CHAPTER TWO

THE CHANGING CANADIAN PSF LANDSCAPE

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ACCELERATING EVOLUTION OF PSE—THE LONG VIEW

In the world today there are universities that have endured, largely unchanged, for almost a millennium: the Università di Bologna traces its origins to 1088 AD, the Université de Paris to 1150 AD, and the University of Oxford to 1167 AD. Canada's oldest academic institutions are Université Laval (founded as the Seminaire de Quebec in 1663), the University of New Brunswick (1785), and the University of King's College in Halifax (1789). Although six hundred years had passed, the structure, governance, and mechanics of higher education had changed very little by the time it took root in this country. Academic institutions were still primarily committed to preserving knowledge, from antiquity to the present day, in massive libraries impervious to the incidental shocks of plague, warfare, religious schism, or political upheaval. Young would-be scholars went to "read" in university libraries, tutored by professors and enlightened by lectures. For centuries, timelessness was a key virtue of the academic enterprise, and there was nothing particularly denigrating about being labeled an "ivory tower."

In the mid-twentieth century, however, the global environment surrounding higher education began to evolve, and North American institutions have faced a climate of exponentially accelerating change over the past sixty years. Religious foundations gradually gave way to secular funding, and government interest in academic research has steadily grown since the 1940s for military, and now economic, ends. In the 1950s, the post-war GI Bill sparked an unprecedented expansion and democratization of higher education in the U.S., and ultimately in Canada. In the 1960s, networks of hundreds of community colleges were established in both countries to provide career-oriented workforce training, and immense government investments were made in the expansion of university capacity as affluent baby boomers flooded campus gates. In Canada, at least, public tertiary education was increasingly being seen as a fundamental human right and an essential component of a functioning democracy, much like elementary and secondary education had been previously. Industrial

and commercial research migrated from dedicated corporate research parks onto the campuses of public universities. Over the course of three decades, from 1940 to 1970, the external pressures of military research, workforce development, democratization, and commercialization had breached the ivory tower walls and begun to transform the academic world. Government was intimately, inextricably involved in the affairs of academe.

Yet in many ways, the evolution of higher education over the final thirty years of the twentieth century reflects diminishing dependency on government for the success of the academic enterprise. In the mid-1970s, just as female undergraduate enrolments began to surge, government funding cuts became acute for Canadian universities, who responded by increasing class sizes and faculty-student ratios, growing their fund-raising arms, and investing their endowment funds more aggressively. The "massification" of higher education had begun in earnest, and the coming years would see the growth of ever-larger lecture theatres, the proliferation of multiple-choice exams, and increasing use of adjunct faculty and teaching assistants. Faculty associations on campuses across Canada began acting more like labour unions in the 1980s and 1990s, and tuition fees began rising in most jurisdictions. Canadian universities and colleges started thinking seriously about international student recruitment as a source of revenue, and technology transfer offices started generating more and more royalty income through licensing agreements and spin-off companies. Students and their parents, faced with larger sticker prices for post-secondary education, began acting more like consumers—comparison shopping, demanding luxury features, and measuring likely career Return on Investment (calculated as primarily a financial ROI). From 1970 to 2000, Canada's universities, and to a lesser extent community colleges, became stretched to capacity, and more susceptible to labour disputes, tuition freezes, international competition, investment losses, and other forces of what was becoming, for the first time, a "marketplace" of postsecondary education.

Since 2000, the "boiling frog" scenario has become apparent to Canadian colleges and universities, who are no longer merely in a pot, but in a pressure cooker. Provincial operating grants have been increasingly tied to per-capita enrolment and key performance indicators (KPIs), creating desperation in regions of declining population, and heightening competition for students in major urban centres. Federal tri-council research funding has been tightened and focused on government priorities. Credential inflation has led to growing demand for degrees—particularly professional degrees, applied degrees, post-degree diplomas and graduate programs—and led many observers to lament grade inflation in high schools

and on post-secondary campuses (Cote & Allahar, 2007). Growing international student recruitment has created real financial and social benefits for Canada's institutions, but has also contributed to new strains on student support services, amplified faculty complaints about student academic preparedness, and perhaps set the stage for incidents of racial tension and conflict on campuses and in surrounding communities; Australia, the most successful importer of international students in recent years, has experienced significant social backlash leading to acts of violence against Indian students studying in the country (Top Ten).

In the twenty-first century, effective institutional strategy demands a far-reaching and continually updated understanding of the external environment—particularly for marketfocused functions like institutional branding, enrolment management, and recruitment marketing. Some long-term trends are readily apparent in statistics and research conducted over several decades, although they can often be ignored because their effects are subtle and gradual, like the pot of boiling water. More abrupt changes in the competitive landscape, often resulting from international or private-sector forces, are harder to ignore but more difficult to predict—although in many cases early warning signs exist. Canadian higher education can often look to the American experience as a leading indicator of pressures and changes to come. This chapter will survey some of the most critical trends affecting Canadian colleges and universities, and their enrolment management efforts. (Obviously, it cannot replace ongoing intelligence gathering and institution-specific data.)

FISCAL CRISES ON CAMPUS

Canadians were insulated for the better part of a year from the economic recession that struck American markets in late 2008, but by 2009 Canadians also saw house prices and stock markets lose significant value, endowments and pension funds shrink, unemployment rates skyrocket, and government tax and natural resource revenues plummet. In late 2008, several institutions reported early budget challenges: in October the cautious University of Waterloo was among the first to announce a six-month "postponement" of hiring and major spending, and in November the University of British Columbia reported \$38 million in losses on \$130 million invested in asset-backed commercial paper. By early 2009, budget cuts or shortfalls were being announced by dozens of Canadian PSE institutions, including \$7.5 million at Brock University, \$6.5 million at Fanshawe College, \$10 million at the University of Lethbridge, \$10 million at the University of New Brunswick, \$10.6 million at Bishop's University, \$13 million at McGill University, and \$13 million at the University of Manitoba. McMaster University balanced its 2009 budget through \$20 million in deferred maintenance, hiring freezes, and transfers from reserves, but anticipated annual deficits of as much as \$50 million going forward. In March 2009, the University of Western Ontario reported investment losses of more than \$11 million, and projected a \$41 million deficit by 2011 unless action was taken: they therefore announced 5.5% across-the-board budget cuts, a 4.5% tuition hike, the postponement of capital investments, and the elimination of 114 full-time positions. (Top Ten)

