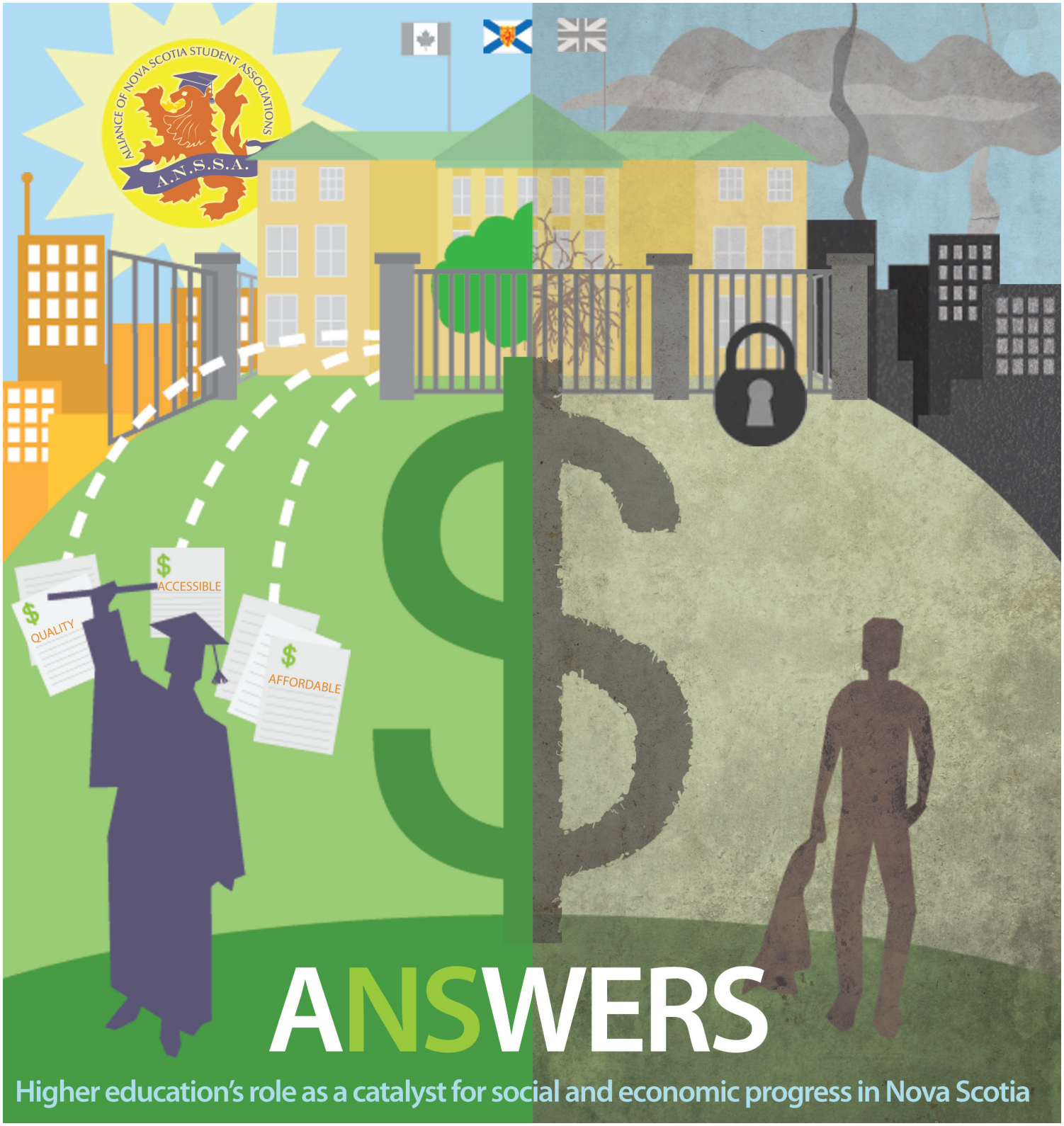

ANSWERS

Higher education's role as a catalyst for social and economic progress in Nova Scotia

The Alliance of Nova Scotia Student Associations (ANSSA) is a non-partisan, not-for-profit organization representing over 35,000 students at six post-secondary institutions across Nova Scotia. ANSSA's mandate focuses exclusively on post-secondary education. ANSSA is committed to advocating for a high quality system that is accessible and affordable to every qualified student.

