# A Study of Educational Cost Drivers to First Nations Education

# FINAL REPORT

Prepared for the

**Joint AFN/INAC BOFF Working Group**

***Simon Management Services***

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*The content of this report reflects the opinions of the authors and may not represent those of the Joint AFN/INAC BOFF Working Group.*

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# EXECUTIVE SUMMARY

There has been a general consensus that there should be significant changes made in how educational funding is determined, managed and distributed to First Nations. Work has already begun on reviewing how First Nations education is funded. The AFN and INAC began a formal review of First Nations education funding in 2003 through the development of a Joint National Working Group on Band-Operated School Funding. The present study, First Nation Educational Cost Drivers, is the fourth component of the overall BOFF work plan. The study consisted of background research, surveys of First Nations Schools, and deliberations with a panel of First Nations educators.

To effectively resource First Nations schools, consideration must be given to particular factors that may require additional resources to maintain adequacy. Some factors are very unique to First Nations, and some are shared in greater or lesser degrees by other systems and schools under other jurisdictions. In resourcing First Nations education it is important to address the expression of the social, demographic and economic inequalities, and cultural and pedagogical needs of First Nations schools, these are the cost drivers behind First Nations education.

The delivery of educational programs and services is diverse and often difficult. Based on DIAND's population estimates for 2003, there are 445,436 status Indians living on-reserve, with 285,139 off-reserve. As members of 52 nations or cultural groups, First Nations speak more than 50 languages. On-reserve status Indians live in 614 widespread communities, most of which are small and many of which are isolated. Only six percent of these 614 communities have more than 2,000 residents, and 61 percent have fewer than 500 residents.

In Canada about 25 per cent of the population is under 19 years of age, whereas in First Nations communities 40 per cent of the registered Indian population is under 19. Furthermore, the population growth rate on reserves is much higher than the general Canadian population. Thus, the academic achievement of First Nations students has a much greater impact on these communities.

Unfortunately, the gap in educational attainment between First Nations and the rest of the Canadian population still remains. The Auditor General has indicated that it could take up to 28 years to close the gap. The consequences of the current educational outcomes of First Nation students living on reserve are far-reaching.

Although First Nations schools must provide a comparative elementary and secondary program of study with the provinces, the manner in which First Nations schools are funded is very different from the provinces. Many First Nations schools experience difficulty in delivering programs and services because they lack sufficient resourcing and appropriate support frameworks to meet the pedagogical needs of their students.

Adequacy is defined as the amount needed for the school system to achieve identified goals or performance levels. Adequacy goes beyond equity by considering resources needed, not just resources available. In short, equity in funding achieves little if it is inadequate to achieve the stated education goals.

The Delphi Panel in its deliberations highly recommended that any First Nations funding formula must include language preservation and revitalization programs that comprise accredited First Nations Language courses applicable for graduation requirements as well as immersion and conversational programs that bridge community and school.

At least 47 of the approximately 61 First Nation, Inuit and Métis languages in Canada are unique to their particular territories and not spoken in any other location on Earth. Various government policies of assimilation, and lack of knowledge by Canadians, have endangered many of these languages, in particular the practices of residential and integrated schooling, which barred First Nations children from their right to learn who they are through their ancestral language.

All First Nation people are not alike and do not have the same values or beliefs. Each First Nation is unique in its culture, language and worldview. Language and culture is seen as a critical component of a First Nation child's identity, especially as they enter and go through adolescence. The transmission of ancestral language and culture is priceless; the loss of a language is irreparable.

The federal Action Plan for Official Languages, announced in 2003, provides for funding totaling $751.3 million over five years from eight different government departments. A large portion of this funding for Minority and Second Languages is profiled for education, and is distributed to the provinces and territories through a Protocol Agreement with the Council of Ministers of Education of Canada.

The literature has shown that there is a tremendous urgency concerning the survival and revitalization of the First Languages of this country. As shown in the First Nations examples provided through surveys, this cannot be done based on

the previous distribution formula allocation of $215 per student. The contrast in resources is shown with the difference in the community prioritized spending for First Nations Language Immersion at $6,907 compared to the Alberta Francophone School Board spending of $11,304 per student for instruction in French language. First Nations communities should receive the same priority and levels of funding for first language.

The literature states that children coming from adverse socio economic back grounds, generally find it more difficult to be successful in school, and that these conditions make it more difficult for them to acquire their basic skills in reading, writing, and math, which are essential for success in the school system.

Those who consider equality of education to mean equality of funding make an assumption that all students are on the same playing field. Thus, due to the educational gap that exists in Canadian society, the emphasis should not be placed on the equality of educational opportunity, rather, in the interest of closing the gap; the focus should be on equalizing educational outcomes.

First Nations have a larger proportion of students at risk, lower educational attainment and many more First Nations students drop out of school. It would be important for the Department of Indian Affairs to start to address socio-economic determinants within the funding formula to increase the learning opportunities of many First Nations students. This can be done though the creation of Learning Opportunities Funding, School Success Initiatives, Nutrition Programs and Health Lifestyles Funding.

First Nations schools have made significant investments in technology over the past several years as First Nations leaders and educators realize that for First Nations children to be successful in school and abroad, they will need to have the ICT skills to advance. Many secondary students in remote First Nations communities are totally dependent on a high school curriculum delivered via the Internet.

As the literature review suggests, the overwhelming majority of the school administrators feel that ICT is of paramount importance to the skill development of their students and that it is worth the investment. They also recognize the benefits of distance learning and realize that by supporting distance education in the short term, remote First Nations communities will be better off socially and financially over the long term with the students remaining in their communities.

Nevertheless, at the end of March 2006, Industry Canada's First Nations SchoolNet program mandate ends, leaving over 90,000 First Nation students and nearly 500 First Nation schools across Canada without the funding necessary to continue supporting the broadband connections, the technical support and access to the communication technologies.

In Canada, education is a provincial jurisdiction. As such, each province establishes its own system of education from preschool through university. Each level of education has its own educational outcomes packaged into exit profiles. Depending on the path the student is following, there are different course options for the student to pursue to complete the appropriate exit profile. Provinces also try to address the diversity of their student populations through additional funding initiatives directed towards early literacy, numeracy, English/French Second Language, school success, healthy lifestyles, technology, and skills/career education.

Indian Affairs maintains that the objective of the Elementary-Secondary Education Program is to provide "eligible students living on reserve with elementary and secondary programs comparable to those required in provincial schools by the statutes, regulations or policies of the province in which the reserve is located". First Nations schools, to remain comparable, must often increase the frequency of a core subject or provide an additional option that can cost an average of an additional $90,000, dollars which have to be found within the existing education budget.

In addition to providing programs of study comparable to the provinces, First Nations schools strive to provide their own curriculum that includes the language, culture, history and traditional knowledges of the community. The Auditor General of Canada in the 2000 Report on Elementary and Secondary Education stated that "the Department will need to further take into account the cultural and special needs of Indian students as well as socio-economic factors that can affect success in education."

Unlike provincial schools, First Nations secondary schools are funded in the same manner as the elementary schools, without consideration of the need to provide streaming within the major core subjects, and additional options for certification. Most schools can only provide basic courses. In many cases, students have to spend a transitional year in a UCEP program to get the extra maths or science options that the community could not afford to give.

Many First Nations students who do not profile for postsecondary education are severely disadvantaged by the lack of vocational programs and skill training. They must spend additional years after graduation seeking skills training that could have been provided during their years in high school.

First Nations cannot be expected to achieve the goals of two different educational systems with only the funding for one core program. If they must continue to provide comparable programming with the provinces, then they must be funded appropriately to provide the same quality programming. This is being done across Canada in each province for minority francophone boards whether their schools are large or small.

Research generally indicates that “student/educator ratio” and “teacher salaries” are the two primary cost drivers in public education in Canada. Pupil-teacher ratios are used for financing, hiring and budgeting considerations. Class size is dependent on the school organization, and provides a more definitive view of the educational experience of the student.

The average class size for First Nations schools nationally or regionally was not available for this study through the information retained by INAC, and the Pupil Teacher Ratios available from the Teacher Information Reports are currently being refined. The composition of a First Nations classroom is unique to First Nations schools due to:

- the prevalence of special needs students and students at risk in the classroom population,
- the number of students requiring a second language approach due to dialectical spoken English or French,
- the unique Language and Culture curriculum being taught in addition to the provincial curriculum,
- the learning style difference of the students,
- the teaching style difference of a First Nations teacher,
- the distinctive social context of a First Nations classroom,
- the location of the school.

There is still an enormous gap in the achievement levels of First Nations students. It is documented that reducing class size has early benefits on achievement, and lasting benefits in regards to reducing discipline problems, early identification of special needs, grade retention, and less likelihood of dropping out of school. Most importantly, it has been documented as having the greatest benefit for disadvantaged populations.

The reduction of pupil-teacher ratios for First Nations schools, and the standard of smaller class sizes will require additional funding, and will have implications for teacher training and infrastructure. Nevertheless the research indicates that such initiatives will have a positive benefit on students at risk, and long term benefits on school retention and behavior. The needs of francophone boards and small rural schools have been addressed in all of the provinces and territories of Canada regardless of the ratios, the same should be done for First Nations

The literature review from the provinces would seem to indicate that First Nations schools should be provided with a base allocation for School Administration that would allow for school management costs, the salary of a principal (with teaching duties) and a school secretary as a minimum. The need for a school principal is not currently addressed in the method of funding.

The role of the school principal is extremely important in terms of educational leadership and the quality of education provided by the school. It is the principal who provides the vision for the school's educational plan, who is responsible for ensuring the plan's implementation, evaluation and review and for ensuring the participation of parents in the school as partners in their child's education.

A school committee is composed of parents selected or elected according to school or community custom. They meet regularly with the principal and teacher representative to discuss school and policy matters, to plan school activities as well as being consulted on the school's program of study. They support other parents in the school, and help to organize activities and events. First Nations communities spend an average of $12,000 for the expenses of their school committees.

A local First Nations education authority has a different mandate from a school committee. Most local education authorities receive their mandate from the Band Council. The local education authority is responsible for overseeing the local community education program, and its school(s), through its Director, who is responsible for ensuring that the education programs remain accountable according to the national reporting guidelines. An increase in the funding of $20,000 for administration is required to cover at least the salary of a Director of Education.

Nationally, in terms of size enrolment, 53.1% of First Nations schools have up to 100 students, 43.6% of schools have between 101 and 500 students, and 3.3% of schools have more than 500 students. Of interest is the fact that 24.1% of

schools have less than 26 students. The current approach to funding small schools using a fractional indexation is proven to be very inadequate.

For the provinces, funding small schools is about adequacy, to ensure that there is a full salary for the teacher, and enough qualified teachers to deliver the same quality programming as a student in any other school. Examples, among others, include the Francophone School Board of Newfoundland/Labrador with per student spending of $21,334; the Frontier School Boards in Manitoba with per student spending of $12,696; the Cree School Board in Quebec with per student spending of $22,258; and, the Conseil Francophone of Saskatchewan with spending of $13,816.

The allocation of funds to First Nations for many programs is influenced by factors such as geographic location, distance from major population centres, and the local climatic condition. First Nations are classified according to these factors and assigned remoteness and environmental indices based on the Band Classification Manual. According to this classification, 31.5% of FN Schools are considered Urban, 46.9% are Rural, 2.5% are Remote, and 19.1% are Isolated and require Special Access.

The INAC remoteness and isolation factors do not take into consideration the educational realities of First Nation Communities. The designation of distance from a service center may not accommodate the pedagogical needs of the community not found in the closest service center. These factors do not consider:

- The distance to access provincial pedagogical services for the school.
- The distance to the nearest provincial school with the same language of instruction.
- The additional costs of hiring qualified replacement teachers.
- The distance to the nearest First Nation School within the same Nation for language and cultural sharing.
- The distance to be traveled to a city to recruit teachers or professional services for the school.
- Road access that also affects the ability to hire teachers who may not want to travel the road or the distance, and the additional cost of maintaining boarding for teachers and other professionals.
- Access to library resources particularly for remote communities, available in the working language of the community.
- Cost of moving teachers to the community for the school year.

The funding provided for public education in the provinces and territories is indexed annually to meet the cost of education increases provided by the EPI, as

well as the annual salary increases due to scale and increased cost of employer's share. Some provinces such as Alberta provide separate funding for the cost of purchasing goods and services in particular areas. Indexation is a built-in adjustment to a funding formula that allows the dollar component to remain current with any cost of living increases. Currently the 1996 national funding distribution formula does attempt to address volume increases in each region, but does not have cost of living indexation built into it.

The Education Price Index (EPI) was established in the 1970's to estimate whether changes in elementary and secondary education operating expenditures are attributable to inflation or variations in the quantity and quality of goods and services purchased by schools, including teaching services. The EPI is used mainly to indicate price changes in elementary and secondary education, and to express its expenditures in constant dollar amounts.

According to Statistics Canada, between 1992 and 2003, the EPI increased 24% or an average annual increase of 2.2%. This has tremendously affected the purchasing ability of First Nations education systems to be able to deliver comparative services. Currently in 2005, the National Formula Unit Cost Component of $4,522 if expressed in 1996 EPI constant dollars would be only equivalent to $3,672. Even with the 2% increase provided each year thereafter to the regions for cost of living, the National Formula Base Allocation to the regions for 2005 expressed in 1996 EPI constant dollars is $3,745 per student.

It is hoped that the information and considerations provided by this study on educational cost drivers will inform the final stage of work to be undertaken by the Joint AFN/INAC BOFF Working Group which is the modernization of the national funding formula.

# ACKNOWLEDGEMENTS

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| | |
|---|---|
| *Ahkwesahsne Mohawk Board of Education* | *Tsi Snaihne School* |
| *Ahkwesahsne Mohawk Board of Education* | *Akwesasne Mohawk* |
| *Ahkwesahsne Mohawk Board of Education* | *Kana:takon School* |
| *Alexis Creek I.B.* | *Tsi Del Del* |
| *Algonquins of Barriere Lake* | *BL Elementary/Secondary School* |
| *Big Grassy River First Nation* | *Pegamigaabo School* |
| *Big Stone Cree Education Authority* | *Oski Pasikoniwew Kamik* |
| *Brokenhead Ojibway Nation* | *Sergeant Tommy Prince School* |
| *Chief Atahm SPB* | *Cseyseten Family Language Centre* |
| *Chief Atahm SPB* | *Chief Atahm Primary School* |
| *Chief Atahm SPB* | *Chief Atahm School Intermediate* |
| *Conseil de la Première Nation Abitibiwinni* | *Ecole Migwan* |
| *Conseil Des Montagnais* | *Ecole Amisk* |
| *Conseil Des Montagnais* | *Ecole Kassinu-manu* |
| *Department of Education, Public Schools* | *Yukon Government* |
| *Ebb and Flow First Nation* | *Ebb and Flow School* |
| *Eskasoni School Board* | *Eskasoni Day Care* |
| *Eskasoni School Board* | *Eskasoni Elementary Middle School* |
| *Eskasoni School Board* | *Eskasoni High School* |
| *Eskasoni School Board* | *Unimaki High School* |
| *Fisher River Cree Nation* | *Charles Sinclair* |
| *Gesgapegiag First Nation* | *Wejgwapniag School* |
| *Gesgapegiag First Nation* | *Gesgapegiag Learning Centre* |
| *Gitwangak Education* | *Gitwangak Elementary* |
| *Gitwangak Education* | *Adult* |
| *God's Lake Narrows First Nation* | *God's Lake Narrows School* |
| *Kahnawake Education Center* | *Kahnawake Survival School* |
| *Kahnawake Education Center* | *Karonhianonha School* |
| *Kahnawake Education Center* | *Kateri School* |
| *Kahnawake Education Center* | *Step by Step Kawennanoron* |
| *Kamloops I.B.* | *Skelep School of Excellence* |
| *Kainai Board of Education* | *Kanai High School* |
| *Kanai Board of Education* | *Tatsikii Saap'ap School* |
| *Kanai Board of Education* | *Saipoyi School* |
| *Kanai Board of Education* | *Aahsaopi School* |
| *Kanehsatake Education Center* | *Aronhiatekha Elementary School* |
| *Kanehsatake Education Center* | *Rotiwennakehte Immersion School* |
| *Kanehsatake Education Center* | *Ratihente High School* |
| *Kehewen First Nation* | *Kehewen Community Educ C* |

| | |
|---|---|
| *Kitigan Zibi Education* | *Pakinawatik School* |
| *Kitigan Zibi Education* | *Kitigan Zibi Kikinamadinan* |
| *Kitigan Zibi Education* | *Kitigan Zibi High School* |
| *La Romaine Innu Nation* | *Ecole Olamen* |
| *Labrador Mushuau Innu* | *Natuashish School* |
| *Lac La Croix Nation* | *Lac La Croix FN School* |
| *Lax Kw Alaams Indian Band* | *Coast Tsimshian Academy* |
| *Lil'wat Nation* | *Xit'olacw C School* |
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| *Miawpukek Education Authority* | *St. Anne's School* |
| *Miyo Wahkohtowin Education Authority* | *Erminskin Kindergarten* |
| *Miyo Wahkohtowin Education Authority* | *Erminskin Primary School* |
| *Miyo Wahkohtowin Education Authority* | *Erminskin Junior-Senior High* |
| *Miyo Wahkohtowin Education Authority* | *Ehpewapahk* |
| *Moose Creek First Nation* | *Delores Echum School* |
| *Namgis First Nation* | *T'lisalagi'lakw School* |
| *Naotkamegwanning First Nation* | *Baibombeth Anishinabe. School* |
| *Naotkamegwanning First Nation* | *Alternate Education* |
| *Okanagan First Nation* | *Sen Pok Chin School* |
| *Onion Lake First Nation* | *Pewasenakwan Primary School* |
| *Onion Lake First Nation* | *Chief Taylor Elementary* |
| *Onion Lake First Nation* | *Eagleview Comprehensive HS* |
| *Opitciwan Atikamekw First Nation* | *Ecole Primaire Niska* |
| *Opitciwan Atikamekw First Nation* | *Ecole Secondaire Mikisiw* |
| *Oxford House First Nation* | *Oxford House Elementary* |
| *Oxford House First Nation* | *Oxford House High School* |
| *Prince Albert Grand Council* | *Sturgeon Lake School* |
| *Prince Albert Grand Council* | *Reindeer Lake School* |
| *Prince Albert Grand Council* | *Nithithow Arasis School* |
| *Pukatawagan Education Authority* | *Sakastew School* |
| *Six Nations Education Authority* | *Kawenni:io Elementary* |
| *Six Nations Education Authority* | *Kawenni:io Gaweni:yo High School* |
| *St Theresa Point Education Authority* | *Elementary School* |
| *St Theresa Point Education Authority* | *Middle Years School* |
| *St Theresa Point Education Authority* | *High School* |
| *The Narrows Education Authority* | *Lake St Martin School* |
| *Timiskaming First Nation* | *Kiwetin School* |
| *Tsuu T'ina Nation* | *Chiila Elementary School* |
| *Waywayseecappo First Nation* | *Waywayseecappo School* |
| *Wikwemikong Board of Education* | *Wasse-Abin Pontiac School* |
| *Wikwemikong Board of Education* | *Wikwemikong Junior Elem* |
| *Wikwemikong Board of Education* | *Wikwemikong Pre-School* |
| *Wikwemikong Board of Education* | *Wasse-Abin High School* |
| *Woodland Cree First Nation* | *Cadotte Lake School* |

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# SECTION 1: INTRODUCTION

The following is a list of acronyms, and specific terms defined according to their application in this study which may differ from the dictionary usage.

