern from a public policy perspective. These are small firms and individuals who do not have access to workplace training.

Small Firms

- The evidence suggests that small firms face a significant cost problem with respect to the provision of training. These higher costs reflect high fixed costs associated with the provision of training and the greater disruption associated with having key employees absent during training. Small firms are also less likely to know about relevant training opportunities or to work with other firms and the educational sector to provide training.
- One approach would be to facilitate the development of networks that can provide supports for training to small firms; community and sectoral training councils are examples. Such networks should work toward building relationships among the business community (especially small firms), community colleges and universities, and the local training community.

Individuals without Access to Training

- Two groups of individuals lack access to training – those in the “non-training” segment of industry and those who, because of their personal or labour force characteristics, tend not to be given training, despite the fact they are working in organizations that do provide some training. Two groups particularly at risk of underinvestment in formal training are youth and non-standard workers.
- The question is how public policy can encourage and, where necessary, assist such individuals in investing in their own skills development. Two factors that are particularly important are cost and information.
- On cost, many individuals lack the private savings needed to finance training. Yet, the evidence suggests that an investment in training is subsequently recouped through higher wages. One possibility is for governments to share the risk by extending income-contingent loans for investments in job-related training, with repayment contingent on subsequent earnings.
- On information, the range of training suppliers has multiplied in the past few years. For many individuals, the problem is largely one of having the information they need to make appropriate training choices. For people living in remote locations, the potential offered by new information and training technologies should be exploited.

Future Research Needs

- There is a need for more systematic research on the impacts of training. Understanding the links between training and performance and measurement of the magnitude of the impacts is critical for managers to become convinced that training is a key input to company success and for employees to understand that it is critical to future employment and earnings.
- There is a need to focus more research on the non-training segment of industry. Do these firms underinvest in training or do other strategies they use allow them to successfully meet their skill requirements without training? A particular focus should be small firms: what human resource strategies do they use and what strategic priority do they place on training?

Foreword

As Canada has hurtled headlong into a knowledge-based economy, citizens, policymakers, and business and union leaders have begun to focus more attention on training. The skills of the work force matter for both social and economic reasons. They determine the type of job a person can do, the income one can earn, and to a certain extent, status and quality of life. Ultimately, training and the quality of the labour force has an important influence on the performance of firms and, in the aggregate, the overall economy.

In 1990, Gordon Betcherman and I initiated the development of a project designed to address some serious gaps in our knowledge base about training. We wanted to know more about the changing employment structure – the emerging skill profile required in the knowledge-based economy of the 1990s. We also wanted to get inside the black box of workplace training. It was evident, from the National Training Survey, that employers spend a lot of money on workplace training, but we wanted to assess its overall contribution to the human resource development effort in Canada from the perspectives of both employers and individual workers.

The project was conceived and the initial financial commitments were sought out while Gordon and I were employed by the School of Policy Studies at Queen's University. The project was then brought to fruition through a partnership of CPRN (which was launched in December 1994) and Ekos Research Associates. While much of the work was done in these two organizations, some key parts of the overall project were completed under contract by external specialists.

Funding for the work was provided by Human Resources Development Canada, the Canadian Labour Force Development Board, the New Brunswick Labour Force Development Board, and the provinces of British Columbia, Saskatchewan and Ontario. I wish to thank the funders for placing their confidence in us and for participating with a group of experts in the Advisory Committee that guided the project to a successful conclusion.

Questions surrounding the issue of workplace training have long been debated in Canada. There is a generalized concern that Canadian employers on the whole are

not making the investments in training they need in order to meet the challenges of intense competition, rapid technological change, and economic restructuring. And, while a number of surveys have addressed issues relating to the incidence of training, there has been little attempt to dig deeper to address more fundamental issues relating to the training decision, what works, the factors that determine the effectiveness of training, and the nature of performance outcomes for both employers and employees. In order to address these gaps in our knowledge base, Ekos Research Associates has undertaken a large-scale study of workplace training in Canada. The research design includes data collected from both employers and employees, a longitudinal component that tracked training behaviour over time for a subsample of establishments, and both quantitative survey-based data and qualitative information collected through case studies. The result is a comprehensive information base that provides not only current data on the incidence of training but valuable insights into how training and the training decision are managed within business.

The authors find that the training decision is highly centralized – much depends upon the attitudes and behaviours of employers. They also observe polarization in the training market, both in terms of which firms support training and which employees have access to training. In an environment in which there is a widespread trend to increasing skill requirements, this gap represents a serious problem for many workers and represents a barrier to achieving the full potential of the Canadian economy.

Judith Maxwell
President

Acknowledgments

This project was undertaken at Ekos Research Associates and it was truly a team effort that at one time or another benefitted from the contribution of almost everyone in that organization. In particular, we would like to acknowledge a number of major contributors at Ekos. Frank Graves, Tim Dugas, Susan Galley, and Janice Remail played key roles in identifying the overall research focus and developing the research design. Susan Galley also managed the administration of the surveys, with telephone data collected by a team of interviewers. We would also like to acknowledge the roles of Janice Remail and Simon Roy who conducted a number of the case studies. Database management and analysis were carried out by Heather Chang, Ken Cheung and Michèle Renaud. Valuable research assistance was also provided by Sandy Wilson and Alana Daly. And special thanks are due to Lise Paquette and Diane Beauvais for their word processing.

Several case studies undertaken for the project were carried out externally. In particular, the contributions to this stage of the study by Elizabeth Sloat, Ann-Sophie Lawless, and the Centre for Policy Studies in Education, University of British Columbia, are acknowledged.

In addition, the project advisory committee, which included study sponsors and subject specialists, provided useful input at various stages of the study. A number of individuals at CPRN also made important contributions, including Judith Maxwell, Louise Séguin-Guénette, Gisèle Lacelle, Katie Davidman, and Sylvia Burns.

We would also like to acknowledge the contribution of the employers and employees who participated in the surveys and case studies that form the basis of our analysis. Finally, we have benefitted from the comments and suggestions made by three referees who carefully reviewed an earlier draft of this report. Any errors or omissions that remain are our own.

Developing Skills in the Canadian Workplace

The Results of the Ekos Workplace
Training Survey