In May 2009, Lakehead University projected a \$6.3 million deficit, which was projected to grow to as much as \$50 million over the coming five years. Lakehead was facing significant demographic challenges in addition to economic pressures: in the past few years the regional school board had closed almost half of its high schools due to declining enrolment. Lakehead publicly considered a hiring freeze, and imposed a four-day mandatory unpaid furlough prior to Christmas 2009 (a first in Canada). At the time, Michael Pawlowski, Lakehead's VP for Administration and Finance, said to the media:

We've got to rethink the way we do business here at Lakehead. If we don't change the way we run our business, we'll be just like GM . . . The model just doesn't work under the current funding arrangements for a university to operate. (Kelly, 2009)

The fiscal impact of the recession was felt most rapidly on campuses with significant endowment funds, who were therefore most dependent on endowment incomes for their operating budgets: in April 2009, Queen's University announced 15% in budget cuts in response to an endowment loss of \$152 million, and the University of Toronto announced a loss of \$1.3 billion in endowments, which equated to a \$62 million budget cut that year alone. In July, the University of Calgary announced that it had lost \$78 million on its endowments, and would cut at least 200 jobs to save \$14.3 million that year. The University of Alberta reported that it had lost \$112 million on its investments as of April 2009, and anticipated a \$59 million budget shortfall that year. St. Francis Xavier University in Nova Scotia, with a volunteer-administered endowment fund, faced the steepest loss in the country: a 43% loss on its investments, which were largely in the stock market. (Top Ten)

Pension fund losses caused major financial pressure on campuses with defined-benefits retirement plans: by June 2009, York University had lost 18% on its endowment funds and was facing a potential \$250 million pension plan deficit over the next three years. In April 2010, the University of Guelph announced that in addition to a structural deficit totaling \$46.2 million by 2012, it was facing a \$280 million pension shortfall, which by Ontario regulations

would need to be covered by funds from the institution's operating budget. At time of writing, the Ontario government is working on special legislation to soften the impact of pension solvency requirements for publicly owned institutions like universities and colleges. (Top Ten)

The economic recession has simultaneously reduced institutional endowments and government tax revenues, and increased enrolment demand from newly unemployed students. Enrolment demand has risen most abruptly at Canada's community colleges, but universities are also enjoying a pleasant surge in applications and many are allowing their undergraduate enrolments to rise somewhat. The loss of endowment income has reduced the availability of financial aid on many campuses, and increased pressure on enrolment managers to generate tuition revenue. The rise in unemployment is creating an artificial sense of enrolment success, and institutions need to be conscious that, when economic strength returns, there will be an adjustment downward in application and enrolment volumes.

TIGHTENING GOVERNMENT PURSE STRINGS

Since 1980, most Canadian universities have had progressively fewer financial resources per full-time student: AUCC calculates a decline from \$21,000 per FTE in 1980 to just \$15,000 in 2007, using constant 2007 dollars (AUCC, 2007). Of that per-student budget, the government share has dropped from about \$18,000 to just \$10,000, while student fees net of scholarships have almost doubled (CAUT, 2010). Naturally, government grants and tuition fees per FTE vary considerably from province to province: institutions in Saskatchewan, the most generous province as of 2008, enjoy a government grant per FTE almost double that of Nova Scotia, the least generous on this measure (AUCC, 2007). In Ontario, provincial operating grants to universities dropped from 78% of total institutional budgets in 1988 to just 50% in 2008 (Snowdon, 2010). Between 1993 and 2007, overall government investment in postsecondary education (PSE) stayed virtually flat per FTE in Quebec and Manitoba, rose 35% per FTE in Alberta, 23% per FTE in Saskatchewan, 16% in Newfoundland & Labrador, 14% in Nova Scotia, and 13% in Ontario, but fell 15% in New Brunswick, 19% in Prince Edward Island, and 24% in British Columbia (CAUT, 2010). The resource-rich provinces of Alberta and Saskatchewan are reinvesting in PSE, as part of provincial strategies to diversify their economies before resource revenues plateau. Quebec and Manitoba are taking a riskier strategy by holding the status quo, while B.C. seems deliberate about cutting funding to higher education, perhaps anticipating immense burdens on its health care system as retirement demographics balloon in the province.

More seriously, the resources per student of Canadian universities have fallen precipitously compared to their American competitors: from a per-student funding advantage of \$2,000 in 1980, to a per-student disadvantage of \$8,000 by 2006 (AUCC, 2007). Competing in a global arena with American institutions that have vastly superior resources (largely due to higher tuition fees) is not likely sustainable for Canadian universities, nor is government likely to maintain funding at a level that will support artificially low tuition fees much longer.

The recession of 2008 has impacted provincial budgets differently across the country. Alberta, facing slowed production in the Athabasca Tar Sands and sharp declines in royalties on natural gas, froze postsecondary budgets in 2009 after years of steady growth. (With cost-of-living increases enshrined in collective agreements, this meant Alberta colleges and universities faced budget cuts in real terms.) Ontario, facing massive tax losses because of its hard-hit manufacturing sector, projected a \$50 billion deficit for 2010. Provincial budget cuts are likely to persist well after economic recovery buoys the private sector: the same taxation lag that insulated public institutions from the onset of the recession, will postpone the beneficial effects of the economic recovery, if and when it arrives. Furthermore, in the longer term, as baby boomers age and provincial governments face steadily more pressure on their health care budgets, it seems unlikely that provincial higher education budgets will grow more generous.

The federal government's response to the economic crisis of 2008 meant both good news and bad news for Canadian colleges and universities. In March 2009, tri-council research funding was cut by almost \$120 million: \$8.2 million for SSHRC, \$40 million for CIHR, and \$70 million for NSERC. At almost the same time, Ottawa announced a \$2 billion Knowledge Infrastructure Program to benefit campuses across the country. KIP-funded construction and renovation announcements rolled out steadily, province by province, throughout 2009 (Top Ten). In effect, the federal government was reducing its support of researcher salaries, but increasing its commitment to the more visible bricks and mortar on university and college campuses. Academic leaders expressed concerns about the ongoing operational costs of the new infrastructure, but many focused on "shovel-ready" construction projects that were already planned, allowing institutions to shuffle funds back to their operating budgets.