| | |
|---|---|
| AFN | *Assembly of First Nations;* |
| ALI | *Aboriginal Languages Initiative;* |
| BIA | *Bureau of Indian Affairs, United States Government;* |
| BOFF | *Band-Operated Formula Funding;* |
| Class Size | *Class size relates to the average number of students that a teacher will teach in his/her class in a given school or school district or jurisdiction. Class size can differ by teaching level.* |
| CMEC | *Council of Ministers of Education of Canada;* |
| COLA | *Cost of living adjustment usually included in labor agreements and wage contracts;* |
| CWBI | *Community Well-Being Index (developed by INAC)* |
| Delphi Technique | *A research technique used to elicit information and judgments from participants to facilitate problem-solving, planning and decision-making. The process does so without physically assembling the contributors. Information is exchanged via mail, fax or email. The technique is structured to capitalize on the merits of group problem-solving and to minimize the liabilities of group problem-solving.* |
| DIAND | *Department of Indian and Northern Development;* |
| ESL | *English Second Language teaching – reflects a specific pedagogical approach for those who speak a language other than English as their first language;* |

| | |
|---|---|
| First Nations Schools | *Schools which are operated by First Nations' Band Councils, Education Authorities, or First Nations organizations, and in which the student population is predominantly of First Nations origin;* |
| FTE | *Full-time Equivalent;* |
| FSL | *French second language teaching – reflects a specific pedagogical approach for those who speak a language other than French as their first language;* |
| ICT | *Information and communications technology:* |
| INAC | *Indian and Northern Affairs Canada;* |
| OECD | *Organization for Economic Co-operation and Development;* |
| Pupil Teacher Ratio (PTR) | *The pupil teacher ratio is based on the relationship between the total number of students and the total number of teachers. It is expressed as the number of students per teacher.* |
| Pupil Educator Ratio | *The pupil educator ratio differs from the pupil teacher ratio because it includes all of the teaching staff that interact with the students including the principal, vice-principal, classroom consultants, teacher aides, paraprofessionals, librarians and guidance staff. It is expressed as the number of educators per student.* |
| Private School | *A private school refers to a school that operates independently within a provincial jurisdiction. The school may or may not receive provincial supplements in addition to tuition fees which are charged to the student. Most private schools must still meet licensing requirements under the province that set parameters for curriculum content and graduation profiles.* |
| SAEE | *Society for the Advancement of Excellence in Education;* |
| SEP | *Special Education Program;* |

# *1.0 Current Situation and Background*

## 1.1 Situation

Many First Nations governments strongly believe that there has to be significant changes made in how educational funding is determined, managed and distributed to First Nations, and have so indicated on several occasions by resolution of the Chiefs' in Assembly[1]. They also suggest that current funding levels are inadequate and do not compare with the resources invested in non-First Nations children participating in the province's public school system, and do not support the Life-Long Learning Needs of First Nations.[2]

The Auditor General has remarked that current methods used to allocate funds from the Department's headquarters to its regions are based largely on information that was developed at least 15 years ago. The Department has no updated analyses to determine whether the current practice reflects actual education needs and is reasonable in the circumstances.[3]

The funding levels generated from a formula that was developed in 1987, and last updated in 1997, can no longer be seen to support an elementary/secondary program of study comparable to the range of programming currently available in the provincial systems of education, as well as providing community-based language and culture education.

The 2002 Report of the Minister's National Working Group on Education reconfirmed that First Nations education is "under-supported and under-resourced", and that "First Nations schools operate largely independently and without a systemic supportative infrastructure…" [4] First Nations have repeatedly stated that the present funding methodologies and resourcing levels limit the educational outcomes of First Nations students and their access to the same educational opportunities as non-First Nations students in the public school systems[5].

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[1] AFN (2002 & 2004). Resolution No. 21, Annual General Assembly, Kahnawake, July 2002. and Resolution No. 93, Special Chiefs Assembly, Dec 7-9, 2004, Ottawa, Ontario.
[2] AFN (2005) Resolution No. 53, Special Chiefs Assembly Oct 31-Nov 2, 2005. Regina, Saskatchewan.
[3] OAG (2002) *Report of the Auditor General of Canada* – April 2002.
[4]INAC (2002). *Our Children: Keepers of the Sacred Knowledge.* National Working Group on Education. December 2002.
[5] INAC (2002). *Our Children: Keepers of the Sacred Knowledge.* National Working Group on Education. December 2002.

To address some of these issues in 2005, “INAC developed its Education Action Plan which addressed the observations of Chapter 5 of the Auditor General's Report, as well as proposing measures that are part of a broader, ongoing agenda of building strengthened relationships among INAC and key parties on First Nation education matters. The intent is to enable First Nations to assume greater responsibility for their education while clarifying and strengthening accountability of all stakeholders." (Education Action Plan, INAC, April 2005).

The AFN in its Education Action Plan, which was also tabled in 2005, asserts that as First Nations peoples live and work in a knowledge-based society and economy that requires them to be adaptable and resilient lifelong learners, fundamental changes to First Nations education must become a priority. The vision comprises the development and implementation of sustainable education systems under the full control and jurisdiction of First Nations based on the recognition of inherent Aboriginal and treaty rights, and under international law. [6]

Work has already begun on reviewing how First Nations education is funded. The AFN and INAC began a formal review of First Nations education funding in 2003 through the development of a Joint National Working Group on Band-Operated School Funding. This is one of three National Working Groups which include Post-secondary Education and Special Education formed as a result of the requirement for Indian Affairs to renew its program policy authorities.

The overall Work Plan of the AFN/INAC Joint Band-Operated Formula Funding (BOFF) Working Group contains five key elements, each with its own objectives, targets, and timelines. The five elements will form the basis for the submission of a business case. These five elements are:

- Provincial Comparability Review
- Teacher’s Salary Review
- INAC Main Estimates vs. Allocations for band operated schools
- First Nations Cost Drivers
- Modernization of the National Funding Formula

The present study, First Nation Educational Cost Drivers, is the fourth component of the overall BOFF work plan. It includes the conducting of national research to produce a report which identifies and calculates the funding needed to support a formula based on the cost drivers of First Nation education, including indexation costs.

[6] AFN (2005). *First Nations Education Action Plan.* Assembly of First Nations, May 31, 2005.

To effectively resource First Nations schools, consideration must be given to particular factors that may require additional resources to maintain adequacy. Some factors are very unique to First Nations, and some are shared in greater or lesser degrees by other systems and schools under other jurisdictions. In resourcing First Nations education it is important to address the expression of the social, demographic and economic inequalities, and cultural and pedagogical needs of First Nations schools, these are the cost drivers behind First Nations education.

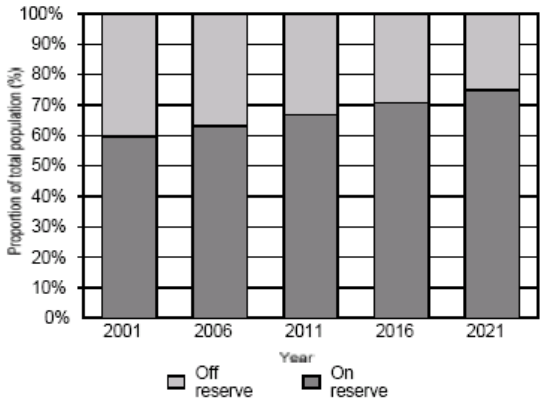
## 1.2 First Nations Schools and Enrolment

Over the next 20 years, the total Registered Indian population could increase by 34%, from approximately 703,800 in 2001 to slightly less than 940,000 in 2021. Over the same period, the on-reserve population could grow quite substantially if INAC departmental assumptions[7] made concerning migration prove correct. The proportion of Registered Indians living on reserve could increase from an estimated 60% in 2001 to 75% in 2021.

Conversely, the off reserve proportion and corresponding five-year annual growth rates could decline during the period.[8] These statistics will impact heavily on First Nations education systems, particularly in regards to needs for increased infrastructure, availability of qualified First Nations teachers, and the expansion of existing programming and development.

**Table: Registered Indian Population Projections (Taken from Basic Departmental Data 2003)**

**Figure 1.2** On and Off-Reserve Registered Indian Population by Residence, Canada, 2001, 2006, 2011, 2016, and 2021

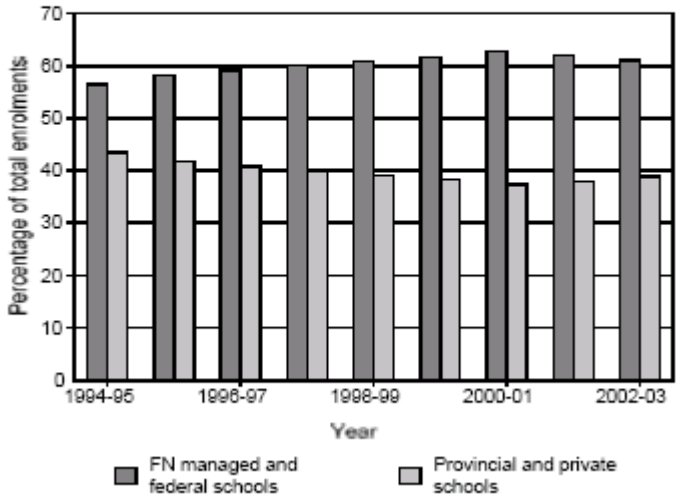



[7] INAC (2004) *Basic Departmental Data 2003*
[8] INAC (2004). *Population Projections of Registered Indians, 2001-2021*, INAC referenced in Basic Departmental Data 2003 CIMD, IMB March 2004 QS-3625-030-EE-A1

In Canada about 25 per cent of the population is under 19 years of age, whereas in First Nations communities 40 per cent of the registered Indian population is under 19. Furthermore, the population growth rate on reserves is much higher than the general Canadian population[9]. Thus, the academic achievement of First Nations students has a much greater impact on these communities.

In 2002-2003, the percentage of students enrolled in First Nation managed and federal schools was five percentage-points higher than eight years before, as shown by Figure 3.1 taken from the INAC Basic Departmental Data Report for 2003.

**Figure 3.1** Percentage of On-Reserve Population Enrolled in Kindergarten, Elementary and Secondary Schools by School Type, Canada, 1994-1995 to 2002-2003




There are actually many types of schools currently operated by First Nations in addition to the regular profile of an elementary/secondary school, these would include but are not limited to early learning centers, independent schools, community schools, e-schools, distance education schools, technical schools and First Nations School Boards, such as the Cree School Board in Quebec, that are financed in total or in part by INAC.

Currently there are 4 categories of schools under the Department (INAC) classification system – band-operated, provincial, private and federal. The Department classifies First Nations schools by the type of funding agreement.

[9] Ibid

The Department does not always include self-government agreement schools in the school population being addressed. First Nations schools that are not funded directly by the department are classified as provincial or private even though they may be predominantly populated by First Nations students, and/or operated by a First Nations Authority/organization. The number of schools and enrollment of First Nations students for the 2004-2005 school year, based on departmental data, is provided in the following table:

**Table: Schools and Enrollment for 2004-2005[10]**

| | Band-Operated | | Provincial/Private | | Federal | | Totals | |
|---|---|---|---|---|---|---|---|---|
| **Province/Region /Territory** | **Schools** | **Estimated Pop[11]** | **Schools** | **Estimated Pop** | **Schools** | **Pop** | **Schools** | **Estimated Pop** |
| **Atlantic** | 15 | 2,696 | 109 | 2,704 | 0 | 0 | 124 | 5,400 |
| **Quebec** | 40 | 7,257 | 180 | 8855 | 0 | 0 | 220 | 16,112 |
| **Ontario** | 113 | 12,881 | 337 | 7,676 | 6 | 1,620 | 456 | 22,177 |
| **Manitoba** | 77 | 17,698 | 114 | 4,765 | 0 | 0 | 191 | 22,463 |
| **Saskatchewan** | 82 | 16,295 | 137 | 3,461 | 0 | 0 | 219 | 19,756 |
| **Alberta** | 61 | 10,707 | 253 | 6,958 | 1 | 99 | 315 | 17,764 |
| **British Columbia** | 119 | 5,238 | 603 | 12,506 | 0 | 0 | 722 | 17,744 |
| **Yukon** | 0 | 0 | 3 | 46 | 0 | 0 | 3 | 46 |
| **Outside Canada** | 0 | 0 | 9 | … | 0 | 0 | 9 | 0 |
| **Totals** | 507 | 72,772 | 1570 | 46,971 | 7 | 1719 | 2259 | 121,462 |

Notes:
The population numbers include some self-government agreements. Some of the population numbers for self-governing agreements such as James Bay Northern Quebec, Mi'kmaw Kina'matnewey and the Nisga'a are estimates for 2004-2005. Other FN self–government agreement students for Yukon, Miawpukek, and Sechelt are not included.

## 1.3 Achievement

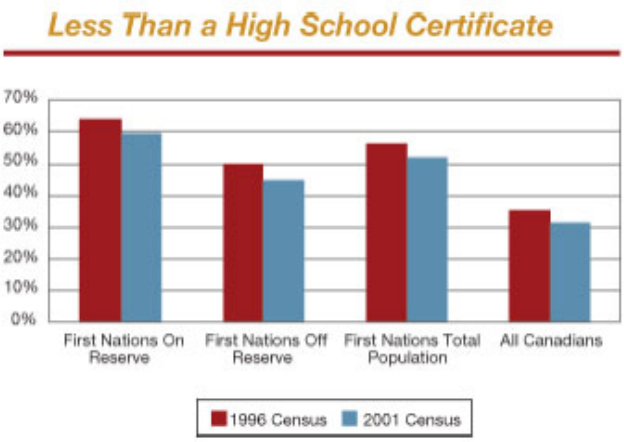
As Dr. David Bell cites in the SAEE study, *Sharing Our Success,* "for more than 30 years, both federal and provincial governments have acknowledged the low educational success rates for Canada's First Nations students. This can be shown by examining one quantitative measure of success — the number of First Nations students who do not graduate from high school.

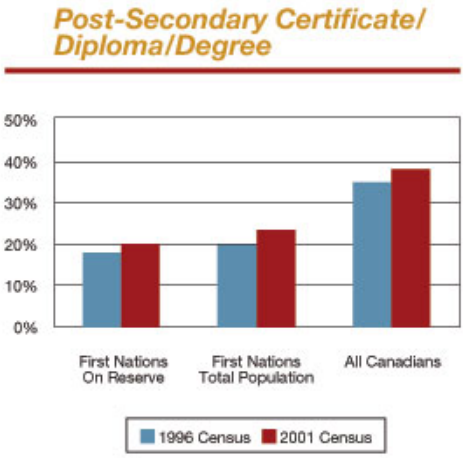
- 1967, the Hawthorn Report (1967, p. 130) documents a 94% drop-out before graduation

[10] INAC (2005). Excel Table NCR # 429054 v.1 by Rutledge, L., provided on request from the Education sector of Indian and Northern Affairs Canada.
[11] INAC (2005). *Elementary/Secondary Education Enrolment Statistics 96-97 to 04-05*. Microsoft Excel Worksheet Estimates, prepared by Matthew Chan, INAC.

- 1988, the National Review (1988, Vol. ll, p.58) documents an 80% drop-out rate
- 2003, Canada West Foundation report documents a 75% drop-out rate"[12]

The gap between First Nations people and the rest of Canadians in regards to educational attainment has not narrowed. For example, while the First Nations population on reserve with less than a high school graduation certificate decreased from 63 percent in 1996 to 59 percent in 2001, this number is still 28 percentage points higher than the total Canadian population[13], as shown in the following table taken from the INAC Education Programs Report, December 2003:




The First Nations population (on and off reserve) with a post-secondary certificate, diploma or degree increased from 20 to 23 percent between 1996 and 2001. However, there still remains a gap between First Nations people and all Canadians with post-secondary certificates, diplomas and degrees as shown in the other table above taken from the Education Programs Report for December 2003.[14]

The consequences of the current educational outcomes of First Nation students living on reserve are far-reaching. The future success of students depends to a

[12] SAEE (2004) David Bell, Principal Author. With: Kirk Anderson, Terry Fortin, Jacqueline Ottoman, Sheila Rose, Leon Simard, Keith Spencer Helen Raham, Editor. *Sharing Our Success: Ten Case Studies in First Nations Schooling*, Society for the Advancement of Excellence in Education, BC, 2004.

[13] INAC (2003) Education Programs Report viewed at http://www.ainc-inac.gc.ca/ps/edu/rep03/index_e.html

[14] Ibid

large degree on the level of education they attain. Moreover, there is a direct correlation with educational achievement and economic and social mobility later on in life. In "A Model for Interventions with Low Achieving Minority Students" the authors explain:

> *"Research on stratification and occupational mobility has consistently shown that the number of years of education completed is the primary determinant of occupational success. Conversely low educational attainment is the strongest predictor of poverty in later life' and is a major determinant of 'the level and nature of occupational achievement; it also significantly influences a wide range of other attributes of individuals over their entire life span', among them the ability to begin to develop future parenting and employability skills for their own children."* [15]

With regards to First Nations peoples in Canada, education has a marked impact on employment rates off-reserve. In a report from Stats Canada[16], many First Nations people in Western Canada had more difficulty finding employment than non-First Nations people. However, those First Nations people with some post-secondary education had employment rates very close to their non-First Nations counterparts. Education also narrowed the gap in unemployment rates between First Nations and non-First Nations people.

The Auditor General stated in her April 2000 Report that at the current rate of progress, it will take 23 years for First Nations to reach parity in academic achievement with other Canadians.[17] With a perceived lack of positive progress since the April 2000 Report, and a recalculation of figures used, she modified this figure in November 2004 to estimate it would take 28 years to close the education gap that existed in 1996.[18]

## 1.4 Federal Funding

The federal government is responsible for financing the education of Registered Indian children living on reserves, through First-Nations operated, provincial or federal schools.

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[15] NASP (1990) p.120-121 from *Children at Risk: Poverty, Minority Status, and Other Issues in Educational Equity*. National Association of School Psychologists, Washington, DC 1990. Andres Barona and Eugene E. Garcia eds.

[16] http://www.statcan.ca *Labour Force Survey: Western Canada off-reserve First Nations Population*, Monday, June 13, 2005

[17] OAG (2000) *Report of the Auditor General of Canada*, Chapter 4 INAC, Education – April 2000

[18] OAG (2004) *Report of the Auditor General of Canada*, Chapter 5 INAC, Education Program and Post-secondary Support - November 2004

The current funding levels of the block funding for education are historically based on the National Distribution Formula, which has been indexed for volume adjustments, and distributed to the regions. This formula provided a student Base Unit Cost of $4,091 per FTE to cover:

- Classroom Instruction based on educator/student ratios of 15:1 (Preschool and High School) and 19:1 (Elementary);
- Professional Development;
- Low cost Special Education;
- Cultural Education;
- Curriculum Development and evaluation of materials;
- Paraprofessionals for cultural, linguistic and psychological support;
- Second Languages;
- Books and Supplies;
- Special Clothing and Equipment; and,
- Education Boards/ program management costs for service-orientated purposes.

In addition, incremental costs were added to the student unit cost based on $215 per FTE for First Nations Language instruction; and $216 per FTE for Special Education. This brought the total to $4,522 per eligible FTE student attending a school. The geographic indices based on Annex F for Band Classification were applied to the total of the base amount multiplied by the number of students. This adjustment uses ‘half’ of the calculated geographic index to offset higher service delivery costs, and second level consultative costs, as well as teacher recruitment and isolation premiums.

