

CERF Conference Highlights ... is a publication of the Canadian Employment Research Forum, an independent non-profit corporation whose objectives are: to improve the level of labour market policy analysis and debate, as well as the interaction between researchers and policy-makers from governments, universities, business, labour and other communities concerned with labour market issues. CERF's main activities have been the organization and funding of applied research, through conferences and workshops.

This issue of CERF Conference Highlights ... summarizes the major findings of a conference held May 29th and 30th, 2003 at Carleton University on "Education, Schooling and the Labour Market." The findings are the sole responsibility of the individual authors. The conference organizers were Miles Corak (Statistics Canada), Timothy Sargent (Department of Finance Canada), and Daniel Parent (McGill University). More details about this and other CERF activities, including many of the conference papers, are available at <http://www.cerforum.org>.

Major Findings

Education, Schooling and the Labour Market

A highly skilled workforce is increasingly seen as an important precursor to economic growth, but the expectations held of our education and learning systems go further to include equality of opportunity and the development of a more inclusive society. In this light the CERF conference on Education, Schooling and the Labour Market sought to improve our understanding of: (1) the measurement of student outcomes at the primary and secondary levels; (2) access to post-secondary education; and (3) the labour market consequences of educational attainment and program design.

Measuring and Understanding Student Achievement

- The standardized assessment of literacy and numeracy in Ontario elementary schools shows that it is very difficult to gauge whether there has been improvement over time. Further, even though test scores are influenced by the socio-economic background of students, schools themselves play a role. Very similar schools—in terms of the background of their students—perform very differently on standardized assessments. In fact, only one-half of the school level variation in test scores is explained by the socio-economic background of the students.
- Children in French immersion programs have higher performance in both reading and writing than children in English language programs, in large part because they are from higher income university educated families. The experiences of this long established program are suggestive of the possibility that increased parental choice will lead to more streaming of students according to their ability.
- Provincial differences in the performance of secondary students on standardized tests is influenced both by the socio-economic characteristics of students but also by such policy variables as class size and the length of the instructional year. These factors play out differently for high, average, and low achieving students, and they also play out differently in each of the provinces. Low achieving students in New Brunswick, the province with the lowest overall test scores, benefited from the lower class sizes in that province, particularly in the context of a longer instructional year.

Access to Post-Secondary Education

- Perceptions may not be lining up with reality when students assess the financial costs and benefits of attending post-secondary institutions. Over 50% of high school graduates with no post-secondary credentials said there was a barrier preventing them from furthering their education, with almost 60% of these individuals identifying the only barrier as a financial one and a further 15% indicating finances as one among other barriers. There is a strong tendency for all Canadians to over-estimate the costs of post-secondary education, but those from lower socio-economic backgrounds do so in the extreme. At the same time all Canadians understate the benefits, but again those from lowest socio-economic background do so to a much greater degree.
- There is no significant relationship between the level of tuition fees and post-secondary enrollment. Over the course of the last decade tuition fees in colleges and universities have shot up. Enrollment, however, has not declined in spite of the fact that tuitions are 60% higher in colleges and 28% higher in universities. Post-secondary participation is correlated with family income, reaching about 70% of children at the top of the income distribution, but regardless of family income enrollment decisions are not influenced, at current levels, by tuition fees.
- There is no evidence that the post-secondary system is any more the domain of the well-to-do in the late 1990s, during an era of substantially higher tuition fees, than it was in the early to mid-1980s when fees were at their lowest. The correlation between family income and post-secondary participation increased during the early to mid-1990s when tuition fees began rising but it then fell back to earlier levels by the end of the decade. This pattern likely reflects the fact that policies limiting the extent of student borrowing were relaxed a few years after tuition fees had already increased significantly. Indeed the major response of students to the changed tuition climate has been higher levels of borrowing. Further, it may well be that access to particular programs or institutions may now be more related to family background, and issues of access in this specific sense need to be studied further.

Labour market consequences of educational attainment and program design

- Compulsory school laws are one of Canada's oldest public policies and historically they have had an important independent influence on not only school attainment but also subsequent labour market earnings. Over one-fifth of the increase in school attainment between 1920 and 1970 is due to legislation of this type. In addition these laws have lowered the chances of unemployment and receipt of social support, while raising individual earnings by more than 10%. While this has been the historical record it remains to be seen if more recent changes, particularly those introduced in New Brunswick will have a similar degree of success.
- Graduation from high school can play an important role in breaking the intergenerational cycle of poverty, and reliance on income assistance. Detailed data from the British Columbia ministry of education reveals that increases in the educational attainment of children whose parents relied extensively on income assistance can lower the chances that they in turn will also rely on welfare by 5 to 10%. It also appears that high school principals can have a particularly important impact in raising the chances of high school graduation among this group of students.
- Major institutional changes designed to improve the situation of some groups of students may have significant unintended negative consequences for other groups. This is the lesson learned from the introduction of the CEGEP system in Quebec during the late 1960s. The introduction of CEGEPs increased non-university post-secondary participation among Anglophones as well as the probability of attending university, but there was no subsequent increase in earnings. In fact wages were 4% lower for men, reflecting a negative return to CEGEP for this group. This effect could be due to lost labour market experience, growing pains in the introduction of the system, or to some other explanation specific to this group.
- The quality of a university education—as measured by test scores of the entering class, the average faculty salary, and the retention rate of first year students—can have a significant impact