ANSSA MEMBER ASSOCIATIONS INCLUDE:

- Cape Breton University Students' Union
- St. Francis Xavier University Students' Union
- Dalhousie Student Union
- Saint Mary's University Students' Association
- Atlantic School of Theology Student Union
- Acadia University Students' Union

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ANSWERS

CONTEXT

This brief comes in response to recent government funding cuts to education in Nova Scotia. The provincial government recently legislated a four per cent funding cut to universities, and froze the budget to the Nova Scotia Community College. Institutions at every level will struggle to deliver comparable services. The cost of providing those services will increase, while the funding from government does not. At the elementary and secondary level, school boards responsible for elementary and secondary education are facing a $17.6 million provincially prescribed reduction in funding – resulting in a dramatic reduction in their ability to serve and educate Nova Scotia's children. All post-secondary institutions have responded by passing these cuts on to students in the form of tuition increases and reducing spending on valuable student services, while elementary and secondary schools are forced to simply cut spending and reduce their offerings. To an informed observer, it would appear that Nova Scotia's government has underestimated the benefits of well-funded and accessible public schools, universities and colleges. Here we focus on the importance of the latter as a tool for social and economic progress.

Our government has two options when it comes to serving Nova Scotians, it can be proactive or reactive. Proactive government services are investments in our citizens and our communities that involve an upfront investment. Reactive government services are those expenses to government that are a combination of costs that can be avoided through more effective proactive services, and those that can't be predicted or avoided. For analogy's sake, we call proactive services fireproofing and reactive services firefighting. Both are necessary to some degree, but it is our opinion that we have become far too reliant on the latter.

The most effective means of fireproofing citizens is through education. As we explore in this paper, highly educated citizens are a lesser strain on our health care system and spend less time on social assistance and in prison. Highly educated people contribute a disproportionate amount to the tax base for provincial and federal budgets, they spend more time working, obeying laws, voting and donating their time and money to community organizations that give them nothing in return.

A more ineffective, and far more expensive means of supporting Nova Scotians is through firefighting – spending money on health care, welfare payments, and public safety. It's obvious that any responsible government will have a balance of spending in both the firefighting and fireproofing categories, but the evidence we present here shows that in communities where the level and quality of education received by citizens is higher, the need for firefighting is far less.

This paper outlines the multitude of individual and societal benefits that result from having an educated citizenry and the large impact institutions of higher learning have in Nova Scotia. These benefits are broad and far-reaching – encompassing areas such as employment, finances, culture, health, social wellbeing, and the economy.

In a time when Nova Scotia's budget is under careful scrutiny, we need to consider the importance of investing in education as a means to fireproof our citizens and our province from reactive government spending down the road. Doing so will make our province and our people stronger.

INTRODUCTION

The benefits of higher learning transcend the individual student and the field of education. For individuals, the benefits include an increased likelihood of employment, increased annual earnings and better health. The benefits of higher education are felt throughout communities and regions where universities and colleges exist, and positively impact areas such as healthcare and social services. We highlight these benefits and provide specific examples related to Nova Scotia.

EMPLOYMENT AND EARNINGS BENEFITS TO THE INDIVIDUAL

Individuals with higher education enjoy a number of employment benefits. Perhaps the most obvious of these is the fact that individuals who attain higher education have higher employment rates than those with only a high school diploma. Specifically, unemployment rates decrease with each level of additional education[1]. The unemployment rate of degree holders is roughly half that of those with only a high school diploma[2]. In addition to higher rates of employment, individuals who attain higher education are also more likely to be offered pension plans by their employer and more likely to participate in such plans[3]. These individuals also tend to have higher quality working conditions[4] and higher job satisfaction than their counterparts with high school diplomas[5].

