



**Reforming the Universities:
The Coming Upheaval in
Higher Education
in Nova Scotia and Elsewhere**

**by
Edwin G. West
Professor Emeritus, Carleton University**

Atlantic Institute for Market Studies
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1326 Barrington St., Halifax, Nova Scotia B3J 1Z1
Telephone: (902) 429-1143 Fax: (902) 423-1528 E-mail: aims@fox.nstn.ns.ca

Edwin G. West is Professor Emeritus at Carleton University, Ottawa, Ontario. The author would like to acknowledge the help of Brian Lee Crowley, AIMS president, and Fred McMahon, AIMS senior policy analyst.

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EXECUTIVE SUMMARY

Under a competitive regime, the marketplace itself will determine an efficient outcome for the post-secondary education system in Canada.

Canadian universities will be subject to increasing competition as the primary consumers, the students, pay more of the full cost of their education in the years ahead. Under a competitive regime, the marketplace itself will determine an efficient outcome for the post-secondary education system in Canada. This is a superior alternative to government planning bodies which would be unable to foresee all challenges to the system or respond to the constantly changing needs of the primary users of post-secondary education and research.

Complaints about the efficiency of university education are shown to be centuries old and, indeed, some complaints expressed, for instance, by the Macdonald Commission in the 20th century are echoes of those to be found in Adam Smith's *Wealth of Nations* published as long ago as 1776. Current demands for greater efficiency in university delivery come from several perspectives. The approach taken here has started from the basic concepts of efficiency that are familiar to economists. This has involved the comparison of the typical Canadian university with the ordinary business firm. And whereas the latter has been criticized for incurring the separation of ownership from control, the finding here is that the criticism can be more appropriately applied to government supported universities.

The opportunity is taken to explore the incentives facing the nonprofit private university and to examine the basic rationale for nonprofit organizations in general. And to complete the analysis the incentives facing for-profit organizations are also fairly thoroughly reviewed. The paper demonstrates a world-wide trend in higher education towards what can be called 'corporatization'. While many faculty members in Canadian universities will, no doubt, recoil from such a term, the world's most prestigious universities such as Harvard, Yale, Oxford and Cambridge, are private corporations and have been for a very long time.

One of the most striking results of the search among organizational types in higher education is the finding that higher educational establishments with no government support whatever offer degree courses that are completed in much less time than those in the public universities. This result occurs in institutions from Harvard, down to the private for-profit technological universities.

Another interesting finding is that successful for-profit universities, such as DeVry, incorporate all the efficiency incentives associated with the prosperous business firm, including managerial and employee participation in stockholding and stock market disciplines that face companies with shares exchangeable on the stock market.

The monograph does not test the research capabilities of the various types of universities since the monograph concentrates upon university first degrees. Such education is not typically coupled with original research. The paper concludes that research is, of course, an important topic and one that is also relevant to the needs of the country in a global economy. But research is, and can be, conducted in a wide variety of places. And considering that universities increasingly favour industrially sponsored applied research, they are dealing with many activities that ultimately expand the profits of the corporate sponsors. The case for taxpayers supporting such research is of course much weaker. Moreover there is no reason why much sponsored research cannot be contracted with a variety of institutions including the for-profit universities.

The evidence shows that for-profit higher education institutions can deliver their courses at much less cost than others. And despite the fact that the share of tuition in total costs is well over 90 per cent, they have already succeeded in gaining a firm threshold in North America. As the fees in public universities increase significantly, as the paper predicts, the *relative* price of universities such as DeVry will fall substantially. Meanwhile the Canadian Student Loan System is expected to open up to a much wider set of students with the aim of improving access. It is easy to predict that, at least in the long run, the increase in access will be disproportionately experienced in the for-profit sector, a sector that, on the evidence presented here, will constitute an important wave of the future.

Organization

After an introduction outlining the problems faced by universities in the present period of fiscal retrenchment, section 2 of this monograph examines several arguments for the strengthening of "market incentives" in the operation of Nova Scotia (and other) universities and the gearing of their instruction to the increasing challenge of national economic performance in the new global economy. The focus is upon those particular university disciplines (such as electrical engineering, industrial engineering, computer science, etc.) that are most relevant to the needs of international competition. These subjects, which can be more appropriately defined as areas of "professional training", are separated from those courses (such as the humanities and basic science) that have traditionally delineated the boundaries of the classic university. Statistics are provided showing the relative weighting of each type of discipline in Canadian universities.

Section 3 probes further recommendations for reform and concentrates initially on the economists' concept of the efficient for-profit business organization in its modern setting. The question is then raised as to how far this model can be applied to the professional training tasks of the typical university. Section 4 examines the distinction between for-profit and not-for-profit organizations and its relevance for education. Section 5 produces evidence of both those types of organizations and draws upon examples from North America and Britain and concentrates on one striking case of the growth of for-profit higher education institution: the DeVry University with campuses in Calgary and Toronto as well as in numerous locations in the U.S. Section 6 demonstrates the increasing role of student loans and the comparative efficiency of the income contingent loan over the current Canada Student Loan Plan.

1) INTRODUCTION

Frustration with inadequate performance of higher education institutions is centuries old.

The costs of higher education per student have been increasing rapidly over the last few years throughout Canada. In the country as a whole, there was a rise of 9.2 per cent in fees in the academic period 1992 to 1993 and 9.4 per cent in 1993-1994.¹ The inflation rates over these two periods, meanwhile, were a mere 1.9 and 0.2 per cent respectively. Roughly the same situation, of course, has occurred within Nova Scotia. To many observers the main reason for cost increases has to do with the inefficiency of university organizations. Although they will normally concede one or two shortcomings, educational establishments nevertheless will typically proceed to maintain that they alone will eventually produce the best corrective through appropriate internal administrative reforms. Royal Commissions on Higher Education, meanwhile, usually doubt the ability of the system to correct itself. The 1985 Macdonald Commission Report (Vol.11, p.748), for instance, regretted the lack of dynamism and recovery powers in the educational establishment. In the Commission's words:

We were also concerned that representatives of the [educational] sector itself tended to deal less with how they could help Canadians adjust to a changing world than with how badly they needed more money... Any innovative ideas we did hear about post-secondary education tended to come from outside the sector. Thus we feel obliged to observe that significant problems seem to lie within the sector itself, the combination of faculty unions, the tendency to draw administrators from within the institutions, an aging and tenured faculty, uncertainty about the role of PSE institutions in society, all combined with a somewhat defensive attitude toward the *status quo* does not seem to us to provide a healthy situation.

The Royal Commission on Post-Secondary Education for Nova Scotia similarly reported in 1985 that they were "disturbed by signs that our universities are close to a serious decline in quality" (p. 43). Moreover although faculties and administrators blamed insufficient government financial support,

Other sources ... indicate that there are more problems in our universities than those caused by simple lack of funds. Employers have spoken of graduates with imperfect powers of written and spoken expression and logical analysis. The employers expected that a sound curriculum and good professors would have taught students at least these fundamental skills. Members of the public were concerned that academic tenure may be protecting the academically incompetent ... (p.43).

Ten years later, in 1995, the opinion is widespread that not much has improved. Thus according to one local newspaper:

¹ Statistics Canada, Cat. 81-219 Annual

For a decade now, Nova Scotia's university presidents have had a mandate to rationalize programs, control costs, and collectively prepare their institutions for the next century. And for the most part they have failed. (Mail Star, Feb.22, 1995)

Such frustration with inadequate performance of higher education institutions is centuries old. In the 18th century the main purpose of universities was to teach religious doctrine while philosophy (or science) was taught only as subservient to theology. In the opinion of Adam Smith, the late 18th century improvements in philosophy (science) were typically made outside universities. Moreover:

The greater part of universities have not even been very forward to adopt those improvements, after they were made; and several of those learned societies have chosen to remain, for a long time, the sanctuaries in which exploded systems and obsolete prejudices found shelter and protection, after they had been hunted out of every other corner of the world. In general the richest and best endowed universities have been the slowest in adopting those improvements. (Smith, 1976, p.772).

This quotation makes almost exactly the same complaint as that contained in the Macdonald Commission Report namely that innovative ideas and initiatives tend to come from outside the university sector. But Smith goes further. He offers what can be interpreted as a testable hypothesis: beyond some point, the higher the level of endowment (subsidy) to any university, the lower its efficiency. This hypothesis can reasonably be reworded as follows: The greater the share of the student/customers' tuition fees in the total revenues of a university, the greater its efficiency.

