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Linking Economic Strategies and Ontario Colleges

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Introduction

Ontario's Colleges of Applied Arts and Technology (CAATs) have established productive links with employers and the result is practical training that leads to rewarding work for graduates. This practical success is not being adequately recognized in a crucial debate that focuses on strategies for economic development. It is important for the CAATs to promote a greater awareness of the links between their programs and broader goals such as economic prosperity.

This paper discusses the current orientation of government economic strategies and its potential for supporting the CAATs. It argues that there are at least three measures of economic performance that are central to the role that CAATs play – return on investment in education, productivity and skill shortages. Using these measures, the CAATs can make a strong case for their role in these economic strategies.

Connect College Activities to Government Economic Strategies!

All levels of government have economic development strategies that focus on human resources. There is a common theme in Canada at the federal, provincial and municipal levels that links economic prosperity and competitiveness to the skills and learning of the work force. Fulfilling this vision should place postsecondary education and especially the CAATS at the top of government priorities. However, spending has been inadequate for the needs of colleges and there is intense competition with other postsecondary institutions to find resources to meet current demands.

There are three economic measures that currently have "traction" in government policy decisions: return on investment, productivity and skills shortages. Explaining the role of the CAATs in these terms is crucial. This paper describes the context of decision-making, measurement issues and opportunities for the colleges as they raise their profile.

Federal

At the federal government level the human resource focus of economic policy was prominent in its two Innovation Strategy reports published in 2001- **Knowledge Matters, Skills and Learning for Canadians and Achieving Excellence, Investing in People,**

Knowledge and Opportunity. This strategy emphasizes the need to boost Canada's capacity to innovate by taking original research findings and transforming them into commercially successful products. The growth and refinement of this strategy has consistently turned to human resources and the need to build a highly skilled work force.

These priorities have carried over into the Martin government and the most recent federal budget (2004) reiterated the commitment to education as a priority for economic development in its section on the importance of learning. The budget announced that Human Resources Skills Development Canada is developing a "Workplace Skills Strategy" that focuses on vocational training type initiatives like apprenticeship and will involve many of the Sector Councils.

Ontario

The first budget for the new Liberal government (2004) focused on the human resources theme under the caption "Investment in Colleges, Universities and Workplace Training to Drive Economic Growth". A new commission on postsecondary education under former Premier Bob Rae has been formed.

Both the **Liberal Party Platform** (2003) during the last election and the work of the **Task Force on Competitiveness, Productivity and Economic Progress** (2002) have refined the policy discussion and have developed the idea that **"the more you learn, the more you earn, the more productive Ontario becomes"** (Ontario Liberal Party, 2003, p. 10).

Municipal

The City of Toronto Economic Strategy (2003) emphasizes competitiveness in the global economy. A priority focus on human resources and skills in the work force prompted the development of a "Labour Force Readiness Plan" that, in turn, focused on specific industries and occupations. This plan emphasizes that more new jobs in the Greater Toronto Area, created between 2000 and 2010, will require college/apprenticeship training rather than university education. "This highlights the importance of non-university acquired skills in the future growth of Toronto's labour force" (City of Toronto Economic Strategy, 2003, p. 48).

Are all three governments on side? Perhaps not. Are the colleges getting the recognition that they need to be part of the government priorities?

The core idea of **"the more you learn, the more you earn, the more productive Ontario becomes"** reappears many times in all the policy discussion. Linking education to earning and then to productivity is actually a tenuous association and can lead to inappropriate policy proposals.

It requires very careful study at the level of occupations or industries to really make sense. Nonetheless, the idea has taken on momentum in government and must be part of college efforts to promote their programs.

The following are three ways to make the case for CAATs as the front line institutions to lead economic development:

Return on Investment

Calculations of the return on investment (ROI) to postsecondary education are persuasive in the business-oriented world of government. This perspective treats education like any other type of public or private investment choices. Are the returns for the initial investment worth the risk? Such a calculation can be made from either the governments', the general public or the students' point of view.

Simply stated, the calculations estimate the increased level of income that is associated with a particular program of training and compare it to income without the program. The difference, across the lifetime of the graduate, is treated as a benefit and discounted to a present value. The return associated with the initial investment is then calculated. There are many variations on these calculations and alternative ideas about what is to be included in the costs of the education (e.g. tuition, lost income) and the benefits (e.g. future stream of income).

There is potential to add many other "benefits" associated with the investment. For example:

- Health and other social benefits associated with education
- Improved labour market prospects (e.g. lower unemployment).

These benefits can be measured and attributed directly to students and the associated return on investment relates to their costs during the program. Similar calculations can be made for government where benefits would include increased tax revenues associated with higher incomes and other benefits. The cost of training each year's graduates would be set against this stream of benefits. An even broader calculation would track all benefits and costs linked to the general public interest in postsecondary education.

There are, however, many types of costs (or investments) that must be compared to the benefits as the scope of the analysis broadens. For example the calculations might include the risk that postsecondary graduates will displace lower skilled workers, move out of the province, or work in an unrelated occupation.

There are many variations on these ideas and there is extensive literature that reviews the merits and proposes advances in this work.

The most prominent finding in the literature shows that the return on postsecondary education, in most forms, is a strong investment for students and governments. In its report titled, **The Socioeconomic Benefits Generated by 24 Colleges of Applied Arts and Technology in Ontario** (2003), the Association of Colleges of Applied Arts and Technology of Ontario (ACAATO) evaluated the return on investment for the twenty-four colleges in Ontario and found that:

- Taxpayers earn a 12.9% return on their investment in the CAATs
- Students earn a 9% return on the investment in their education – or each student earns a cumulative $2.19 in the discounted value of future earnings for each $1.00 invested in training in the colleges.

