

# Post-Secondary Education Issues Research Digest

Volume 5, Number 2

Compiled by the Canadian Federation of Students

*Let's be clear about the effect of unsustainable cost and the resulting debts on individual students. Wherever tuition goes down, enrolment goes up. And where does the increase in students come from? From those with less money. In other words, the lower the fees, the more egalitarian the society. The lower the fees, the more we are able to release the genius of the citizenry as a whole. And that genius, that collective unconscious is the key to a successful democracy.*

John Ralston Saul

## Introduction

The January 2002 National Executive meeting resolved that a compendium of research be compiled and distributed to the membership. An initial research digest was produced in the winter of 2002 in order to provide member locals with a guide to important national and relevant international research. This digest updates the original with summaries of relevant research. As in the original digest, the emphasis in this guide is on the Federation's core message of access to post-secondary education.

- Section One:* Canadian research on financial obstacles to access
- Section Two:* International research on financial obstacles to access
- Section Three:* The real impact of personal savings schemes
- Section Four:* The growth of economic inequality in Canada
- Section Five:* Research on the potential impacts of international trade agreements on post-secondary education
- Section Six:* Social and economic benefits of post-secondary education
- Section Seven:* Commercialisation of Research



## 1. Financial Barriers to Access: Canada

- a. *Access Denied: The affordability of post-secondary education in Canada.* Canadian Association of University Teachers (CAUT), September 2002.  
[www.caut.ca](http://www.caut.ca)

*Access Denied* shows that post-secondary education is less affordable today than at any time in the last sixty years. The report examines changes in tuition fees from 1857 to 2002. When fees are adjusted for inflation, undergraduate university students today are paying more than at any other time in the past century, and six times what a student was charged in 1914.

The study measures how affordable university education is today compared with previous periods by plotting the number of hours of work (at an average carpenter's wage) it would take to pay for one year of tuition fees. By this account, it takes more hours of work to pay for tuition fees today than at any time since 1940.

According to the report, the decline in the affordability of professional programs since 1990 has been particularly steep. Law school tuition fees could be paid with 100 hours of manufacturing work in 1990, but today a total of 265 hours of work is needed. In 1990, one year of tuition fees in a dentistry program would have required 124 hours of work, compared to 512 hours today. For medical school, fees were equal to 118 hours of manufacturing work in 1990, and 425 hours in 2002.

- b. *At a Crossroads: First Results for the 18 to 20-Year-old Cohort of the Youth in Transition Survey* Human Resources Development Canada and Statistics Canada, January 2002  
[www.statcan.ca/english/IPS/Data/81-591-XIE.htm](http://www.statcan.ca/english/IPS/Data/81-591-XIE.htm)

This analysis of data from the Youth in Transition Survey (YITS) reveals that financial barriers are overwhelmingly the most common barriers to access for young people in Canada. Over 70 percent of high school graduates who had not gone on to post-secondary education because of barriers listed their financial situation as a primary obstacle. A similar percentage of respondents who had dropped out of a post-secondary program (71.4 percent) cited financial barriers as a primary reason for not continuing with their education.

The survey clearly demonstrates that money is the key factor determining access to post-secondary education, and contradicts claims by the Millennium Scholarship Foundation (MSF) that so called "non-financial" barriers are more important. MSF has attempted to misrepresent and downplay the results of the YITS in their own research reports.

- c. *Class of 2000: Profile of post-secondary graduates and student debt.* Statistics Canada, April 2004  
[www.statcan.ca/english/IPS/Data/81-595-MIE2004016.htm](http://www.statcan.ca/english/IPS/Data/81-595-MIE2004016.htm)

The results presented in *Class of 2000* paint a worrying picture about the rapid growth of student debt in Canada during the late 1990s. For university graduates, student debt grew by an average of 30 percent between 1995 and 2000. The average debt for degree holders was \$19,500<sup>1</sup>. However, the

1. This figure collapses data from graduates of three- and four-year degree programs. The commonly cited student debt of \$25,000 represents a federal government estimate of student debt for those completing four-year degrees.

study reports that for graduates who owe to both private and public sources, average debt is a stunning \$32,200. Almost one in three indebted graduates carried more than \$25,000 worth of loans in 2000.

The study also documented the burden of high student debt for a growing number of graduates. Almost one in four bachelor graduates reported difficulty in repaying their student loan, up from one in five graduates only five years earlier.

*Class of 2000* reported on data gathered from the National Graduates Survey (NGS). Released every five years, the NGS studies graduates of degree and diploma programs who were not enrolled in further studies, including graduates of professional programs. In addition to data on student debt, the study also provides useful information on the demographic characteristics of graduates in 2000.

- d. *Distance to School and University Participation*. Statistics Canada, June 2002.  
[www.statcan.ca/Daily/English/020624/d020624b.htm](http://www.statcan.ca/Daily/English/020624/d020624b.htm)

This study reveals that family income and distance to a university have a substantial affect on participation rates. The report shows that, outside commuting distance, students from high-income families were almost six times more likely to participate in university between 1995 and 1999 than were young people from lower-income backgrounds. According to the study, only three percent of students from low-income families living beyond commuting distance participated in university.

The existence of such a gap suggests that high education-related expenses and inadequate student financial aid have pushed university education beyond the reach of low and moderate-income people who need to relocate from outlying areas in order to attend university. Overall, one in five Canadians lived beyond commuting distance from a university in 1996. That figure rises to 52 percent for residents of Saskatchewan and to 42 percent for Newfoundland and Labrador residents.

- e. *Effects of rising tuition fees on medical school class composition and financial outlook*. Canadian Medical Association Journal, 166 (8), April 16, 2002.  
[www.cmaj.ca/cgi/content/full/166/8/1023](http://www.cmaj.ca/cgi/content/full/166/8/1023)

This study examines the family income background of students at Ontario medical schools between 1997 and 2000 and found that as tuition fees increased in Ontario, the proportion of students from families with incomes less than \$40,000 decreased from 17.3 percent to 7.7 percent.

The study concludes that the large increases in tuition fees implemented by medical schools in Ontario are associated with changes in the medical student population. At Ontario medical schools, there are now fewer students from lower-income families and more students expecting to graduate with large debts. In this research, Ontario medical students also report that financial considerations have an increasing influence on their specialty choice and practice location.