Smith's reasoning can best be understood by considering the consequences of introducing a policy of supplying groceries free of charge to customers while the grocers receive payment from customers as taxpayers via government. Families in such circumstances are not likely to receive their accustomed quality of service from their grocer/suppliers since the latter's incomes are now derived independently of their efforts. Similarly in education. "The endowments of schools and colleges have diminished more or less the necessity of application in the teachers. Their subsistence, so far as it arises from their salaries, is evidently derived from a fund altogether independent of their success and reputation in their particular professions" (Smith, 1976, p.760). Having attended the particularly heavily endowed Oxford University, Smith spoke from bitter experience: "In the University of Oxford, the greater part of the public professors have for these many years, given up altogether even the pretence of teaching" (Smith, 1976, p. 761). From such remarks and others in Smith's *Wealth of Nations*, we shall assume the following "Adam Smith test": the threshold of tolerable efficiency is reached when the share of student fees in the total operating costs of universities rises to at least 50 percent. The precise choice of a 50 per cent minimum can be debated when it is compared to some higher proportion; but it is in the spirit of Smith and will be used as a rough and ready guide for now.

After outlining the problems faced by universities in the present period of fiscal retrenchment, section 2 of this monograph examines several arguments for the strengthening of "market incentives" in the operation of Nova Scotia (and other) universities and the gearing of their instruction to the increasing challenge of national economic performance in the new global economy. The focus will then switch to those particular university disciplines (such as electrical engineering, industrial engineering, computer science, etc.) that are most relevant to the needs of international competition. These subjects, which can be more appropriately defined as areas of "professional training", will here be separated from those courses (such as the humanities and basic science) that have traditionally delineated the boundaries of the classic university. Statistics will be offered to show the relative weighting of each type of discipline in Canadian universities

Section 3 probes further recommendations for reform and concentrates initially on the economists' concept of the efficient for-profit business organization in its modern setting. The question is then raised as to how far this model can be applied to the professional training tasks of the typical university. Section 4 examines the distinction between for-profit and not-for-profit organizations and its relevance for education. Section 5 produces evidence of both those types of organizations and draws upon examples from North America and Britain and concentrates on one striking case of the growth of for-profit higher education institution: the DeVry University with campuses in Calgary and Toronto as well as in numerous locations in the U.S. Section 6 demonstrates the increasing role of student loans and the comparative efficiency of the income contingent loan over the current Canada Student Loan Plan. Section 7 offers the main conclusions.

2) TRADITIONAL AND NON-TRADITIONAL UNIVERSITY COURSES: THE EFFICIENCY QUESTION

Present demands on higher education are repeatedly expressed in terms of the need to keep ahead in the new global economy.

The central function of the classical university was that of providing moral leadership, and the transmission of the heritage and culture of our civilization. Utilitarian instruction such as training for the professions, in contrast, was left to non-university institutions. Economists today will also point out that it is feasible for professional training to be provided on the market, especially if efficient student loan systems are made available. It is a fact, nevertheless, that most professional training in Canada today occurs within the public universities. Indeed Table 1 suggests that it probably accounts for more government expenditure than expenditure devoted to the traditional subjects.

This point becomes more persuasive when it is recognized that the cost of the typical professional degree is substantially higher than that of a degree in the humanities. The training of a doctor, for instance, probably costs at least twice as much as the costs of a first degree in arts and science.²

Present demands on higher education, to reiterate, are repeatedly expressed in terms of the need to keep ahead in the new global economy. Nova Scotia's 1985 Royal Commission on Post-Secondary Education urged, for instance, that the late 20th century information revolution "has been accompanied by an extremely advanced technology which requires both training and learning ..." Similarly, David Cameron³ (1993, p.10) observes: "Higher education and research have come to be seen as key elements in any successful strategy for confronting the international competition."

² Tuition for a medical education in Nova Scotia, however, is only about 13 per cent higher than tuition for an arts/science degree. Statistics Canada, Cat. 81-219, Annual.

³ Cameron, David M., (1993) *Financing Universities in Nova Scotia: Towards a New Approach*. A discussion paper prepared for the Nova Scotia Council on Higher Education.

| | 1 Agriculture & Biological Sciences | 2 Education | 3 Engineering and Applied Sciences | 4 Health Professions | 5 Humanities | 6 Mathematics and physical sciences | 7 Social Sciences | Not Re- ported |
|----------------|--|------------------------------|---|---|-------------------------------|--|---|-------------------------------|
| Canada | 7,485 | 21,391 | 8,244 | 7,770 | 16,014 | 6,429 | 46,521 | 2,924 |
| | 6.4% | 18.3% | 7% | 6.7% | 13.7% | 5.5% | 39.8% | 2.5% |
| Nova Scotia | 538 | 772 | 200 | 358 | 926 | 326 | 2,315 | 174 |
| | 9.6% | 13.8% | 3.6% | 6.4% | 16.5% | 5.8% | 41.3% | 3.1% |
| | Includes veterinary medicine, household science and agriculture | | | | | includes computer science, chemistry and geology | Includes law, psych., social work | |

Source: Education in Canada, December 1994, Cat 81229 Table 37

"The promotion of quality implies a measure of competition, within and between universities, and therefore a recognition that there will be winners and losers."

Such statements once again throw the focus of attention on the nontraditional courses in universities, courses such as electrical engineering, business management, industrial management, telecommunications, marketing, computer applications for business, accounting principles, legal principles, financial principles, electronics engineering, digital circuits, digital Systems, microprocessors, and so on.

It is necessary to re-emphasize that all the discussion that follows here will largely be concerned with predicting the most efficient method of delivering the above technological courses together with training in the professions generally. But since this sector probably absorbs at least one half of government expenditure on universities, we cannot underestimate its importance. It is pertinent too to bear in mind the additional observation of Cameron (1993) that "the promotion of quality implies a measure of competition, within and between universities, and therefore a recognition that there will be winners and losers." Obviously, the new competitiveness in the international economy calls for competition all round, embracing the institutions that deliver higher education as well as most other industries.

Although other observers in Nova Scotia also speak of the new need for competition, it seems doubtful whether they all appreciate the full implications. Such doubts may be illustrated (a) in terms of the new circumstances that will make competition a reality rather than something that continues to await the deliberations of policy practitioners or "decision makers"; and (b) in terms of the absence of the full vision of market competition, the key condition of which is freedom of entry, a condition that can be

predicted to bring forth quite novel if not revolutionary supply organizations appropriate for the late 1990's.

With regard to the currently changing circumstances, one can start with Bill C-76 which is before Parliament at the time of writing. This legislation, which has grown out of the Liberal budget of February 1995, will amalgamate federal payments for welfare, post-secondary education and health care into a new block grant, entitled the Canada Health and Social Transfer. While the CUST has the announced objective of giving provinces more flexibility for major social programs, it is also associated with severe cuts in total funding. The provinces will receive \$2.5 billion less in 1996-97 and \$4.5 billion less in 1997-98, reductions that amount to 8.5 per cent and 15.2 per cent respectively.

The federal payments will continue to be split between cash and tax points. The former portion will dwindle relatively quickly so that cash payment to provinces for the major social programs (including higher education) will soon disappear altogether. The question now is whether a province such as Nova Scotia can or will proceed to completely offset the future declines in federal cash grants with appropriate increases in provincial taxes to supply the extra funding. Considering that Nova Scotia already has a net provincial deficit about \$8 billion, one of the highest in Canada, the possibility of the post-secondary funding gap being closed by new provincial revenues is surely remote. In order to survive, therefore, the universities will have to turn to alternative non-government sources of revenue. And the main one of course is student tuition. This means in all probability a severe aggravation of the existing upward trend of tuition. In turn, this event will imply that the share of tuition in total operating costs of university education will also rise significantly. But when it does it is very likely that the Adam Smith test will at last be passed or within sight for most institutions.⁴ It will then be the turn of the students to be the most powerful "decision makers" while universities will begin to compete in real earnest for their custom. The possibility, meanwhile, that many students will be unable to afford the new fees has to be viewed in the light of the newly proposed extension and reform of the student loan system. This subject will be taken up in some detail in Section 6.

With respect to the apparent absence in Nova Scotia of an adequate vision of full competition, one can refer to two aspects of the current provincial debate. The first is the controversy about the proper way to reorganize or rationalize the 13 existing universities in Nova Scotia. Dalhousie university favours the creation of a merged system under the title of a University of Halifax, Saint Mary's, Mount Saint Vincent and others advocate what they call a Partnership Model that features joint ventures. Simultaneously the Technical University of Nova Scotia supports a "federation" of metro universities under one board of governors. Other observers argue meanwhile that there are too many universities in the province and that the chief requirement is to determine an optimal reduction. But how does one determine how many universities are too many or too few? To fix on such

⁴ In 1994-95 Nova Scotia university students, on average, funded 28% of the cost of their education. This was up from 26% in the previous year. See Table 3 below.

a number would be an arbitrary, top down, administrative and/or political decision.