> Education is the most powerful weapon which you can use to change the world."
>
> – Nelson Mandela

The employment benefits enjoyed by those who attain higher education translate into financial benefits. In particular, the earnings of those who attain higher education are higher than the earnings of others. In Canada, the average annual earnings premium between a bachelor's degree holder and a high school graduate is $18,000. This increases to $29,000 between post-bachelor's degree holders and high school graduates[6]. These earnings premiums have continued to grow since 1980, even with the increase in the number of Canadians attaining higher education[7]. Further, individuals who have attended higher quality institutions, measured by indicators that include faculty salaries and students' grades, subsequently earn more than those who attend lower quality institutions[8]. Additionally, the lifetime earnings of college and university graduates are estimated to be $394,000 and $745,800 more, respectively, than the earnings of high school graduates[9]. This earnings premium also has a huge impact on the community, as we discuss later.

Similar to earnings, families headed by someone with only a high school diploma are twice as likely as a family headed by a university graduate to have no personal savings[10]. Families headed by someone with higher education were 15% more likely to report having savings for their children's higher education than those headed by someone with only high school education[11].

In addition to the financial, career, and lifestyle benefits, higher education opens innumerable doors of opportunity and learning that are innately beneficial to the graduate and the communities they live in. Universities in Nova

Scotia attract learners from hundreds of countries around the world and serve as a dynamic medium for cross-cultural exchange. Learners from all backgrounds are exposed to new ideas, styles of politics, religions, ways of knowing and understanding that they might not otherwise come by.

SOCIAL IMPACT OF HIGHER EDUCATION

Those with higher levels of education demonstrate increased participation in civic activities. Individuals with higher education are more likely to vote[12], volunteer[13], donate blood[14], and give charitably[15]. Evidence also suggests that individuals who attain higher education are more open to other's opinions[16], a characteristic that is important to have in our diverse society.

The social benefits of higher education also extend to environmental choices. Those with higher levels of education report being more likely to purchase earth-friendly products[17] and to reduce their energy use[18] compared to those with less education. These environmentally conscious decisions are a proactive approach to protecting the environment for future generations.

Additionally, there is evidence that adult children positively influence their parent's consumption patterns in areas including recycling and healthy eating[19]. Given the positive impact individuals with higher education bestow on society, it stands to reason that these behaviours also spillover to their parents, causing positive change in an older generation.

The behaviors reviewed here are positive ones. The fact that indivduals with higher levels of education are more likely to implement these behaviors suggests that obtaining a higher education exposes them to information, lifestyle choices, influential role models and positive peer-pressure that they would otherwise not experience.

Higher education also correlates with lower crime levels. Individuals who attain higher education are less likely than others to be arrested, incarcerated, or self-report crime[20]. This suggests that investing in higher education may be a strategy for crime reduction.

> "Education is the ability to listen to almost anything without losing your temper."
>
> - Robert Frost

To use a strictly financial comparison, the average cost of imprisoning someone for a year in Canada is $102,000[21], which doesn't even include the revenue lost to government since most prisoners don't earn income and thus most don't pay taxes. In contrast to this, the cost to government to subsidize each full-time equivalent (FTE) student in university in Canada for a year is $9,679[22] and $10,678 to provide each year of elementary, secondary, adult, or vocational training[23]. The cost of sending someone to prison for two years in Canada is more money than government will ever spend subsidizing the average individual's public and post-secondary education[24]. If education reduces the likelihood of an individual ending up in prison, these numbers suggest that investing to ensure all individuals can access higher education is a more cost-effective means of creating safer communities with more law-abiding citizens.

We must recognize that higher education is a powerful tool, but certainly not a panacea for the elimination of crime or the need for prisons and policing. Rather, universally accessible post-secondary education should be seen as the low-hanging fruit of any long-term strategy of crime reduction, since those who complete post-secondary education are generally less likely to face jail-time.