CAMPUSES RESPOND TO FISCAL PRESSURES

As Moody's Investor Service observes, colleges and universities are "consensus-driven organizations that are not accustomed to rapid implementation of expense reductions and bud-

get changes" (Moody's, 2009). Bi-cameral and tri-cameral governance is an ideal model to maintain tradition and quality, but not to implement innovations or manage budgets in the face of increasing economic pressure. Most academic institutions take a collegial, equitable approach to budget cuts: across-the-board reductions in budget, evenly between academic departments and administrative support units. (Although since academic self-governance typically veers away from cutting faculty positions, administrative units usually suffer the steepest budget cuts.) Academic institutions are by their very nature conservative, tending to preserve the status quo and embracing change only in moderate, incremental ways. This conservative approach is perfectly designed to advance scientific knowledge over the decades, but ironically militates against decisive administrative change. This tendency to incremental management often looks like deference to the status quo, or procrastination: so far, the most common institutional responses to budget cuts have been deferred maintenance and construction, merging academic departments or research institutes, hiring freezes, salary freezes, and increased teaching loads. In the U.S., where private colleges have far less insulation from the economic downturn, sabbaticals are being cancelled, mandatory furloughs imposed, campuses are being merged or closed, and in an increasing number of cases, for-profit colleges are buying up ailing nonprofit colleges. Many U.S. colleges and universities have made more strategic, "vertical" cuts, eliminating programs, faculties, or schools, often in the humanities and specifically the modern languages. Hints of furloughs have reached Canada, and the 2010 O'Neill report encourages mergers among some Nova Scotia universities (Top Ten), but many of these more extreme fiscal realities are unlikely to impact Canadian institutions in the near future. Provincial governments build new campuses to win votes, and invest in bricks and mortar to demonstrate a commitment to postsecondary accessibility, but none have yet seen it as politically expedient to close a university or college campus. (When elementary and secondary school closures have been inevitable, provincial governments have typically downloaded the responsibility, and the political fallout, to district school boards.)

TUITION INCREASES

In the past 20 years, PSE tuitions in Canada have risen significantly. In 1990, the average Canadian undergraduate paid \$2,000 in annual tuition (in constant 2009 dollars); by 2009 that had more than doubled to \$5,583 (CAUT, 2010). Tuition for professional programs, however, increased from similar starting points to vastly higher tuitions in 2009: Law to more than \$8,500, Medicine to more than \$10,200, and Dentistry to almost \$14,000. Canadians are socially inclined toward public education, and a recent poll found that 60% of Canadians would support the elimination of PSE tuition altogether (CAUT, 2009).

Despite student protests to the contrary, university and college tuition fees in Canada are still remarkably affordable. Students in the U.S., Australia, Korea, and Japan pay vastly more of the cost of their education, although students in fifteen other OECD countries pay substantially less—particularly in Denmark, Finland, and Norway, where public sources account for more than 95% of PSE funding (CAUT, 2010). Nonetheless, compared to a student's opportunity cost of spending a year in higher education—anywhere from \$20,000 to \$70,000 depending upon student age and provincial employment rates—tuition of \$1,500 to \$7,000 is not the primary impediment to pursuing an education. In fact, recent studies have emphasized the importance of parental education and social barriers, above and beyond financial accessibility, as primary influencers of the PSE participation rate (Berger, 2007).

Tuition fees vary significantly across the country. Community college tuitions are highest in Prince Edward Island, Saskatchewan, and Alberta, and considerably lower than average in Ontario, Newfoundland & Labrador, and particularly in Manitoba (Berger, 2007). University tuitions, on the other hand, are highest in Nova Scotia, and considerably lower than average in Alberta, Manitoba, Newfoundland & Labrador, and of course Quebec, where they were frozen for 13 years prior to 2007. Artificially low tuitions in Quebec, which have not significantly raised comparatively low participation rates, have, however, had the effect of diminishing the resources of Quebec universities while raising trade barriers to prevent other institutions from recruiting many Quebec students. In Atlantic Canada, where provinces with very low and very high tuition are in close proximity, price-sensitive students have proven quite willing to relocate across provincial boundaries to pursue their education.

The most significant impact of rising tuition fees on prospective students, however, is that the higher perceived "price tag" fosters a consumer mentality and a focus on career return on investment (ROI). Institutions and government have gladly encouraged this ROI focus, by emphasizing the "million-dollar bonus" a university graduate apparently earns over his lifetime, to justify transferring more of the cost of PSE onto students and away from government. (AUCC has recently calculated the benefit as \$1.3 million over high school graduates, and \$1 million over college graduates.) The unintended result of this emphasis on ROI, however, as Jeff Rybak explains, is that students receive "the not-so-subtle message . . . that education for its own sake is rather frivolous" (Rybak, 2007). Students enrol in PSE not

to learn, not to grow as individuals, but to obtain a credential that will ensure them greater career opportunities. Rybak observes that many students he counseled at the University of Toronto were making "safer" program choices, and choosing "safer" thesis topics or research areas, because higher tuition created a greater sense of financial risk for the student. The unintended consequence of tuition fee increases may ultimately be reduced interest in the liberal arts and sciences, and more focused demand for career-oriented and professional programs—which could be an impediment in what Richard Florida calls the dawning "creative economy" (Florida, 2002).

Nonetheless, tuition increases are continuing, and in some cases accelerating. Late 2009 and early 2010 saw proposals for some particularly aggressive tuition increases: in November 2009, the Northern Alberta Institute of Technology proposed a 40% tuition increase to bring its fees in line with those of SAIT Polytechnic, but the province denied the request; the same week the University of Alberta requested a 66% tuition hike for professional programs, and got approval from the same government. In April 2010, the University of Manitoba proposed tuition increases of 46% for Law, 54% for undergraduate business, and 78% for its MBA program. The same month in Quebec, McGill University proposed raising tuition for its MBA program from \$1,672 to \$29,500—a 1664% increase, although still a bargain compared to \$70,000 at other institutions. The government of Quebec publicly opposed the move and promised to claw back funding equivalent to the MBA fees McGill charges, but at the time of writing, McGill administration was undeterred (Top Ten).

In a world of globalizing research and employment, international student recruitment, and competition, it seems inevitable that Canadian tuitions will eventually rise. At the very least, tuitions for institutions with global ambitions will need to rise significantly: with fixed government funding and immovable salary expenses, there are few other levers available to campus administrators, if they are to compete with better-funded U.S. institutions for faculty, research dollars, and top students. Rising tuitions will place increasing pressure on enrolment, pose new barriers to accessibility, increase demands for financial aid, and likely exacerbate student anxieties about ROI, focus on career outcomes, and expectations for campus services.