Consider how society responds to the same question in other sectors of the economy: How many steel makers are too many? How many newspapers are too many? Answer; we let the demands of the market decide how many is too many. (*Globe & Mail* editorial, December 26, 1992)

The *Globe and Mail's* response is consistent with a fuller vision of a competitive environment. And the same response could be made with respect to the other questions about mergers, federations and partnership models. But the *Globe's* conclusion is based on the assumption that we already have a fully competitive environment. At the moment this is not so, especially in view of the relative lack of power of the demanders - the students. Nevertheless, for reasons expressed earlier, a fully competitive environment with newly empowered students is about to evolve. When it does we shall at last have realistic answers to the questions about current numbers and appropriate organization sizes on patterns. The process will also resolve what, to several administrators, is the problem of "overlap". It will reveal that overlap, say between two competitors supplying the same service, is more often a good sign, an indication that the market is working properly.

In this light, it is interesting to contrast two possible approaches to reforming post-secondary education in Nova Scotia. The Council on Higher Education could impose a top down approach, perhaps accepting one of the plans promoted by the universities. It might set forth the general direction for post-secondary education in the province, determine the number of universities, which should merge and what the governing structure should be, which programs would be taught at which universities, what fields of education should be emphasized, roughly the resources that should be devoted to each area, and the number of students that should be trained. This "soviet" type of planning is unlikely to have the flexibility or incentive structure required to keep pace with rapidly changing demands in the education field, or even develop the needed information to do so.

The other option is to accelerate the changes already taking place in postsecondary education and give the universities the flexibility to deal with them. As students pay more of the full cost of their education, they will have greater motivation to calculate as fully as possible the real costs including foregone earnings and the benefits of their choices. If they decide that the expected benefit outweighs the expected costs they will next have to decide in earnest which university and field of endeavour provides the best value. At the same time, as universities depend more on student fees, their motivation will increase to meet student needs flexibly and cost efficiently. This is true of the sector as a whole as it tries to attract students from other possibilities and for individual universities as they compete among themselves.

Under this scheme of things, universities' heightened motivation to respond to the market place would have to be married with the flexibility to do so quickly and effectively, both internally and externally. As in private industry, universities will have the option to

compete, to merge, to cooperate in certain endeavours and so on. Each university would have reason to seek and emphasize areas of excellence. If a program couldn't compete, it would have to be improved, redirected or terminated. The same thing would apply to each of the province's universities. If the market place judges that a university is not providing students with the quality education they desire at a reasonable price and if the university does not have other significant marketable areas of excellence, such as research capabilities, it is not likely to continue in operation. Equally, universities will have motivation to merge in whole or in part, if this produces a better result or staves off failure. In this manner, the universities themselves would work out a "rationalization", but one which is responsive to the needs of the marketplace and which is flexible at any moment.

A second aspect of the debate in Nova Scotia that suggests some failure to think through the full implications of a competitive system, concerns the net unfunded in-migration of students from other provinces. Provincial observers are proud that such students prefer their education in Nova Scotia and suggest that this is indeed a measure of outstanding excellence or efficiency of it's universities. At the same time they complain that when an Ontarian, say, goes to university of Halifax, the taxpayers of Nova Scotia are left to pick up a tab, after tuition, of nearly \$7000. Realistically, however, the test of efficiency of a competitive supplier is the ability to collect a fee or price for the service that at least covers marginal total cost. This implies the need to charge in-migrants appropriate differential student fees. No clear reasons have been put forward to explain why this has not been done⁵

The implied necessary correction for the problem is for the province of origin, such as Ontario in the above example, to pay for the cost net of tuition. This would be similar to a voucher system financed by one province (e.g. Ontario) wherein the voucher holder could spend it on education in any other province. But notice that where each and every province adopts this policy, this would itself be a most important stimulus to competition. And the stimulus would be even greater if the voucher could also be spent, if desired, at an approved university abroad. If Nova Scotia accepts on principle its practice of educating students from other countries, the same principle would appear to justify financing those of its own students who choose to go outside the country. According to the Nova Scotia Council on Higher Education (1994, p.23), meanwhile, there is broad support for a differential international student fee.

One final aspect of the full competition scenario needs to be discussed, since it is necessary for a fuller understanding of the remaining sections of this report. The term competition, to reiterate, involves full freedom of entry. Some may well argue that such freedom does not apply in Canada because the new private university entrant would have to obtain a charter. And this may well be very difficult because, while regimes differ between provinces, the presidents of existing public universities, who are mainly concerned with protecting their own turf, have a significant say in the granting of

⁵ Some have suggested that to charge different fees would be inequitable. The criterion being discussed here however is efficiency not equity.

charters. It will be demonstrated later, nevertheless, that such barriers are often overcome in practice. But for the moment it will just be assumed that there is freedom of entry.

Suppose a new entrant appears in the form of a private (non-profit or for profit) university. By definition the private institution is attempting to compete without a government subsidy against a public university that enjoys a considerable one. Table 2 consists of figures that are purely stylistic. The first column assumes that the annual total cost per public university student in a first degree course is \$10,000. Of this one-half, or \$5,000, comes from tuition (the Adam Smith test is passed) and the rest from government grants. The second column shows the total cost and contributions over the three year duration of the degree course.

In order to have a chance of surviving the competition, the private university compresses the three year course into two years. It cuts out the long summer vacation and uses its capital year round. Evidence that this is the emerging widespread practice by private universities will be offered in the next section. (Sometimes a 4 year course is shortened to 3 years.) Column 3 of Table 2 assumes that the real annual costs are the same for both public and private universities at \$10,000. Private university fees are \$7,500 while annual interest on private endowments furnish the remaining \$2,500. Column 4 shows that the total tuition cost of the degree course in the private university is \$15,000. This is the same as the total tuition cost in the public university (see Column 2). If the degrees are of equal standing it might seem that the average student will be indifferent between them. This is incorrect, however, because an important variable has been omitted. The public degree involves the student in 3 years of forgone earnings while the private degree costs him only 2 years of foregone earnings. The figures are admittedly crude, but they are sufficient to establish the strong probability that once the public university's tuition rises to 50 per cent of annual costs (the Adam Smith test is passed), the possible threshold for new private entrants becomes much more feasible.

Table 2

A model of student costs of public versus private university education

| | PUBLIC UNIVERSITY | | PRIVATE UNIVERSITY (non-profit or for profit) | | |
|--------------------------------|-------------------|--------------------------------|--|--------------------------------|-----------------|
| | 1 | 2 | 3 | 4 | |
| | Per Annum | 3 year total (undiscounted) | Per Annum | 2 year total (undiscounted) | |
| Total cost | \$10,000 | \$30,000 | Total cost | \$10,000 | \$20,000 |
| Tuition | \$5,000 | \$15,000 | Tuition | \$7,500 | \$15,000 |
| Government contribution | \$5,000 | \$15,000 | Private endowments | \$2,500 | \$5,000 |

3) EFICIENCY: A FURTHER EXPLORATION

Tuition in Nova Scotia as a percentage of university operating income has more than doubled since 1981-82. Indeed the ratio has increased by over one-third since 1991

Following the announcement that the 1995 federal budget is to lump education funding into a block grant with health and welfare that will shrink dramatically over the next three years, the reaction in Nova Scotia seems to be one of disbelief and/or confusion. Much of the response of the education interests so far has reportedly consisted of procrastination and quarrels over how the diminishing funds should be shared. The implicit objective seems to be how best to enable the existing institutions survive, not how best to serve the needs of students. So much indeed is conceded by Brian Flemming, chairman of the board of governors of the University of King's College in Halifax. "There never was an industry", he observes, "that paid less attention to its customers than the university industry".⁶ One can easily predict that this failure will soon place each university in serious jeopardy. The reason is that, as already shown, the financial and political trends are working towards substantial empowerment of students via the impending dramatic increase in the share of their tuition in the total operating costs of education. The Adam Smith test, it seems, will soon be passed despite the resistance of many educators.

Table 3 shows that Nova Scotia's fee income as a percentage of university operating income has more than doubled since 1981-82. Indeed the ratio has increased by over one-third since 1991. Meanwhile Saint Mary's University and the University of King's College are in the lead and already well within sight of passing the Smith test.