There were two other adjustments applied to the original formula funding, a small school factor based on the average number of students per grade, and if applicable, a Languages Adjustment for Second Official Language and/or for English as a Second Language. This was applied where the language of instruction differed from the first language of the majority of the student population. Finally, an administration allocation of $20,000 per education system with a full-time equivalent enrollment of 10 students or more was added to the total funding.

The national distribution formula was last updated in 1996-1997. Regions have since received an annual increase of approximately 2% to cover volume increases. First Nations communities currently receive funding for Elementary/Secondary education in the form of block-funding.

In addition to the block funding, several supplementary allocations have been granted to target specific needs. These include the Gathering Strengths Initiatives following the Report of the Royal Commission on First Nations Peoples. This funding has been reprofiled as New Paths for education, with an annual budget of $40 million.

Subsequent to a Pilot Project by the First Nations Education Council in Quebec, funding for Special Education under the Special Education Program (SEP) Initiative was provided annually to improve the quality of education, and the level of support services for eligible students with special needs. The SEP Initiative was received allocations of $248.1 million[19] over the 2002–2005 period to provide services for moderate to severe categories of special education students living on reserve, attending both First Nations and provincial schools.

Following the final report of the Minister's Working Group on Education, more funding was allocated to enhance the salaries of teachers in First Nations schools. This included $8 million in 2003-2004 and $15 million in 2004-2005 to help narrow the gap between on reserve and provincial teachers' salaries. More funding, totaling $2 million in 2003-2004 and $5 million in 2004-2005, has also been allocated for pilot projects to support and build upon existing community initiatives to increase parental/community involvement and also in 2004-2005, $5 million to enhance professional development activities for teachers.[20]

A good percentage of the funding[21] for the Elementary/Secondary Education program is non-core funding resulting from the various add-on federal initiatives such as New Paths, SEP, and more recently Teacher Recruitment and Parental Involvement. The balance represents the band-operated formula K-12 core block funding. Funding for Elementary/Secondary Education is approved through Treasury Board Authorities that are reviewed periodically; however, there is no legislation ensuring the levels of funding or their adequacy.

In the MacPherson Report of 1991[22] Justice MacPherson offered that a constitutional amendment that recognizes the jurisdiction of First Nations education or a federal statute on First Nations education would provide an

[19] INAC (2003) *Education Programs Report,* December 2003 viewed 20/07/05 at http://www.ainc-inac.gc.ca/ps/edu/
[20] Ibid
[21] FNEC/INAC (2005). *An Analysis of Educational Costs and Tuition Fees: Pre-school, Elementary School and High School Levels,* Final Report. Quebec, February 2005
[22] INAC (1991). *The MacPherson Report on Tradition and Education: A Vision of Our Future*, Indian and Northern Affairs Canada, 1991.

opportunity to First Nations to improve the structure of education delivery systems and the quality of education. Either legislation or a constitutional amendment could ensure there is no infringement of Aboriginal and treaty rights to education. Some First Nations governments are using the third option offered by Justice MacPherson which is self-government agreements to ensure their jurisdiction in education.

### 1.5 Provincial Funding

Provincial and territorial regulations, revised yearly, provide the grant structure that sets the level of funding for each school board in their jurisdiction, based on factors such as the number of students, special needs, and location. Public funding for provincial education comes either directly from the provincial or territorial government or through a mix of provincial transfers and local taxes collected either by the local government or by the boards with taxing powers as shown in table 2 in the appendix.

Most of the provinces provide 100% of the funding for Elementary and Secondary education to their school boards and districts to operate their schools and educational programs, with four of the provinces Nova Scotia, Quebec, Manitoba and Saskatchewan requiring their school boards to supplement through local revenues. INAC pays the tuition fees for First Nations students living on reserve who may wish to attend an eligible provincial school within their region[23].

The three northern territories, Yukon, Nunavut, and Northwest Territories, provide education services for their Registered Indian and/or Inuit populations. All other registered First Nation children living off reserve are educated in the public elementary and secondary schools in the cities, towns, and communities where they reside. Funding responsibility for these students is assumed by the provincial government.

In 2003, the Council of Ministers of Canada reported to the Fifteenth Commonwealth Conference of Education Ministers in Scotland that: “In the 2001 census, just over 1.3 million people reported having at least some First Nations ancestry, representing about 4.4 per cent of the total population. First Nations in Canada have the lowest incomes, the highest rates of poverty, the highest rates of dropping out of formal education, the lowest overall educational attainments and the worst health indicators of any group. When educational officials discuss the most challenging problems they face, First Nations inclusion in education is

[23] Not all provincial schools are eligible for funding through INAC. There is a list of approved schools for each region.

among the first they mention. Across Canada, unique and responsive programs and services have been developed"[24].

Less than 40% of First Nations students living on reserve attend provincial schools in Canada, in addition to other off-reserve First Nations, Métis and Inuit. The provinces and territories have begun to address the gap in educational achievement between First Nations students and non-First Nations students with various funding initiatives. The provinces and territories of Canada have also acknowledged and addressed to a limited degree the unique language and cultural needs of First Nations students attending public schools.

Table 3 in the Appendix provides a summary of these provincial initiatives which total over $115M designed to address both the cultural and academic needs of First Nations students attending provincial and territorial schools. This $115M in funding is provided in addition to the regular public school funding allocations.

### 1.6 Funding Frameworks

Lastly, in addition to looking at the current situation of funding, there is also information available regarding the determination of funding adequacy for education, and the principles for building the framework on which the distribution of the funding is based. The following section provides some of this background.

The principle of adequacy emerged in the 1990s as the focus for funding paradigms in the United States. Adequacy is defined as the amount needed for the school system to achieve identified goals or performance levels. Adequacy goes beyond equity by considering resources needed, not just resources available. In short, equity in funding achieves little if it is inadequate to achieve the stated education goals[25].

Education budgets must take into account what schools can accomplish with the funds provided, not just the equitable distribution of funds. Conley, David T. (2005) tells us that there are four basic methodologies to establish a funding paradigm: [26]

[24] CMEC (2003). *Access, Inclusion and Achievement: Closing the Gap. Country Response: Canada*. Council of Ministers of Education of Canada, Canadian Report to the 15th CCEM. Edinburgh, October 2003

[25] Univ. of Oregon (2005) *An Overview of Adequacy Funding: Models and Policies*, David T. Conley, Director, Centre for Educational Policy Research, University of Oregon. Workshop Presentation.

[26] Univ. of Oregon (2005). *An Overview of Adequacy Funding: Models and Policies*, David T. Conley, Director, Centre for Educational Policy Research, University of Oregon. Presentation.

1. Cost function –a methodology which develops and uses statistical techniques to predict costs as a function of student learning;
2. Evidence-based – a process that selects effective practices and costs them out;
3. Successful school – a methodology that extrapolates costs to the entire system from actual costs of schools reaching desired performance levels
4. Professional judgment – a process that solicits expert judgment from most qualified educators to estimate costs for achieving desired goals.

The courts of various states in the USA are finding that state public education systems must enable students to succeed in the world, not just complete school.[27] Therefore many states are conducting cost studies to determine appropriate funding formulas.

Commonly, basic funding principles are defined before a framework for funding is developed. As an example, the province of Nova Scotia[28] defines the following as the principles for its funding framework for education:

- Equity – meaning fairness not equal – providing all students with horizontal (quality and availability of core programming should be equivalent in each community) and vertical (children of different needs should be afforded different approaches to programming and service delivery) access to the same educational opportunities and outcomes.

- Accountability – balance local autonomy and decision-making with accountability requirements. The accountability process involves four steps: setting expectations, contracting, reporting and corrective action.

- Responsiveness – funding formula should be dynamic to meet changing educational requirements. The funding formula should be responsive to: the need to change on a year by year basis; multi-year transitional requirements; and, exceptional circumstances (such as the impact of the sudden increase in fuel prices).

[27] Ibid
[28] Nova Scotia (2004). *Nova Scotia Regional School Boards – Funding Formula Framework*, Nova Scotia Ministry of Education, December 2004.

- Adequacy – Must be sufficient for school to be able to meet educational goals established by the system.

- Transparency – funding formula must be available, simple, and understandable with reliable and fact-based data.

- Autonomy – reasonable levels of flexibility so that all parties can meet their responsibilities.

- Involvement – all parties must be involved in the process of establishing a funding framework. However, this principle continues after a funding formula is developed and used. Ongoing involvement will be required to review how well the formula is working, and in the annual or periodic reviews of the dollar components of the formula.

## *2.0 Project*

The purpose of this project is to provide a research-based report that will support one of the key initiatives for this joint working group that is to conduct national research that identifies and calculates the funding needed to support the costs and cost factors for First Nations education.

The project proposes to do this through:

- A diligent description of each cost factor which have been identified by the BOFF working group, and agreed upon by the co-chairs;
- An estimation of funding needed for each using a representative sample from each province where feasible;
- Justification for each cost factor (with supporting background research) with a broad costing base, based on a cross-cutting representative sampling by academic level;
- Suggestions on methodologies for the treatment of these cost factors in a national funding formula

## *3.0 Methodology*

A Work Plan was established and presented to the BOFF Working Group Co-Chairs and reviewed at a meeting held in Ottawa. Copies of the approved Work Plan were forwarded electronically to the members of the working group.

In working on the project, the AFN, INAC and Simon Management Services organized the list of cost drivers and identified what cost drivers are to be included within the limitations of this study. The following cost factors were selected and defined to delineate the parameters for this study:

- First Nations Language/Culture
- Social/Economic Determinants of Educational Outcomes
- Technology
- Pupil Teacher Ratio (PTR) and Pupil Educator Ratio (PER) Review
- Programming Diversity
- School Administration
- Education Authorities
- Geographic Indicators
- School Size, Class Size and Composition

Where possible and applicable, the estimation of costs for all cost drivers has been based on a cross-cutting analysis by school type and level, and, if feasible, provides a preliminary analysis of costs for these same drivers at the Education Systems level.

Within the work plan, it was foreseen that in addition to research, there would be some survey work to look at examples of actual costs among First Nations Schools across the country. The members of the BOFF Working Group were asked by fax and email to list possible schools or projects, both First Nations or provincial, that would provide good examples for collecting data on the education cost drivers. They were also asked to nominate persons whom they felt would provide the necessary expertise for a Delphi Panel discussion on a funding framework for First Nations Elementary/Secondary Education.
A list of survey sites was compiled from the suggestions of the BOFF Working Group and other sources. These schools were then grouped according to location, size and presumed relevance to the cost driver. Survey packages with the letters of accompaniment from the AFN, INAC and the lead consultant were mailed out to everyone on the list. Each recipient received a survey on at least one particular cost driver; some larger education authorities may have received more than one different type of survey.

With about 30% of the respondents new surveys had to be faxed out as there had been a turnover of administrative staff. All surveys were followed up with several phone calls to the individuals, and, although it had been hoped to conduct most of the surveys by phone, most respondents preferred to complete the surveys on their own and fax back.

There were 230 surveys mailed out across the country, which included just over 220 First Nations schools, local education authorities/organizations and tribal councils. We received a total of 66 replies from First Nations Education Authorities/Organizations and schools. This provided a return rate of 28.6%. Information based on 82 schools was reflected in the 66 replies, which is equivalent to looking at 16% of the 507 First Nations schools across the country.

Some additional surveys were sent to non-First Nations schools or school districts with First Nations students. However, most of the schools did not complete the survey as they felt that it was not pertinent for them. A general information package was also received from the Minister of Education, Culture and Employment of the Northwest Territories, and some data from the Yukon Ministry of Education in response to requests. The number of schools responding by type of survey was as follows:

**Table: Survey Response Rate by Cost Driver**

| Type of Survey | Total Surveys | Total Replies | % |
|---|---|---|---|
| Language | 50 | 23 | 46% |
| School Administration | 40 | 10 | 25% |
| Education Authority | 35 | 7 | 20% |
| Program Diversity | 35 | 11 | 31.4% |
| Technology | 30 | 6 | 20% |
| Socio-Economic | 40 | 9 | 22.5% |
| Totals | 230 | 66 | 28.6% |
| PTR/PER | 230 | 82 | 43% |
| School Size | 230 | 82 | 43% |
| Geographic Indices | 230 | 82 | 43% |

The profiles of the 82 schools that provided us with examples of costs were:

**Table: Results by Index and Size**

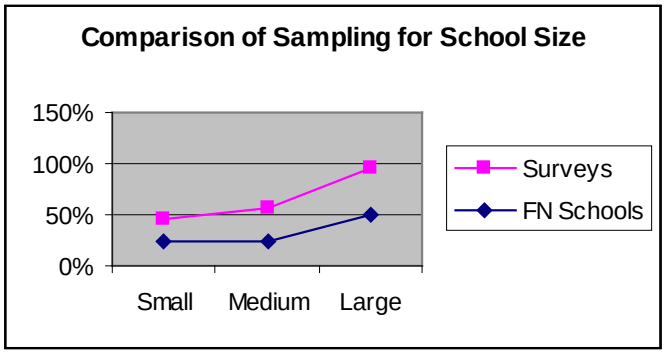
| | Small | Medium | Large | Totals (indices) |
|---|---|---|---|---|
| **Urban** | 2 | 2 | 3 | 7 |
| **Rural** | 12 | 17 | 22 | 51 |
| **Remote** | 3 | 6 | 8 | 17 |
| **Isolated** | 0 | 2 | 5 | 7 |
| Totals (size) | 17 | 27 | 38 | 82 |

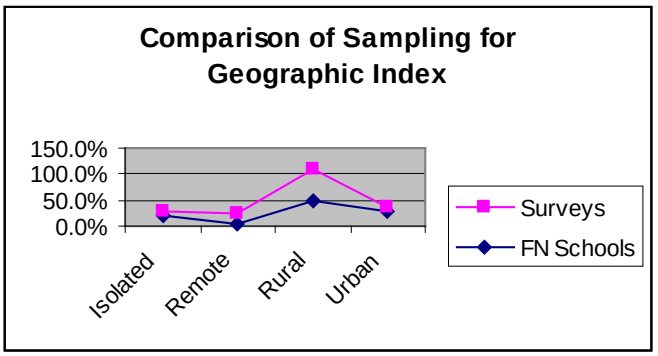
**Note**: Small =>50 Medium = <50 >100 Large =>100
The classification is based on the small school factor used in the INAC National Funding Formula whereby 5 students or less per class is

eligible for the maximum small school index of 0.05[29].

The following table and charts compare the distribution of the responses (by percentage) for index and size with that of the 507 band-operated First Nations Schools:

| | School Size (based on classification provided) | | | Geographic Index | |
|---|---|---|---|---|---|
| | FN Schools[30] | Surveys | | FN Schools[31] | Surveys |
| Small | 25% | 21% | Remote/Isolated | 21.5% | 30% |
| Medium | 24% | 33% | Rural | 48.2% | 62% |
| Large | 50% | 46% | Urban | 30.3% | 8% |




Note: Charts are plotted using a stacked line to show the trend of the sampling in relation to distribution of FN schools.

The other main activities undertaken to reach the project objectives included:

- A literature review focusing on background research for each of the First Nations educational cost drivers;
- Research to locate representative First Nations projects related to cost drivers within the various regions, and to determine the additional levels of provincial funding applied for First Nations students attending provincial schools where applicable;

[29] INAC (1996-97). *National Funding Formula for Band Schools*, INAC, adjustment factors, small school factor.
[30] INAC (2005). Information calculated from Excel Sheet, *FN School Data-2004-2005_INAC*.
[31] Ibid

- The development of a matrix model for collecting information from related FN projects, and for data gathering from provincial allocation methodologies;
- The use of the Delphi Technique with a designated panel of experts regarding a research question on the funding of cost drivers for First Nations;
- Analysis and comparison of the summative results of the data sets from each of the research elements;
- The drafting of a bottom line report indicating the results of the cost-analysis with appropriate detailed information regarding variable costs, recommendations from the Delphi Panel and financial assumptions.

## *4.0 Challenges*

There were certain challenges that confronted the project. Some of these challenges included:

- The timing of the project fell within the annual school vocational period and the busy period of preparation and school entrance, which led to an extended wait for contacting respondents, and for the return of the surveys.

- With choosing to survey different schools for each cost factor, rather than choosing a few schools to survey extensively for all factors, we ran into difficulty with the number of schools proposed by the BOFF Group, and were required to search extensively for other school sites and education authorities beyond those proposed.

- The high rate of turnover of staff in First Nations Schools and Education systems which we experienced for about 30% of the survey contact lists, and which inevitably led to the need to re-establish new contacts, and a resending of surveys.

- There was a lot of cynicism expressed by the respondents. They were skeptical about having yet another survey while still not having realized any benefits from previous processes. There exists a strong perception that INAC already owns all the information that is being requested.

- There were also technological challenges with the connectivity of First Nations – often servers were down, mailboxes were full, or emails were not checked during the summer recess.

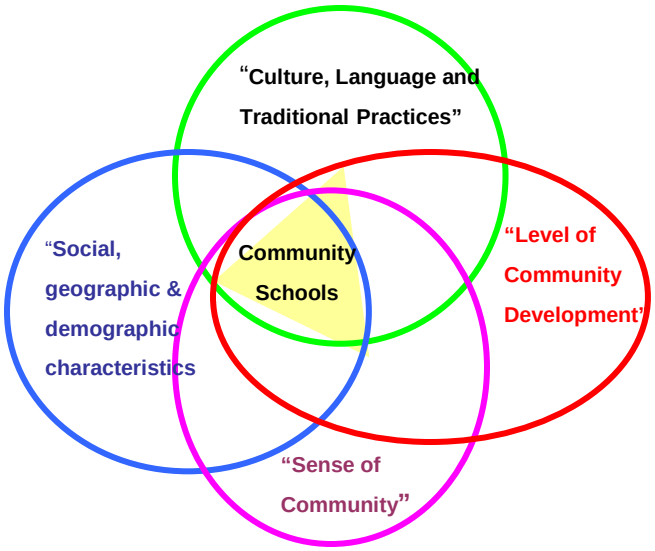
- The definition of who should be considered an “educator”, and the lack of standardization of which staff members are included in a calculation of the pupil educator ratio.

- Gaps in the data available for analysis was another challenge:
    - The lack of uniformity of educational data collection and reporting at the national level was problematic.
    - There is a delay in updating educational information whether from StatsCan or INAC. Both are at least 2 - 3 years behind.
    - Many of the OECD Education Indicators in the Canadian Report listed with the Council of Education Ministers are not updated for Canada which does not have the information available.
    - The Education Indicators for the provinces, if available, are not always presented in statistical format. A lot of information is descriptive, and included in annual reports.
    - The data collected by INAC is mostly of an inventory format, and not educational – as an example, the program departmental data for education lists the number of physical classrooms but does not collect data on average class size.

# SECTION 2: EDUCATIONAL COST DRIVERS

In developing a funding framework for First Nations education, it is important to take into consideration the social processes and cultural context of First Nations communities. The Community Well-being Index (CWBI) 1991-2001 report[32], shows that First Nations as a group do continue to exist in substandard conditions. The index includes factors of functional literacy and levels of post-high school education in the analysis. The CWBI does also demonstrate that the variation in well-being between First Nations is extremely wide and that while several of them rank among the country's most prosperous communities, others rank among the lowest.

It is also extremely important in the development of any funding framework for First Nations education to take into consideration the social processes and cultural context of the community that impact directly on the school, and in particular on the funding resources of the community school, as seen in the following diagram:[33]




[32] INAC (2004). *The Community Well-Being (CWB) Index: Disparity in Well-Being between First Nations and Other Canadian Communities Over Time*, Erin O'Sullivan and Mindy McHardy, Strategic Research and Analysis Directorate, Indian and Northern Affairs Canada, October 2004.
[33] FNEC (2005). *An Analysis of Educational Costs and Tuition Fees: Pre-school, Elementary School and High School Levels*. Final Report. February 2005, First Nations Education Council, Qc.