IMPACT ON PUBLIC SPENDING AND REVENUE COLLECTION

An individual's completion of higher education not only impacts personal finances, but also results in direct and indirect financial benefits for the community and regions where they live and work. Estimates suggest that for every dollar invested in undergraduate education, society can expect to see an annual return of nine cents[25].

As individuals who attain higher education, on average, have a higher income than those without, they end up paying the lion's share of taxes[26]. University degree holders made up just 22 per cent of the Canadian population in 2008, yet contributed 41 percent of all income tax and received only 14 per cent of government transfers[27]. These individuals are less likely to use social services such as unemployment insurance[28], reducing the financial strain on such programs.

The same is true for healthcare. Individuals with higher education are more likely to report their health as very good or excellent[29], and to be more efficient in their use of health knowledge[30]. These individuals are less likely to smoke[31], have narcotics addictions[32], or be obese[33], and are more likely to exercise[34]. Lifestyle choices like these have financial benefits for society, since these behaviors suggest these individuals will likely remain healthy and demand less of the healthcare system.

The benefits of higher education also extend to the neighboring community. Research suggests that the wages of those with lower education increase when individuals with higher education reside within the same metropolitan area[35]. Additionally, there are greater rates of job growth for areas close in proximity to post-secondary institutions[36]. Riddell calls these effects "knowledge spillovers" whereby more-educated individuals raise the productivity and that of their colleagues and acquaintances by implementing and informally sharing what they've learned through formal education[37].

The economic spinoff benefits are evident and measurable in Nova Scotia. We explore the economic and social impact of higher education in the final section of our paper.

ECONOMIC IMPACT OF UNIVERSITIES AND COMMUNITY COLLEGES IN NOVA SCOTIA

Nova Scotia's universities have a strong economic impact on the region through local purchasing, production, research, development, and employment. The most recent assessments suggest that Nova Scotia universities are responsible for an annual contribution of $968 million in gross domestic product, $227 million in tax revenue, and $4.39 billion in economic output[38]. Annually, universities also inject $805.2 million into the provincial economy through spending, while community colleges contribute an additional $125 million[39].