PRIVATIZATION ON CAMPUS

Many North American institutions have recognized the potential for international student recruitment, and in the face of budget constraints have sought external partners to achieve faster results. Many have partnered with North American consultants to recruit more effectively overseas, or to join trade missions or postsecondary fairs. Many more have hired overseas agents to recruit students directly, sometimes on a thinly disguised commission basis. But in the past few years, several Canadian universities have made headlines for controversial decisions to partner with private-sector education companies, such as Navitas or Study Group International (both based in Australia), not only to recruit international students, but to educate them in "foundational" or "pathway" programs on or adjacent to the university campuses in Canada, until the students are prepared to transfer into the established academic stream (Top Ten).

In February 2006, Simon Fraser University contracted with Navitas to open "Fraser International College," and the SFU board of governors approved a ten-year renewal of the partnership in October 2010. Over the first four years of the agreement, they report a total of 1,260 students from 40 countries have passed through the FIC program, and that 900 graduates have transferred to SFU. In November 2007, the University of Manitoba administration signed a five-year contract with Navitas to manage the International College of Manitoba, without consulting the Senate or Board of Governors. In February 2008, McMaster was close to a deal to establish McMaster University College with Navitas, but campus outcry derailed the deal permanently. In January 2010, the University of Windsor senate voted against a SGI partnership for a business prep academy. As of February 2010, Navitas reported that it was negotiating with Dalhousie University, and in May 2010 that it was negotiation with Carleton University, to establish international foundation year programs on campus in Canada.

Critics of these partnerships, most notably and vocally faculty associations, are concerned about what they see as "the outsourcing of education" on public university campuses (CAUT, 2010a). Navitas instructors earn lower salaries, have no collective agreements, pensions, tenure, or academic freedom: in the U.K., such arrangements have been criticized as creating "a two-tier workforce in higher education" (UCU, 2010). Private-sector companies are trading on the reputation of the public university, charging the same international tuition fees, and paying royalties or fees to the institution for the use of resources such as classrooms, labs, computers, and health and career services. Some see Navitas paying for access to better facilities than the university's own faculty can afford. Others are concerned about the implicit guarantee of progression into second-year university programs after the completion of the foundational year (Top Ten). Spokespeople deny it, but the Dalhousie Faculty Association worries that Navitas would create a "back door" into Dalhousie that would

put a "massive strain" on academic standards at the university (DFA, 2010). Brochures for the International College of Manitoba clearly state on the cover that they are "Your Direct Pathway to University of Manitoba," and feature the U of M coat of arms equal in size to the logo of ICM. Effectively, say critics, the institutions have outsourced the teaching of first year for international students. Of even greater concern than the current arrangements to deliver foundational programs, faculty associations claim that the Navitas business plan includes eventually delivering full degree programs in partnership with universities (UCU, 2010).

Perhaps the most extreme example of faculty outsourcing to date arose in Michigan in fall 2010: Washtenaw Community College announced that it was outsourcing 400 adjunct faculty positions to a temp agency, in order to save \$800,000 annually in pension contributions (Top Ten). It is no coincidence that some of the most radical college strategies have been implemented in Michigan, a state at the epicenter of the economic recession. It currently seems unlikely that such desperate measures would appear on Canadian campuses, but that may depend entirely on circumstances.

RISING LABOUR TENSIONS ON CAMPUS

Since 1970, what faculty associations would call the rising commercialization of the academic enterprise has led to political tensions on campus between administrators seeking to manage the institution efficiently as a market-driven business, and faculty who cherish centuries of traditional academic self-governance (Turk, 2008). Scholars and researchers are by their very nature intellectual individualists, following their own research interests and respecting academic freedom and autonomy as self-evident values. Few academics, however, are by nature intellectual entrepreneurs, alert to opportunities in their environment, and responding to unmet student enrolment demand or looming labour market shortages. While every self-respecting campus has a program review cycle, that review is often focused on academic quality, not relevance to student or societal demand. Canada's community colleges are much better at marrying educational function with marketplace needs, largely because their original mandates emphasize meeting local and regional industry and workforce needs. Colleges typically have program advisory committees comprised of representation from industry and community, and curriculum is reviewed regularly for currency and relevance.

As campus administrations have responded to budgetary and enrolment pressures by increasing class sizes, hiring part-time, adjunct, or teaching-stream faculty, freezing salaries and limiting benefits, formerly collegial relationships on campus have been growing more heated and adversarial. Just before Christmas 2007, the administration of St. Thomas University in Fredericton made history by pre-emptively locking out faculty, a first on a Canadian campus (Top Ten). The negotiation stalemate persisted until February 2008, when classes finally resumed. Labour tensions on Canadian campuses grew in 2008, with support staff strikes at Concordia University, New Brunswick Community College, and Seneca College, among others, and faculty strikes at Wilfrid Laurier University, McGill University, the University of Windsor, the University of Sudbury, Brandon University, Université Laval, and, of course, York University, where teaching assistants and contract faculty were on strike from November 7, 2008, until January 30, 2009. That bitter strike persisted throughout the undergraduate application season, resulting in a decrease of 3,897 applications direct from high school, a 13.7% decrease in "first-choice" applicants, and a 7.3% decrease in confirmed enrolments that September. Labour action continued to percolate on campuses across Canada in 2009 and 2010, when 27 CUPE locals (Canadian Union of Public Employees) across Ontario were renegotiating their contracts and multiple faculty associations won strike mandates (Top Ten).

It is difficult to predict with any accuracy the future of labour action on Canadian campuses, although it seems clear that a protracted strike can have a major negative impact on student enrolment in subsequent years. The long-term trends would seem to support a future with escalating labour tension, particularly at universities: since 1975, Canadian universities have seen a 30% increase in full-time faculty while experiencing a 100% increase in undergraduate enrolment (AUCC, 2007); over the same period, total university budgets have increased 150% but expenditures on academic rank salaries have fallen from 30% to 20% of institutional budgets (CAUT, 2010). These Canadian statistics are corroborated by a controversial Goldwater Institute report, Administrative Bloat at American Universities, which observed "diseconomies of scale" as instructional expenses increased 39% between 1993 and 2007, but administrative expenses increased 61% (Goldwater, 2010). With steadily increasing enrolments, capped government funding, rising course loads and class sizes, labour tension on Canadian campuses is unlikely to diminish in the foreseeable future.