One notion of equity recognizes that all students need not be treated equally. Rather they must be treated fairly and in a manner that recognizes their advantages and disadvantages. Building an equitable educational system for First Nations students – a system that allows them to graduate at the same rate as other students – could require additional funding rather than equal funding so as to create favorable conditions, which will strengthen their chances of success.

An equitable distribution is not seen as an equal amount, but rather as one that addresses social and economic inequalities, and the expressed needs of the educational institutions. In general, formulas are designed to distribute funds efficiently and equitably by taking real cost differences, factors that have been identified as having a significant effect on costs incurred, into consideration.

For example, some research, though not definitive, shows that children with particular needs such as low-income students, students with disabilities, and students with limited proficiency in the language of instruction may require additional educational resources to succeed at the level of their non disadvantaged peers. Because these additional resources require higher spending, some researchers have adjusted allocations by “weighting” these students to account for the additional spending that may be required.

Some factors are very unique to First Nations, and some are shared in greater or lesser degrees by other systems and schools under other jurisdictions. In resourcing First Nations education it is important to address the expression of the social, demographic and economic inequalities, and cultural and pedagogical needs of First Nations schools, these are the cost drivers behind First Nations education.

As shown in the previous diagram, the factors vary from school to school dependent on the levels of development of the First Nation community, the degree to which the First Nation perceives itself as a community, the extent to which traditional practices and beliefs permeate everyday life, and the particular characteristics of the location and socio-economic climate of each First Nations community.

The following sections deal with some of the cost drivers that have a significant impact on the costs incurred for First Nations education, and which need to be addressed by a renewed funding framework for First Nations elementary and secondary education.

# *1.0 First Nations Language and Cultural Education*

## 1.1 Introduction

The Canadian Heritage's Task Force Report on Aboriginal Languages and Culture (2005) stated that "...the ability to speak one's own language helps people to understand who they are in relation to themselves, their families, and their communities, and to Creation itself...focusing on language, spirituality and ceremonies can increase personal self-esteem, familiarize people with their culture and bring about community healing... revitalizing language and culture is a way to heal and reconnect with the land... The strategy must be a 100-year project to overcome the legacy of the many decades of neglect, but with particular focus on critically endangered languages... ability to speak one's own language is the gift that allows someone to properly participate in the sacred ceremonies and spiritual traditions of his or her own people"[34]

Unlike minority immigrant cultures, First Nation people are indigenous populations who have been marginalized in their own territories over time. They have nowhere to go back to if they wish to engage their living culture[35]. At least 47 of the approximately 61 First Nation, Inuit and Métis languages in Canada are unique to their particular territories and not spoken in any other location on Earth.[36] Various government policies of assimilation, and lack of knowledge by Canadians, have endangered many of these languages, in particular the practices of residential and integrated schooling, which barred First Nations children from their right to learn who they are through their ancestral language.

UNESCO defines "active assimilation" as occurring when government encourages minority groups to abandon their own languages by providing education for the minority group members in the dominant language. Speaking and writing in the minority languages is not encouraged. Passive assimilation

[34] Canadian Heritage (2005). *Towards A New Beginning - A Foundational Report for a Strategy to Revitalize First Nation, Inuit and Métis Languages and Cultures.* Report to the Minister of Canadian Heritage by The Task Force on Aboriginal Languages and Cultures, Aboriginal Languages Directorate, Aboriginal Affairs Branch, Department of Canadian Heritage, June 2005.
[35] FNCCEC (2005). *Business Case First Nation Cultural Education Centres Program.* First Nation Education Cultural Centres Program. Ottawa, March 2005.
[36] Canadian Heritage (2005). "*Towards a New Beginning…"* The Task Force on Aboriginal Languages and Cultures. Department of Canadian Heritage, June 2005

occurs when the minority language does not enjoy high prestige and the dominant group is simply indifferent as to whether or not it is spoken.[37]

English and French are considered the official languages of Canada, and are recognized by the *Canadian Constitution,* as well as by the *Official Languages Act.* The *Charter of Rights and Freedoms* recognizes the right of Canadian citizens belonging to the English-language or French-language minority in a province or territory to have their children educated in that language, at the elementary and secondary levels, where numbers of students warrant, and this right includes, where the number of those children so warrants, the right to have them receive that instruction in minority-language educational facilities provided out of public funds.[38]

Responsibility over the federal funding for these languages is delegated to the Minister of Canadian Heritage, on behalf of the Government of Canada, and to the ministers of education, on behalf of their respective provincial/territorial governments, through the Council of Ministers of Education, Canada (CMEC). They have the responsibility to provide members of the French or English minority-language community in each province or territory with the opportunity to be educated in their own language, including cultural enrichment through exposure to their own culture.

Section 35 of the *Constitution Act, 1982* recognizes and affirms the existing First Nations and treaty rights of the First Nations, Métis and Inuit peoples. These rights are distinct from minority rights in that they are not race-based. Moreover, these rights evolved by virtue of the fact that First Nations peoples lived in what is now known as North America for thousands of years prior to European settlement. As Chief Justice Lamer stated in the *Van der Peet* decision of the Supreme Court of Canada,

> "In my view, the doctrine of First Nations rights exists, and is recognized and affirmed by s. 35(1), because of one simple fact: when Europeans arrived in North America, First Nations peoples were already here, living in communities on the land, and participating in distinctive cultures, as they had done for centuries. It is this fact, and this fact above all others, which

[37] UNESCO (2003). *Language Vitality and Endangerment*. Ad Hoc Expert Group on Endangered Languages, Paris: March 10–12, 2003, p.13.
[38] CMEC (2005). *Protocol for Agreements for Minority-Language Education and Second-Language Instruction 2005-2006 to 2008-2009 between the Government of Canada and Council of Ministers of Education, Canada.* Minister of Public Works and Government Services of Canada 2005

> separates First Nations peoples from all other minority groups in Canadian society and which mandates their special legal, and now constitutional, status."[39]

Thus, the unique status of First Nations peoples and their rights must be taken into consideration when implementing their educational needs. The decisions of the Supreme Court of Canada have affirmed that Canada has a fiduciary responsibility to First Nations peoples when dealing with their constitutionally protected rights. Moreover, the Honor of the Crown is at stake when Canada deals with First Nations and treaty rights. The special status of First Nation students should not impede their academic success. Rather, it means that they should be able to attain educational equity with other Canadian students in a way that recognizes and respects their unique culture and traditions, and the original status of their languages.

An international agreement that Canada has ratified is *The Convention on the Rights of the Child,* which went into force in 1990. Its provisions on education say:

> 1. States Parties agree that the education of the child shall be directed to:
> (a) The development of the child's personality, talents and mental and physical abilities to their fullest potential;
> (b) The development of respect for human rights and fundamental freedoms, and for the principles enshrined in the Charter of the United Nations;
> (c) The development of respect for the child's parents, his or her own cultural identity, language and values, for the national values of the country in which the child is living, the country from which he or she may originate, and for civilizations different from his or her own;

Furthermore, the Agreement has a provision on the rights of the indigenous child, which says at Article 30:

> *"In those States in which ethnic, religious or linguistic minorities or persons of indigenous origin exist, a child belonging to such a minority or who is indigenous shall not be denied the right, in community with other members of his or her group, to enjoy his or her own culture, to profess and practice his or her own religion, or to use his or her own language."*

In Canada, there are equality guarantees for all citizens under the *Charter of Rights and Freedoms*. Each of the provinces also has legislation protecting

[39] 1996 2 S.C.R. at para. 30.

human rights and education. However, the context surrounding the right to education of First Nations peoples has an added component. This additional layer of rights and obligations is due to the historical relationship between the original peoples of this continent and the Canadian government. Furthermore, First Nations education is inseparable from First Nations language and culture.

## 1.2 Background

In 1997 the government of Canada confirmed in the *Statement of Reconciliation* that its actions "resulted in weakening the identity of Aboriginal peoples, suppressing their languages and cultures, and outlawing their spiritual practices."[40] In particular, Canada acknowledged its role in the residential school system in "preventing children from speaking their own languages and learning about their heritage and cultures."[41]

Another step was taken in 1998 with the creation of an Aboriginal Languages Initiative (ALI) at the Department of Canadian Heritage to begin the process of rebuilding languages. Since its inception in 1998, the AFN has coordinated and monitored the national ALI on behalf of First Nations throughout Canada. The Chiefs Committee on Languages developed the national First Nation delivery structure for the AFN Aboriginal Language Strategy.

The "*National First Nation Languages Strategy: A Time to Listen and the Time to Act"*, was developed by the AFN Languages Secretariat under the direction of the Chiefs Committee on Languages. The strategy contains 14 recommendations based on the body of research conducted by the AFN during the past 30 years, including direction provided by the Elders at the national language conference in 1993.[42] The strategy was adopted by resolution of the Chiefs-in-Assembly in July 2000. The basic premise of the National Strategy is that First Nation people must be in control of the revitalization and preservation of First Nation Languages and Cultures.

The Assembly of First Nations has continuously identified First Nation languages and cultures as a priority since 1972 with its position paper "Indian Control of Indian Education." The position paper states that: "Unless a child learns about the forces which shape him: the history of his people, their values and customs,

[40] Canada(1997). *Gathering Strength — Canada's Aboriginal Action Plan.* Department of Indian Affairs and Northern Development. Ottawa: Public Works and Government Services Canada, 1997, p. 4.
[41] Ibid, p. 5
[42] AFN (2000). *The National First Nation Languages Strategy, 2000.* Assembly of First Nations

their language, he will never really know himself or his potential as a human being."[43]

Even earlier than the 1972 position paper, communities were asking for the establishment of Cultural Centers to provide programming to strengthen their community languages and cultures. The Cultural Educational Centres Program originated as a set of recommendations forwarded to Ottawa by Chiefs and Elders in 1969 to address the need for programming which would assist First Nation communities in preserving and strengthening their cultures and languages. As a result, in 1971 the Department of Indian and Northern Affairs (DIAND) together with Secretary of State began implementing the Cultural Educational Centers Program (CECP).[44] The First Nations Confederacy of Educational Culture Centers has continued to support and assist the establishment of over 100 community Cultural Education Centers, and to promote First Nations language and culture for the last 34 years.

The Assembly of First Nations undertook a National Review of First Nations education in 1984, and the report, *Tradition and Education: Towards a Vision of Our Future (1988),* speaks in many of the sections about the importance of culture and language permeating the First Nations curriculum:

- "Culture should not be perceived and treated as another subject competing among many, but rather should become pervasive throughout the curricula" (v. 1, 73)
- "Culture and language should be an integral part of the curriculum in First Nations schools" (v. 1, 107)

The 1996 Royal Commission on Aboriginal Peoples emphasized the need for increasing the legitimacy of First Nations languages within the communities. It stated that where languages are declining or severely threatened, school immersion programs can help - but a language will not live if it is not used in everyday life. It must be the medium of communication at work, in school, in the media, in government - and most of all, at home.[45]

One of the basic principles of First Nations control of education was the development and implementation of language programming. The 1972 Indian Control of Indian Education document clearly articulates the need for ongoing

[43] NIB (1972). Indian Control of Indian Education.
[44] FNCCEC (2005). Overview of the First Nations Confederacy of Cultural Education Centres viewed at http://www.fnccec.com/main_history.html
[45] RCAP (1996)

language programming among First Nations.[46] It has been recognized by First Nations leadership that language is integral to the preservation and retention of culture and the very way of life for First Nations people. It is consequently crucial that schools as vehicles for the transfer of knowledge be the forerunners and keepers of this valuable cultural knowledge. The Minister's Task Force on Education[47] has underlined this conviction.

All First Nation people are not alike and do not have the same values or beliefs. Each First Nation is unique in its culture, language and worldview. The state of each Nation's language retention, and further, the state of language retention with each of the communities of that nation, differs. Each requires different consideration.

Ancestral language is an essential part of the development of every First Nations learner, and First Nations schools have recognized this. Consequently there have been many community-based initiatives across the country to develop and implement cultural curriculum in the local schools. Most have continued to survive with limited funding. Some First Nations with a common language base have combined their efforts, funding and expertise such as the Prince Albert Grand Council, Onion Lake First Nation, Peter Ballantyne Cree Nation, and the Lac La Ronge Indian Band to produce the Gift of Language and Culture Project in Saskatchewan.

According to UNESCO's (1996) "Atlas of the World's Languages in Danger of Disappearing", a language is considered endangered if it is not learned by at least 30% of children in the community. The 1996 Census indicates that only 20% of Aboriginal children in Canada learn an Aboriginal mother tongue.[48] The Atlas states that Canada's Aboriginal languages are among the most endangered in the world.[49]

The Federal government's focus on healing through the strengthening of culture is reflected in key policies such as *Gathering Strength*, which states: "We will continue to work with Aboriginal people to establish programs to preserve,

[46] NIB (1972). Indian Control of Indian Education.
[47] INAC (2004). Keepers of the Fire. The Report of the Minister's Working Group on Education. Indian and Northern Affairs Canada,
[48] INAC (2004) *From Generation to Generation: Survival and Maintenance of Canada's Aboriginal Languages Within Families, Communities and Cities.* Norris MJ, and Jantzen, L. Ottawa: Indian and Northern Affairs Canada and Heritage Canada, January 2004.
[49] UNESCO (1996) *Atlas of the World's Languages in Danger of Disappearing*, Ed. Stephen A. Wurm, Paris, UNESCO, p.23

protect, and teach Aboriginal languages, and to ensure that these languages are kept alive for future generations."[50]

The Assembly of First Nations 2005 Education Action Plan[51] while speaking to the need for the recognition of First Nations jurisdiction over education at all levels, adequate resourcing, and ensuring educational outcomes that surpass those of the provinces, also emphasizes that First Nations education must "embody and support the strengthening of a First Nation's identity through an emphasis on language, cultural and traditional knowledge, and the effective reincorporation of First Nation elders and women in educating younger generations" (p.2).

In 2005, the Task Force on Aboriginal Languages and Culture has called on Canada to take the next step towards restoring First Nations, Inuit and Métis culture by revitalizing First Nations, Inuit and Métis languages through special status as First Languages in Canada.

### 1.3 Literature and Research

First Nations speak a total of at least 59 languages, by far the majority of the Indigenous languages that remain in Canada. They fall into 11 different linguistic families. British Columbia has the greatest language diversity, containing 8 of the 11 language families.

The Assembly of First Nations affirms on its website[52] that there is no current research data on the State of First Nation languages in Canada. The StatsCan statistics report on larger Aboriginal language groups in Canada, but reflect an uncertain future for First Nation languages overall[53].

In 1996, the total number of people who identified Aboriginal by Mother Tongue in the Aboriginal Peoples Survey conducted by Statistics Canada was 23 %. In 2001, that number declined to 19% in spite of the fact that the Aboriginal population surveyed increased by 18%[54]. In 1998, Statistics Canada issued a special report on Aboriginal languages based on 1996 data. Out of 50 Aboriginal

[50] Canada (1997). *Gathering Strength: Canada's Aboriginal Action Plan*. 1997 at p. 9.
[51] AFN (2005). *First Nations Education Action Plan.* Assembly of First Nations, May 31, 2005.
[52] AFN (2005) Aboriginal Languages viewed at www.afn.ca
[53] "Languages embody the intellectual wealth of the people that speak them. Losing any one of them is like dropping a bomb on the Louvre." Kenneth Hale, Massachusetts Institute of Technology in *From Generation to Generation*, (Norris & Jantzen*)* as previously cited in 13.
[54] AFN (2005) viewed at www.afn.ca

languages in Canada, only 3, Inuktitut, Cree and Ojibway were flourishing with over 20,000 who identified an Aboriginal mother tongue[55].

In the 2001 census data, however, only Inuktitut showed an increase in the number of mother tongue speakers. Cree showed a decrease in mother tongue identification of approximately 5% nationwide while Ojibway showed a decrease of approximately 8% nationwide. The following chart summarizes the language data from this census; however, it must again be cautioned that the data does not reflect all First Nations, and that the census includes all those self-identifying as aboriginal mother tongue.

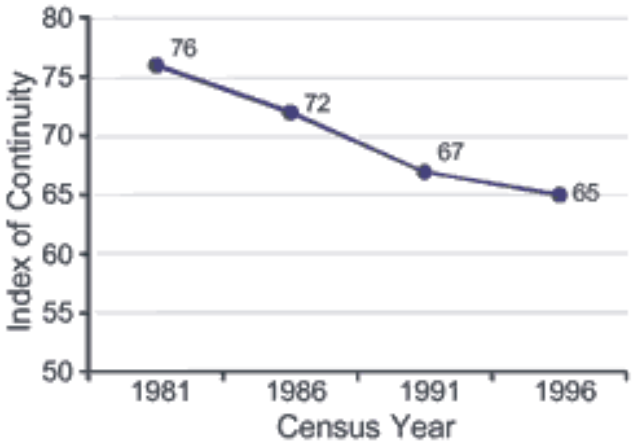
**Table: Results of the 2001 Census on Aboriginal Language Speakers[56]**

| Aboriginal Languages | AB | BC | MB | ON | SK | PQ | NL | PEI | NS | NB | NWT | Nvt | YT | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Cree** | 15,010 | 1,160 | 18,090 | 4,385 | 22,020 | 11,810 | 10 | 0 | 30 | 10 | 155 | 0 | 15 | 72,680 |
| **Inuktitut** | 100 | 50 | 70 | 160 | 50 | 8,620 | 545 | 10 | 10 | 20 | 760 | 18,605 | 20 | 29,005 |
| **Ojibway** | 625 | 275 | 8,840 | 9,670 | 1,370 | 20 | 0 | 0 | 10 | 10 | 65 | 0 | 10 | 20,890 |
| **Montagnais-Naskapi** | 0 | 0 | 0 | 0 | 0 | 8,180 | 1,470 | 0 | 0 | 0 | 0 | 0 | 0 | 9,655 |
| **Micmac** | 0 | 15 | 0 | 60 | 20 | 690 | 10 | 185 | 3,995 | 2,265 | 0 | 0 | 0 | 7,230 |
| **Dakota/Sioux** | 2,765 | 25 | 730 | 10 | 350 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,880 |
| **Blackfoot** | 2,630 | 35 | 25 | 25 | 15 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 2,740 |
| **Salish Languages** | 0 | 2,570 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 2,590 |
| **South Slave** | 250 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,005 | 0 | 20 | 1,380 |
| **Dogrib** | 10 | 20 | 0 | 10 | 10 | 0 | 0 | 0 | 0 | 0 | 1,850 | 0 | 0 | 1,860 |
| **Carrier** | 0 | 1,215 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,225 |
| **Wakashan Languages** | 0 | 1,270 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,275 |
| **Chipewyan** | 225 | 10 | 20 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 300 | 10 | 10 | 575 |
| **Other Languages** | 1,760 | 3,570 | 5,540 | 5,640 | 6,570 | 6,130 | 0 | 0 | 15 | 715 | 1,215 | 0 | 675 | 31,840 |
| **TOTAL Speakers** | **23,375** | **10,315** | **33,315** | **19,970** | **30,405** | **35,460** | **2,035** | **195** | **4,060** | **3,020** | **5,350** | **18,615** | **770** | **186,825** |

Although we acknowledge the limitations of the Census reports, and the omission of data from communities who do not participate in the surveys, the information does demonstrate trends in language viability. This information was also used in the 2002 Study *From Generation to Generation*, undertaken by Norris (INAC) and Jantzen (Heritage Canada). The following charts are taken from this report to provide evidence of trends in language viability over a period of 15 years between 1981 and 1996.