The mounting calls for improved efficiency these days are increasingly expressed in terms of the need for "market incentives" and economists will have immediately in mind their own models of efficient organizations. But can the typical university be analyzed as a kind of business firm pursuing least cost and maximum profit?

⁶ Flemming, Brian (February 22, 1995) "N.S. Universities Inc.", The Daily News, Halifax-Dartmouth

| | 1981-82 | 1991-92 | 1992-93 | 1993-94 | 1994-95 |
|------------------------------|---------|---------|---------|---------|---------|
| Acadia University | 20% | 29% | 32% | 34% | 38% |
| Atlantic School of Theology | 17 | 17 | 18 | 19 | 19 |
| Dalhousie University | 12 | 19 | 21 | 22 | 25 |
| Mount St. Vincent Univ. | 20 | 24 | 25 | 27 | 32 |
| N.S. Agriculture college | 9 | 20 | 25 | 29 | 32 |
| N.S College of Art & design | 17 | 22 | 23 | 24 | 26 |
| N.S Teachers College | 4 | 10 | 12 | 13 | 14 |
| St. Mary's University | 18 | 36 | 39 | 43 | 46 |
| St. Francis Xavier Univ. | 20 | 30 | 33 | 36 | 40 |
| Technical Univ. of N.S. | 11 | 14 | 16 | 18 | 21 |
| Univ. college of cape Breton | 8 | 25 | 27 | 30 | 33 |
| University of King's college | 30 | 39 | 41 | 42 | 45 |
| Université Sainte-Anne | 7 | 25 | 28 | 30 | 36 |
| N.S. Total | 14 | 22 | 25 | 26 | 28 |

Source: financial plan 1995-96, page 21

It is necessary now, very briefly, to apply some simple economic theory. First consider the economist's claim that typical business firms themselves can and do operate efficiently. Such organizations use inputs all of which have prices. This means that the same inputs are useful in other employments or in the hands of competing entrepreneurs. If an existing firm cannot successfully bid away the inputs from the competitors then it will have to yield to others. And if, meanwhile, the firm's output does not satisfy consumers, the latter will transfer their custom elsewhere so imposing further pressure on the firm.

But what about boards of directors and managements? Are they not able to shirk and so increase the firm's costs? For many years numerous observers complained that corporate management held power to make decisions that were contrary to the interests of

stockholders. Now, however, it is better understood that management must give due regard to the interests of the shareholders or face the threat of replacement either directly or through a takeover bid⁷. The most successful firms, meanwhile, encourage profit sharing among top management, a practice that helps management identify their own fortunes with those of their employer.⁸

It is interesting now to attempt to apply such economic analysis of the firm to the organization of a university. The moment we try to do this we become aware that the danger of the separation of ownership from effective control is far more serious in the case of the higher education institution than it is with the typical business firm. There is no equivalent, for instance, to the limits imposed on the business firm by the threat of takeovers since the modern university operates in an environment where there is no¹¹ "market for university shares" a market that would allow others to purchase rights entitling them to participate in management replacements or takeovers.

Safeguards against mismanagement and inefficiency in universities are only indirect and often remote. And although in theory governing boards exist to represent the interests of taxpayer-citizens, in practice the boards of modern universities tend to "rubber stamp" policy actions generated by university administrations and faculties. Thus, in practice, there is little effective external control on the internal authorities that run the educational institutions.

When examined through the eyes of the economist, the university is thus replete with ambiguities. This fact once led two economists, J.M. Buchanan and N. Devletoglou (1970) to conclude that the higher education industry is one in which those who consume its product do not purchase it; those who produce it do not sell it; and those who finance it do not control it. It is not surprising, therefore, these authors conclude, that the orderly processes that seem to characterize standard commercial dealings seem to break down in universities.⁹

In the 1990s, of course, the above conclusion needs some qualification. Thus today it is not true entirely that the students as consumers are not purchasers since they do pay tuition fees. But the sense of our two economists' statement is still well taken because, first of all, average tuition fees remain well below one-half of total conventional costs (see Table 3). This means that, in most cases, the threat that a student may withdraw his

⁷ It is true that "poison pill" take-over defences were introduced in some firms in the 1980's. They are called poison pills because they are designed to make the company unattractive to a hostile takeover, often by letting existing shareholders buy stock at a huge discount making it prohibitively expensive for an outsider to buy the company. The 1990's however is witnessing successful revolts by institutional shareholders against such practices (see *The Globe & Mail*, April 19, 1995, B1).

⁸ Demsetz (1983) reports that an examination of an average of twenty firms, ten in the middle and ten at the bottom in the Fortune 500, reveals that corporate managers owned about 20 per cent of outstanding shares.

⁹ James M. Buchanan and Nicos E. Devletoglou, 1970

or her custom from university A and transfer it to B will not create enormous injury to the losing university. The point is underlined by the observation just quoted that education is a service which is produced by those who do not sell it. This means that only relatively weak attempts will be made to meet the preferences of the student consumers.

Without the standard test of consumer acceptance that an effectively free market forces on producers, there is no feedback on the latter's behaviour. Is there any wonder that faculties offer the sort of product they themselves derive most pleasure in supplying - in turn, a product which need not meet the desires of those for whom it is produced? (Buchanan and Devletoglou, 1970, pp.8 and 9).

This absence of adequate incentives to meet the ongoing and changing preferences of students is of more consequence than would appear at first sight. And while the cost of foregone earnings faced by students is the largest single cost item in university education (West 1988, p.49), it fails to impact properly on administrative decision in the public universities.¹⁰

This consideration points to another source of inefficiency and high cost in the university system, namely the excessive length of time that many students are often forced to take to obtain first degrees or diplomas. This problem is widespread, not only in Canada, but throughout the world. Efforts to combat it have not so far been very successful. The Academic Council of the Federal Republic of Germany, for instance, has recently published a report proposing a limitation with a maximum of four years in first degrees. In the Netherlands and Denmark action is similarly being taken or contemplated to reduce the length of first degree courses. But such administrative attempts at solution are not very promising. More reliable is a scenario of increased competition wherein universities have clear incentives to speed up teaching programs. Since, to reiterate, the main cost of education is that of the students' foregone earnings, it might be predicted that private universities especially, would be better motivated to economize on students' time. Casual support for this proposition appears in Britain where the new private University of Buckingham now operates four terms a year and offers two-year degrees.

More systematic evidence of the better incentive of private universities to economize on students' time, however, has been available for some time. Sisk (1981) prefaces his empirical study with the observation that, because tuition fees are held at artificially low levels in American public universities, efficient evaluation of their output is prevented. Because the government funding is linked directly to the number of public university students, university managers divert resources toward enrolment and away from instruction. The result is larger classes, lower admission standards, and less preparation for the classroom by instructors. This implies that the average student has lowered chances of passing a degree of given standard within a reasonable time.

¹⁰ In his estimate of the magnitude of forgone earnings, West (1988) accepts the statistical convention that 75 per cent of annual earnings are forgone by students, since they are likely to work during the summer.

At first sight Sisk's analysis might lead one to predict that in public colleges there will be a fall in standards for awarding degrees. However, he offers a reason to believe that this will not happen because: "Individual faculty reputations are ... at stake when the [degree] is awarded, so there is a strong incentive to maintain standards" (p. 358). But, nevertheless, given the incentive in public colleges to expand enrolment and the lowered chance of a student passing a standardized degree in a given period, there will be pressure to extend the allowable time taken. In other words, it will take more student years in public universities than in private universities to obtain a university degree of equal quality.

Using the number of student years per degree awarded, Sisk's research covered 20 private and 21 public universities, each divided into high and low quality groups. The high quality private, for instance, included Princeton, Chicago, Yale and Stanford. High quality public universities included Berkeley, Wisconsin, University of Michigan and UCLA. By any measure Sisk's results support his hypothesis. With respect, for instance, to high quality faculty in the Humanities, it takes nearly 50 per cent more time for Ph.D.s to graduate in public than in private universities. The example previously quoted of England's University of Buckingham therefore does not appear to be exceptional. And when we notice that Canadian Ph.D. graduates require a median of five years to complete and that social science students take six years, the scope for improvement in productivity here bears very careful consideration. The fact is, after all, that if changes can be made to enable students to complete their degree in 50 to 75 per cent of the usual time, costs will be dramatically lowered, especially when we take into account the reduction of the students' foregone earnings while at university. And such dramatic lowering of costs could be a crucial offset to the expected increases in tuition fees.

4) NOT-FOR-PROFIT VERSUS FOR-PROFIT ORGANIZATIONS

Public universities receive extensive support from government. Since private universities are not so privileged their survival depends on them being extra efficient.