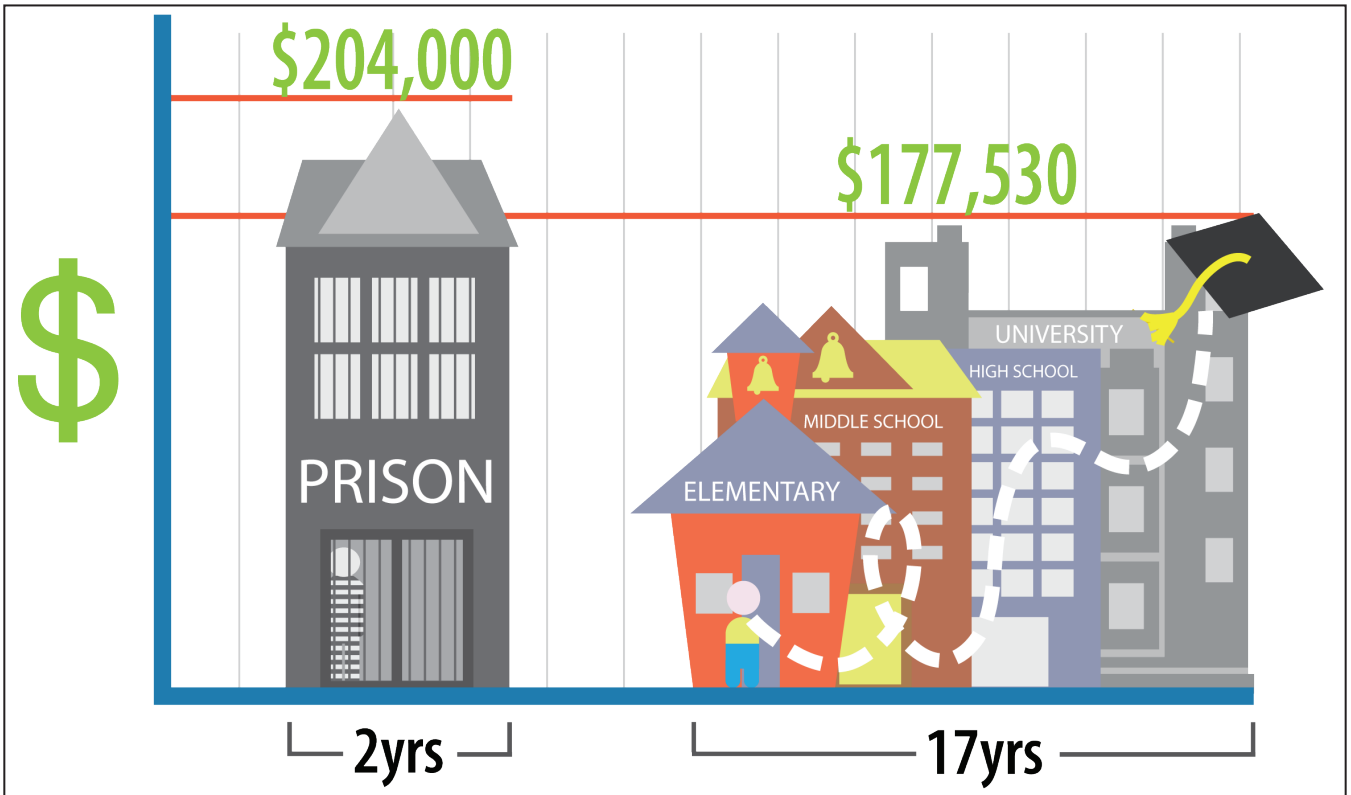


Figure 1 - The cost to government of imprisoning a criminal for a two year term (left) compared to the cost of 13 years of public elementary and secondary schooling combined with current average levels of government subsidization per student for a four year undergraduate degree (right).

Source: Correctional Service Canada (2011); O'Neill, T. (2010); Statistics Canada (2010).

Educational institutions are also the main research hubs in our region, accounting for 61% of all research activity[40]. Attracting more than $125 million in funding[41], the research conducted at these institutions contributes to the economic growth, reputation, and sustainability of the province. Some of the leading research centers in the country are associated with Nova Scotian institutions, including the Marine Research Centre and the Brain Repair Centre. Further, across disciplines, the research is related to issues that affect Nova Scotia, with one of many examples being research related to marine-based resources, recovery and remediation[42]. This strong excellence in research and funding history continues to attract top researchers, academics, and business to the province, further developing Nova Scotia's knowledge economy.

Nova Scotia's educational institutions are also major employers, with universities directly and indirectly creating 17,000 jobs[43] and NSCC creating 1,700 jobs directly[44]. In smaller communities, such as Antigonish and Wolfville, universities account for up to 30% of employment, providing not only jobs, but higher than average salaries and

job stability. Additionally, almost every job created at the universities, translates into another job being created elsewhere in the community[45].

Nova Scotia universities have the potential to supply the individuals needed to combat the current and future shortage of skilled and well-educated workers. Near the middle of the next decade, the number of people available to work in Canada will be less than the number of unfilled jobs, and following this will be a general worker shortage in all provinces and all sectors, and this trend is expected to be felt sooner in Nova Scotia, due to our older than average population[46]. As the population of the region ages, there is a need to attract people in order sustain the labour force[47]. With 4,399 international students and 11,163 out-of-province undergraduate students, the region's universities have already successfully attracted the needed workers[48]. A challenge for Nova Scotia businesses and government will be getting young people to remain here. Higher education plays a role in this.

As noted previously, those who attain higher education report higher levels of job satisfaction[49]. This could be a strong benefit of higher education for Nova Scotia, as those with higher education should be easier to recruit and retain in the province than those with high school diplomas, or less. Educated and employed workers are less likely to search for "better" employment opportunities in other regions, thus staying in Nova Scotia. The challenge then becomes helping graduates land their first job. Part of the reason Nova Scotia has become such an attractive area (for those who can find work here) is our rich social and cultural traditions. Our post-secondary institutions play a critical role in providing the space and welcoming climate where many of these social and cultural programming takes place. We explore this next.