- f. *Financing Canada's Universities & Colleges: How Ottawa and the provinces can fix the funding gap*. Canadian Association of University Teachers, Education Review, Volume 7, Number 5, August 2005. [www.caut.ca](http://www.caut.ca)

This short quantitative research piece by the CAUT traces the decline of federal funding over the past fifteen years, and concludes that federal contributions to the provinces for post-secondary education are approximately \$4 billion short of levels seen in the late 1970s. The CAUT prescribes a dedicated transfer payment for post-secondary education to be governed by a Post-Secondary Education Act.

- g. *Funding Postsecondary Education in Ontario: Beyond the Path of Least Resistance.* Hugh MacKenzie, December, 2004. [www.reviewrae.ca](http://www.reviewrae.ca)

This study examines the socioeconomic demographic of those claiming the tuition fee tax credit, which is a non-refundable 16 percent credit against income tax. The credit can be used on total tuition and ancillary fees paid in one year. Though the credit can be used by either the student, or the students' parents or grandparents, the tuition fee credit is an effective means by which to track who pays tuition fees relative to household income. MacKenzie also examines the rate of tax people pay under the current (relatively) progressive system of taxation.

This original research refutes the idea that publicly funded post-secondary education is subsidy to the rich, paid for by the poor. Unlike those who argue for higher tuition fees, Mackenzie carefully examines the overall distributional effect of tuition fees by examining both ways Canadians pay for post-secondary education: through the tax system and through user fees at source. When both sources are examined, the idea that low tuition fees for students are unfair to low-income students and low-income Canadians becomes a highly suspect and unsustainable argument.

Using tuition fee tax credit data, the study found that those earning above average income claimed less in tax credits than they contributed to the tax base. MacKenzie concludes that the progressive taxation system ensures that those who come from upper-income homes already pay a substantial premium for their education and other public services, precisely because they pay higher taxes for the same service. This point is vital because it obliterates the idea that lower tuition fees are a regressive transfer to the wealthy. A healthy system of progressive taxation ensures that low fees benefit everyone equally.

- h. *The Impact of Tuition Fees on University Access: Evidence from a large-scale price deregulation in professional programs.* Marc Frenette, Statistics Canada, September 2005.

The most recent Statistics Canada study of access examines the effect of deregulated fees in professional programs. Not surprisingly the study confirms earlier studies that document a decline in access for middle- and low-income families. The study measures access on the basis of those who come from one of three homes: those in which neither parent has post-secondary education qualification, those with one parent with a degree or diploma, and those from a home in which one parent has a professional or graduate degree. There is some controversy as to whether this measure presents a complete picture of socioeconomic status. Prior studies relied on income data rather than education and no compelling rationale is given for using education instead of income.

Prior to the deregulation of tuition fees, students from high-income homes were over-represented in programs such as law, dentistry and medicine. However, the deregulation of fees has intensified the socio-economic stratification in these programs. The gap widened the most in Ontario, where fees have gone up by over 500% in some programs. For example, prior to the deregulation of tuition fees, those from home in which the parent had a bachelor's degree were only slightly less likely to enroll than someone from a home in which one parent had a professional or graduate degree. After the deregulation of fees in Ontario, those from a home with a professional or graduate degree were more than four times more likely to enroll. Provinces in which there were only moderate fee hikes or fee freezes had the most representative participation rates. Such findings go a long way toward undermining the case of those that argue that fee hikes have no effect on accessibility.

One of the study's more interesting findings is that access remained relatively steady for those from low-income homes despite large fees hikes. Though those from low-income homes are dramatically underrepresented in professional programs, the fact participation rates did not decline in the face of

massive fee hikes is likely a result of scant student financial aid packages under which the very poorest students paid no fees. In most programs this accounts for fewer than 50 students. A second and more disturbing finding is that the participation rates of students from middle-income families plummeted. It is clear that those students who do not meet the very narrow definition of low-income used in most programs (those from homes of under \$22,000 annual income) are being shut out of professional programs.

- i. *Getting Ahead in Life: Does your parents' education count?* Statistics Canada Education Quarterly Review, Volume 5, No. 1, 1998.

This report documents the influence that parental education has on the likelihood that a child will attend college or university: 69 percent of those children from homes with a parent who completed a post-secondary education versus just 23 percent from homes in which they did not complete a secondary education. As Dr. Robert Allen notes in *The Education Dividend*, those who obtain a post-secondary education qualification earn, over a lifetime, 40 percent more than those without a post-secondary education. Though not surprising, this data confirms the cycle of exclusion for low-income families from post-secondary education.

- j. *The Part-Time Enrolments: where have all the students gone?* Torbin Drews and Herb O'Heron, Association of Universities and Colleges of Canada Research File, Volume 3, No. 2, May 1999

[www.aucc.ca/publications/auccpubs/research/research\\_e.html](http://www.aucc.ca/publications/auccpubs/research/research_e.html)>

This study examines declining part-time participation rates at Canadian universities during the 1990s and concludes "tuition fees...are estimated to account for approximately 60 percent of the observed drop in part-time enrolments." This conclusion is particularly interesting because it was published by the Association of Universities and Colleges of Canada (AUCC), the Canadian university presidents organisation. The AUCC and its members often attempt to deny the impact of tuition fees on access when communicating with student representatives and the media.

- k. *Participation in Post-Secondary Education and Family Income.* Statistics Canada, The Daily, December 7, 2001 (erratum published January 9, 2002)

[www.statcan.ca/Daily/English/020109/d020109a](http://www.statcan.ca/Daily/English/020109/d020109a)

[www.statcan.ca:80/Daily/English/011207/d011207c.htm](http://www.statcan.ca:80/Daily/English/011207/d011207c.htm)

This study assesses post-secondary participation rates by income between 1993 and 1998. The findings of the study are unequivocal: young adults from high-income families are more than twice as likely to attend university as those from low-income families. Only 18.8 percent of 18-21 year olds from families in the lowest income quartile attended university between 1993 and 1998, whereas 38.7 percent of those from the highest income quartile attended university during the same time period.

- l. *Paying the Price: The case for lowering tuition fees in Canada.* Canadian Association of University Teachers, Education Review, Volume 7, Number 1, February 2005. [www.caut.ca](http://www.caut.ca)

In this study, the Canadian Association of University Teachers traces the rising share of post-secondary institutions' operating budgets comprised by tuition fees. The study notes that in 1980 public funding accounted for 84 percent of operating budgets, but by 2003 it had dropped 58 percent of university budgets. Not surprisingly, the share of tuition fees as a portion of operating budgets went from 13

percent in 1980 to 34 percent in 2003. In addition, the study clearly demonstrates that the rise in fees is tied directly to a sharp decline in base operating grants to colleges and universities.