Some readers may argue that discussion here of private non-profit and for-profit enterprises in Canadian higher education is irrelevant since there are none. It will be shown in the next section, however, that this is not true. Secondly it will be demonstrated that the time appears ripe for their growth.

Almost all of the private universities in Sisk's study can be classified as not-for-profit institutions. Public universities, however, can also be described as not-for-profit. But there is a significant difference. Public universities receive extensive support from government. Since private universities are not so privileged their survival depends on them being extra efficient, whether by economizing on students' time, as the Sisk study shows, or by offering superior quality in some other respect. Like other not-for-profit organizations, those in higher education are barred from distributing their net earnings, if there are any, to those who control them, including directors, trustees or other officers. Profits, in the form of net earnings, may actually be earned but they must be kept in the business to help further the stated objectives of the organization. In addition the not-for-profit firm cannot be sold for proceeds that are allocated to a group of individual owners.

Why does the law make room for such institutions? What are their social purposes? One frequently offered answer is that the nonprofit firm is best adapted to those situations where consumers are incapable of accurately evaluating the goods, or services promised. As a result they will not easily find the best bargain or enforce it once made. Consumers will find it better to deal with a nonprofit firm because it will not have the incentive to take advantage of them since those in charge are not allowed to take home any resulting profits. In the types of situations described, the individual needs an organization he or she can trust, "and the nonprofit, because of the legal constraints under which it must operate, is likely to serve that function better than its for-profit counterpart" (Hansmann, 1983, p. 847). Pauly (1987) argues similarly, that because firms of different ownership structures coexist in the same market, there may be certain types of outputs for which certain types of firms are more suitable. Such reasoning suggests that individuals employed in nonprofit organizations can be "trusted" not to take advantage of consumers, while others, those occupied in profit-seeking institutions, cannot. Other economists will persist with the assumption of *universal* self-interest and will look for more subtle ways in which it continues to operate even after an organization has changed formally and legally from for-profit to nonprofit status. Officers in a firm that becomes nonprofit may, for example, still be able to enjoy much of the net revenue ('profit') that is generated. Ways of doing this include inflated salaries and the consumption of expensive work environment privileges including some leisure on the job. Such stratagems are possible because, although the law forbids formal distribution of dividends, it is not likely to check very closely the firm's reporting of its expenses. But with the consumption by officers of perks

on the job, costs will increase. As Hansmann concedes: "Nonprofit firms might be expected to be slower in meeting increased demand and to be less efficient in their use of inputs than for-profit firms" (Hansmann, 1980, p. 844).

Harvard University is a nonprofit corporation and its board of overseers is voted on by the alumni of Harvard. The board is obviously expected to implement policies favoured by existing alumni. As an example the board can be predicted to oppose any decline in the admissions standards at Harvard because such changes could depreciate the value of its outstanding degrees, and this would reduce the lifetime income of the alumni. Similarly the board of overseers may oppose deleting an existing degree program, say in theology, even though it currently has only a few students enrolled, provided that such a program once produced many graduates.

It is arguable, meanwhile, that it is mainly the restriction on the distribution or sale of its assets that enables the nonprofit to remain viable over time and typically to outlive for-profit firms. Harvard University is sometimes quoted as an example because it began operations as early as 1636. It must be remembered, however, that Harvard college was a corporation chartered by the colonial assembly and was clearly understood to be a state-church college. It thus enjoyed a statutory monopoly on religious education.¹¹ Since most such colleges received government support they constituted a hybrid between the private and public nonprofit organizations described above.¹²

Private nonprofit higher education institutions sometimes claim to face incentives for efficiency that are significantly superior to those confronting state/provincial institutions, if efficiency is viewed in terms of service to the student/customer. Their reasoning is that, in the absence of the substantial government support granted to the state/provincial institutions, private nonprofits have to compete for private donations as well as for students willing to pay above-average tuition. To compete successfully involves building up a reputation for excellence, a process, of course, that guarantees benefits all round.

When all is said, nevertheless, the public non-profit universities face the same incentives to pursue private donors, so the outcome may well be indeterminate. Meanwhile the for-profit institution faces important incentives that are closed to both the public and private non-profits. Although these have already been discussed it will be helpful briefly to repeat the three most important: (a) the constant challenge of the takeover bid; (b) stockholding in their firm by top management; (c) employee profit sharing schemes.

¹¹ Harvard had no competition in Massachusetts until Williams College was chartered in 1793, and Yale had no competition in Connecticut until 1823 when Trinity College was chartered.

¹² Harvard College was assigned the Charleston Ferry revenues for 200 years.

5) EVIDENCE ON THE COMMERCIAL TREND OF CURRENT EDUCATION

The UK. Education Reform Act of 1988 took all the polytechnics out of local control and set them up as free-standing corporations. In 1992 they were allowed to take the title of universities if they wished.

This section explores the extent to which a more commercial structure in education is already making its appearance in the real world. We shall focus on four examples: (1) the U.K. Polytechnics, (2) the University of Buckingham in the U.K., (3) the Bond University, Australia, (4) the DeVry Institutes (in the U.S. and Canada). Those who are most sceptical of the existence of for-profit enterprises in the delivery of university courses in Canada are recommended to proceed straight to (4), the DeVry Institutes. This example will be found to be the most striking of all.

The U.K Polytechnic/Universities

The U.K. Education Reform Act of 1988 took all the polytechnics out of local control and set them up as free-standing corporations, that is companies limited by guarantee. In 1992 they were allowed to take the title of universities if they wished.

The structure of the governing bodies of the "new universities" is modeled on the business corporation rather than on the traditional university senate. It is not necessary for there to be any staff or student representation, although most of the new universities do have elected representatives from these groups. So-called "vice-chancellors" of the new universities are in effect chief executives, with far more direct powers than vice-chancellors tended to have in older universities.

University governing bodies are able to sell property, and borrow money. They are, however, companies limited by guarantee (no shareholders) and must adhere to the purpose for which they were set up - they cannot close the university down and go into an alternative business instead.

Such development certainly places these higher education establishments nearer the commercial structure of business firms. And since they now have more autonomy they are in a better position to initiate and/or withstand increased competition. The movement, however, is only half a step at most towards the incentives of the full market enterprise. The chief limitation is the absence of tradable shares. Such absence, of course, precludes any attempt by others to purchase rights of participation or management and indeed to conduct takeovers. And there is no opportunity for managers to "buy into the firm" with personal shareholdings. Meanwhile much funding still comes from the state and there are still considerable regulatory powers exercised by government.

The University of Buckingham

Buckingham University had to explore every avenue to cut costs in order to compete without a government subsidy against state universities that enjoy substantial ones.

The University of Buckingham began in 1976 and was awarded a Royal Charter in 1983. It is Britain's only independent university and has never received funding from government. Students pay fees that reflect most of the real cost of their education.

Having to compete without a government subsidy against state universities that enjoy substantial ones, Buckingham had to explore every avenue to cut costs. It discovered early on that its most important innovation was its introduction of the two year degree. This is another case like those demonstrated by Sisk (above) where private universities have incentives to economize on student's time and foregone earnings. It has recently been observed that:

The two year honours degree has emerged as the truly radical and innovative feature of the Buckingham experiment. By abolishing the long summer vacation, an historical relic which has no academic justification, and replacing the three-term academic year by four terms of ten weeks' duration, it permitted the Buckingham student to cover the same ground as he or she would normally encounter in the more conventional three year programme. (G.K. Shaw and M. Blaug, 1988, quoted in Clarke 1992.)

It has been found subsequently that the two year system has had special appeal to the following groups:

1. Mature students in their mid 20s or older who, for one reason or another, have not gone to university after leaving school. Such students are often very conscious of time passing and are thus anxious to acquire a degree and return to full time employment as quickly as possible.
2. Students intending to enter professions such as law or accounting where there remains a lengthy period of training following the university work. Here again the "time saving" factor is likely to be important.
3. Students from such countries as Germany where first degree courses traditionally take as long as five years and where there is a substantial "drop out" figure of students not completing their degrees.
4. Students from non-EC countries. In the state sector, fees for this category of student have increased dramatically in recent years. Buckingham charges the same fees for all students. It follows therefore that Buckingham is most competitive in this field. With a two year course and reduced overall living costs, the total expenditure will be lower for this group at Buckingham than at other British universities.

Clearly the University of Buckingham has had to fight harder to survive than have the polytechnics since the latter have been receiving central government support. But the same legal or structural limitations apply to it as to the polytechnic universities. Since it also is a company limited by guarantee, there are no shares and therefore no available market disciplines such as potential takeovers. As well there are no managerial incentives such as special remuneration via share allocations that give managers a stronger personal vested interest in the success of the enterprise.