on the earnings of graduates. In data from the United States higher quality universities are found to increase the earnings of men by 12 to 14% and of women by 6 to 7%. Other aspects of program design may not have such causal impacts. In Canadian data it is observed that students in Co-op programs earn substantially more than their counterparts not only during the period of study

but also years after graduation. But this may well be because university administrators are much more likely to allow only the better students into the Co-op program. These life-time earnings gains are not nearly as great in fields like engineering where Co-op programs make up a large fraction of all enrolled students.



The Conference Program

Education, Schooling and the Labour Market

More details about these and other findings can be obtained by consulting the individual papers available on the CERF web site or by contacting the author directly, as indicated in the conference program.

Measuring and Understanding Student Achievement

David Johnson (Wilfred Laurier University)
The Interpretation of Elementary School Test Scores in Ontario

Darren Lauzon (Statistics Canada)
Provincial Differences in the Distribution of Achievement: The Role of Class Size and Hours Per Year of Instruction

Fernando Cartwright, Mary Allen (Statistics Canada)
Understanding the rural-urban reading gap

Streaming, Peer Effects, and Networks

David Margolis, Véronique Simonnet (Université de Paris)
Educational Track, Networks and Labor Market Outcomes

Brian Krauth, Jane Friesen (Simon Fraser University)
Peer Effects in Canadian Schools

Christopher Worswick (Carleton University)
School Program Choice and Streaming: Evidence from French Immersion Programs

Access to Post-Secondary Education

Joanna Tomkowicz, Lisa Shipley, Sylvie Ouellette (Statistics Canada)
Perception of Barriers to Education in a group of 18 to 20 Year olds: For Whom does Money Matter?

Mélanie Raymond, Maud Rivard (Department of Finance)
Have University Fee Hikes in the 1990s Undermined Access?

Miles Corak, Garth Lipps, John Zhao (Statistics Canada)
Family Income and Post-Secondary Participation

School Attainment and Labour Market Outcomes

Philip Oreopoulos (University of Toronto)
The Effectiveness of Compulsory School Laws in Canada

Mark Lewis (MIT)
Estimating the Value of Community College: Evidence from Quebec's CÉGEPs

Michael Coelli (UBC), **David Green** (UBC),
William P. Warburton (Ministry of Human Resources, BC)
Breaking the Cycle: The Effect of Education on Welfare Receipt Among Children of Welfare Recipients

Credentials, School Quality, and Earnings

Ana Ferrer, Craig Riddell (UBC)
Education, Credentials and Immigrant Earnings

Andrew Heisz (Statistics Canada), **Arthur Sweetman** (Queen's University)
Co-op Education and Earnings

Dan A. Black (Syracuse University), **Jeffrey A. Smith** (University of Maryland)
How Robust is the Evidence on the Effects of College Quality? Evidence from Propensity Score Matching Methods

Education, Schooling and the Labour Market: Lessons for Policy

Scott Murray (Statistics Canada)

Alex Usher (Canadian Millennium Scholarship Foundation)

CERF News and Upcoming Events

Measurement and Patterns of Low Income

The release of the Market Basket Measure of Low Income offers a new opportunity to examine the experience of low income in Canada, with particular emphasis on regional patterns. This conference will explore new developments in both the measurement and experience of low income in Canada and other countries. It will be held during the spring of 2004 in conjunction with the meetings of the Canadian Economics Association at Ryerson University in Toronto. Further details and a call for papers will be available on the CERF website.

The Experiences of those Leaving Welfare

There have been major changes in the structure of income assistance programs in a number of provinces,

as well as a number of experimental studies focused on their work disincentive effects. Considerable variation in the structure of these programs now exists across the provinces and this offers an opportunity to deepen our understanding of the movement off of welfare and how it varies. A workshop on the experiences of those leaving welfare will be organized by CERF in conjunction with the Canadian Council on Social Development to examine these issues. The workshop will be held in Ottawa during the coming year.

Keeping in Touch

If you would like to learn how to receive future issues of **CERF Conference Highlights ...** or be informed about other CERF events visit the CERF web site at <http://www.cerforum.org>.