SOCIAL AND CULTURAL IMPACT OF UNIVERSITIES

Universities offer recreational, educational, social, cultural, support services, and community services programming that the public can access[50]. The number of programs offered can be large, with some schools, like Mount Saint Vincent University offering more than 300 programs in 2009. The uptake of these programs by the public is significant; Acadia University, Cape Breton University, Dalhousie University, and Saint Mary's University each have more than 10,000 people attend programs annually. In addition to programming, the infrastructure owned by universities, such as theatres and fitness facilities, is used by the public. Dalhousie University has strong public engagement with over 20,000 people using their facilities in a typical week. Given that university communities such as Wolfville have small populations (the population of Wolfville in 2006 was 3,772 people[51]), having 10,000 people attend programs illustrates how higher education institutions are the social pillars of many communities.

In addition to providing programming and facilities use to the region, universities support communities locally and abroad through volunteer and charitable initiatives. These initiatives range from fundraising to the provision of human resources and material goods. The number of initiatives associated with the universities is large, with Dalhousie University having more than 200 initiatives annually, and NSCAD and Mount Saint Vincent University, among other institutions, involving more than 1000 university members[52].

WHAT'S NEXT FOR HIGHER EDUCATION IN NOVA SCOTIA?

Despite the demonstrated positive impact that higher education has on individuals and society, education cuts have been brought forth in the Government of Nova Scotia 2011 budget at every level. Students and families are fearful that even greater cuts to education are looming. Given the strain all departments of government are currently facing, it makes sense that the government invest generously and strategically in education. To have the greatest impact, the three focus areas government must form strategy around are affordability, access and quality of higher education.

QUALITY:

A quality education means well-funded schools, instructors being paid competitive wages, with support staff and facilities that are conducive to study and research. Budget cuts to universities in the next year alone will result in an estimated system-wide budget shortfall of $38 Million[53]. It is difficult to imagine universities maintaining current levels of educational quality in the midst of such significant decreases in university funding. When quality suffers, the educational experience of students also suffers. It then follows that the benefits and outcomes associated with higher education are bound to suffer too. It is the responsibility of both government and universities to maintain existing levels of quality, and to do that funding levels must be generous. Looking to students for further fee increases isn't an option, as graduates in Nova Scotia already graduate with higher debt-loads than anywhere else in the country. Further fee increases, or continued declines in quality, will drive students away to jurisdictions like Newfoundland, where we have already seen increasing numbers of students flee for a more affordable, quality education[54].

ACCESS:

The positive impact of higher education on communities is a result of a significant proportion of individuals within those communities receiving a higher education. A government looking to maximize the societal benefits associated with higher education would be wise to look strategically towards the segments of the population that are participating to a lesser degree than the general population. Specifically, in Nova Scotia, those segments of the population include low-income, Aboriginal, and African Nova Scotians. In 2006, 20% of the general population had university degrees, while only 12% of the Aboriginal population did[55]. Employment rates and high school graduation levels of African Nova Scotians suggest that their participation and success in higher education is less than that of the general population[56]. As noted above, there is a correlation between level of education and level of earnings, thus there is also significant overlap between individuals with low incomes and members of the Aboriginal and African Nova Scotian Population[57].