LOOMING DEMOGRAPHIC CHALLENGES

Canadian postsecondary institutions will face a full spectrum of demographic challenges in the coming decades. The natural birthrate in Canada has been declining since the popularization of oral contraception in the 1960s, and Human Resources and Skills Development

Canada projects the birthrate will slip into negative territory around 2027. AUCC believes that rising participation rates, international recruitment, and the recruitment of traditionally underrepresented groups will maintain fairly stable university enrolment over the next 15 years (AUCC, 2007), but the Canada Council on Learning projects overall PSE enrolment in Canada will drop by 120,000 students by 2025 (CCL, 2007). Canada's universities are in a privileged position when it comes to enrolment management, because most can simply lower entrance average requirements to maintain full enrolment. Combined with growing student interest in undergraduate and graduate degree programs, universities may skim off the highest-achieving college applicants and create new enrolment management challenges for Canada's community colleges.

Canada's population is distributed very unevenly across the country, and demographic trends look decidedly different depending upon region. In Toronto and the Greater Toronto Area, all projections point to massive increases in youth populations and heightened demand for university and college places well past 2030. Likewise, Calgary can anticipate positive demographic trends and enrolment growth—as well as plenty of recruitment activity in their backyard by institutions from across the country. While the population decline will be moderated in B.C. by plenty of in-migration, demographic projections call for an increasingly senior population attracted to B.C. for their retirement. (This may represent a boon for continuing education, but not for traditional full-time undergraduate programs.) At the opposite extreme, regions of Northern Ontario, Atlantic Canada, and the prairies face precipitous population declines over the coming 15 years, which will be felt most acutely in Newfoundland & Labrador, New Brunswick, PEI and Nova Scotia, and possibly Saskatchewan (although recent economic swings have benefited in-migration there).

As the birthrate has declined in Canada, most population growth has occurred through immigration. Between now and 2050, new Canadians and first-generation Canadians will be an increasingly dominant majority of Canadian youth. Stats Can projects that by 2017, the so-called "visible minority" will in fact be the majority for Canadians under age 50. Studies conducted by Academica Group for a number of government agencies have detected clear tendencies among new Canadian and first-generation Canadian applicants to Ontario universities: they are twice as interested in commuting to campus and living with their parents than living in residence, they are less interested in college and more influenced by their parents, and they are almost twice as interested in fields like science, commerce, engineering, and mathematics, and far less interested in the arts, humanities, social sciences, education,

fine arts, or music (UCAS, 2005). Unless significant cultural change occurs, university humanities faculties may well face steadily intensifying enrolment challenges.

SHIFTING FOCUS TO "NONTRADITIONAL" STUDENTS

From coast to coast, college and university administrations are aware that traditional demographics are in decline, but are committed to attract "non-traditional" students to more than make up the difference and maintain critical mass and institutional momentum. In some regions of the country, the focus is on Aboriginal students, who are underrepresented in higher education and on university campuses in particular. The recent financial scandals at First Nations University of Canada in Regina has not helped the cause of Aboriginal postsecondary participation (Top Ten). While economic hardship poses a real barrier to some urban Aboriginal students, the larger obstacles to Aboriginal participation in PSE are geographic, social, cultural, and educational. Aboriginal communities are often remote and inaccessible, and are sometimes unsupportive of a young person's aspirations to go away to university. Aboriginal youth face heightened identity anxiety over the decision to attend PSE, because it often simultaneously seems to them like a rejection of family traditions. Many Aboriginal youth struggle with math and science prerequisites in high school, and are academically unprepared for university. And sadly, some Aboriginal students arriving on campuses find the system too inflexible to accommodate their spiritual or family obligations, unwelcoming or alienating, and they fail to persist. All of these barriers should be addressed, and campus retention professionals should certainly make learning supports and cultural supports for Aboriginal students a priority, but in most regions of the country the actual number of Aboriginal students an institution can conceivable attract will not make up for demographic declines in the mainstream population.

On many campuses, the focus is therefore on the higher fee-paying international student, as a non-traditional market to sustain the academic enterprise. Canadian student recruitment efforts have been particularly successful in China, the U.S., France, and India (AUCC, 2007), but colleges and universities are establishing institutional partnerships with peer institutions in dozens of countries to attract students. On most campuses, international students comprise roughly 10% of the total student population, and while the market in some parts of the world is immense, there are practical limits on how many foreign students a campus can absorb before pressures on student support services become unmanageable. There is also a market-driven limitation: many international students

come to Canadian campuses to study alongside Canadian students, and as the ratio shifts toward international students, an institution will eventually become less desirable as a Canadian destination. (Some campuses have also outsourced international "foundation year" programs, as noted above.)

Mature students are another non-traditional market for many Canadian institutions, although administrators may overestimate the market potential and underestimate the competition. Despite considerable institutional marketing and government policy efforts, and the doubling of university participation rates by youth aged 18-22, the participation rate of Canadians older than age 25 has not significantly budged in 35 years (CAUT, 2010). Plant closures and layoffs drive blue-collar workers back to college in particular, but generally only for short-term retraining programs that government will fund. More than half of applicants to Ontario universities over age 25 are actually considering community college instead (UCAS, 2009). Mid-career professionals are indeed a growing market for post-degree diploma programs and professional master's degrees, but their busy lives spent juggling employment, spouses, children, and elderly parents mean that online or distance education providers represent a more attractive option than the traditional campus experience. Many Canadian institutions still underestimate the competitive threat posed by the University of Phoenix, Kaplan University, Athabasca University, and Royal Roads University, and by the distance education offerings of American public universities: the fact is that non-traditional students may well prefer non-traditional forms of education, and established brands with economies of scale will pose a significant competitive threat.

SHIFTING EXPECTATIONS OF TRADITIONAL STUDENTS

Although overall university participation rates have been rising in Canada, over the past 35 years almost all of that increase has occurred among the traditional university-bound cohort of 18- to 25-year-olds. There is no statistical evidence that tough economic times, degree inflation, accessibility initiatives, or other efforts at recruiting non-traditional students have had significant impact on the participation rates of students over the age of 25 (CAUT, 2010). So the "traditional student" will likely remain the focus for most institutions as they compete for enrolments in Canada. Traditional students are themselves a "moving target," as the annual "Mindset List" from Beloit College reminds us every September (Beloit, 2010), and a stack of sociology texts describing the "Millennial Generation" attempts to define (Howe & Strauss, 2000). While it is unfair and inaccurate to generalize across an entire generation,

there are some clear trends that will almost certainly continue to affect enrolment management professionals across Canada for years to come.