This study offers much needed context for the specious claim that “low” tuition fees and current tuition fee freezes are to blame for declining quality and capacity at Canadian universities.

- m. *Is post-secondary Access More Equitable in Canada or the United States.* Statistics Canada, March 2005. [www.statcan.ca](http://www.statcan.ca)

This recent Statistics Canada study examines the differences in access and cost of post-secondary education between Canada and the United States. Currently in Canada, those in the top quarter of income are twice as likely to attend university as those in the bottom quarter. In the United States, those in the top quarter of income are four times more likely to pursue university education. The study adds to recent findings that in the United States those in the top quarter of income are six times more likely to obtain a university degree.

Most importantly, the study concluded that the higher cost of education in the United States is one of the key reasons for the disparity, citing the fact that the cost of “publicly funded universities is 31 percent higher in the United States”. The study also suggests that the proliferation of higher fee, private universities in the United States is a key reason for the higher gap in attendance between the rich and the poor. This point is of particular interest in the debate over the deregulation of tuition fees. Many larger universities in Canada such as the University of Toronto, Queen’s University, and the University of British Columbia have shown keen interest in the idea of “ivy league” tuition fees as a means of creating a more elitist system.

- nl. *Report of the 1999 Survey of Medical Students.* University of Western Ontario Department of Epidemiology and Biostatistics, May 1999.

This study was conducted over a four-year period to determine the effect of deregulated tuition fees on accessibility. The study examines participation rates by socio-economic status and documented a dramatic decline in participation rates from low-income families by the fourth and final year of the study. 17.3 percent of students in medical school came from homes where family income was under \$40,000. During that first year students were paying the regulated tuition fees of approximately \$4000. By the fourth year of the study, when tuition fees had risen to over \$10,000, only 7.7 percent of students hailed from homes of family income of less than \$40,000. As a result of deregulated tuition fees, there was a 50 percent decline in the participation of low-income students.

This study is particularly important because it undermines the notion, parroted by most university presidents across the country, that high tuition fees will not exclude low-income students because 30 percent of tuition fee increases are allocated to increased student financial assistance. As this data makes clear, it is simply false to say that increases to student financial assistance will address the problem of accessibility when tuition fees rise.

- o. *Student Loans: Borrowing and Burden*  
Ross Finnie, Education Quarterly Review, Vol.8, No. 4, 2002

This study examines incidence of debt, level of debt, repayment of debt and burden of debt based on data from the 1982, 1986, 1990 and 1995 National Graduate Surveys. The report’s author often downplays the significance of growing debt levels, but some of the data presented in the study contradicts such an interpretation. Data tables used in this study show that the average student loan debt burden for female undergraduates tripled between 1982 and 1995.

Debt-to-earnings is calculated in this study by dividing the median average debt at graduation by the average annual rate of pay listed by respondents in their first National Graduate Surveys interview. Essentially, the study is looking at student debt as a percentage of annual rate of pay. The higher the ratio, the greater the debt burden it represents. Figures used in this study show that the debt-to-earnings ratio increased from 0.14 in 1982 to 0.38 in 1995 for male undergraduate students, and from 0.17 to 0.51 for female undergraduate students during the same time period. In other words, the average student debt for a female undergraduate in 1982 was equal to 17 percent of her first year of earnings after graduation. By 1995, average debt for a similar student had risen to 51 percent of her yearly earnings. To put this in perspective, a study done in the United States found that the average debt to earnings ratio for people who were forced to declare bankruptcy was 0.71 (or 71 percent of annual income).

p. Survey by the National Opinion Coalition (Vector Research Inc.), October, 2001

In an opinion poll conducted in October of 2001, Vector Research polled Canadians about the reasons why they did not pursue a post-secondary education. The poll confirmed that financial constraints were the key criteria that excluded low income Canadians and reported that 46 percent of low-income Canadians said lack of money was the sole reason for not attending. For those from families of income over \$100,000 lack money was reported by only 15 percent of respondents as a reason for not attending college or university. The poll was conducted with a sample of 1500 and is accurate within three percentage points 19 times out of 20.

q. *The Tuition Trap*. Hugh MacKenzie. [www.ocufa.on.ca](http://www.ocufa.on.ca)

In *The Tuition Trap*, Hugh Mackenzie builds on his earlier paper prepared for the Rae Review, *The Path of Least Resistance*. In *The Tuition Trap*, Mackenzie looks at the socio-economic composition of Ontario families relative to their participation rates in college and university. What he found was that, as portion of taxes paid through the progressive tax system, no income group carries a greater share of the burden. This finding is critical because it points to another factual error in the argument that post-secondary funding is a net transfer of wealth from the poor to the wealthy. Although there are disparities in participation rates between low- and high-income Canadians, Mackenzie demonstrates empirically that it is false to claim that low-income families do not share in the benefit of a publicly funded system of post-secondary education. In doing so, he undercuts one of the primary arguments made by high tuition fee advocates like Bob Rae.

Mackenzie also mounts a decisive critique of a recent study from a conservative US think tank, the Educational Policy Institute. EPI's study claims that the primary obstacle facing low-income Canadians is a lack of information about the benefits of post-secondary education. EPI's Alex Usher makes this claim on the basis that low-income families tend to overestimate the cost of post-secondary education and underestimate the benefits. Mackenzie points out that the poll, originally done in 2002, was not designed to test the financial literacy of prospective students and their families, as Usher claims. Usher also misreads the study's own findings, according to MacKenzie. Based on the results, Ipsos Reid concluded the following: "No demographic variations in opinion are apparent for this issue [the price and benefit of post-secondary education]." Yet Usher's entire argument is based on a supposedly sharp difference in knowledge between high- and low-income Canadians. Mackenzie succinctly captures the quality of Usher's work when he concludes "There are significant technical problems with every step of this argument....The complacent conclusion does not follow from its carefully selected fact base."

r. *University and College Affordability: How and why have fees increased?*

Canadian Association of University Teachers, Education Review, Volume 3, Number 2, May 2001.

[www.caut.ca/](http://www.caut.ca/)

This study offers a comprehensive overview of the impact funding cuts and higher tuition fees have had on low-income families. The study charts a 25 percent decline in provincial and federal funding for post-secondary education between 1991 and 1998. During that same period tuition fees rose by over 125 percent and the average student debt increased from \$8,000 in 1990 to \$25,000 in 1998.