Bond University, Australia

Bond University in Queensland, Australia is a private non-profit company that began operating in 1989. The land and building costs were approximately \$186 million and were covered by a joint venture between Bond Corporation and the Japanese company EIE-International. In addition some \$95 million was provided as a loan to help with fitting out, equipment and running costs for the period 1989-1992 inclusive. These funds were sourced in Japan and further flow was terminated as of January, 1993, when EIE-International went into receivership. Although undoubtedly a setback for Bond University the signs are that its reorganization and economies are now succeeding.

Almost the whole of its operating revenue now comes from student tuition fees. There is no financial subsidy from government. Enrolments, nevertheless, have reached a record in 1995. Total enrolment is now 1815 students of which 542 are from overseas. Enrolment is expected to grow to 3000 over the next five years.

Despite the relatively high tuition, students are attracted for several reasons. First, the university has among the best student facilities in the nation and the best student/staff ratio (ten to one). The university claims that, to date, the overseas students have generated more than \$34 million in export income. Another important reason for its popularity is that it works on a three semester per year system, rather than just two, as in the public universities. This allows fast tracking. Students may complete most bachelor's degree courses in two years if they so desire. The university claims that a typical Bond overseas graduate can start work 16 months before a typical government university graduate. It is also claimed that over 90 per cent of graduates go straight into career employment or on to further study.

Bond University is a member of the Association of Commonwealth Australian Vice-Chancellor's Committee. The accredited by several professional associations.

The DeVry Institutes

The DeVry Institutes are the most striking example of a for profit organization in higher education. About 27,000 high school graduates are now attending one of Devry's 13 campuses in the US. and Canada

With the DeVry Institutes we have the most striking example of a for-profit organization in higher education. About 27,000 high school graduates are now attending one of

DeVry's 13 campuses in the U.S. and Canada pursuing associate and bachelor or science degrees. Typically they specialize in fields such as electronics engineering technology, computer information systems, business operations, accounting and telecommunications management, the very subjects that are relevant to a country's need to keep ahead in the new global economy. Another 3,000 students earn their M.B.A.s or other graduate degrees at the 17 sites that are maintained by the associated Keller Graduate School of Management.

DeVry is a publicly traded company (Nasdaq:DVRV) charging U.S. \$3,000 a semester in tuition, or \$24,000 for a B.S. This is almost half what a B.S. costs at some big U.S. state universities and about a third what it can cost at a U.S. private college. Since going public in 1991, DeVry has been entirely independent of tax subsidies and private donors. The value of its shares has risen from \$8.5 in 1991 to \$38.5 in April 1995.

Other commercial groups are not far behind. Apollo Group is parent company to the for-profit University of Phoenix, which focuses on adults who need to complete degrees or get new skills. Apollo filed for an initial public offering in September 1994. ITT's education division, which offers technical associate degrees, is also considering a public offering soon. DeVry's June 1994 fiscal year net profit was \$12.2 million, up 30 per cent from the previous year, on revenues of \$211.4 million. Net income was up 21 per cent in the first quarter, ended September, from last year's first quarter. DeVry's second public offering in 1994, consisted of 1.8 million shares at \$22 a share. Meanwhile there is substantial participation by managers and employers generally in special company stockholding plans.

Until very recently in the U.S., any institution declaring itself "for profit" was automatically denied accreditation - the seal of approval required for it to receive student loans and grants. That rule has been dropped, and in 1977 DeVry's Keller Graduate School of Management received national accreditation. Accreditation for DeVry followed in 1981.

Two trends are working in DeVry's favour: demographics and the high costs of traditional colleges. As of 1995 more individuals are graduating from high school each year, a rise that is expected to continue at least through the next decade. Like the University of Buckingham, DeVry keeps costs down by operating year round. And just as in the case of U.S. private universities, Buckingham University, and Bond University, DeVry makes every effort to economize on students' time. Thus the DeVry student is able to graduate in three years instead of the traditional four. For students from families of modest means the resultant savings are substantial.

DeVry has an edge over other institutions also in its excellent record of job placement. The company's 1,900-person full-time staff includes over 100 placement officers. Employers like Hewlett-Packard, U.S. Robotics and the accounting firms Price Waterhouse and Deloitte & Touche work closely with DeVry faculty to help shape the curriculum. Ninety per cent of DeVry graduates have jobs in their field within six months of finishing. It seems worth underlining this point, as is done in Table 4, since as far as

we know Nova Scotia's universities do not produce such comprehensive information packages.

| | Electronics Technician | Electronics Engineering Technology | Computer Information Systems | Business Operations | Telecommunications management | Accounting |
|--|------------------------|------------------------------------|------------------------------|---------------------|-------------------------------|-------------------|
| | Bachelor's degree | Bachelor's degree | Bachelor's degree | Bachelor's degree | Bachelor's degree | Bachelor's degree |
| Graduates | 1592 | 833 | 710 | 471 | 240 | 246 |
| Graduates eligible for placement | 1512 | 723 | 623 | 329 | 233 | 277 |
| Eligible Graduates who actively pursued employment | 1448 | 700 | 607 | 315 | 229 | 214 |
| Graduates who actively pursued and obtained education related jobs within six months of graduation (%) | 94% | 97% | 96% | 95% | 92% | 94% |
| Average reported annual compensation ¹³ | \$21,345 | \$26,785 | \$26,620 | \$25,572 | \$26,580 | \$21,233 |

In Canada DeVry has successfully negotiated with the regular licensing and accrediting bodies to enable its Canadian students to receive bachelor's degrees from DeVry, phoenix without having to relocate to the United States. DeVry campuses are now established in Calgary, Alberta, and Scarborough, Ontario. It should also be pointed out that DeVry is accredited by the U.S. Technology Accreditation Commission of the Accreditation Board for Engineering and Technology which is recognized by the U.S. Department of Education.

The DeVry institutes clearly pass the Adam Smith test since student tuition fees amount to over 90 percent of total revenues. And because the organization is accredited by an agent recognized by the U.S. Department of Education, its clientele qualify for government organized student loans. Moreover the record of loan defaults among its students is well below the national average. The availability of these educational loans partly explains why the students can pay tuition that constitutes over 90 percent of the total cost of their education. As argued in the next section, the probability of widening student loans in Canada will also do much to enable students to pay the substantial tuition increases that are inevitable in the near future. This in turn will pave the way for meaningful competition, not only between existing universities, but also between them and the newer for-profit enterprises such as DeVry that have already established a threshold in Canada.

¹³ Includes base salary and any additional compensation including bonuses, per diems, shift differential and company car. Income units are in US dollars.

We shall end this section with a brief reference to one further issue. It will be recalled that Adam Smith in the 18th century and the Macdonald Commission in the 20th century both complained that innovation takes place largely outside the public universities and that there is considerable slowness in updating the curricula. One example will be offered here that suggests DeVry to be free from such criticism. According to DeVry's local advisory committee in Alberta, "We noticed that the market place in Calgary, driven by its heavy oil industry concentration, is changing, particularly in the area of computer programming needs - and may be more so right now than in a lot of U.S. markets.¹⁴ The Committee found more emphasis being placed on C language than COBOL. To accommodate this local need appropriate changes were promptly made. In the near future the curriculum in Calgary will be a little different from everywhere else. The change in fact may well be a forerunner to one that occurs much later in the U.S.

This story is representative of the attempts being made generally by DeVry to help students prepare for careers by keeping pace with the rapid changes continually taking place. DeVry's director of graduate placement in Phoenix, Molly Abt, goes so far as to say "You can't teach year-old technology, and often even current technology will be different by the time a student gets out in the workplace. We have to act like a department store that's always working one season ahead. In our case, however, we have to be a year or more ahead in our knowledge of where a given industry is going and what the graduates hired will need to know."¹⁵

It is such entrepreneurship that seems to have been lacking in Nova Scotia, at least until very recently. According to one company vice-president, there have been years of fruitless dialogue between business and the public universities. Business complains to universities that they are not delivering students trained the way most needed.

Universities concede that they do not know what business wants but insist that universities should, in any case, be focusing on pure research. "At the end of the day, nobody's taking responsibility for the fact that I can't recruit the people I need and the universities can't place the students they're graduating".¹⁶

This same company vice-president made a return visit to his alma mater, the Technical University of Nova Scotia (TUNS), in 1992. "He was dismayed to see the curriculum at TUNS hadn't changed much since he had left in 1979" (ibid). Things, it seems, have marginally improved since then, but the main initiative has come from outside the university. A spokesman for TUNS observes: "We're not here to train, we're here to educate students to engineering principles" (ibid).