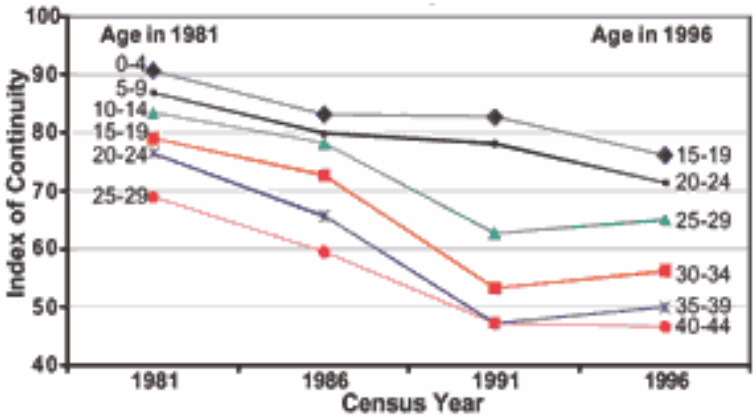
[55] StatsCan (1998)
[56] StatsCan (2001)

**Chart: Language Continuity[57]**




Language continuity is affected by the steady erosion of home use of the language, and the increasing age of the mother tongue speakers. The study points out that the language decline is most pronounced for women, especially in the child-bearing/working age groups.[58]

**Chart: Decline in intergenerational transmission /Increasing age of mother tongue speakers over 15 years[59]**




[57] INAC (2004) *From Generation to Generation: Survival and Maintenance of Canada's Aboriginal Languages Within Families, Communities and Cities.* Norris MJ, and Jantzen, L. Ottawa: Indian and Northern Affairs Canada and Heritage Canada, January 2004
[58] Ibid
[59] Ibid

On June 28th, 2005 The Task Force on Aboriginal Languages and Culture presented their final report *"Towards a New Beginning"* to the Honorable Liza Frulla, Minister of Canadian Heritage. Members of the Task Force included Bruce Flamont, Ron Ignace, Mary Jane Jim, Amos Key Jr., Helen Klengenberg, Alexina Kublu, Rosemarie McPherson, Ruth Norton, Frank Parnell, and Linda Pelly-Landrie. A Circle of Experts assisted the Task Force, which was appointed in December 2003.

The Task Force first sought the guidance from a select few elders, and then commissioned a literature review and related research, held a series of select interactive sessions across Canada and met with some organizations and governance authorities. The following are some of the Task Force Recommendations directly relate to this study: [60]

- Federal legislative recognition to promote and protect First Nation, Inuit and Métis languages **(Recommendation 3)**

- *That Canada provide funding for First Nation, Inuit and Métis languages which is, at a minimum, at the same level as that provided for the French and English languages.* ***(Recommendation 4)***

- *That funding for First Nation, Inuit and Métis languages not be limited to that provided by the Department s of Canadian Heritage, and Indian Affairs and Northern Development. All government departments, and particularly the Departments of Justice, Health, and Human Resources and Skills Development, need to adopt policies and provide funding sufficient to allow for delivery of services and programs which promote First Nation, Inuit and Métis languages, in the same manner as for the French and English languages.* ***(Recommendation 5)***

- *That Canada provide additional funding for First Nation, Inuit and Métis language immersion programs, at a level equivalent to that provided for the French and English languages through the Minority-Language Education component of the Development of Official-Language Communities Program.* ***(Recommendation 10)***

- *A fund be established to promote development, testing, evaluation and integration of new pedagogical methods, but that Canada fund it separately*

[60] Heritage Canada (2005). "*Towards a New Beginning…"* Report of the Task Force on Aboriginal Languages and Cultures. Department of Canadian Heritage, June 2005

*from its existing commitment, so as not to detract from the funds urgently needed by communities to reverse current language loss* ***(Recommendation 25)***

David Leitch, a constitutional lawyer and writer in the field of linguistics clearly answers the important question: "Why should Canada's First Nations have the right to educate their children in their own language at public expense?"[61] He proposes three reasons other than a constitutional basis to this right.

- Firstly he predicts that out of Canada's 53 languages only Cree, Inuktitut and Objiway will survive which is not the case of other minority languages spoken in Canada.
- Secondly he draws a causal connection between residential schools and the precarious state of First Nations languages today. "*They did more to teach English or French: they isolated those children from their families and communities for the express purpose of destroying their knowledge of their own languages and cultures"*.
- His third reason is that Canada *"should conform to the emerging international standards set by other countries with indigenous populations like the United States, Finland and New Zealand".*

A Saskatchewan Law Review (2005), Volume 68 article by Zoe Oxaal entitled *"Removing that which Indian from the Plaintiff: Tort Recovery for the Loss of Culture and Language in Residential Schools Litigation"* develops a possible new tort claim for assessing damages for loss of culture and language in residential schools.

Together these articles support a legal basis for the Crown to examine and to take action to financially support First Nations and other indigenous language program development, annual implementation support and post secondary training, preparation and professional development of language teachers.

**Provincial Language Funding**

The territories/provinces receive federal funding as well as providing grants from their own budgets for minority languages, aboriginal languages and English Second Language. The total budget made available annually to the provinces/territories by the Government of Canada for Minority Languages is as follows:[62]

[61] *"Canada's Native languages: Wrongs from the Past, Rights for the Future"* by David Leitch.
[62] CMEC (2005)

2005-2006…….. $246,797,000
2006-2007…….. $255,397,000
2007-2008…….. $258,597,000
2008-2009……..$258,597,000

These amounts are without the additional funding that is provided by the provinces themselves for the education of the minority students in their own language in their school systems. The francophone school boards in each province are funded by the province (in a few provinces they are also supplemented through local school taxes). Very often the teacher and educator ratios of these boards are much lower than the provincial average, for example the provincial francophone board of Newfoundland/Labrador has a pupil-teacher ratio of 5.9[63]. The cost of textbooks and other materials is also higher. The francophone board of Nova Scotia estimates that the French-language texts cost 20% more than the regular provincial boards.

Some examples of provincial and territorial funding for aboriginal and minority languages taken from the literature review:

**1. Northwest Territories Aboriginal Language and Program Funding**

Part of the NWT Aboriginal Language Strategy includes the creation of a learning environment that supports the Aboriginal linguistic communities' efforts to revitalize Aboriginal languages by:

- Supporting community-based initiatives for culturally relevant early childhood programs
- Developing and implementing culturally relevant curricula
- Delivering Aboriginal language instruction programs in K–12
- Supporting schools to help them meet their linguistic and cultural goals
- Developing community capacity through the training of Aboriginal teachers and Aboriginal language specialists
- Supporting the development of training programs for interpreters and translators

Language Strategy Funding totaling $17.5 million during the five-year period from 1999 to 2004 was provided to implement the NWT Language Act's provisions under an intergovernmental agreement with Canada. Approximately 50 percent of the funding was used to provide Aboriginal services in the territorial government, while a total of $4.3 million went to communities to develop five-year

[63] Min of Educ. Nflb (2005). *Education Statistics Elementary-Secondary, 2004-05*. General Information. Ministry of Education of Newfoundland and Labrador.

strategic plans and to implement community-based activities. Similar levels of funding were provided in previous years.[64]

The following is an excerpt from Ministry of Education of the Northwest Territories Funding Framework for Aboriginal Language and Programs:[65]

*"Aboriginal language and culture-based education funding is allocated according to the following formula calculated using the FTE of Aboriginal students K-12:*

1. *(Base funding $100,000 per council/authority + ($10,000 X # of communities minus 1) + (Aboriginal FTE X $120)*
2. *Councils/authorities also receive additional funding for Aboriginal languages under the Canada NWT Cooperation Agreement for French & Aboriginal Languages*"*
3. *Classroom Assistants/Language Specialists (CA/LS) are provided based upon the FTE per community: 0.5 to 25 FTE = O.5 CA/LS; 26 to 50 FTE = 1.0 CA/LS; 51-75 FTE = 1.5 FTE; Greater than 75 FTE = 1.5 + (FTE-75) X 0.009. The estimated cost for 1.0 CA/LS in 2005-06 is $56,720."*

The following summary estimates overall cost areas based upon the 2005-2006 NWT Ministry of Education, Culture and Employment *"Summary of Contributions Chart":*

$5,156,669/5947 FTE = **$867.10**/FTE Education Assistant Services
$1,649,203/5947FTE = **$277.32**/FTE Aboriginal Languages & Cultural Programs

**2. Provincial Funding of Native Language Programs and English Second Language (ESL)**

For this chart the provincial overview of the Native Language Programs and ESL Program funding frameworks were combined because of similarities in teacher, educators, resource needs and class size needs.

| | ESL | FN Language | FN Immersion | French 1st Language |
|---|---|---|---|---|
| BC | ESL = $1100 (<6) | | | |
| AB | ESL = $1040 (<6)<br>Enhanced ESL $357 | | | Francisation= $1020 (<6)<br>Equivalency Access = $550<br>Program grants $105 & $180 |
| MN | ESL = $750 (Elem. 2 yrs. Max; Secondary 3 years max; Gr. 8 no more than 2 years) | Heritage = $45 (Gr. 1-3)<br>Heritage = $90 (4-Sr. 4)<br>Early Start = $45 (K-3)<br>Basic = $90 (4-8) (<13.1%)<br>Basic= $90 (S1-S4) >11%<br>Basic= $45 (S1-S4) <11% | Heritage=$225 (38-50% immersion)<br>Heritage = $90 (<38%) | Francais = $225 (K- Gr. 8)<br>Francais= $42.50 X courses |
| ON | $7847 per eligible | Native Language= $239 | | Assimilation factor X $535 for |

[64] NWT (2004). *Aboriginal Language Strategy.*
[65] NWT (2005). *2005-2006 School Funding Framework*. Section No. 2-015 to 2-022. Finance and Administration Manual. Education Boards. NWT Education, Culture and Employment.

| | | | | |
|---|---|---|---|---|
| | student for over four years | (Elem.) 20-29 minutes/d<br>> 40 Min./d = $424<br>NL = $63/credit Gr. 9&10<br>NL= $84/credit Gr. 11&12 | | Elementary<br>Assimilation factor X $195 for Secondary<br>School component:<br># Elementary X $36,890<br># Secondary X $67,780<br>Board component= $85,045<br>Perfection of Fr.= $7,847 over 4 years |

**3. Protocol for Agreements for Minority-Language Education & Second language Instruction 2005-2009 Between the Government of Canada & the Council of Education Ministers of Education**

The current budget of $5 million a year and the commitment of $160 million over 10 years for First Nation, Inuit and Métis languages is only a very small fraction of the funding provided to promote the French and English languages. The federal Action Plan for Official Languages, announced in 2003, provides for funding totaling $751.3 million over five years from eight different government departments. A large portion of this funding for Minority and Second Languages is profiled for education, and is distributed to the provinces and territories through a Protocol Agreement with the Council of Ministers of Education of Canada.

The CMEC Protocol for Agreements "provide members of the French or English minority-language with the opportunity to be educated in their own language, including cultural enrichment through exposure to their own culture.... provide the residents of each province/territory with the opportunity to learn English or French as a second language along with opportunities for cultural enrichment through knowledge of the culture of the other official language".[66]

Canadian Heritage plans to provide the following funding to each province or territory based upon a unique protocol agreement with each province:

| 2005-2009 Protocol for Agreements | Regular Funds[1] | Minority Language[2] | Second Language[2] | Total | Minority Population |
|---|---|---|---|---|---|
| **Newfoundland & Labrador** | $9,740,000 | $4,157,247 | $1,684,491 | $5,841,738 | 2,110 |
| **Prince Edward Island** | $4,890,000 | $4,726,092 | $703,182 | $5,429,273 | 5,665 |
| **Nova Scotia** | $18,060,000 | $8,515,292 | $3,704,716 | $12,220,009 | 34,025 |
| **New Brunswick** | $70,060,000 | $12,026,335 | $4,305,622 | $16,331,957 | 236,665 |
| **Quebec** | $225,990,000 | $16,010,108 | $16,969,186 | $32,979,294 | 557,040 |

[66] Canada (2005). *Protocol for Agreements For Minority-Language Education and Second-Language Instruction 2005-2006 to 2008-2009 between the Government of Canada and the Council of Ministers of Education, Canada*. Minister of Public Works and Government Services of Canada, 2005

| | | | | | |
|---|---|---|---|---|---|
| **Ontario** | $206,836,000 | $51,875,790 | $43,132,894 | $95,008,684 | 485,630 |
| **Manitoba** | $29,350,000 | $13,944,994 | $5,055,039 | $19,000,034 | 44,340 |
| **Saskatchewan** | $14,670,000 | $8,297,918 | $3,617,867 | $11,915,785 | 17,775 |
| **Alberta** | $32,340,000 | $10,049,200 | $10,551,379 | $20,600,578 | 58,645 |
| **British Columbia** | $37,860,000 | $10,537,350 | $12,052,704 | $22,590,054 | 54,400 |
| **Nunavut** | $1,270,000 | $2,986,964 | $87,972 | $3,074,936 | 395 |
| **Northwest Territories** | $2,170,000 | $5,351,980 | $232,817 | $5,584,798 | 950 |
| **Yukon** | $2,780,000 | $4,820,728 | $102,132 | $4,922,860 | 890 |
| **Total** | **$656,016,000** | **$153,300,000** | **$102,200,000** | **$255,500,000** | **1,498,530** |

Notes:

1. The Government of Canada will make these contributions from regular funds to each provincial/territorial government, for the duration of the present Protocol for the realization of the strategic priorities described in provincial action plans.
2. These represent the total additional contributions to each provincial/territorial government, for the duration of the present Protocol for the realization of the additional strategies described in the provincial action plans. These funds are allocated under the Enhancement of Official Languages Program and the Development of Official-Language Communities Program.

In the northern territories, speakers of Inuit and First Nation languages make up the vast majority of the population, followed by English speakers. There is only a relatively tiny population of French speakers. Nonetheless, funding provided by Canada, as part of its minority language support program is more than 10 times that provided to the Northwest Territories and Nunavut official languages. According to the Nunavut Language Commissioner, French speakers receive $3,902 per capita in funding for language services and programs, whereas Inuit receive $44 per capita for similar programs and services.[67]

### 4. 2005-2006 Alberta French as a First Language Funding

The following Alberta Education figures are provided by departmental sources and are an approximation since each fiscal year's commitments are unknown.

| 2004-05 Actual FTE= 3849 | Projected Cost | Cost Division | | Total$/ FTE | Per Capita Division | |
|---|---|---|---|---|---|---|
| | | AB Education | Canadian Heritage | | Alberta$ /FTE | Canadian Heritage $/FTE |
| **2005-2006 K-12 FUNDING** | | | | | | |
| French First Language Regular | 5,005,000 | 3,780,000 | 1,225,000 | $1,300 | $982 | $318 |
| French First Language Additional | 3,697,394 | 1,848,697 | 1,848,697 | $961 | $480 | $480 |
| **Total K-12 Funding** | **8,702,394** | **5,628,697** | **3,073,697** | **$2,261** | **$1,462** | **$799** |

[67] Canadian Heritage (2005). Report of the Task Force on Aboriginal Languages and Cultures.

| 2005-2006 FIRST LANGUAGE POST SECONDARY FUNDING | | | | | | |
|---|---|---|---|---|---|---|
| French First Language (PS) (reg.) | 2,201,000 | 1,000,500 | 1,200,500 | $572 | $260 | $312 |
| French First Language (PS) (addit.) | 1,000,000 | 500,000 | 500,000 | $260 | $130 | $130 |
| **Total Post Secondary** | **3,201,000** | **1,500,500** | **1,700,500** | **$832** | **$390** | **$442** |
| **GRAND TOTAL** | **11,903,394** | **7,129,197** | **4,774,197** | **$3,093** | **$1,852** | **$1,240** |

It should be recognized that any of the Alberta Education special funding cited in the table above is in addition to the basic funding provided to school board authorities described in the 2005-2006 Funding Manual for School Authorities.

**Funding for First Nations**

In contrast, the 1996-1997 National Formula provided an amount of $215 per student for First Nations language as part of the incremental cost adjustments. This amount was based on the assumption of salary for one language teacher per 200 students. This allocation would give just over $15.5M annually for 72,700 First Nation students registered in band-operated schools.

The Student Base Unit Cost of $4,091 per FTE included the Cultural Education component for maintaining culturally relevant programs in the schools, and developing and piloting language and cultural materials.

The formula also provided Second Language Adjustment Factors of 0.100 (Elementary) or 0.175 (Secondary) for First Nations schools where the language of instruction differs from the first language of the majority of the student population.

Currently, these aspects of the formula are all incorporated together into the current method of block funding for First Nations education.

## 1.4 Examples of First Nations Schools

### 1.4.1 Community State of Languages In surveyed Communities:

The following table summarizes the results of the question regarding the self-declared state of the ancestral language in the First Nations communities that were surveyed:

| State of First Nations Languages in Communities | Study (43 schools) |
|---|---|
| **Flourishing**: 80% of the band members are speakers | **30%** |
| **Enduring:** 60% band membership are speakers | **2%** |
| **Declining:** 50% of the band members over 30 and a lower percentage of young people are speakers. | **28%** |
| **Endangered:** Less than 50% of the adult band members are speakers. | **19%** |
| **Critical:** fewer than 10 speakers or no known speakers live in the community | **21%** |

The largest percentage (68%) of the communities sampled confirmed the state of their languages to be in trouble, with 40% endangered and critical, and 28% in a state of decline as the mother tongue speakers are continuously aging, and there is a lack of intergenerational transmission.

#### 1.4.2 First Nations Language & Cultural Programs Offered In Sampled Schools:

In order to report on examples of First Nation language programs offered within communities seven categories were developed for the question.

- Preschool programs described the K4 and K5 programs that taught the local community language and might include early language programs in seamless community education systems.
- Full Immersion Programs were offered between 75-100% of the time in Elementary Schools or 25-80% of the time in junior and senior high schools.
- Partial Immersion Programs were offered up to 50% of the instructional time in elementary schools between 25 to 50% of the time in junior and senior high school.
- The FN Language Arts Program is offered to fluent speakers.
- FN as a Second language is designed for non-speakers.
- Adult programs are designed for non-speakers or for speakers to learn reading and writing, or to participate with their children in language learning.
- Summer programs include language camps, and cultural activities in the bush.