Most important the study quantifies the argument that “the impact of higher fees [is] most discernible in terms of exacerbating inequalities in access”. Between 1991 and 1998 the real income and buying power of Canadians with the lowest 20 percent of after-tax income declined. Additionally, in 1991 families in this category would have to set aside 14 percent of their household income to pay tuition fees. By 1998 that amount had increased to 23 percent, an increase of over 60 percent coupled with a decline in buying power. This data is also confirmed by Statistics Canada’s *Education Quarterly Review* in 1997 that reports that median family income in the 1990s had declined by five percent and the average employment income of those between 21 and 24 had fallen by 21 percent.

This data clearly demonstrates that tuition fee increases adversely affect low-income families and explain why it is preposterous to suggest that massive tuition fee hikes will not undermine access for low and modest income families.

## 2. Financial Barriers to Access: International Evidence

a. *America’s Untapped Resource: Low Income Students in Higher Education*. Written by Richard D. Kahlenberg, Century Foundation Press, 2004

This book by, Richard D. Kahlenberg, examines the social and economic cost of excluding low-income students from college and university. His study found that while “race sensitive” admissions in the United States had marginally increased the participation rate of underrepresented minorities, low-income participation rates remained stagnant or decreased. They also found that affirmative action programs had done little to increase the participation rates of minority students from low-income backgrounds. The most alarming statistic from the study is the fact that, “economically disadvantaged student are 25 times less likely to be found on elite college campuses than economically advantaged students”. This is but one statistic among many in Kahlenberg’s book that undermines the view that high tuition fees do not deter low-income students.

b. *The Burden of Borrowing: A report on the rising rates of student loan debt*. King, Tracey and Ellynn Bannon Wahington: State PIRG’s Higher Education Project, 2002.

Thirty-nine percent of student loan recipients graduate with unmanageable debt, defined as debt repayments that exceed 8 percent of monthly income. In comparison, 55 percent of African-American and 58 percent of Hispanic student borrowers graduate with unmanageable debt burden.<sup>d</sup> “*Comparison of the Influence of Debtload on the Persistence of Students at Public and Private Colleges*. Cofer, James and Patricia Somers *Journal of Student Financial Aid* 30.2 (2000).

Medium and high debt levels reduce the probability of persistence between 4 and 7 percent for students at private colleges. Tuition fee levels and the number of grants exert more influence on persistence at public colleges than do debt levels.

- c. *College-Going and Inequality: A literature review*. Paper for the Russell Sage Foundation, June 2001. <[https://secure1.sc.netnation.com/~russells/programs/proj\\_reviews/si/revkane01.pdf](https://secure1.sc.netnation.com/~russells/programs/proj_reviews/si/revkane01.pdf)>, and *The Price of Admission: Rethinking How Americans Pay for College* (November 1999) University of California Press). Both written by Thomas Kane.

Kane, an economist at the University of California at Los Angeles, examines price sensitivity for tuition fee hikes in the public college system in California. Based on a statewide survey Kane found that for every \$1,000 tuition fee hike there would be a drop of 14.9 percent in enrolment. The key portion of Kane's findings suggests that this drop comes "almost exclusively from Latino, African American, and low-income students."

- d. *The Effects of Tuition Prices and Financial Aid on Enrolment in Higher Education: California and the nation*. Donald E. Heller, 2001. [www.edfund.org/pdfs/I-57.pdf](http://www.edfund.org/pdfs/I-57.pdf).

In his study, Heller argues that "for every ten percent increase in fees we would see an enrolment decrease of 1.34 percent." Heller's study examines community colleges that, in California, serve primarily low-income residents.

- e. *Empty Promises: The Myth of College Access in America*. United States Advisory Committee on Student Financial Assistance, June 2002  
[www.ed.gov/offices/AC/ACSFA/emptypromises.pdf](http://www.ed.gov/offices/AC/ACSFA/emptypromises.pdf)

This report was written by the independent committee appointed by the United States Congress to assess student financial assistance. It concludes that financial barriers are the main obstacles preventing low and moderate income Americans from having access to post-secondary education. The report predicts growing losses of college qualified high school graduates and wider income-related gaps in participation and degree completion unless need-based grant aid is increased significantly.

*Empty Promises* has direct relevance to the Canadian debates, as it explicitly contradicts the idea being put forward that addressing "non-financial" barriers is more important to improving access than reducing financial barriers to participation. The report challenges the effectiveness of the types of "early intervention" programs advocated by the Millennium Scholarship Foundation (such as mentoring and academic preparation programs) as policy options for improving access. The US Advisory Committee is clear that "early intervention" programs are only useful if accompanied by large increases to non-repayable student aid. In the Committee's words:

"The primary cause of today's college access and persistence problem is the excessive level of unmet financial need and associated work and loan burden for low and moderate income high school graduates ... [to] make progress in the long term, early intervention must include an access to college guarantee for low and moderate-income families."

- f. *Expanding College Access: The Impact of State Finance Strategies*. A report by the Lumina Foundation for Education, 2004.  
[www.luminafoundation.org/research/access.html](http://www.luminafoundation.org/research/access.html)

Researchers at the *Indiana Education Policy Centre at Indiana University* offer a state-by-state analysis of financial aid policy. The study measures various strategies of student financial assistance. After examining databases in 50 states researchers concluded, "needs-based grants had a stronger influence than any other financial variable in the model (11)". That is to say that the largest factor influencing access for low-income students was non-repayable student financial assistance. The researchers note the

remarkably consistent results across states. Further, the researchers note a particularly strong negative effect in states in which fees are high and grants are either minimal or not available at all. This data contributes to a growing mountain of research that draws a direct link between grants, lower fees, and access.

In addition, the study notes a link between low tuition fees and a comprehensive system of grants and high school completion. Though one of the few studies of its kind, this study points to a startling link between massive tuition fee hikes, high student debt and high school completion rates. Put more bluntly, high fees and high debt deter and demoralize low-income students long before they enter college or university.

- g. *Graduate and Professional Degree Attainment Among 1992-93 College Graduates*. Price, Derek V. Ms. 2001. Lumina Foundation for Education.

Undergraduates who borrow reduced their odds of obtaining a graduate or professional degree within four years by 9 percent.

- h. *Generation Debt: The New Economics of Being Young*. Brendan I. Koerner. "The Ambition Tax: Why America's young are being crushed by debt—and why no one seems to care." March 2004.