THE NEW CAREERISTS

Students have become increasingly focused on career outcomes of their postsecondary education (UCAS, 2000–2010), and recent surveys have found that Canadian students are focused on finding interesting work, work-life balance, interesting co-workers and job security (Brainstorm, 2010). As a result, their dream employers are now governments, charities, and high-tech superstars Google, Apple, and Microsoft. Fully 57% of applicants indicate that careerist considerations drive their pursuit of higher education, compared to just 18% who cite a desire to pursue advanced study, and 14% who seek to develop themselves personally (UCAS, 2009). Application volumes to university programs in Ontario demonstrate that students respond within months to shifts in the labour market, losing interest in computer science or journalism as career opportunities are perceived to be in decline, and focusing on social work, nursing, and education when government employment appears most secure (OUAC, 2009).

There seems to be a movement among Canadian colleges, in particular, to meet the marketplace demand for career-oriented degree programs through applied degrees, joint and collaborative degrees, or even hybrid institutions like the University of Guelph-Humber or Seneca@York, which promise students the best of both worlds. Nine institutions in Ontario, Alberta, and B.C. have collectively established an organization called Polytechnics Canada to promote a middle path—degree-granting colleges and technical institutes that conduct applied research—even though their governments may not explicitly recognize them as "polytechnics" per se (Top Ten).

For decades, Canadian universities have been meeting student demand for more career-oriented, professional degree programs—but in recent years, some have been catering to student desires for career certainty by offering outcome "guarantees": the University of Calgary guarantees undergraduates will complete their program within four years; and the University of Regina guarantees employment in the student's chosen career within six months of graduation (provided that students uphold their end of a fairly comprehensive bargain). These guarantees serve to reinforce the rising tide of consumerism among PSE students, and reinforce the focus on completion and career returns, rather than quality of education or development of student character.

BALANCING STUDY, EMPLOYMENT, AND CREATURE COMFORTS

Students are increasingly seeking work-life-school balance, not an immersive or fully engaged student experience. Although most undergraduate students continue to enroll fulltime, the amount of paid employment they assume has risen steadily since 1976 (Motte, 2009). U.S. statistics have found in particular a rise in the percentage of college students working 20-24 hours per week at paid employment, and the U.S. National Center for Education Statistics has developed a special category for "part-time students who looked like full-time students" (NCES, 2004). As college and university students increasingly divide their time between studies and paid employment, hours spent studying declines (Babcock, 2010), time to degree completion rises (NCES, 2001), and, inevitably, student engagement and retention become more and more challenging.

Students' parents are increasingly well-educated, overprotective "helicopter parents," with apparently insatiable appetites for enhanced campus security, emergency notification systems, campus Webcams, and even tattle-tale vending machines (Top Ten). In the U.S., "College Parents of America" maintains a Web site, a blog called "Hoverings," and conducts an annual "Survey of College Parent Experiences." Some institutions have introduced parent-only tours and orientation programs, parent-specific Web sites, and formal "farewell" ceremonies to give parents the hint that they should cut the apron strings.

Student expectations for campus services are also rising, from pervasive Wi-Fi and luxurious computer commons to one-stop service centres, online registration, credit card tuition payments, and pet-friendly dorms. More and more institutions are constructing luxurious dorms with private bedrooms, much like students enjoy at home, or repurposing luxury hotels as residence space. Student admissions processes are becoming more flexible and responsive, from hand-held data collection during high school visits to personalized printon-demand viewbooks, from customizable Web portals for applicants to online previewing of residence rooms and roommates (Top Ten).

MORE AGGRESSIVE MARKETING

Canadian colleges and universities have traditionally been conservative recruitment marketers: continuing education departments and MBA programs have been the biggest advertisers, while foundation and capital campaign purposes have driven many national branding campaigns. In most cases there has been a collegial respect for institutional catchment areas, and a desire to avoid expending public dollars in an escalating marketing "arms race"

with a zero-sum collective gain. Institutions have invested in detailed and insightful market research for well over a decade now, and increasingly have been attempting regional market share analysis and geotargeting, but to the casual observer, universities did not need to actively recruit students, and overt advertising would suggest a whiff of desperation.

In some ways, the marketing landscape started to change in 2004, when York University launched its "subway station domination" campaign—at the St. George TTC stop, immediately beneath the University of Toronto. Then in 2008, Lakehead University moved the bar for aggressive marketing still further, when it plastered downtown Toronto with its "Yale Shmale" teaser campaign, featuring a photo of then-president George Bush. (The campaign microsite explained that "graduating from an Ivy League university doesn't necessarily mean you're smart.")

Recent years have seen more examples of aggressive PSE marketing in Canada. In 2008, Colleges Ontario launched a mass media viral marketing campaign touting an imaginary pharmaceutical, "Obay," to emphasize to parents that their children should be permitted to consider college pathways to solid and lucrative careers. Later in 2008, Algoma University ran a Toronto-focused campaign for fictitious "Colossal University," denigrating its huge class sizes, impersonal attention to students, and "cookie-cutter" approach. (Algoma now uses a campaign focused on putting 681 km between you and your parents.) Memorial University of Newfoundland has blanketed transit routes to major university campuses across the country with advertisements for "graduate programs on the edge," and invites undergraduate applicants to "Rant Like Rick" in a video contest inspired by honorary graduate Rick Mercer. Brock University has clearly invested heavily in a national branding campaign featuring "Both Sides of the Brain." Lethbridge College has invited students to come to its "totally new'd" college (and assuring students "we'll explain to your parents").

Although the most obvious examples of aggressive advertising are originating in regions of Canada facing the steepest demographic declines, PSE advertising is also heating up in regions with intense competition among neighbouring institutions. Toronto's Centennial College has used grungy models in its advertising, explaining that "Einstein didn't own a hairbrush either," and that "The Freak shall inherit the Earth." Toronto's George Brown College tried to build a memorable brand on the slogan "Brown Gets You the Job," but was reportedly derailed by lawyers from United Parcel Service. Calgary's SAIT Polytechnic currently features senior citizens in its advertising, above the slogan "get a career you'll never want to leave," while Mount Royal University recently ran an airport-themed

campaign encouraging prospective students to "get on board" because "your future is about to take off" (Top Ten).

In 2010, two American universities launched what some detractors might call an even more unseemly approach to advertising higher education: the music video. In the wake of the immense popularity of High School Musical, Glee, and American Idol, Yale University surprised the Ivy League by launching a 16-minute student recruitment music video in January 2010. Hundreds of talented Yale students, alumni, and "recent grads working in the admissions department" sang, danced, and played musical instruments through a remarkably detailed introduction to the residential college system, Yale's libraries, student services, history, and program offerings. (A disclaimer at the conclusion of the video apparently attempts to distance the institution from the production of the video, but the admissions department was pivotal.) Shortly thereafter, in April 2010, the University of Delaware launched an 8-minute music video on YouTube, featuring an introduction in which the university's president and registrar explicitly endorse the music video project.