Overview of the type of programming currently offered by the respondents:

| 19 First Nations Education Authorities | Pre-School | Full Immersion | Partial Immersion | FN Language Arts | FN as a Second Language | Adult | Summer | Total |
|---|---|---|---|---|---|---|---|---|
| God's Lake NFN | | | 3 | | | | | 3 |
| Mount Currie | | | | | 1 | | 1 | 2 |
| Gesgapegiag | 1 | | | | 1 | | | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Onion Lake | 1 | 1 | | | | | | 2 |
| Secwepemc Nation | 3 | 1 | 1 | | 15 | 15 | 2 | 37 |
| Kawenni:io | | 2 | | | | 2 | | 4 |
| Bigstone | | | | | 2 | | | 2 |
| Gitwangak | 1 | | 1 | | 1 | | | 3 |
| Miawpukek | | | | | 1 | 1 | | 2 |
| Prince Albert GC | 11 | | 3 | 2 | 12 | | 6 | 34 |
| Oxford House | 1 | | 1 | 1 | | | | 3 |
| Kitigan Zibi | 1 | | 1 | | 1 | | | 3 |
| Ahousaht FN | 1 | | | | 1 | | | 2 |
| Mushuau Innu | 1 | | | 1 | | | | 2 |
| Miyo Wahkohtowin | 1 | | 1 | | 3 | | | 5 |
| Oso-yoos | | 1 | | | 4 | 1 | 1 | 7 |
| Eskasoni | 1 | 1 | 1 | 1 | 1 | | | 5 |
| Dene Tha | 2 | | | | 1 | | | 3 |
| Kainai | 2 | 3 | | | 4 | | | |
| **TOTAL** | **27** | **9** | **12** | **5** | **48** | **19** | **10** | **130** |

The higher number of Second Language programs may be indicative of the following:

- Smaller student numbers and therefore a lack of funding to support an immersion or other language programs;
- A shortfall in the number of trained language teachers to provide an immersion program, and lack of resources for training;
- A need for more fluent speakers willing to teach in the schools;
- A lack of resources and materials to provide other types of programs;
- Insufficiency in human resources to undertake curriculum development for language programs;
- The lack of facilities and materials to run an immersion program;
- Inability to organize an effective schedule for parallel or innovative programming due to local conditions;
- Low numbers of student speakers to conduct a language arts program in the first language;
- Need for capacity building in the education program;
- Lack of local postsecondary/training programs for language teachers;
- Need for support for an immersion or other types of language programming.

### 1.4.3 First Nations Language & Culture Learning Resources Presently Available & Those Required In The Future

The following chart documents the current and future needs for Language Teaching Resources of those communities surveyed:

**Legend:**
Availability of resources today: 1=None 2=Few 3= Adequate 4=Good 5=Excellent
Resources required in the future: 5=Urgent; 4=ASAP; 3=Moderate 2=Low; 1=Not Required

| Teaching or Learning Resources | (A)Future | (B) Available | (A-B) Gap in Resources |
|---|---|---|---|
| A. Textbooks for grade levels | **4.7** | **1.6** | **3.1** |
| B. Readers for enrichment/remediation | **4.4** | **1.7** | **2.7** |
| C. Online learning programs | **4.1** | **1.4** | **2.7** |
| D. Teaching guides | **4.6** | **1.9** | **2.7** |
| E. University First Nation Language Graduate Courses | **4.3** | **1.6** | **2.7** |
| F. Protection/Preservation of Artifacts | **4.4** | **1.8** | **2.6** |
| G. Distance learning programs | **3.8** | **1.2** | **2.6** |
| H. Teaching strategies | **4.6** | **2.1** | **2.5** |
| I. University First Nation Language Teacher Programs | **4.1** | **1.6** | **2.5** |
| J. Program of study guide/requirements | **4.3** | **2.0** | **2.3** |
| K. Teacher professional development | **4.5** | **2.2** | **2.3** |
| L. Art/Music/Drama | **4.6** | **2.3** | **2.3** |
| M. Student language & cultural exchange programs | **3.6** | **1.4** | **2.2** |
| N. Teacher professional associations/networks | **4.0** | **1.8** | **2.2** |
| O. Individual computer skill development programs | **4.1** | **1.9** | **2.2** |
| P. Media programs: TV; radio | **4.1** | **2.0** | **2.1** |
| Q. Recordings of learner performance | **3.9** | **1.8** | **2.1** |
| R. CD-ROMs | **4.0** | **2.0** | **2.0** |
| S. Literature | **4.3** | **2.3** | **2.0** |
| T. Online reference/research information | **3.9** | **1.9** | **2.0** |
| U. Outdoor education learning resources | **3.8** | **1.8** | **2.0** |
| V. Evaluation of learning and assessment resources | **4.1** | **2.2** | **1.9** |
| W. Videos | **3.8** | **2.1** | **1.7** |
| X. Print materials: brochures | **3.9** | **2.3** | **1.6** |
| Y. Collected legends | **3.9** | **2.8** | **1.1** |
| Z. Music: songs & instrumental | **3.7** | **2.6** | **1.1** |
| AA. Elders services | **3.8** | **2.9** | **0.9** |
| AB. Traditional crafts | **3.5** | **2.9** | **0.6** |

**Note:**
The following **19** First Nations Education Authorities provided this background information: God's Lake, Mount Currie, Gesgapegiag, Onion Lake, Chief Atahm, Kawenni:io, Bigstone Cree, Gitwangak, Miawpukek, Prince Albert Grand Council, Oxford House Little Pine, Kitigan Zibi, Ahousaht, Mushuau Innu, Miyo Wahkohtowin, Oso-yoos, Eskasoni, Dene Tha and Kainai.

In summary, there is an urgent need indicated for teaching and student resources. The top priorities identified are Textbooks (4.7), Teaching Guides (4.6), Teaching Strategies (4.6) and Art/Drama/Music Resources (4.6).

In addition to the expertise of community Elders, each identified area requires substantial fiscal and specialist resources to develop teaching and language curriculum founded on First Nations methodologies as recommended by the Task Force Report. An on-line Canada First Nation Teaching and Learning Education Resource Centre could provide some assistance and support, as well as the sharing of resources already developed.

#### 1.4.4 First Nations Language/Culture Taught as A Subject Responses on Costs

A summary of the spending information for Language as a Subject from the examples we reviewed is provided below:

| Costs for Language/Culture taught as a Subject | TOTAL Cost $ per Item | % of Total Cost | Aver Cost of Item | Aver Cost/ FTE[1] | Actual Cost per FTE[2] | # of Resp to Ques |
|---|---|---|---|---|---|---|
| Salary & benefits. teachers | **$2,648,952** | **84%** | **$83,050** | **$649** | **$728** | **15/15** |
| Educators, assistants, elders | **$225,679** | **7%** | **$22,736** | **$55** | **$112** | **8/15** |
| Honoraria/stipends | **$46,634** | **1%** | **$4,081** | **$11** | **$16** | **10/15** |
| Instructional supplies | **$83,760** | **3%** | **$3,466** | **$21** | **$27** | **10/15** |
| Materials | **$48,442** | **2%** | **$4,067** | **$12** | **$15** | **11/15** |
| Field trips, travel | **$17,000** | **1%** | **$5,500** | **$4** | **$27** | **4/15** |
| Teacher training costs | **$33,571** | **1%** | **$3,114** | **$8** | **$14** | **9/15** |
| Pedagogical support | **$5,000** | **0%** | **$3,000** | **$1** | **$19** | **2/15** |
| Other: | **$32,856** | **1%** | **$6,428** | **$8** | **$23** | **3/15** |
| ***Total Annual Costs*** | **$3,141,894** | | | **Actual Cost /FTE** | **$981** | |
| Total number of students | **4,080** | | | | | |
| **Average costs/FTE** | **$770** | | | | | |

Notes:
1. Average cost represents the total spending per budget line divided by the total FTE for all schools responding to the surveys.
2. The Mean Cost represents the actual spending per budget line divided by the number of FTE for each school responding to that cost item, and not the total number of FTE for all schools.

#### 1.4.5 First Nations Language/Culture Taught as an Immersion Model

There are differences in the types of line items reported for Immersion programs due to differences in the models of immersion programs, as seen by the examples that we reviewed. Some programs are self-contained and operate as separate school entities, others are parallel programs housed in the same school, and still others are optional programs provided as a choice for a segment of the school curriculum.

Although we averaged the spending for all of the types of Immersion Programs we surveyed as shown at the bottom of the page, the following is an example of the spending of a full self-contained immersion program:

| **A Self-Contained Immersion Program** | **School** | **Student** | **Percent** |
|---|---|---|---|
| Salary/Benefits | $316,826 | $4,062 | 47% |
| Educators | $132,882 | $1,704 | 20% |
| Supp Staff | $0 | $0 | 0% |
| Overhead | $58,840 | $754 | 9% |
| O/M costs | $20,000 | $256 | 3% |
| Telecommunication | $4,000 | $51 | 1% |
| Instructional Supplies | $3,600 | $46 | 1% |
| Materials | $5,000 | $64 | 1% |
| Admin | $106,827 | $1,370 | 16% |
| Office Supplies | $4,000 | $51 | 1% |
| Postage | $400 | $5 | 0% |
| Service Contracts | $0 | $0 | 0% |
| Equipment Rental | $8,676 | $111 | 1% |
| Professional Development | $5,000 | $64 | 1% |
| Other: | $7,500 | $96 | 1% |
| ***Total*** | **$673,551** | $8,635 | 100% |
| No stud | 78 | | |
| Aver/stud | **$8,635** | | |

A summary of spending for 'Language in an Immersion Model' from all of the immersion school examples we reviewed is provided in the table below:

| **Costs for Language & Culture taught in an Immersion Model** | **TOTAL Cost $ per Item** | **% of Total Cost** | **Aver Cost of Item** | **Aver Cost/ FTE[1]** | **Actual Cost Per FTE[2]** | **Based on # resp.** |
|---|---|---|---|---|---|---|
| Salary and Benefits: Teachers only | **$1,091,520** | **55%** | **$155,931** | **$2,806** | **$2,806** | **7/7** |
| Salary and Benefits: Educators | **$396,115** | **20%** | **$66,019** | **$1,018** | **$1,535** | **7/7** |
| Overhead costs: Facility rental | **$58,840** | **3%** | **$58,840** | **$151** | **$754** | **1/7** |
| O/M costs | **$76,500** | **4%** | **$19,125** | **$197** | **$295** | **5/7** |
| Telecommunications | **$7,055** | **0%** | **$1,411** | **$18** | **$25** | **6/7** |
| Instructional Supplies | **$9,200** | **0%** | **$3,067** | **$24** | **$72** | **4/7** |
| Materials | **$5,000** | **0%** | **$5,000** | **$13** | **$64** | **1/7** |
| Administration: Salary & Benefits | **$275,947** | **14%** | **$68,987** | **$709** | **$1,065** | **5/7** |
| Office Supplies | **$7,600** | **0%** | **$1,900** | **$20** | **$30** | **5/7** |

| | | | | | | |
|---|---|---|---|---|---|---|
| Postage | **$600** | **0%** | **$300** | **$2** | **$3** | **3/7** |
| Service Contracts | **$0** | **0%** | **$400** | **$1** | **$1** | **0/7** |
| Equipment Rental | **$9,676** | **0%** | **$4,838** | **$25** | **$46** | **3/7** |
| Professional Development | **$22,000** | **1%** | **$4,400** | **$57** | **$64** | **6/7** |
| Other: | **$20,267** | **1%** | **$5,067** | **$52** | **$147** | **4/7** |
| **Total Annual Costs** | **$1,980,320** | | | **Actual Cost per FTE** | **$6,907** | |
| **Number of students** | **389** | | | | | |
| **Average costs per FTE** | **$5,091** | | | | | |

Notes:
1. Average cost represents the total spending per budget line divided by the total FTE for all schools responding to the surveys.
2. The Mean Cost represents the actual spending per budget line divided by the number of FTE for each school responding to that cost item, and not the total number of FTE for all schools.

### 1.4.6 Curriculum Development and Materials Support for Language/Culture Programs

Similar to the surveys for Immersion, the examples differ in the line items that are reported. This is due to the differences in the costs associated with the type of organization used for curriculum development/adaptation and the elaboration of language/culture teaching and learning materials. Some communities proceed on a project-by-project basis depending on the availability of monies for these activities.

Other communities have a fully functional curriculum development center that produces curriculum materials on an annual basis according to a predetermined development plan. Still other communities try to free up particular teachers to work on curriculum development, housing the projects in the school facilities.

The summary table of the information from the examples on curriculum development is as follows:

| **Costs for Curriculum Development & Materials Support** | **TOTAL Cost $ per Item** | **% of Total Cost** | **Aver Cost of Item** | **Aver Cost/ FTE[1]** | **Actual Cost Per FTE[2]** | **# of Resp to Ques** |
|---|---|---|---|---|---|---|
| Salary and Benefits | **$1,541,386** | **76%** | **$128,449** | **$389** | **$400** | **14/14** |
| Overhead costs: Facility rental | **$71,100** | **4%** | **$23,700** | **$16** | **$47** | **2/14** |
| O/M costs | **$25,000** | **1%** | **$8,333** | **$8** | **$29** | **4/14** |
| Telecommunications | **$4,257** | **0%** | **$851** | **$3** | **$4** | **6/14** |
| Supplies and Materials | **$105,136** | **5%** | **$9,558** | **$30** | **$31** | **12/14** |
| Printing and Binding | **$109,975** | **5%** | **$13,747** | **$29** | **$36** | **9/14** |
| Service Contracts | **$46,000** | **2%** | **$15,333** | **$10** | **$18** | **3/14** |

| | | | | | | |
|---|---|---|---|---|---|---|
| Equipment Rental | **$17,540** | **1%** | **$8,770** | **$4** | **$33** | **2/14** |
| Administration | **$18,829** | **1%** | **$3,138** | **$7** | **$9** | **7/14** |
| Other: Living Allowance | **$29,000** | **1%** | **$9,667** | **$6** | **$19** | **3/14** |
| Other: Travel | **$37,004** | **2%** | **$18,502** | **$8** | **$34** | **2/14** |
| Other: Professional Development | **$23,052** | **1%** | **$7,684** | **$5** | **$27** | **3/14** |
| **Total Annual Costs** | **$2,028,279** | | | **Actual Cost per FTE** | **$688** | |
| Number of students | **3,876** | | | | | |
| **Average Cost Per FTE** | **$523** | | | | | |

Notes:
1. Average cost represents the total spending per budget line divided by the total FTE for all schools responding to the surveys.
2. The Mean Cost represents the actual spending per budget line divided by the number of FTE for each school responding to that cost item, and not the total number of FTE for all schools

## 1.5 Summary of Findings

The information we have reviewed demonstrates that the amounts received and spent by First Nations Education Authorities and Schools on Language Immersion programs are much less than the funding that is being provided for provincial school programs in Minority and Second Language Programs.

As shown in the following example from the province of Alberta for 2003-2004, the amount spent per student on salaries and services for Francophone First Language programs is much higher.

**Comparison of Per Student Cost for Salaries/Services between Alberta School Boards and Alberta Francophone Boards for the provision of French First Language**[68]

| Comparison of Per Student Costs for Salaries and Services | | | | |
|---|---|---|---|---|
| | **Alberta Reg** | **A. Francophone** | **Difference** | **% Differ** |
| **Certified Salaries** | $3,492 | $4,930 | -$1,438 | |
| **Certified Benefits** | $407 | $546 | -$139 | |
| **Uncertified salaries & wages** | $1,130 | $1,196 | -$66 | |
| **Uncertified …benefits** | $236 | $216 | $20 | |
| **Services, Contracts, & Supplies** | $1,307 | $3,621 | -$2,314 | |
| **Sub total expenses** | $6,573 | $10,510 | -$3,937 | |
| **Total** | **$7,044** | **$11,304** | **-$4,260** | **160.5%** |
| **Number of students** | **592,731** | **3,606** | | |

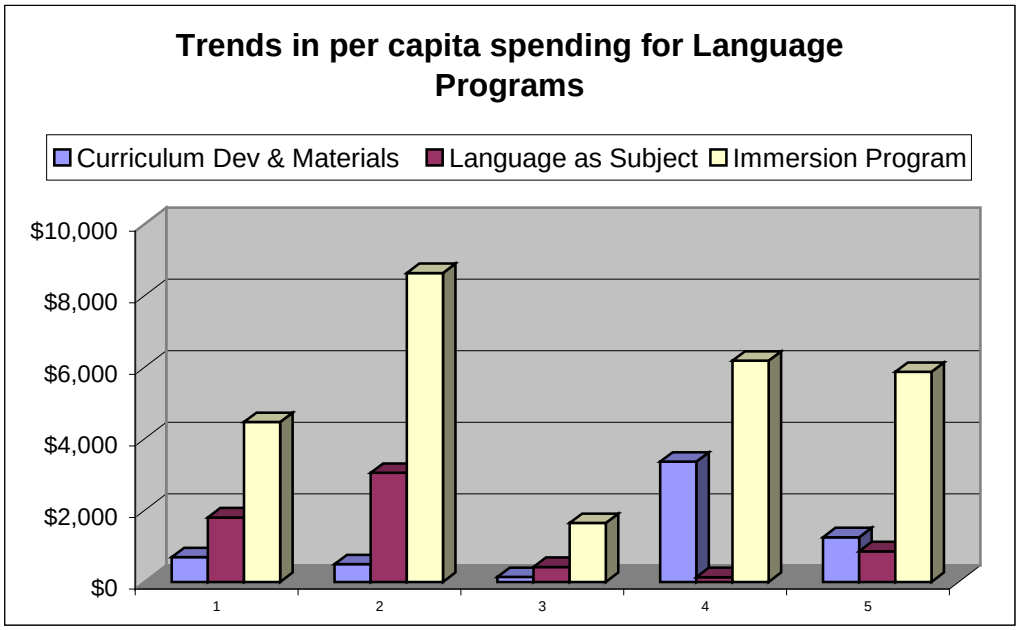
[68] Based on Alberta Education Audited Financial Statements for 2003-2004

**2003-2004 Alberta French as a First Language-FN Immersion Survey Data**

The following chart contrasts the Alberta Francophone Board expenditures from the Alberta 2003-2004 audited statements with a summary of the spending we extrapolated from First Nations Immersion programs as first shown in previous section 1.4.5. [69] The costs have been summarized according to the categories below:

| Per Student Costs | Alberta Francophone | Average First Nations Immersion |
|---|---|---|
| Certified Salaries and Benefits | $5,476 | $3,871 |
| Uncertified salaries & wages | $1,413 | $1,535 |
| Services, Contracts, & Supplies | $3,621 | $1,354 |
| Subtotal | $10,510 | $6,760 |
| Other: | $794 | $147 |
| Average per student cost | $11,304 | $6,907 |
| Number of Students | 3,606 | 398 |

From those First Nations Authorities/Organizations responding to the surveys there were 5 that reported spending in all three areas of language: as a subject, as an immersion program, and for curriculum development. The following shows the trends in spending for Language Programming from these 5 respondents:




[69] Alberta Education (2004) *Alberta Education 2003-2004 Annual Report. Ministry of Education Financial Statements.* Viewed at www.education.gov.ab.ca

The Cree School Board of Northern Quebec receives an allocation of $3.075M which it negotiated for the implementation of the Cree Educational Plan. This plan is to adapt provincial curriculum to the cultural needs of the First Nations Cree students in the Board's schools. This amount is financed 75% by the Department of Indian Affairs according to the James Bay self-government agreements. If we compare this funding, to the results of the surveys we can see that that the reported spending for First Nations for curriculum development are on a comparative level:

| Amount of Grant | Number of Students for CSB (2003-2004) | Per capita Amount Cree Plan | 75% Financed by INAC | Reported Per Capita Costs for First Nations |
|---|---|---|---|---|
| $3.075M | 3,624 | $849/student | $636/student | $688/student |

The total per capita spending reported from the examples that we reviewed are summarized in the table below:

| Type of Activity | Actual Cost per Student | Cost of Human Resources | Materials Costs | O/M Costs | Other Costs | Admin Costs |
|---|---|---|---|---|---|---|
| Language/Culture as a Subject | $981 | 91% | 5% | 0% | 4% | 0% |
| Language/Culture as an Immersion Model | $6,907 | 75% | 0% | 7% | 4% | 14% |
| Curriculum and Materials Development | $688 | 76% | 10% | 5% | 8% | 1% |
| Total Costs reported per FTE for Language/ Culture | $8,576 | | | | | |

It should be noted that the spending reflects only what was questioned on the surveys, and may not include all aspects or costs for language and cultural programming. In addition, as mentioned elsewhere in the report, the amounts reported do not necessarily reflect the full cost of implementing a complete program.