[www.villagevoice.com/issues/0411/fkoerner.php](http://www.villagevoice.com/issues/0411/fkoerner.php)>

This Village Voice story outlines the effect of high debt on low-income families. It makes the case that high student debt ensures that low-income students forced to borrow for an education are penalized for holding the same ambitions as upper income students who generally graduate with little or no debt. The article also makes the important case that high student debt serves to erase many of the ameliorative effect of post-secondary education. Students are forced to borrow so much that they effectively remain in the low-income bracket despite their post-secondary education credentials. The article also outlines the long-term economic effects of student debt. The article ends with a series of testimonials from students in debt. The testimonials are particularly powerful because they put a human face on student debt. It is precisely this face missing in the attitude held by those, like the Millennium Scholarship Foundation, who argue for higher debt and higher tuition fees.

- i. *Higher Education, Increasingly Important for All Americans, is Unaffordable for Many*. Lumina Foundation for Education. Illuminations. Indianapolis: Lumina Foundation for Education, 2002.

Student loans paid for 95 percent of the increased charges to students at four-year public colleges between 1991 and 1995. In the following four years, loans covered 62 percent of these increases. (Jerry S. Davis)

- j. *Life After Debt: Results of the National Student Loan Survey*. Baum, Sandy and Diane Saunders Braintree, MA: Nellie Mae, 1998.

In 1997, 70 percent of Black, Hispanic, and Asian/Pacific Islander borrowers who did not complete a degree reported that loans prevented them from staying in school. African-Americans with greatest levels of debt burden disproportionately report that student loan debt changed their career plans or prevented them from attending graduate school.

In 1997, lower-income students who received Pell Grants were more likely than other undergraduate borrowers to have debt exceeding \$20,000. The average percentage of monthly income that goes toward

student loan payments was 12 percent, which is 2 to 4 percent higher than the maximum acceptable debt burden according to the U.S. Department of Education and the student loan industry. Debt burdens are especially high for students who make lower than average salaries (like art and music majors).

- k. *Measuring Up 2002*. National Centre for Public Policy and Higher Education (United States), October 2002  
[measuringup.highereducation.org/2002/pdf/MeasUp2002.pdf](http://measuringup.highereducation.org/2002/pdf/MeasUp2002.pdf)

This report finds that improved academic preparation in the United States has not, on its own, improved access. Though many states have made substantial strides in preparing students for college-level education, there have not been widespread gains in the proportion of Americans going to college. The report also finds that overall college opportunity in America is at a standstill, and remains unevenly and unfairly distributed.

This report is important because it challenges the Millennium Scholarship Foundation's emphasis on "academic preparation" and "non-financial barriers" as the primary barriers to access. To quote the authors of *Measuring Up 2002*: "As a nation, we are doing better in preparing our young people for college than we are doing in assuring that they have opportunities to enrol in and complete programs of education and training beyond high school."

*Measuring Up* is produced every second year by the National Centre for Public Policy and Higher Education, a widely respected US non-profit, non-partisan post-secondary education policy institute.

- l. *Measuring the Effect of in Study Employment*  
[www.employment-studies.co.uk](http://www.employment-studies.co.uk)

Undertaken by the Institute for Employment Studies–UK, this report found that working compromised students' grades. Not surprisingly, the study found that low-income students had nearly 50 percent higher debt upon graduation and worked more hours. 58 percent of those who worked regularly gained a first or second class standing (roughly equivalent to an honours degree in the upper band, and regular honours degree), while 71 percent of those who did not work gained a first or second-class standing.

The data is based on a tracking study of 1,500 students between 1998 and 2003. The study is one of the few longitudinal studies that track the effect of in-study employment and academic results. Although it is known that Canadian students work on average more than 20 hours per week, very little data is available on the effect of paid work on academic performance.

- m. *Money Matters: The Impact of Race/Ethnicity and Gender on How Students Pay for College*. King, Jacqueline E. Washington: American Council on Education, 1999.

Almost eight out of ten African-Americans who earn a bachelor's degree borrow, and the average amount of student loan debt they accrue is \$13,000. The average loan debt for African-Americans who complete an associate degree program is \$6,500. Among Hispanic students who graduate with a bachelor's degree, almost 70 percent have debt averaging \$11,500. For comparison, just over half of White bachelor's degree recipients borrowed while in college, and their average indebtedness is \$12,300.

- n. *Paper Chase to Money Chase, Law School Debt Diverts road to Public Service*. A study by Equal Justice Works, the Partnership for Public Service, and the National Association for Law Placement, November 2002  
[www.equaljusticeworks.org/choose/trapsurvey.php](http://www.equaljusticeworks.org/choose/trapsurvey.php)

This study examines the effect of high tuition fees and high student debt on the career choice pursued by law graduates in the United States. The study makes a direct link between high debt and aversion to lower paying public service legal careers. The study substantiates this disturbing trend by analysing employment statistics as well as qualitative interviews with graduates. The qualitative research demonstrates very clearly that those from low-income backgrounds who may have wanted to serve their own communities are rarely able to do so because they are most likely to be carrying crippling debt. The study effectively highlights the dual effect of this trend by pointing out that racially and economically marginalised communities are less likely to have community role models because of high fees and debt and that the community is robbed of a potential resource offered by legal professionals willing to work in low income neighbourhoods.

- o. *Rising Public College Tuition and College Entry: How well do public subsidies promote access to college?* Thomas J. Kane, National Bureau of Economic Research Working Paper No. 5164, July 1995

In this comprehensive appraisal of statistical evidence on the price sensitivity of American youth to tuition fees, UCLA professor Thomas Kane finds that high tuition fees are clearly a barrier to access for lower-income youth. Some of Dr. Kane's findings include:

- states with high public tuition fee levels have lower college entry rates;
- the gap in enrolment between high and low-income youth is wider in high tuition fee states; and,
- within-state tuition fee hikes lead to lower enrolment rates and wider gaps between high and low-income youth.

- p. *Social Class and College Costs: Examining the Financial Nexus Between College Choice and Persistence.* Michael B. Paulsen and Edward P. St. John, *The Journal Of Higher Education*, Vol. 73, No. 2, (March/April 2002).

This study reveals a strong correlation between financial barriers and persistence (re-enrolment) rates for poor and working class students in the United States. Using data collected in the United States National Postsecondary Study Aid Survey, researchers found that every \$1000 increment in tuition fees reduced the probability of poor and working class students re-enrolling in college or university the following year by 16 percent and 19 percent, respectively. The researchers concluded, "... the high-tuition, high loan approach ... to higher education finance does not seem to be working."