Canadian universities, ever more conservative than their U.S. counterparts, have not yet embraced the student recruitment music video as a form of marketing, but they have encouraged their students and student associations to create amateurish "lipdub" videos based on popular songs. In Canada, these lipdubs originated with the Université de Quebec a Montreal and Université Laval in 2009, and were followed in 2010 by Campus St-Jean in Edmonton, Brock University, Dalhousie Student Union, the Mount Allison Student Association, the University of Waterloo, and the University of Victoria (Top Ten). The videos do little to promote academic values or program offerings, but emphasize student spirit and the friendliness of the student association.

NEW COMPETITION FROM OLD INSTITUTIONS

The competitive landscape for student recruitment is changing. Canadian colleges and universities are quick to identify their peer institutions and "aspirational set" as key competitors for student recruitment. Sometimes quantitative market research confirms that these institutions are in fact true competitors in the marketplace, but in many cases institutions are surprised to discover that their real competitors are less direct. In regions experiencing economic growth, the labour market is the biggest competitor for postsecondary students, who face a significant opportunity cost if they forgo employment to attend school full-time. In many jurisdictions, the primary competitor for a community college is the local university, and likewise colleges are a serious consideration for about one-quarter of university applicants. In recent years, seven colleges in Alberta and B.C. have been redesignated as universities, transforming the competitive landscape and disrupting traditional transfer patterns (Top Ten). Nearly a dozen Ontario universities and colleges have announced plans to build new satellite campuses in the Greater Toronto Area to meet the projected enrolment demand, and a recent HEQCO report recommended that the province establish a new undergraduate teaching university in Toronto (HEQCO, 2009). The higher education landscape in Canada is not staying fixed, even for public institutions.

MULTINATIONAL FOR-PROFIT COMPETITORS

Just as the Internet has proven to be a fundamentally disruptive technology for the music, newspaper, and magazine businesses, and may soon transform the book and movie industries, it has the potential to radically change any sector focused on the transfer of information that can be digitized. Higher education institutions will need to be alert to online competitors over the next decade, just as American institutions have been surprised to watch the sudden rise of the University of Phoenix and Kaplan University. In 2010, the University of Phoenix has more than 455,000 students (more than the entire enrolment of the "Big Ten" U.S. institutions), and 200 campuses across the U.S., Canada, Mexico, and internationally. The University of Phoenix generates almost \$4 billion in tuition revenue annually, and commits 23.5% of net revenue to marketing. Despite tuitions as much as twice the rate of public universities, American for-profit providers have seen immense enrolment growth in the wake of the recession: 2009 enrolment at the University of Phoenix was up 22% from 2008, and Kaplan saw enrolment increases of 28% on enrolment of more than 100,000 students. (In the wake of controversy over government financial aid, the University of Phoenix reported a 10% drop in enrolments over the summer of 2010.) The University of Phoenix has established several Canadian campuses, primarily in western Canada, and a new brand, Meritus University, in Fredericton (Top Ten). So far, traditional institutions perceive little threat, but upstart competitors are often dismissed by established players in their early days, only to grow into strong competitors years later.

Thus far, the social biases of Canadians (and of course government-subsidized tuitions) have insulated public institutions from their more nimble but less trusted for-profit competitors. But as students focus more and more on career outcomes as the only metric that matters, employers—not academic accreditation boards—will hold the balance of power. If

Canadian employers respect a degree from an online or for-profit institution sufficiently, and students perceive more attractive program offerings or more convenient service or delivery options, significant enrolment could shift from traditional institutions to these new competitors, as they have in the U.S., despite tuition fee differentials. This is particularly true for the "non-traditional" students so many institutions hope to attract—mature students juggling busy lives, rural students far from a traditional campus, or even full-time undergraduates who simply want to juggle employment and work, and are fluent and comfortable in an online environment.

DISRUPTIVE TECHNOLOGIES

The potentially disruptive power of the Internet on higher education should not be underestimated: online and for-profit institutions represent only the most conventional competitive threat as a result of the Web. For students seeking educational content, the Internet provides an incredible range of free options, from MIT's OpenCourseWare consortium to Webcast.Berkeley, and from iTunesU to TED.com. Lectures have been digitized, published, commoditized, and priced at free—all in the space of a few short years. Already, some traditional students on Canadian campuses report that they prefer to watch MIT lectures online, finding them more dynamic and comprehensible than their own professors. International studies are consistently proving that podcast lectures result in 15% better learning outcomes for students, are appreciated as an option by most students, and are in fact preferred by many students (Top Ten). Traditional lecture theatres may well become relics in the next few years; some campus planners are already reporting a focus on building smaller and more flexible learning spaces in new construction.

In 2010, experiments are just beginning with eTextbooks, iPads, and various tablet computers as part of the postsecondary curriculum. But as the traditional anchors of any campus—libraries and lecture halls—are distributed globally across the Web, these shifts will inevitably impact campus business models: institutions are no longer in the business of selling lectures to undergraduates, just as they have long since ceased to be in the business of preserving written books in libraries. The impact of eLearning will extend well beyond traditional humanities programs: instructors in SAIT Polytechnic's electrician apprenticeship program are already experimenting with delivering upper-year education electronically, and as surgeons increasingly direct surgical robots remotely via the Internet, someday even brain surgery could conceivably be taught in a virtual or simulated environment.

THE DISINTERMEDIATION OF HIGHER EDUCATION

The biggest disruptive threat to any established knowledge industry is the "disintermediating" power of the Internet (Tapscott, 2006): people can get what they need directly from each other, without the need for intervening institutions (Li, 2008). Local booksellers experienced this power early on as Amazon and Indigo offered superior selection, price, and search capabilities. Kijiji and eBay have replaced the need for consignment shops (and perhaps soon, real estate agents). Even the mighty Encyclopedia Britannica appears to have lost the battle against Wikipedia, and the Oxford English Dictionary is relevant today only because it has an efficient online delivery mechanism (Top Ten).

Students can now obtain world-class lectures, textbooks, course outlines, and tests online without ever setting foot on a traditional campus. Open courseware makes course content available free online, anywhere in the world. The Internet already hosts eponymous
institutions like the "Jack Welch MBA," "Trump University," and even Glenn Beck's "Beck
University" (Top Ten). Dynamic and inspiring lecturers can easily reach an online audience as "free agents," without institutional support. "Wiki" Web sites are appearing to allow
students to socially network among themselves, helping each other learn course content.
(These include Cramster.com, UniversityJunction, Peer2Peer University, and even Stanford
University's Engineering program.)