## 1.6 Considerations

Language and culture is seen as a critical component of a First Nation child's identity, especially as they enter and go through adolescence. The literature has shown that there is a tremendous urgency concerning the survival and revitalization of the First Languages of this country. As demonstrated by the First

Nations examples provided, this cannot be done based on the previous distribution formula allocation of $215 per student. The actual costs per student for language as a subject as reported from the examples we studied are $981 per student. Communities should not have to make decisions about priorities for language. The transmission of ancestral language and culture is priceless; the loss of a language is irreparable.

The federal Action Plan for Official Languages provides for funding totaling $751.3 million over five years from eight different government departments for French and English languages. This report documents the extent of regular and additional funding provided by the federal government and the provinces for minority second language and first language education, including separate school boards and private institutions.

Many First Nations schools are trying to deliver some measure of language and cultural programs with very limited resources. All First Nations learners have a right to learn about who they are through their language and culture. Indeed, language, culture, spiritual values and self-identity are inseparable.

There are still many communities particularly in isolated areas where the language is still thriving. However, these communities are faced with the opposite problem of trying to teach fluent language speakers foreign ways in a second language. These communities need resources to develop a K-12 Program for First Language Speakers that reflects First Nations ways of knowing and learning.

1. *Therefore, given the critical state of some First Nations languages, we would suggest that until the process of developing a funding framework is completed, immediate resourcing be made available to support First Language programs, with complementary resourcing for program development and capacity building.*

2. *We suggest that the basic K-12 First Nation Language funding for First Language Immersion programs should be equivalent to the overall level of province/territory and Canada Heritage funding of Minority First Language and Second Language Programs. An example has been provided of the level of funding for First Language Programming for the Alberta Francophone Boards which basically provides $11,304 per student (in section 1.5). This compares favorably to the example we provided of a full self-contained immersion model which showed spending of $8,635 per*

*student. We are suggesting that this would provide a good starting level from which to fund First Nations Immersion programs.*

3. *As with all resourcing for education, we believe that the allocations should be indexed annually according to the EPI, with 75% of the allocation indexed using the salary sub-index, and 25% according to the Instructional Supplies sub-index.*

The Elders that were consulted by members of the Canadian Heritage Task Force stressed that education programs be designed to reflect First Nation, Inuit and Métis methodologies, rather than English or French methodologies. Equally, teaching of the language should take various forms, including storytelling, drama, dance, singing and art, and that it should not be limited to classroom instruction.[70] There is a great need for First Nations curriculum, and the development of teaching and learning materials and resources. There is also a need to adapt provincial programs of study to include appropriate cultural perspectives and traditional knowledge. We suggest that resourcing for curriculum development should be addressed as a separate item from language teaching to ensure the adequacy of the resources for both areas.

4. *Since the provinces provide curriculum development within their own organizations, it is difficult to find costs, outside of the First Nations examples we reviewed for the project. Therefore, we are suggesting that an initial level of funding be made available based on the results of the surveys which is $688/student. This is comparative to the level of funding currently being provided to the Cree School Board for curriculum development and programming for the Cree First Nations Schools in Quebec as indicated in the table provided in section 1.5.*

5. *This level of funding should then be reviewed after 2 years for adequacy. Since curriculum development includes expenditures that are cost sensitive for location, we would recommend that this funding be indexed both for geographic location, and the annual EPI, with 75% indexed using the salary sub-index.*

[70] Canadian Heritage Canada (2005). Report of the Task Force on Aboriginal Languages. Ottawa, Ontario.

In many First Nations schools, ancestral language is taught as a Second Language or as a First Language program for speakers. Ancestral language is also provided as an optional credit program at the secondary level for certification.

6. *Therefore to adequately support the teaching of language as a subject with sufficient frequency to be effective, we are suggesting that the funding should be within the same funding levels as the provincial English Second Language of just over $1000/FTE as confirmed earlier in this chapter. (This average is excluding Ontario which provides an allocation of $7,467 per student over 4 years for Second Language intervention.) This amount is also comparable with the results of the examples we reviewed, which indicated a per capita spending of $981/student.*

*7. These allocations would be indexed for geographic location, and for EPI with 90% of the allocation indexed using the salary sub-index, and 10% of the allocation based on the sub-index for Instructional Supplies.*

An increase in language programming and development is accompanied by an increased need for trained language teachers and curriculum developers. There is also a need to provide some in-service training for language speakers who work in the classrooms in increase their effectiveness, and to increase community capacity building in the area of curriculum planning and development. The surveys have indicated that First Nations are spending at least 1% of their budgets or an average of $64 per student in their immersion programs for professional development. The Ministry of Education of Quebec provides an automatic amount of $160 per teacher for professional development as part of the salary allocation.

8. *Therefore, we would suggest that a five-year strategic plan based on a regional needs assessment should be developed in each region with the RMO's, and in consultation with each Nation, and the communities within. This plan would reflect regional and community-level actions to increase the number of language teachers - both for language teaching and for immersion, language instructional assistants, and curriculum developers over five years. This would be funded at the required levels of funding of the business plan to ensure that the critical state of First languages is properly addressed over the next 5 years.*

Language and culture are intertwined, and education in the language is an important vehicle for sharing First Nation values, teachings and histories. The Task Force Report recommended that language programs incorporate traditional skills and lessons. Cultural camps are an effective way to transmit the language and values. This frequently involves taking the children out into the wilderness, and teaching them how to live on the land and how to interact with the environment in the manner of their ancestors.

9. *We would recommend that communities receive an additional 1% of their language allocation to cover the costs of travel and lodging (a percentage based on the spending patterns reviewed in the surveys).*

To be fundamental and effective, the teaching of language should take various forms, including storytelling, drama, dance, singing and art, and it should not be limited to classroom instruction. This implies that language programming may occur outside of regular school hours or during the summer months, and in configurations not seen in Eurocentric education systems.

To be effectual, the teaching of language has to build up cognition in the language. Therefore, language teaching should be started in preschool and early childhood programs and should continue through secondary school all the way to university. First Nations view learning as lifelong, and a seamless approach should be taken for the teaching of ancestral language. However, this process should be supported with a sound research base on which to evaluate and improve the methodologies undertaken.

*10.* *We would, therefore, like to suggest that consideration be given to funding ancestral language programs and curriculum development based on First Nations methodologies and reflective of a seamless life-long approach. This should be supported with field-based research to improve delivery and development.*

# *2.0 Socio-Economic Influences*

## 2.1 Introduction

A study was done by the Department of Indian Affairs in 1997 to compare economically equivalent, small, rural schools from both First Nations and non-First Nations communities. The study showed that academic achievement in both communities was much lower than urban communities: both groups of students being equally affected by their social economic condition. There was one significant difference between First Nations and non-First Nations students, many more First Nations students did not complete school.[71]

There is a significant body of research that suggests adverse socio-economic conditions prevent many children and youth, and in particular First Nations, from participating fully in the public and on-reserve education system by creating unfavorable environments for learning (Hartle-Schutte 1990, Paravantes 1990, Indian Nations Task Force 1990, Barona & Garcia 1990, Reyhner 1991, Swisher & Hoisch 1992, Clarke 1994, Swartz 1995, Ryan & Adams 1998, Ma & Klinger 2000, Mattson & Caffrey 2001, Rothstein 2004). As a result, First Nations schools have taken it upon themselves to offer curricular, co-curricular and extra-curricular programs as a measure to add balance to the learning environment of First Nations children who are affected by adverse socio-economic conditions.

The First Nations schools must make budget decisions largely based on the needs of their learners and, in many if not all cases, feel they need to offer programming that addresses issues such as proper nutrition, promoting healthy lives, acquiring basic skills and nurturing positive learning environments. It is these budget decisions that define the costs associated with delivering programs associated with adverse socio-economic conditions. It is important to note that many of the schools surveyed reported that these programs were a must, and that without them, they reported that their students would not succeed, or their chances of success would be significantly reduced.

The purpose of this chapter is to examine the real costs associated with a First Nations school implementing programs that assist those students affected by adverse socio-economic conditions, in achieving school success, however that may be defined.

[71] INAC (1997). *Socio-Economic Indicators in Indian Reserves and Comparable Communities, 1971–1991.* Indian and Northern Affairs Canada, 1997.

## 2.2 Background and Literature Review

This study of cost drivers is indelibly linked to a number of issues related to the social and economic situations that many though not all First Nations people face on reserves such as housing conditions, single parent families, mobility, trap line families, addictions, politics, and divisions in the community. Statistically many First Nations people living on and off reserve have lower income levels, which correspond directly to lower workforce participation rates due to either lower literacy levels[72] or to a lack of employment opportunities as cited by Lamontagne in a CLBC Commentary Report[73].

There is a large body of research on the subject of First Nations housing, social issues, education attainment, and income levels. One study worth mentioning because it has helped shape policy, initiatives and government spending for First Nations people is The Royal Commission on First Nations Peoples (Government of Canada 1996). The document is fairly comprehensive in its findings and recommendations specific to First Nations economic participation and education.

### 2.2.1 Socio-Economic Determinants and Student Success

It is important, however, to establish a link between adverse socio-economic conditions and student success and, as mentioned previously, there is a significant body of knowledge, both from First Nations and non-First Nations context, as cited at the beginning of this chapter, that supports a correlation between students affected by adverse socio-economic conditions and their struggle in achieving success in school.[74]

As far back as 1967, the Hawthorne Report[75] questioned the adequacy of the schooling provided to First Nations students under the then prevailing system of integration into the public school system. Among the recommendations were two that were significant to this study: that school authorities recognize the special program needs of Indian children; and that education programs take into account the differences in background of Indian students.

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[72] Government of Canada, *Raising Adult Literacy Skills: The Need for a Pan-Canadian Response*, Parliamentary report on literacy in Canada, Ottawa, 2003, p. 31

[73] CLBC (2004). *The Aboriginal Workforce: What Lies Ahead.* CLBC Commentary. François Lamontagne, Senior Researcher. Canadian Labor and Business Center, September 2004.

[74] Particular reference to Mattson & Caffrey 2001, *Barriers to Equal Education for Aboriginal Students: A Review of the Literature.* BC Human Rights Commission.

[75] Hawthorn, H. (1967). *A survey of contemporary Indians of Canada, Volume II*. Ottawa, Queen's Printer.

More recently, the report of Commissioner Sullivan from the Royal Commission on Education, in British Columbia[76] criticized the education system for a lack of focus, while pointing out that:

- Educational parity for Native children had not been achieved,
- There are connections between education and social conditions,
- There is a need for the establishment of parental involvement programs
- There is a need for action to improve language skills in pre-school and early grades.

The report goes on to state that: unless the health, social, and economic conditions of Native lives are generally improved, the problems of language development and lower-than-average educational attainment levels will regrettably be a part of the Native school experience (Sullivan p. 208).

The SAEE Report, "Sharing our Success"[77] makes reference to two studies, one American, one Canadian that link poverty to academic success:

1. Assessments conducted by the National Centre for Education Statistics in the United States have found that students who qualify for free or reduced cost lunches (based on low family income) have lower performance scores in reading, writing, math, and science. More specifically, socio-economic status on an Arizona Indian Reservation was shown to be the most significant variable affecting First Nations student performance on standardized tests, for all grades except grade 12 (Boloz & Varrati 1983).

2. A Canada West Foundation report (2001) links on-reserve income with education levels, finding:
    - "75% of reserve residents earn less than $20,000 per annum" (pg 12),
    - "educational attainments for on-reserve residents are consistently lower than those for off reserve residents in all age cohorts",
    - "the drop out rates for on-reserve students before grade 9 is more than twice as high as for those living off reserve". (pg. 8).

There are as well definite links between achievement and school processes, as well as between school success and home environment. The synthesis of

[76] Sullivan (1988). *A Legacy for Learners: Report of the Royal Commission on Education*, British Columbia, 1988.
[77] SAEE (2004). *Sharing Our Success*. Dr. David Bell, Principal author. Society for the Advancement of Excellence in Education (SAEE)

educational research on school processes by Wang, Haertel and Walbert (1993) clearly indicates that school and classroom climate variables are among the most significant influences on achievement. Lytton and Pyryt (1998) looked at school effects as predictors of achievement, using data from grade 3 and 6 assessments in Calgary. Social class was again the most significant predictor, followed by school characteristics such as the use of parent volunteers, the absence of significant numbers of English Second Language (ESL) and special needs students, and the disciplinary climate. School-based variables such as teachers' experience, principal's attitudes toward achievement testing, and disciplinary climate were smaller but significant predictors.

In a similar study, using data from New Brunswick grades 3 and 6 assessments, Ma and Klinger (2000) examined individual and school level effects on student achievement in mathematics, science, reading and writing. Consistent with other studies, Ma and Klinger found that gender, socio-economic status and Native ethnicity were the strongest predictors of achievement. There was also significance given to the disciplinary climate, and the academic emphasis on mathematics, reading and writing.

In *Class and Schools*[78], Richard Rothstein focuses on the direct impact of socio-economic status on school achievement. The focus of his book is the academic achievement gap that exists between black and white students in the United States. He emphasizes the fact that many students need improved social and economic conditions in their lives, not just school reform. According to Rothstein, this is not to say that schools do not make a difference. In order to achieve significant progress in reducing the achievement gap, Rothstein recommends a three-pronged approach.

First of all, schools improvements that raise the quality of instruction are necessary. Secondly, the definition of schooling needs to be expanded to include crucial after hours where the family is generally seen as having the sole influence on student learning. Moreover, early childhood, after school and summer programs are needed in order to reduce the gap. Thirdly, Rothstein supports the development of social and economic policies that help to ensure that students attending school are more able to learn. This would entail broad objectives such as increasing health services for lower class children, developing stable housing for these families, and reducing income inequalities.

[78] Richard Rothstein (2004). *Class and Schools,* Economic Policy Institute 2004 Washington DC

Thus, underlying Rothstein's argument is that in order to successfully reduce the achievement gap, more must be taken into consideration than basic school reform. A students' ability to succeed is dependent on factors that exist outside the classroom. A broader understanding of these educational needs can help to increase success rates in schools.

Rothstein's book raises the important issues relating to equality of education in society. Those who consider equality of education to mean equality of funding make an assumption that all students are on the same playing field. Moreover, equality of educational opportunity does not mean equality of educational results. When trying to reduce the achievement gap between First Nations and non-First Nations students in Canada it is the results that we are primarily concerned with. Thus, due to this educational gap that exists in Canadian society, the emphasis should not be placed on the equality of educational opportunity i.e. ensuring that students in band-operated schools have funding that is on par with provincial ministries. Rather, in the interest of closing the gap, the focus should be on equalizing educational outcomes. (Kenneth R. Howe, Understanding Equal Educational Opportunity: Social Justice, Democracy and Schooling)

Some new research linking learner success with socio-economic factors can be found in a recently published Quebec Study.[79] The Ministry of Education, Sport and Loisirs in Quebec provides an allocation to secondary schools for disadvantaged students based on a territorial profile of socio-economic indicators.

To measure the socioeconomic situation of students, the MELS uses two indicators (using results of the StatsCan census): the low-income cut-off (LICO) indicator, based on the percentage of families living under the low-income cut-off line, and the socioeconomic environment indicator (SEEI). However the simple correlation between the proportion of families living below the low income (LICO) line and academic underachievement is low at 0.39. In addition, this indicator is difficult to apply across the province since the cut-off line is based on population density.

Nevertheless, the Ministry research showed that two other variables play a more crucial explanatory role: the simple correlation between academic success and the proportion of mothers without a diploma and academic underachievement is 0.54, and the simple correlation between academic success and the proportion of

[79] MELS (2005). *Academic Success and the Gender Gap: The Influence of the Socio-Economic Environment*. Ministry of Education, Sports and Loisirs. Statistics and Research.Quebec

parents who did not work in the year preceding the census is 0.41. These two variables determine 96.3% of academic underachievement, and are the two components of the SEEI used in this study. The SEEI is based on the mother's schooling (accounting for two thirds of the weight of the indicator) and the proportion of parents who did not work the previous year (accounting for one third), with no weighting for family income.

The justification for using the low levels of schooling of the mother is that

- this often leads to less favorable economic conditions,
- may account for some parents' difficulty in helping their children learn,
- may have a negative impact on their children's academic aspirations.

The SEEI data used in this study allow for the calculation of the decile rank of the students from 1 to 10, with 1 (low) being the most favorable socioeconomic situation, and 10 (high) the least favorable. The research looked at the impact of socio-economic conditions on the gender of the students being studied.

When students are assigned a socioeconomic environment factor on the basis of the territorial unit in which they live, it becomes clear that the more favorable the socio-economic environment, the lower the number of students experiencing academic delay.[80]

This Quebec study concludes that: "As with other studies conducted in other countries, this study's results confirm the link between academic success and a student's socio-economic environment" (pg. 17) and "the proportion of students who leave school without a diploma or other qualifications is roughly twice as high for those from disadvantaged backgrounds, compared with those from advantaged backgrounds" (pg. 17).

The impact of family circumstances on the performance of young children has been investigated in a number of studies based on data from the National Longitudinal Survey of Children and Youth (NLSCY). Ryan and Adams (1998) showed that socio-economic status exerts a pervasive influence on children's achievement. The study also showed that specific family characteristics such as social support, parental depression, hostile parenting, and family dysfunction

[80] MELS (2005). *Academic Success and the Gender Gap. The Influence Of The Socioeconomic Environment* - Exploratory analysis. Ministry of Education, Sports and Loisirs, Government of Quebec.

interacted in complex ways to produce effects on achievement. More specifically, the data from the NLSCY indicate that the mother's level of education is the strongest predictor of a child's vocabulary prior to entering school, and of mathematics achievement in elementary school (Willms, 1998).

The studies of Lipman, Offord and Dooley (1998) and Landy and Tam (1998) have concluded that children of single parents are about twice as likely to have educational problems as those of two parent families. Additional work of Kohen, Hertzman and Wiens (1998) found that instability as seen in residential mobility, care arrangements, and changes of school was associated with both behavioral and achievement problems. Nevertheless, broader data from the NLSCY studies suggests that good parenting can overcome other sources of disadvantage (Crocker, 2002).

### 2.2.2 Incremental Funding Related to Socio-Economic Determinants

The second part of the literature review will focus on providing a cross section of provincial and territorial education authorities who have taken action with regards to balancing the playing field for educational attainment amongst groups affected by adverse socio-economic conditions and will be primarily focused on those authorities who have provided incremental funding for programs and services related to socio economic conditions.

British Columbia's Ministry of Education provides incremental funding to First Nations students in their jurisdictions through their Students with Unique Needs, Targeted First Nations FTE funding, which equates to approximately $950 per student.[81] The incremental funding is linked to increasing academic achievement more than it is specifically linked to adverse socio-economic conditions.

Under their second level infrastructure-funding framework, the Alberta government has the Enhanced Opportunities initiative that is designed to meet the needs of students who are disadvantaged because of social and/or economic conditions.[82] The Alberta funding manual has a Socio Economic Status formula developed to establish funding levels for each jurisdiction.