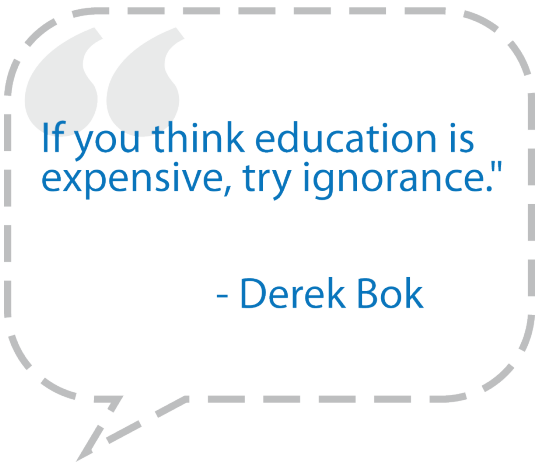
Making higher education more accessible for the aforementioned groups is critical for breaking the cycle of poverty and empowering individuals from these groups. Doing so will help group members overcome and eliminate traditional barriers to higher learning. Increasing access is a worthwhile endeavor, not just for arguments based on fairness and equal access, but also due to the fact that our workforce demand for educated individuals will be much stronger in the coming years, at a rate that outpaces our ability to produce skilled graduates.

Our government needs to invest in programming that addresses the multitude of barriers that exist for students, young and old, from these groups. Programming is needed to provide financial, tutorial, advocacy and role-model

support for students from these communities. We must look beyond just the individual and involve families and communities in this type of programming.

AFFORDABILITY

There is ample debate about the impact of tuition policy on accessibility and enrollment in university. Some have suggested that tuition policy has little impact on access and that student assistance is the primary influencer. However, surveys have shown that student assistance programs across Canada are overly complex and largely misunderstood[58]. The evidence reviewed below supports the conclusion that tuition policy is the one thing about paying for university that any incoming student can grasp. Freezing or reducing tuition will increase enrollment in Nova Scotia universities. Allowing tuition increases is counterintuitive to any access-focused higher education strategy. Tuition policy influences behavior, as we explain below



Between 1997 and 2007 the average university tuition in Nova Scotia was constantly rising and the most expensive in the country[59]. During the same time Memorial University of Newfoundland (MUN) saw a 1,400% increase in the number of Nova Scotian students studying at their campuses[60] as MUN tuition steadily decreased to be the lowest in Canada. As Nova Scotia's tuition freeze and bursary program were launched in 2008, enrollment of Nova Scotians at MUN decreased in the following years[61]. Recent surveys and interviews of Maritimers studying at MUN, including Nova Scotians, have revealed that total cost was the most important factor in their decision to attend MUN[62].

At NSCC, where tuition is roughly half that of a university degree, enrollment has increased by 23 per cent over the last five years[63]. In 2009 there was a 2,500 person wait-list of fully qualified applicants eager to enroll in diplomas and certificate programs at the average tuition level of $2,781[64]. Unlike universities, where less than two-thirds of students begin their studies as resident-Nova Scotians, 95 per cent of NSCC students come from Nova Scotia.

Since as early as 2002, the number of Nova Scotians enrolled at Nova Scotian universities has been steadily decreasing[65]. All of these trends suggest that Nova Scotians are opting out of a Nova Scotia university education and choosing more affordable options instead. Nova Scotia needs a comprehensive and well funded higher education strategy. Affordability, accessibility and quality of education must be key pillars of any such strategy. When considered alongside the benefits of higher education, the trends presented here on access, enrollment and affordability suggest that Nova Scotia suffers the most when tuition, student assistance policy, early outreach programs, and university funding levels are not set in harmony with one another. To realize the benefits outlined in this paper, we need to make education in Nova Scotia an affordable and accessible option at every level while creating opportunities to keep our graduates here.

CONCLUSION

We have highlighted the numerous benefits of higher education that accrue to individuals, communities and regions, and Nova Scotia. When governments invest in higher education, they are not only investing in individuals, but also in society, and are taking proactive steps that will reduce costs in other areas of government such as healthcare, social services, and law enforcement.

We have also identified areas of the unearthed potential in Nova Scotia. Labour force projections indicate that higher education and skills are needed to sustain economic growth, while discernible segments of the Nova Scotian population generally lack these education and skills[66]. Government, universities and local communities must collaborate strategically to increase participation for individuals from under-represented groups in higher education. Supporting higher education, by preserving and improving upon the levels of funding, quality and accessibility that already exist, is a must for the future of Nova Scotia.

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