These calculations, of course, invite comparisons. The literature reveals that there are very wide variations on the results for different groups. For example the return on investment varies by gender. Return on investment also varies widely across programs.

This natural curiosity about comparing returns, and the high variability of the results, can create controversy. Careful and thoughtful analysis of the rates of return is essential as different rates are often the result of a complex set of factors. Differences in returns might be taken to reflect the "effectiveness" of institutions or programs when, in fact, they are caused by unrelated factors such as the mix of programs, demographic characteristics of the student body, the level of private tuition versus government support and wage patterns in different jurisdictions.

Productivity

Government strategy focuses on productivity as part of a broader economic vision. This vision links productivity to competitiveness and economic prosperity. Here governments are concerned about the strength of indigenous businesses in comparison to similar groups in other jurisdictions.

Productivity is calculated as the ratio of outputs to inputs. Labour productivity (output per unit of labour input) is the most common variation. These measures are associated with the long-term capacity of the economy to generate wealth. Analysis of differences in labour productivity among countries, regions and industries is often the core point of comparison related to competitiveness.

These comparisons reveal that Canada and Ontario have lower levels of labour productivity and slower rates of increase compared to other countries. These differences are usually regarded as an inadequacy and have been the subject of extensive government evaluation. In policy analysis, low productivity is associated with low research and development, low innovation among firms and a lower standard of living. There is much controversy about the adequacy of

productivity as an appropriate concept and about explanations for changes in productivity over time. There is also controversy about the methods used to measure productivity. Nonetheless labour productivity, with all its conceptual and measurement problems, is a potent driver of government economic policy.

In Ontario, this type of analysis has been used by the **Task Force on Competitiveness, Productivity and Economic Progress**. In their Annual Reports (2002, 2003), this group has compared labour productivity in Ontario with Quebec and 14 of the largest and most prosperous states. Working through the **Institute for Competitiveness and Prosperity**, the Task Force has allocated the differences in labour productivity among these jurisdictions into the following factors:

- Mix of clusters
- Cluster content
- Urbanization
- Education
- Capital Investment
- Effectiveness

Each of these measures is assigned a proportion of the productivity gap that separates Ontario from the success of the target States. The fourth factor, education, attracts attention to the colleges. This category is assigned a relatively small portion of the "productivity gap". But the **Task Force** argues that the failings in education include inadequate funding and participation in postsecondary education. The real problem is that the **Task Force** goes on to claim that there is an over emphasis in college education in Ontario, compared to that of the United States. There are many methodological weaknesses and unfounded conclusions in the work of the Task Force.

While the work of the **Task Force** is vulnerable to many criticisms, and will hopefully not be used to frame policy, it highlights the need that this article focuses on – the need for the colleges to more closely identify their programs and graduates as an essential part of the solution. In particular, it is important to relate gains in labour productivity to the work of CAAT graduates.

Skill Shortages

The third economic measure that gets the attention of government these days is labour and skill shortages. The media has been reporting that severe skills shortages have been restricting economic growth for over four years. These reports are based on research, notably the Conference Board, and numerous employer surveys. Concern is most prominent in areas like health care, manufacturing, construction and other technology related areas. For example, an article in the **Globe and Mail** (2003) reported that the Ontario government identified several occupations that need workers right away. These jobs include:

- Refrigeration and Air Conditioning Mechanics
- Horticulture Technicians
- Cooks
- Carpenters

The ACAATO (2003) has identified skill shortages in many occupations including:

- Machinists
- Tool and die makers
- Millwrights
- Industrial electricians
- Registered Nurses
- Occupational Therapists
- Physiotherapists
- Skilled construction trades people

These are just a sampling of the often-repeated concern about shortages. The concerns are focused on the occupations noted above. One often repeated cause for the shortages is the retirement of the Baby Boomers who are now between age 35 and 55. The exit of the Boomers will span 20 years and provide a long-term challenge to the supply of skilled workers.

Research also shows that the most important shortages are not willing job applicants, but very specific skills. The missing skills are often taught in the very practical vocational programs that focus on particular software, equipment, materials or business skills that are needed to implement and commercialize new technology. In most cases CAAT programs are teaching the needed skills.

A variation on this theme is the growing importance of training that combines the more general, business-oriented programs and more technically-oriented college programs. This combination has been identified as the necessary catalyst in many businesses for successful implementation of new technology. These technologies, and their introduction into businesses are often seen as the main contributor to rising productivity.

It is the very practical nature of college training and the frequent references by employers to these skills, that helps the case that the colleges must make. There are easily understood industry needs that link to obvious efficiency gains and improved competitiveness.

Conclusions

This essay has provided a brief overview of government priorities in the area of economic development. These priorities appear to improve the potential to raise the profile of Ontario's CAATs and assure increased levels of funding and attention. However, the dawning of the golden age for CAATs is not yet a certainty. The colleges need to make their case by referring to the current language

and concepts that dominate policy discussions.

The CAATs have a natural advantage through their tradition of contact with employers. The practical, vocational natures of their programs place them closer to the job market. Continued careful research in the areas of return on investment, productivity and skill shortages will make these advantages clearer to government. While there is extensive competition for limited public sector resources, the good news is that Ontario's colleges are strongly positioned to positively influence governments' decisions regarding resource allocation.

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