- q. *The Student Aid Game: Meeting Need and Rewarding Talent in Higher Education.* McPherson, Michael and Morton Owen Schapiro. City: Publisher: 1998.

The higher net costs of college restrict the options for low-income students who are increasingly attending community colleges. These higher net costs are partly a function of the declining percentage of tuition covered by federal financial aid grants: between 1986 and 1993 the percentage declined from 68 percent to 42 percent.

- r. *Student Money Matters 2002: A report on the finances and spending habits of school leavers, students and graduates.* NatWest (National Westminster Bank), United Kingdom, August 2002

This survey, conducted by British banking company NatWest, finds that half of British Sixth Form students (equivalent of Canadian high school graduates) not going to university blame tuition fees and the prospect of high debt as their main reasons for not attending. 50 percent of eligible students in 2002 have at least considered not going to university because of tuition fees. In total, the survey finds that

almost one fifth of qualified UK sixth form graduates are not going on to higher education due to a lack of money.

This study is significant because it shows the detrimental effect of tuition fees on access. Prior to 1998, university was free in the United Kingdom and a national system of grants assured that academically qualified students were generally able to attend university regardless of financial circumstances.

- s. *Student Loans and Social Inequality*. Price, Derek V. Ms. 2002. Lumina Foundation for Education.

Among a national sample of 1992-93 baccalaureate degree recipients, low-income students from families with incomes of less than 1.85 times the poverty rate had a six times greater risk than higher-income students of having educational debt burden exceed the 8 percent maximum threshold (8 percent of monthly income after taxes). Students from families with incomes between 1.85 times the poverty rate and 3.4 times the poverty rate had a 3.6 times greater risk of having debt burden exceed the 8 percent threshold.

- t. *The Student Loan Scheme: Inequities and emerging issues*. New Zealand University Students' Association, Wellington, 2002.

This assessment of the impact of Income Contingent Repayment (ICR) student loans on students in New Zealand provides further evidence in support of the Federation's opposition to the implementation of ICR schemes in Canada. According to research compiled by the New Zealand Students Association, total student debt in New Zealand has soared to over \$5 billion since the introduction of ICR, and only one in ten students is debt free.

Women, indigenous people and students from minority groups in New Zealand have been hit particularly hard by the inequities inherent in ICR schemes. For example, a Maori woman can expect to spend an average of 24 years repaying the cost of her bachelor degree under ICR, as opposed to 13 years for a New Zealand male of European ancestry. These figures are even worse for Pacific (non-Maori Polynesian) women in New Zealand, who face a staggering estimated average loan repayment time of 33 years. Overall, a woman with a bachelor degree in New Zealand can expect to take an average of 28 years to repay her loans under ICR—almost double the 15 year average repayment time for a man.

- u. *Unequal Opportunity: Disparities in college access among the 50 states*. A Lumina Foundation for Education report. January 2002.  
[www.luminafoundation.org/research/access.html](http://www.luminafoundation.org/research/access.html)

This study focuses on the relationship between affordability and access. The study finds that “the extent to which accessibility varies among states is more often a function of whether colleges are affordable than of their admissions criteria [or academic preparation].” This finding is particularly important because it undermines the idea that academic preparation and not cost is the main determinant of access. Academic preparation is a fashionable policy trend in the United States that is based on the argument that self-help programs that boosting the grades of poor youth is the key to access. While there is nothing wrong with such programs in and of themselves, this study demonstrates that it is ludicrous to suggest that finances have little or no impact on accessibility. Further the study confirms and extends earlier findings that grants as opposed to loans, combined with low tuition fees, is the best model for increasing access for low-income families.

- v. *Understanding the College Choice of Disadvantaged Students: New Directions for Institutional Research*. Carbrera, Alberto F. and Steven M. La Nasa (2000).

Targeting grants to low-income students is likely to result in increased enrolments. For example, a \$1,000 increase in grant aid increases enrolment rates for low-income students by 9 percentage points while a similar increase in tuition would decrease enrolment rates by 3.4 percentage points. The same increase in grant aid has a 3-percentage-point positive effect for lower-middle and middle-income students.

- w. *Unto them that hath. . .* Stephen Machin, Centrepiece Magazine, Winter 2003, Centre for Economic Performance, London School of Economics.  
*A story based on this study is available free on the Guardian newspaper website: education.guardian.co.uk/specialreports/tuitionfees/story/0,5500,901332,00.html*

This report examines participation in higher education in the United Kingdom by social class during the 1990s and finds that the introduction of tuition fees appears to have increased the gap in university participation between high and low-income individuals. Prior to 1998, UK universities charged no tuition fees and the UK had a national system of need-based grants. In 1991-1992, while free tuition and grants were still in place, 13 percent of children from the lowest income families went to university. By the end of the decade, after the government introduced tuition fees and abolished the student grant, this figure dropped to just seven percent. At the same time, participation by children from the upper middle incomes increased from 55 percent to 72 percent.

- x. *Why Aren't More African Americans Going to College?* Carnoy, Martin. Journal of Blacks in Higher Education 6 (1994/95).

During the 1980s, federal financial aid shifted from primarily grants to primarily loans. During the same period, fewer Blacks enrolled in college. Carnoy posits that the net decline in financial aid during this period (after controlling for inflation) is in large part a function of rising college prices and affected Blacks more than Whites because a higher proportion of Blacks were from low-income families. He argues that "more high school graduates from poor minority families were competing for less financial aid in real terms," meaning the chance of receiving a grant went down by half during this period.

- y. *Widening Participation the Experience of Low-Income Students in Higher Education*. Vanessa Fitzgerald and Andrew Hannan (University of Plymouth), Arthur Baxter and Sue Hatt (University of the West of England, Bristol), May 2004.  
[www.staffs.ac.uk/schools/graduate\\_school/access/docs/Amster-paper](http://www.staffs.ac.uk/schools/graduate_school/access/docs/Amster-paper)>

The study offers a comprehensive set of data on the effect of grants on persistence (re-enrolment). The study demonstrates a very clear link between the availability of non-repayable student financial assistance and the ability of low-income students to finish a degree or diploma by tracking the path of low-income students at two universities in Southwest England. In particular, the researchers examine the effect of the grant available to low-income students to cover tuition fees. After carefully examining the persistence rates at both institutions the following unequivocal conclusion was reached:

"The most interesting finding of this study arises from the data in table 4 that compares the continuation rates of students with and without bursaries. Taking all students regardless of their fee support status, bursary students had higher rates of continuation than those without awards and this was consistent overall and at both institutions." (12)

These results echo a growing body of research in the United States that grants and not loans are the key to access and persistence for low-income students.