The DeVry University, in contrast, appears to believe in a compromise or mixed position which provides both education and specific training. The interesting question is what would most students prefer if they had the choice? Since the fees of the public

¹⁴ Reported in Greenberg, 1993, p.59.

¹⁵ Greenberg, 1993, p.58.

¹⁶ "Why Newbridge goes to school", by Susan Lightstone, *Globe and Mail* page B.16, May 2nd, 1995

universities will continue to increase relative to those at the DeVry type institutions, choice between the two will become freer in the near future so the answer to our question may soon appear.

Whatever the pressure from existing universities, Nova Scotia will presumably think seriously before erecting barriers to the entrance of any private university such as DeVry attempting to establish a campus in the province. First, such new entrance will strengthen the competitive urge of current universities. Second, where private universities offer to provide valuable skills at competitive costs, it would be unwise to deprive individual Nova Scotians and businesses of such an advantage close to home, where the largest benefits are likely to accrue.

6) STUDENT LOANS

Government policy appears intended to overhaul radically the present system of student support so that students will be better able to face the expected tuition increases.

In the meantime, government policy appears intended to overhaul radically the present system of student support so that students will be better able to face the expected tuition increases. This brings us to the question of improving the student loan system especially by making it more widely available and lengthening the repayment period. It is interesting to observe that student borrowing to finance university attendance is now growing all round the world. Table 5 reports existing loan programmes in 15 industrial countries. It will be seen that six of them are already providing students with loans that cover tuition fees as well as living expenses. With the exception of three of the fifteen countries, all offer students credit in the form of a "mortgage" loan. This is defined as one wherein repayment is made over a relatively short specified period, with fixed monthly payments. Interest rates and the maximum length of repayment are used to calculate the fixed periodic payments. This describes the government loan situation in Nova Scotia and other provinces.

Students who borrow to help pay for their education face risky outcomes since the future value of a degree is not immediately apparent and the risk is probably greatest for students from poorer backgrounds insofar as their future job and earnings prospects are less favourable. For them the obligation to pay fixed future repayments commits the debtor to repay an open-ended proportion of his/her income. Mortgage loans, such as those in Canada, may therefore often deter access among the very groups that loans are intended to reach.

To help meet these equity and efficiency problems, three countries (Australia, New Zealand and Sweden) have established what are called income-contingent loan systems under which the debtor is not committed to repay an open-ended proportion of his/her future income. Instead, the loan is repaid as a predetermined fixed percentage of post-graduate income above a certain threshold. Income-contingent loans thus limit the extent of debt burdens in a given year and substantially extend the repayment period. For these reasons the barriers to lower-income students are significantly reduced.

Countries like Canada with fairly long experience with student loans of the mortgage type, have found that the default problem looms large especially where governments rely mainly on banks and special departments or quasi-public institutions to monitor and police the student borrowers. In consequence, countries in the forefront of reform are now making use of the income-tax authority as the preferred loan collection instrument since it has ready information about the current location and income of each student or ex-student. These countries include the U.S.A. (partially), Canada (partially), New Zealand (fully) and Australia (fully). Meanwhile it is predictable that because short-term mortgage loans with fixed annual repayments are too inflexible for student needs, they will encourage early defaulting. For this reason the logic of the income-contingency loan principle, first advanced in the 1950s, seems now to be increasingly appreciated.

The full rationale of income-contingency repayment (ICR) loans is as follows. Because, like any other capital investment, spending on education faces risk and uncertainty, it should ideally be financed as an equity investment with the investor receiving a share of the "profits" according to the number of his/her "shares" purchased. The borrower, meanwhile, contracts to pay a specified fraction of his/her future earnings, or a fraction of the difference between these earnings and those received on average by persons with the next lower level of education. The government, as investor in several educational ventures across the population of students, will then compensate for its losses on the less successful individuals by recouping sufficiently from the more successful.

Typically, income-contingent plans (ICLPs) allow for long repayment periods of up to 30 years. In the words of David Stager (1989) "unlike fixed-debt obligations that require fixed-payments at fixed intervals, the contingent-repayment system allows for low or irregular payments in response to low or irregular incomes." Because students borrowing under the conventional short-term fixed-rate (mortgage-type) loan plans such as the current Canadian Student Loan Plan (CSLP) are unable automatically to spread their indebtedness over a long period, and so cushion the irregularity of their income payments in the early years, many of them are tempted to default. The usual income-contingency program, in contrast, can be expected to have much lower defaults because it embraces long and flexible periods of repayment. The information requirements, however, are substantial. And it is here where the coupling with the income tax process becomes crucial since, to reiterate, the revenue authority possesses the most detailed and centralized data on the current location and income status of individuals.

The *World Bank Discussion Paper* (No. 137, 1991) has indeed since confirmed that experience shows reliance on tax departments to be "far less costly to administer" (p.18). So here we have another possibility of reducing the costs of Canadian higher education; and indeed it can be pursued whatever the loan plan used. The contingent-repayment system that Mr. Axworthy now appears to favour¹⁷ allows for low or irregular payments in response to low or irregular incomes with a maximum payback period of 20 to 25 years. Canadian students borrowing under the conventional short-term fixed rate loan plans, in contrast, are unable automatically to spread their indebtedness over a long period, and so cushion the irregularity of their income repayments in the early years. It is partly for this reason that many of them are tempted to default. The failure to make full use of the income tax machinery, meanwhile, makes it *easier* for them to default in the sense of escaping all repayment.

The CSLP has another major difference with Mr. Axworthy's ICLP in that it is subject to conventional means testing. Students living with their parents qualify for their loan only if their father/mother is earning below a stipulated income. The real value of this benchmark income, moreover, has fallen substantially over the last 10 years so that

¹⁷ *Improving Social Security in Canada: A Discussion Paper* (hereafter "The Green Paper"). Human Resources and Development, Canada, October 1994, pp.63,64.

currently only about one in three Canadian university and community college students succeed in obtaining CSLP loans.

The fact that the present CSLP is a mortgage type loan system that demands fairly quick repayments (up to ten years) implies frequent financial inconvenience to students and obliges many of them to leave higher education too early because of the necessity of immediate employment required to generate the loan repayments. Such dropping in and out of college not only makes for a less smooth and therefore more costly education process, but also tends eventually to discourage many from continuing their courses. It is in this adverse financial environment, again, that a significant number of student borrowers are prompted to default. By 1992 almost one-third of outstanding Canada student loans were currently delinquent in the sense that, of those who had reached the repayment stage, only two-thirds were currently repaying.

The value of defaults accumulated on federal books since 1964 is now about \$1 billion and Secretary of State officials in charge of the CSLP have received strong and repeated criticism from the Auditor General. The Secretary of State administrator's proposals for reform, however, appear very questionable. They are contained in a plan which, if successful, would transfer the burden of default to selected commercial banks. This plan, however, would merely cover up, not abolish, the default problem. The reason is that in return for their willingness to forgo government guaranteed reimbursement of defaulted loans, the commercial banks would be offered an up-front, fixed-risk premium per dollar lent. Initially the suggestion was mooted that the premium offered was to be 5.2 per cent. Later reports, however, indicated that the banks regarded this figure as far too low. But even if the 5.2 per cent were accepted, what would be the implications? The figure would be a measure of the government authorities' passive belief in an intractable default problem in perpetuity. Yet under Mr. Axworthy's income contingent plan the problem would be dramatically reduced.

Consider the typical case where a student defaults on his CSLP loan by simply skipping town. The local commercial bank that provided him/her with the loan money has then no information of his/her whereabouts. This situation is far less likely under an ICLP that uses the income tax machinery for collection purposes. That machinery, of course, possesses substantially more information about an individual's whereabouts and income situation than does any given bank. It is, moreover, far more difficult to default on the centralized income tax authorities than on banks. And the penalties for doing so are much more substantial, including the potential loss of social security benefits.

It is interesting that Canada has already acknowledged this kind of reasoning by adopting the practice, where possible, of withholding tax refunds from delinquent borrowers. The full adoption of Mr. Axworthy's ICLP would go much further in drastically reducing the default cost because it would use the income tax machinery *fully*. Indeed if that plan had been adopted years ago it is very doubtful that we would be faced with the \$1 billion owed to the federal government by defaulters today.