The next step in the disintermediation of higher education is the dawn of "Open Teaching," in which faculty are also available to students online, at no charge. Many faculty at traditional institutions are already allowing non-students to audit their online courses for free. An experimental Web site launched in the fall of 2009 is formalizing and expanding on the open teaching model: the University of the People (UoPeople. com) offers students open courseware, social networking among themselves, and access to volunteer faculty. In its first year, UoPeople has just two hundred students from 50 countries, in business and information technology programs, but it aims to revolutionize global higher education by offering university degrees to students in developing countries, virtually for free: it declares it will be "the world's first tuition-free, online academic institution dedicated to the global advancement and democratization of higher education." (In the pilot program, students enrol for \$15 and pay \$100 to take the final exam.) UoPeople is seeking full-blown degree-granting accreditation in the U.S., and aims for 10,000 students by 2014—about the size of the University of Phoenix back in 1990. UoPeople is no lightweight, either: it was founded by Israeli multi-millionaire Shai

Reshef, who sold previous online institutions to Kaplan and Laureate Education, and is currently chairman of Cramster.com.

FACING A RAPIDLY-CHANGING ENVIRONMENT

The Internet's disruption of the music and newspaper industries took more than 15 years, and the full impact of disintermediation on higher education will likely take even longer, because traditional institutions still enjoy a virtual monopoly on degree credentials in Canada. But just because technological change has not yet transformed the business model of a campus, does not mean it will not do so in the years ahead. Bill Gates, founder of Microsoft, famously wrote:

We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten. Don't let yourself be lulled into inaction. (Gates, 1995)

In the face of evolving competition, steadily shifting student expectations, budget constraints, unpredictable political interference, transformations in the workforce, globalization, and technological change, Canadian college and university leaders need to be alert to emerging threats and opportunities—but they must also nurture a nimble, entrepreneurial, and innovative campus culture. Forward-looking institutions will need to challenge longheld assumptions about program offerings, delivery methods, physical plant, and student services. In the increasingly global landscape of higher education, future success will belong to those institutions that possess unique vision, are unafraid of change, and boldly find new ways to meet the sometimes contradictory demands of students, scholars, government, and the economy.

REFERENCES

AUCC (2007). Trends in Higher Education, Vols. 1-3. Ottawa: Association of Universities and Colleges of Canada. Available at www.aucc.ca.

Babcock, Phillip and Mindy Marks (2010). Leisure College USA: The Decline in Student Study Time. American Enterprise Institute for Public Policy Research.

Beloit College (1998-2010). Beloit College Mindset List, available annually at www.Beloit.edu/mindset

Berger, J. and Motte, Anne (2007). Mind the Access Gap: Breaking Down Barriers to Post-Secondary Education. Canada Millennium Scholarship Foundation.

Brainstorm Consulting (2010). From Learning to Work, national survey of 16,000 Canadian college and university students.

CAUT (2009). Poll: Canadians Want Tuition Fees Lowered or Eliminated, CAUT Bulletin. Based on a Harris-Decima poll of 2,036 Canadians, November 2008.

CAUT (2010). Almanac of Post-Secondary Education in Canada, 2010–11. Toronto: Canadian Association of University Teachers.

CAUT (2010a). Outsourcing Deals Face Stiff Opposition at U of Windsor, Dalhousie. Canadian Association of University Teachers Web site, 2010.

CCL (2007). Report on Learning in Canada 2007: PSE in Canada, Strategies for Success. Canadian Council on Learning.

Cote, James E. & Anton L. Allahar (2007). *Ivory Tower Blues: A University System in Crisis*. Toronto: University of Toronto Press.

DFA (2010). An Open Letter to the Dalhousie University Community, on the Dalhousie Faculty Association Web site.

Florida, Richard (2002). The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life. New York: Basic Books.

Gates, William H. III (1995). The Road Ahead. New York: Viking Penguin.

Goldwater Institute (2010). Administrative Bloat at American Universities: The Real Reason for High Costs in Higher Education. Policy Report, August 2010.

HEQCO (2009). Glen A. Jones & Michael L. Skolnik, Degrees of Opportunity: Broadening Student Access by Increasing Institutional Differentiation in Ontario Higher Education.

Howe, Neil and William Strauss (2000). Millennials Rising: The Next Great Generation. New York: Vintage Books.

Kelly, Jim (2009). Change key to solid future: LU leader. The Chronicle-Journal, Thunder Bay Ontario, May 20, 2009.

Li, Charlene and Josh Bernoff (2008). *Groundswell: Winning in a World Transformed by Social Technologies*. Boston: Harvard Business Press.

Moody's (2009). 2009 U.S. Higher Education Outlook. Moody's Investor Services.

Motte, Anne and Saul Schwartz (2009). Are Student Employment and Academic Success Linked? Canada Millennium Scholarship Foundation Research Note 9, April 2009.

NCES (2001). 2000–01 Baccalaureate and Beyond Longitudinal Study. U.S. Department of Education, National Center for Education Statistics.

NCES (2004). 2003–04 National Postsecondary Student Aid Study, U.S. Department of Education, National Center for Education Statistics.

OUAC (2009). Application and enrolment volume statistics published annually by the Ontario Universities Application Centre.

Rybak, Jeff (2007). What's Wrong with University: And How to Make it Work for You Anyway. Toronto: ECW Press.

Snowdon, Ken (2010). Percentage contributions to Ontario university operating budgets, data compiled for HEQCO and reproduced in the Globe & Mail.

Tapscott, Don and Anthony D. Williams (2006). Wikinomics: How Mass Collaboration Changes Everything. New York: Portfolio.

Top Ten (2007–10). This chapter references and consolidates news and information contained in thousands of news stories reported in Academica's Top Ten, a daily news brief edited by Ken Steele. The news items and links to original sources are available in a searchable database on the Academica Group Web site at www.academica.ca.

Turk, James L. (2008). *Universities at Risk: How Politics, Special Interests and Corporatization Threaten Academic Integrity.*Toronto: Canadian Association of University Teachers.

UCAS (1997–2010). *University College Applicant Study*, a national survey of 200,000 PSE applicants conducted annually by Academica Group.

UCU (2010). Joint Venture Watch, on the University and College Union Web site, U.K.