### 3. Registered Education Savings Plans (RESP), the Canada Education Savings Grant (CESG), and Education Tax Credits

- a. *Hope for Whom? Financial Aid for the Middle Class and Its Impact on College Attendance*, Susan Dynarski, National Bureau of Economic Research Working Paper No. 7756, June 2000.  
[www.nber.org/papers/w7756](http://www.nber.org/papers/w7756)

This study demonstrates that education tax credits introduced in the American state of Georgia led to increased postsecondary participation—but only for young people from higher-income families. According to the study, post-secondary institutions use the availability of tax credits as an excuse to increase tuition fees. As a result, colleges and universities have become less affordable for low-income earners, who often do not earn enough money to be eligible for tax credits. Instead of improving accessibility, education tax credits actually widen the gap in college attendance between African Americans and Caucasians, and between those from low and high-income families.

- b. *How Tax Credits Push Up College Costs*, a Business Week article, is available online:  
[www.businessweek.com/bwdaily/dnflash/oct2000/nf20001027\\_396](http://www.businessweek.com/bwdaily/dnflash/oct2000/nf20001027_396)

- c. *The Impact of Federal Tax Credits for Higher Education Expenses*. Paper prepared by Dr. Bridget Terry Long for the National Bureau of Economic Research Conference College Decisions: How Students Actually Make Them and How They Could, Harvard University, August 2002  
[www.nber.org/~confer/2002/hiedc02/long.pdf](http://www.nber.org/~confer/2002/hiedc02/long.pdf)

This study by a Harvard University education economist reveals that education tax credits introduced in the United States did nothing to improve access. Accordingly, the author concludes that, “although one goal of the tax credits was to increase access to higher education, this study found no evidence of increased post-secondary enrolment among eligible students.” The study also finds that the education tax credits introduced in the U.S. appear to have provided state governments with an incentive to raise tuition fees at public institutions.

- d. *Survey of Approaches to Educational Planning*. Statistics Canada, April 2001  
[www.statcan.ca/Daily/English/010410/d010410a](http://www.statcan.ca/Daily/English/010410/d010410a)

In 1998, the federal government introduced the Canada Education Savings Grant (CESG) as a supplement to the existing Registered Education Savings Plan (RESP). The RESP was designed to provide a tax shelter as an inducement to save for a child's education. The CESG expanded the program dramatically by offering to match 20 percent of any contribution up to \$2,000. A \$2000 investment in an RESP, therefore, nets a 20 percent return.

When the program was first announced in 1998, the Federation argued that the program would disproportionately benefit those already in a position to save. In addition, the Federation argued the program would draw scarce resources away from areas where it was needed most such as tuition fee reductions or real solutions to the crisis of student debt.

The April 2001 Statistics Canada study confirms the Federation's pessimistic analysis of the RESP program. The study reports that, while 79.8 percent of those families with incomes under \$30,000 wanted to save for a child's education, only 18.7 percent were actually able to afford to do so. In families with incomes over \$80,000, 95 percent reported a desire to save for post-secondary education and 62.6 percent actually were saving.

These data clearly show that the RESP program does little to address the plight of those Canadians least likely to attend college and university in the first place. By individualising the cost of education in the form exorbitant tuition fees, federal and provincial governments have exacerbated the inequities in participation rates between low, high and middle-income students. These Statistics Canada data clearly demonstrate that the RESP program is not a solution to this social divide.

- e. *Tax Credits as Education Policy*. Canadian Federation of Students, September 2002  
[www.cfs-fcee.ca](http://www.cfs-fcee.ca)

In this fact sheet, the federal government tax credits for post-secondary education are examined and are found to have failed to compensate for increases in tuition fees during the 1990s. Using average Ontario university tuition fees in 1988, 1995 and 2001 as a basis for comparison, researchers found that the gap between federal education tax credits and Ontario university tuition fees increased from \$1,426 in 1988 to almost \$2,900 in 2001, even after adjustments for inflation. In addition, the study reveals that high-income earners were, on average, claiming more through education tax credits than were low- and middle-income earners. The study also finds that the average amount claimed through the federal Student Loan Interest Credit was extremely low and was apparently having little impact on student debt.

- f. *Tax Preferences for Education Saving: Are RESPs effective?* Kevin Milligan, C.D. Howe Institute Commentary, No. 174 (November 2002)  
[www.cdhowe.org/english/publications/currentpubs.html](http://www.cdhowe.org/english/publications/currentpubs.html)

In this study, University of British Columbia economist Kevin Milligan shows that wealthy Canadians are far more likely to benefit from Registered Education Savings Plans (RESPs) and federally funded Canada Education Savings Grants (CESGs) than people from low-income households. In 1999, only 6.3 percent of children from households with incomes under \$30,000 were beneficiaries of RESPs, while in households with incomes of \$80,000 or higher, almost 30 percent of children had RESPs in their name. Based on this finding, Milligan argues that Canada Education Savings Grants amount to a massive federal subsidy to families that are already well equipped to pay for post-secondary education. As Milligan points out, the \$423 million the federal government spent on the CESG in 2002/03 could have provided free tuition to 21 percent of Canadian university students. The report concludes that "... CESGs give scarce public funds to the wrong households ..." and that "[t]he CESG program should be discontinued."

#### 4. General research on economic inequality in Canada

- a. *The Evolution of Wealth Inequality in Canada, 1984-1999*: Statistics Canada, February 2002  
[www.statcan.ca/english/research/11F0019MIE/11F0019MIE2002187.pdf](http://www.statcan.ca/english/research/11F0019MIE/11F0019MIE2002187.pdf)

This recent Statistics Canada study shows that wealth inequality in Canada has increased significantly between 1984 and 1999. Some of the study's findings include:

- wealth in Canada has become increasingly concentrated in the hands of the richest 20 percent of families;
- the top ten percent of families held 55.7 percent of Canada's total net worth in 1999; and,
- the top 10 percent of families saw their net worth increase by over 35 percent from 1984 to 1999, while the bottom 20 percent of families saw their net worth decline by 85 percent or more.

This growing inequality is not just relative; many people are actually poorer, after adjustments for inflation, than they were 15 years ago. Growth in wealth inequality has been associated with substantial declines in real average and median wealth for groups such as young couples with children and recent immigrants.