Such tightening up on the defaulters might appear unnecessarily harsh by some observers. The change, nevertheless, should be seen in the full context of the ICLP. That plan, to reiterate, contains a built-in insurance such that any student is forgiven from making loan repayments and interest payments who does not reach the benchmark income (usually the average adult earnings, which, in Canada amounts currently to about \$23,000). After exceeding that income, the ex-student borrowers will then have to pay some percentage of their gross earnings until the debt, accumulated with interest, is paid off. For most students this outcome is expected to be quite feasible, and especially in the case of those in the technological and professional training sector of university education that this paper is focusing on - a sector that includes doctors, dentists, lawyers, architects, engineers and teachers, all of whom earn a lifetime income that is well above the average. And the greater the length of loan repayment period (up to 20 or 25 years), the easier it is for the borrower to access the full stream of his/her professional income, following a comfortable period after graduation. All in all the substitution of the ICLP for the CSLP can be expected to make its own contribution to substantial reductions in the cost of higher education.

It would be wrong to suggest that the proposed ICLP so far described would be entirely free of difficulties. One problem that should be acknowledged is connected with the so-called phenomenon of adverse selection. There is an analogy with insurance. If some people do not buy insurance, the full benefits of risk pooling are not available to the insurance company. More important, for any policy offered, those most likely to make a claim are also most likely to purchase the policy. Similarly with the income contingent student loan: if some students know that they have an almost certain chance of succeeding in their post-education careers, they may refuse to take out the loan. The reason is that their financial success will result in their having to compensate for the incomplete repayments of the less successful. It could be argued that this situation could result in non-participation in the loan scheme not only by students who *expected* to have high incomes but who also had access to private funding.

One response is that it is not easy in practice for students starting out to *know* that they will succeed. A process of education over time is itself required to furnish the relevant information, especially so for those hoping to graduate to professional positions in, say, medicine, law or engineering, where a general university degree is a prior requisite for entry to professional training. A second response is that the proportion of students failing to earn the benchmark average adult income after graduating is likely to be small. The typical graduate already earns at least one and a half times the benchmark income in question.¹⁸ A third response is to restate that there is a large gap between the rate on personal loans and the rate at which the government can borrow to operate the loan schemes.

Finally consider the suggestion that individuals with incomes just around the threshold (benchmark) income may be tempted to work part-time or leave the labour force to avoid

¹⁸ *Education Quarterly Review*, 1994, Vol.1, No.3.

servicing and repaying his/her loan. Similarly, it is argued, that graduates might emigrate in order to escape repayments. It is difficult to deny the existence of such "moral hazards". However, they apply to all kinds of loan systems and not just to the income contingent variety.

Meanwhile the number of individuals who might be motivated to keep their incomes below the threshold are not likely to be numerous. Certainly, a medical student would not turn down the prospect of a potential income of, say, \$100,000 per annum for a benchmark income one-fifth the size merely to escape his/her student loan repayments. And the same kind of argument can be applied to most students. The threshold (benchmark) income idea is usually viewed as a kind of insurance for those with zero income, such as women who withdraw from the labour force for certain periods (for instance, to bring up children).

The conclusion is that no income contingent loan system can be expected to be perfect. One must certainly recognize the problems of adverse selection and moral hazard. How serious such problems will be is an empirical matter. The view taken here is that they are not likely to be so significant as to seriously detract from the combined advantages of the income-contingent loan system so far outlined.

Mr. Axworthy's income contingent loan plan is evidently an idea whose time has come. As for the criticism that implementation of the system will lead to rises in tuition fees, the fact, to reiterate, is that this is already happening. Fees, in fact, have doubled over the last ten years and there is no sign that the trend will change. And this is not a phenomenon that is peculiar to Canada. According to the World Bank the upward trend in tuition is worldwide. Recognizing the trend of increasing student fees, Mr. Axworthy's 1994 "Green Paper" (p.63) observes:

It could thus be attractive to secure soon, an on-going source of loans to help students cope with rising tuitions. It is true that replacing federal cash transfers would put upward pressure on tuition fees. This may be a necessary price to pay to put in place a permanent system for ensuring accessibility to post-secondary education. Continuing with the existing course would see the cash transfers disappear over the coming decade, with tuition fees continuing to rise, but with no mechanism to sustain broad accessibility for Canadians.

From this perspective of our report, the trend of increasing tuition fees that Mr. Axworthy expects to continue well into the future, means that universities will be approaching the position where they can pass the Adam Smith test (with tuition covering at least 50 per cent of total costs). And, continuing with the Smithian logic, this means an increase in effective competition between universities.

The most striking fact that emerges from this future scenario is that the for-profit higher education institutions such as DeVry will be placed in an even more competitive position because their *relative* price will fall dramatically. This is because their students are already paying annual tuition that covers over 90 per cent of annual total operating cost.

And when we take into account the for-profit institutions' practice of compressing 4 year degree into 3 year programs, the cost savings to students are an additional reason to expect the relative price of for-profit to fall and a switching of enrolment in their direction in consequence. Meanwhile the Axworthy plan of introducing an income contingent loan in order to expand access is based on the fact that it will replace a student loan system (CSLP) that is restrictive (to less than 40 per cent of students) because it is means tested. But the greater expansion of loans that the ICLP will involve will also help more DeVry type students, especially as their debts will cover 3 year instead of 4 year courses.

7) CONCLUSION

Our point of departure has been the urgent call, emphasized in the current debate, for the strengthening of the role of universities in the new global economy.

Our point of departure has been the urgent call, emphasized in the current debate, for the strengthening of the role of universities in the new global economy. It has been assumed that the areas of higher education that are most relevant to this consensus consist of technology and professional training. On a conservative estimate these sectors currently account for over one-half of total government expenditures on universities. The remainder of the expenditures covers the traditional provinces of higher education, areas such as the arts and humanities. These have been reserved for separate treatment and discussion in the future.

Complaints about the efficiency of university education have been shown to be centuries old and indeed some of those expressed, for instance, by the Macdonald Commission in the 20th century are echoes of those to be found in Adam Smith's *Wealth of Nations* published as long ago as 1776. Current demands for greater efficiency in university delivery come from several perspectives. The approach taken here has started from the basic concepts of efficiency that are familiar to economists. This has involved the comparison of the typical Canadian university with the ordinary business firm. And whereas the latter has been criticized for incurring the separation of ownership from control, the finding here is that the criticism can be more appropriately applied to government supported universities.

The opportunity has also been taken to explore the incentives facing the nonprofit private university and to examine the basic rationale for nonprofit organizations in general. And to complete the analysis the incentives facing for-profit organizations have also been fairly thoroughly reviewed. Section 5 has demonstrated a world-wide trend in higher education towards what can be called 'corporatization'. Many faculty members in Canadian universities will, no doubt, recoil from such a term. It can be pointed out in response, however, that the world's most prestigious universities such as Harvard, Yale, Oxford and Cambridge, are private corporations and have been for a very long time. But the main objective here has been to chart the trend of events and to make predictions rather than to engage in policy debate.

One of the most interesting results of our search among organizational types in higher education has been the finding that higher educational establishments with no government support whatever offer degree courses that are completed in much less time than those in the public universities. This result occurs in institutions from Harvard, down to the private for-profit technological universities.

Another interesting finding is that successful for-profit universities, such as DeVry, incorporate all the efficiency incentives associated with the prosperous business firm,

including managerial and employee participation in stockholding and stock market disciplines that face companies with shares exchangeable on the stock market.

The concentration here has been upon university first degrees and, because such education is not typically coupled with original research, the research undertaken by the various types of universities has not been touched upon. Research is, of course, an important topic and one that is also relevant to the needs of the country in a global economy. But research is, and can be, conducted in a wide variety of places. And considering that universities increasingly favour industrially sponsored applied research, they are dealing with many activities that ultimately expand the profits of the corporate sponsors. The case for taxpayers supporting such research is of course much weaker. Moreover there is no reason why much sponsored research cannot be contracted with a variety of institutions including the for-profit universities.¹⁹

The evidence shows that for-profit higher education institutions can deliver their courses at much less cost than others. And despite the fact that the share of tuition in total costs is well over 90 per cent, they have already succeeded in gaining a firm threshold in North America. As the fees in public universities increase significantly, the *relative* price of universities such as DeVry will fall substantially. Meanwhile the Canadian Student Loan System is expected to open up to a much wider set of students with the aim of improving access. It is easy to predict that, at least in the long run, the increase in access will be disproportionately experienced in the for-profit sector, a sector that, on the evidence presented here, will constitute an important wave of the future.

¹⁹ About 30 per cent of the graduates of DeVry university proceed to its M.A. degree program conducted in the U.S. and research is more associated with such higher degrees.

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