The median wealth of young couples aged 25 to 34 with children was \$30,800—nearly a third less than in the mid-1980s.

- b. *Minimum Wages in Canada: A Statistical Portrait with Policy Implications.*  
Ken Battle, Caledon Institute of Social Policy, January 2003

This study provides statistical data and analysis on the minimum wage and minimum wage workers in Canada, and includes provincial comparisons. Statistics show that after adjustments for inflation, the average minimum wage in Canada is lower today than it was in 1976, and that the minimum wage fell well below the poverty line in most Canadian jurisdictions. The study also shows that a disproportionate percentage of young workers, women and students were working for minimum wage in Canada. Around 30 percent of 17-19 year olds and 7 percent of 20-24 year olds worked for minimum wage in 2000. In total, workers aged 15-24 accounted for over 64 percent of all minimum wage workers. In the summer of 2000, 73 percent of young minimum wage workers—295,000 people in total—were full time students planning to return to school in the fall.

- c. *Rags and riches: Wealth inequality in Canada.* Steve Kerstetter, Canadian Centre for Policy Alternatives, December 2002  
[www.policyalternatives.ca](http://www.policyalternatives.ca)

Recent research and historical statistics are brought together in this study, which charts the growth of poverty and wealth inequality in Canada over the past 20 years. Statistics are broken down by age, family size, province and by numerous other variables. The study finds that much of the recent growth in wealth inequality can be traced to government cuts to social programs and also to changes in federal and provincial tax policies that favour Canada's wealthiest people.

## 5. International Trade Agreements and Post-Secondary Education

- a. *GATS Impact on Education in Canada.* Gottlieb & Pearson, October 2001.  
(Legal Opinion commissioned by the Canadian Federation of Students, the Canadian Association of University Teachers and the British Columbia Teachers Federation)  
[www.caut.ca/english/issues/trade/gats-opinion.asp](http://www.caut.ca/english/issues/trade/gats-opinion.asp)

In October 2001, the Canadian Federation of Students, in concert with our partners at the Canadian Association of University Teachers and the British Columbia Teachers Federation, sought a legal opinion from the legal firm of Gottlieb and Pearson regarding the potential impact of the General Agreement on Trade in Services (GATS) on education in Canada. Gottlieb and Pearson analyzed the portions of the GATS that Canada has agreed to, as well the meaning and strength of the clause upon which Canada is relying to protect public education. They found that the clause was not only ambiguous but that the

Canadian system of post-secondary education may not satisfy the conditions for exclusion. In their analysis, Gottlieb and Pearson conclude that because “private education co-exists with public education” it will be difficult for Canada to argue that education is offered solely under government authority.

In addition, the proliferation of private education providers in Canada makes it even more difficult for Canada to argue that education is not provided on a commercial or competitive basis. Gottlieb and Pearson note that the WTO has consistently interpreted the government authority exclusion in a narrow manner and further conclude that “the GATS meaning of competition is much wider than has been articulated by Industry Canada”. In short, Gottlieb and Pearson conclude that the clauses provide little if any grounds to protect public education from the dictates of the GATS.

- b. *Trading It Away: How GATS Threatens UK Higher Education*. Steven Kelk and Jess Worth, People and Planet, United Kingdom, October 2002.  
[www.peopleandplanet.org/tradejustice/tradingitaway.asp](http://www.peopleandplanet.org/tradejustice/tradingitaway.asp)

*Trading it Away* is a comprehensive analysis of the potential impact that the General Agreement on Trade in Services (GATS) could have on post secondary education. The report was prepared by the British based student campaigning organisation People and Planet. Though the report focuses primarily on how the GATS will affect post-secondary education in the United Kingdom, much of the analysis and research is applicable to Canada and other countries participating in the GATS negotiations. Supported by extensive and detailed research, the authors of the report conclude that the GATS “... threatens the financial viability, quality, ideals and character of UK Higher Education.”

## 6. Economic and Social Benefits of Post-Secondary Education

- a. *Earnings of Canadians: Making a living in the new economy*. Statistics Canada, March 2003.  
[www12.statcan.ca/english/census01/products/analytic/companion/earn/contents.cfm?](http://www12.statcan.ca/english/census01/products/analytic/companion/earn/contents.cfm?)

Information collected in the 2001 census reveals that though a university education was associated with higher earnings, young graduates were not benefiting to the same extent as older people with degrees.

Overall, results from the 2001 census show that higher education is associated with higher earnings. More than 60 percent of people in the lowest earnings category did not have more than a high school education in 2000, while more than 60 percent of those in the top category had a university degree.

However, the census also indicates that it is older groups with higher education and more work experience who made the most significant earnings gains over the last decade. As this report states, “a clear generational divide has opened up in the labour market with younger groups on a lower earnings track than older, more experienced groups.” The low-income figures for younger university graduates provide a strong counter argument against attempts to justify increased student debt on the basis of “the high future earnings of graduates.”

- b. *Job Futures: World of Work*. Applied Research Branch, Human Resources Development Canada, August 2000 (publication updated in 2002)  
[jobfutures.ca/en/brochure/JobFuture.pdf](http://jobfutures.ca/en/brochure/JobFuture.pdf)

In August of 2000 the Department of Human Resources Development Canada released an empirical study outlining the future of the labour market. The study offers conclusive evidence that post-secondary education will continue to be the dividing line between those who flourish in the new economy and

those left behind to struggle in underpaid, unfulfilling work. Analysts conclude that by 2004, over 70 percent of all jobs will require post-secondary education and only 5.8 percent will be available to those who do complete high school.

## 7. Commercialisation of Research

- a. *Dances with the Pharmaceutical Industry* and *Look, No Strings: Publishing industry funded research*. Canadian Medical Association Journal September 18, 2001; 165 (6) and Canadian Medical Association Journal February 19, 2002; 166 (4) respectively.

In September 2001 and February 2002, the Canadian Medical Association Journal published two studies critical of industry sponsored research. The first article, *Dances with the Pharmaceutical Industry*, tracks the disturbing link between positive results and industry sponsorship. The second study, *Look, No Strings*, focuses on the relationship between medical research and the pharmaceutical industry. The article also reviews the case of Dr. Nancy Olivieri and her hostile treatment by the Hospital for Sick Children and the University of Toronto. The article reviews the sordid roles played by pharmaceutical giant Apotex and then University of Toronto President Rob Pritchard who was at the time lobbying for Apotex.