The formula is applied using the Socio-Economic Status (SES) Incidence Rate of the school jurisdiction which usually consists of a 3-digit decimal. The Incidence Rate for a school jurisdiction is determined by Alberta School Finance using the

[81] BC (2005). *Operating Grants Manual to British Columbia School Boards*. Ministry of Education, March 2005.
[82] Alberta (2005). *2005-2006 Funding Manual for School Authorities.* September 2005

following four indicators. The first three are provided by Statistics Canada and the last one by Alberta Education:

1. percent of families living below the Low Income Cutoff (LICO),
2. average number of years of education of mothers,
3. percent of families headed by a lone parent, and
4. transience rate, based on a student mobility rate. [83]

The SES allocation is then determined by multiplying the SES Incidence rate with the funded enrollment and then by the SES rate (the rate is determined by applying the relative weighting factor to the Grant Rate).

Ontario uses the Learning Opportunities Grant that is intended to address increased costs that a board incurs as a result of a series of socio-economic factors that exist within its jurisdiction.[84] The demographic component of the learning opportunities grant provides funding to school boards based on the district school board model that uses social and economic indicators that have been associated with a higher risk of academic difficulties for students.

This grant permits boards to offer a wider range of programs to improve the educational achievement of these students. Boards have considerable latitude in determining the kinds of programs and supports they provide with this funding.[85]
The amount of the Learning Opportunities Grant for an Ontario district school board for the fiscal year is the total of the amounts set out or determined under the following allocations:

1. The Demographic Component amount that is prescribed for the board in the Manual. This component of the Learning Opportunities Grant provides funding to school boards based on social and economic indicators that have been associated with a higher risk of academic difficulties for students. An example of the weighting that is applied in this portion of the grant is provided in the following chart taken from the Technical Paper[86]:

[83] Ibid
[84] Ontario (2004*). Legislative Grants 2004-2005*. Spring 2004, Ministry of Education.
[85] Ontario (2004) *Technical Paper, 2004*. Ministry of Education, Ontario.
[86] Ibid

**Allocation Model for the Portion Added in 2002–03**

The portion of the Demographic component added in 2002–03 is determined by the following socio-economic indicators from the 1996 Census:

| Indicator | Description (1996 Census) | Weight |
|---|---|---|
| Low Income Cut-Off (LICO) | The percent of all persons who are living below the low income cut-off (LICO) point. | 50% |
| Low Education | The percent of all persons 15 years or over who have less than a Grade 9 level education. | 12.5% |
| Recent Immigration | The percent of all persons who immigrated to Canada between 1991 and 1996. | 12.5% |
| Lone Parent Status | The percent of families that are lone-parent families. | 12.5% |
| Aboriginal Origin | The percent of all persons indicating "Aboriginal" as their ethnic origin. | 12.5% |

2. The board's early learning assistance (literacy) amount for the fiscal year which is the amount determined by multiplying $124 by the 2004-2005 day school average daily enrolment of elementary school pupils of the board, counting only pupils enrolled in junior kindergarten, kindergarten and grades 1 to 3.
3. The board's literacy and numeracy assistance (outside the school day) amount for the fiscal year. This is determined by multiplying allocations by elementary and secondary enrollments.
4. The board's student success, grades 7-12, amount for the fiscal year which is a combination of calculations based on enrollments.

The Ministry of Education, Leisure and Sports (MELS) of Quebec provides special allocations to schools through various funding initiatives for disadvantaged students. Some of these include Food Programs for Secondary Schools, School Success programs and "Agir Autrement", a program specifically for secondary schools to enable disadvantaged students to experience success in school.

As explained earlier in this chapter, the Agir Autrement allocation is calculated based on socio-economic indices developed from data from the Canadian Census attached to postal codes. The index includes the mother's scolarity (2/3), and the family employment (1/3). The incidence of disadvantaged students is put on a 1 to 10 scale in comparison with all the school commissions. The MELS

provides schools in the level 10 ranges with $1035 per student, those within level 9 receive $690 per student, and those within level 8 receive $345 per student. This Agir Autrement funding is provided automatically as part of the annual funding allocations to the school commission, the schools do not have to apply for it.

Prince Edward Island attempts to address unique learning issues by providing funding for categorical staff (staffing assigned to specific categories of students with needs) and takes into consideration a variety of factors when making decisions regarding allocation of this funding. For First Nations students, 50% of the revenue received for the education of First Nations students is to be retained by school boards to meet the special needs of these students. In addition, because 20% of grade one students in PEI have reading problems, one full time equivalent teacher per 8 FTE students generated by the incidence rate will be provided.

Finally, it is important to mention two pilot projects that are a result of specific needs of students who are affected by adverse socio-economic factors.

**1. Whole Child Project – Yukon Territory (2001 – present)** [87]

Formal project operations began in May 2001 when funding from the RCMP National Youth Strategy allowed for the hiring of a Community Coordinator. The goal of Yukon's Whole Child Project is to improve the well-being and encourage the healthy development of at risk students and their families through holistic services that are provided collaboratively in a community school environment. The WCP Steering Committee is made up of Yukon Territory Government Department of Education, Department of Health and Social Services, RCMP, City of Whitehorse, First Nations, non-governmental agencies, WES staff, and the WCP Coordinator.

The project received funding from the RCMP, and other sources, which paid for the costs plus a coordinator to coordinate all of the activities for school and community. The project has grown to include many other services. The initial guiding principle of the project was to improve the social well being, mental and physical health, and learning capacity of the children attending Whitehorse Elementary. The scope of the project included preschool children living in the downtown catchment area. It was felt that this goal would be best realized through the effective coordination

[87] Zapf, Michael K. (2004). *An Evaluation of The Whole Child Project (WCP): Whitehorse, Yukon.* Canadian Research Institute for Law and the Family for the RCMP Youth Strategy, March 2004.

of services from local child serving agencies and institutions, the development of improved community capacity, and the encouragement of cross-system cooperation and coordination.

**Project Funding:**

- $65,000 grant from RCMP National Youth Strategy for part-time family support worker and operating funds;
- $35,000 grant from RCMP National Crime Prevention Strategy for part-time school social worker;
- 0.7 Community Coordinator salary from YTG Department of Education;
- 4 hours/week in-school social worker from YTG Health and Social Services;
- $30,000 grant from Industry Canada over 3 years for Internet Access activities.

**2. Showing the Way to Literacy Success: A First Nations Initiative in Early Intervention – School District 68 (Ladysmith-Nanaimo), British Columbia**

"Showing the Way to Literacy Success" is a First Nations Early Intervention Initiative designed to improve school success and reduce dropout rates for First Nations students attending provincial school in School District 68 (Nanaimo-Ladysmith). It began in September 1997, as a pilot project involving ten primary classrooms. At the end of the pilot year all ten participating schools felt that the program had had a positive impact on the academic performance of First Nations students in their schools and all wished to have it continue for the following year[88]. Some schools even indicated they wanted to have additional classrooms added to the program.

The focus of the program was on improving and strengthening reading and writing skills in the ten participating schools and on building early literacy teams in support of this initiative in those schools. The program provided a Balanced Literacy Program using a daily guided reading program with small groups of at-risk learners based on cultural materials.

[88] BC (1998). *Showing the Way to Literacy Success: A First Nations Initiative in Early Intervention – School District 68 (Ladysmith-Nanaimo),BC.* Aboriginal Education, BC Ministry of Education.

This was combined with a breakfast program and Home reading programs.

The 1998 Provincial Learning Assessment Program results show that First Nations students in one of the pilot schools for this Balanced Literacy project were outperforming non-First Nations students (71% to 60%) in meeting expected reading levels and performing only slightly lower than non-First Nations students in writing (64% to 67%). These figures were above the District average for First Nations students.

Classroom assessment instruments were used throughout the year in all participating schools to monitor student progress. The District found that the Balanced Literacy project had significantly improved the reading scores of those considered to be "at risk" with 88% of students judged to be at the expected level by the end of June 1998.

Funding for this program was provided through the BC Aboriginal Education Targeted Funding for District 68 of $950 per student and which was supplemented through the regular K-12 program.

## 2.3 Examples of First Nations Schools

### 1. Remedial Programs

Remedial programs were defined for the purposes of the survey as programs related to basic skills (reading, writing, and math) acquisition. The following is a summary of the average spending as reported in the examples we reviewed:

| Average Costs for Remedial Programs | | |
|---|---|---|
| **Costs** | **Average** | **Percentage** |
| Salary/Benefits | $113,760 | 66% |
| Materials | $10,817 | 6% |
| Assessment tools | $11,225 | 6% |
| Professional fees | $16,250 | 9% |
| Administration | $11,422 | 7% |
| Other: | $10,000 | 6% |
| Total | $173,474 | 100% |

Some of the principals we interviewed mentioned that, without having daily direct instruction reading programs such as Reading Recovery offered in their school, their students would have a much more difficult time with the curriculum. Others

said that many of their students reading levels are not at grade level and they must offer remedial programs to bring them up to grade level or higher. We found that while many of the remedial programs were offered outside of the normal curriculum (pull out), others made them a mandatory part of the regular school program to increase the chances of successful progress.

All of the respondents we talked to said that there is definitely not enough money to adequately address the issue of low reading, writing and math skills, especially when there is such an elevated need, with often 100% of the student population using the remediation programs. Some used their special needs funding to address the situation where appropriate but the smaller schools have to spend from their core funding, often at the expense of other needed programs.

The average spending per teaching level for each of the schools reporting this type of programming would be as follows:

| Remedial Programs | Average Costs | % of Costs |
|---|---|---|
| **Preschool** | $45,260 | 23% |
| **Elementary** | $93,463 | 48% |
| **Middle School** | $13,762 | 7% |
| **High School** | $43,927 | 22% |
| **Total** | $196,411 | 100% |

## 2. Nutrition Programs

Nutrition programs were offered in all the schools that we surveyed and usually consisted of breakfast and/or lunch program (hot or otherwise). The following is a summary of the examples we reviewed:

| Nutrition Programs | Average Costs | % of Total |
|---|---|---|
| Salary/Benefits | $33,542 | 47% |
| Materials | $20,580 | 29% |
| Equipment | $5,500 | 8% |
| Administration | $2,250 | 3% |
| Other: | $10,000 | 14% |
| Total | $71,872 | 100% |

Every school sampled reported offering breakfast and/or lunch programs. Students arriving at school having not had breakfast, or bringing little or no nutritional food for lunch were the main reason for offering breakfast and/or lunch programs.

With regards to funding for these programs, many of the small schools either fundraised or used volunteer workers and donated food to make the programs successful. The large schools had enough in their budget to cover the costs associated with these programs, and one school actually used the opportunity to offer cooking classes, with students as kitchen workers. There was a significant number of those surveyed who said that, because of the unique needs of these students, there should be core funding available to offer nutritional programs.

**3. Extra Curricular Programs**

Extra Curricular programs were those programs associated with sports and recreation. The following is a summary of the spending from the examples we reviewed:

| Extra-curricular Programs | Average Costs | % of Total |
|---|---|---|
| Salary/Benefits | $14,667 | 36% |
| Materials | $5,433 | 13% |
| Equipment | $3,640 | 9% |
| Additional O/M | $160 | 0% |
| Administration | $2,167 | 5% |
| Other: Transportation | $15,075 | 37% |
| Total | $41,142 | 100% |

Most of the anecdotal feedback from the respondents was related to the need to offer these programs as a strong motivator for staying in school, and for promoting a healthy, balanced lifestyle. Most of the schools used volunteers, teachers and fund raising activities to cover the costs associated with offering these programs. Equipment and travel were mentioned as the two largest costs.

One school said that they didn't feel that these types of programs were related to any adverse social conditions of their students because they would be offering these programs anyway, just like other schools. We explained that there is a large body of research that indicates a direct correlation between students who are suffering from adverse socio-economic conditions and increased success in school if they participate in extra-curricular activities (Reyhner 1991). One school

reported that if they didn't have the team sports, some of their students' wouldn't be in school.

## 4. After School Programs

After school programs were categorized as those that enhance the school experience such as homework, computer, science clubs and cultural activities. The following is a summary of the spending from the examples we reviewed:

| After School Programs | Average Costs | % of Total |
|---|---|---|
| Salary/Benefits | $32,065 | 74% |
| Materials | $4,575 | 11% |
| Additional O/M | $500 | 1% |
| Administration | $517 | 1% |
| Other: Transportation | $5,400 | 13% |
| Total | $43,057 | 100% |

The anecdotal feedback was focused on the fact that these programs were necessary for assisting their students with the overall school experience. Most respondents mentioned that homework clubs were necessary to assist with school success. They provided the students with extra assistance and helped them get their homework done. Every school reported using a mixture of volunteers and paid personnel, and most needed to access outside funding to offer be able to offer these programs.

## 5. Other Programs:

We asked the schools if there were any other types of intervention programs that were provided to address issues regarding socio-economic determinants of success. The schools reported costs for behaviour programs related to creating an enhanced learning environment. The programs were aimed at improving school success through maintaining a positive school environment. A summary of the reported spending is provided:

| Other Intervention Programs | Average Costs | % of Total |
|---|---|---|
| Salary/Benefits | $8,333 | 93% |
| Materials | $333 | 3.7% |
| Other: | $333 | 3.7% |
| Total | $9,000 | 100% |

## 2.4 Summary of Findings

To effectively analyze the results of the feedback, we need to correlate the literature, the costs associated with offering these programs and the underlying need of First Nations schools to offer them.

The literature states that children coming from adverse socio economic back grounds, generally find it more difficult to be successful in school, and that these conditions make it more difficult for them to acquire their basic skills in reading, writing, and math, which are essential for success in the school system. The Quebec Ministry of Education study[89] backed up this argument with their findings and recommendations.

The actual amounts provided by the Quebec formula to schools (within school boards) with similar social and economic factors to First Nations schools in Quebec was detailed in the FNEC Study of 2005[90], pages 99 and 100, and examples are provided:

**Table: Funding for Secondary Schools in Quebec for Disadvantaged Students**

| School Board | Location in relation to First Nation Schools | School | # of Secondary Students | SEEI Level (1-10 scale) | Amount/ Student | Total Allocation |
|---|---|---|---|---|---|---|
| Eastern Shores School Board | Gaspé area of Quebec (Mi'kmaw First Nations) | Ecole Secondaire New Carlisle | 72 students | **10** | $1,034 per student | $74,520 |
| | | Ecole de Grosse Isle | 36 students | **9** | $690 per student | $24,840 |
| Moyenne Cote Nord | North Shore of St. Lawrence (Innu First Nations) | Ecole Msgr. Labrie | 255 students | **9** | $690 per student | $175,950 |
| | | Ecole Roger Martineau | 46 students | **10** | $1,034 per student | $47,610 |

The need for a First Nations school to offer these programs was demonstrated in the "Showing the Way to Literacy Success" project which was a First Nations Early Intervention Initiative designed to improve school success and reduce drop-out rates for First Nations students in School District 68 (Nanaimo-Ladysmith),

[89] MELS (2005). *Academic Success and the Gender Gap: The Influence of the Socio-Economic Environment.* Ministry of Education, Leisure and Sports, Quebec, 2005.
[90] FNEC (2005). *An Analysis of Educational Costs and Tuition Fees: Pre-school, Elementary School and High School Levels.* Final Report. FNEC/DIAND Tuition Fees Committee, February 2005.

and which focused on early intervention in basic skill acquisition. This project was initiated in 1997, almost 9 years prior to this study, which indicates that the need for addressing basic skills is not new. Our survey results demonstrate that the need for remediation has not gone away.

With all the schools offering remediation programs that we reviewed, it would seem that there is a universal need for basic skills acquisition. Schools are offering a variety of programs to address this, which include marketed programs such as Reading Recovery, Success Maker, Reading Mastery, and Corrective Reading; along with their own locally developed programs. To be effective, the respondents stated that the students need to be either fully immersed or accessing them for at least one hour per day and, when necessary, for even longer periods at a time.

The survey results show that the amount being spent on remediation programming was close to $175,000 (averaged cost) for the schools we reviewed. Most of the costs (66%) were for salary, and the majority of remediation costs in the examples were incurred at the Elementary level (48%).

Anecdotal comments of respondents indicated that the basic needs of a remediation program are the same regardless of school size in reference to the need for salary dollars for a remediation teacher and/or the replacement costs for freeing up another teacher; and, the purchasing of a program (license and materials) and/or assessment and didactic materials. There are proportional increases for size and geography, but the basic requirements are the same, and cannot be addressed by a per capita allocation.

The second most significant program offered was a nutritional program. Hot breakfast and/or lunch programs were available in all but one of the schools reporting and, from the comments from respondents; these nutritional programs are a necessity, because if they were not offered, students would be arriving without having had breakfast and with little or no nutritional lunch, which, in turn, would have an adverse affect on their learning.

Costs for these programs varied greatly, mostly because in some cases there was no budget for breakfast/lunch programs and some had to make do with volunteers and food donations. There was not costing provided for the in-kind contributions, or the funding provided through other sources such as Brighter Futures. Still, the amount being spent for nutritional programs was approximately $72,000 (averaged costs), of which 47% was for salary. Similar to remediation, the majority of expenditures in the sampling were at the Elementary level (44%).

With regards to the rest of the programming questioned in the survey such as after school or extra-curricular, there was some debate whether such programming was related to adverse socio-economic conditions. Some respondents mentioned that they would be offering sports and recreation opportunities anyways, as part of teaching responsibilities, and that they either budgeted for equipment and travel or used volunteers, similar to how other school districts would address implementing these programs.

Average costs over the sampled surveys for Extra Curricular were $40,000 with the majority of expenditures reported at the Middle School level. After School programming expenditures averaged $53,000 with 47% of the expenditures reported for the High School Level. The Other Intervention programming averaged around $9,000 but the majority of these costs were reported for the preschool and elementary levels.

The following provides a summary and trend for the spending for programming related to socio-economic determinants as reported by the surveys.

**Table: Summary of Spending by Level and Type of Program**

| | Total Reported Costs for Programming for Socio-Economic Determinants | | | | | |
|---|---|---|---|---|---|---|
| **Type of Program** | **Remedial** | **Nutrition** | **Extra Curricular** | **After School** | **Other** | **Totals** |
| **Preschool** | $45,260 | $7,212 | $6,104 | $6,062 | $1,857 | $66,494 |
| **Elementary** | $93,463 | $24,020 | $10,586 | $19,364 | $5,118 | $152,550 |
| **Middle School** | $13,762 | $5,073 | $12,971 | $2,687 | $1,502 | $35,996 |
| **High School** | $43,927 | $18,087 | $10,120 | $24,470 | $521 | $97,125 |
| **Total** | **$196,411** | **$54,392** | **$39,781** | **$52,583** | **$8,998** | **$352,165** |

## 2.5 Considerations

We offer the following suggestions for addressing the socio-economic determinants of success for First Nations students:

1. We feel that it would be important for the Department of Indian Affairs to recognize, as the provinces have, the need to address socio-economic determinants within the funding formula to increase the learning opportunities of many First Nations students. This element of the formula should consider that:

a. First Nations schools have a higher proportion of students at risk.

b. The formula should contain a variable to accurately reflect the needs of each particular school's socio-economic demographics.

c. Similar to the Quebec Formula, a form of index would need to be developed to accurately reflect the diversity of needs between the communities.

2. We also believe that the funding framework should insure that First Nations schools are able to offer a high quality basic skills program to increase learning opportunities. To do this the formula should provide each school with a minimum basic allocation proportional to school size (based on grade configuration), and indexed for location (access to services).

   The basic allocations per teaching level which would reflect the average costs reported in the sampling would be.

   a. $30,000 for K4 – K5
   b. $80,000 for elementary grades 1 – 6/7/8
   c. $50,000 for secondary grades 8 –12 (Sec 1- 5)

   In relation to these base allocations, the Quebec Ministry of Education provides schools with allocations of $690 - $1034 per disadvantaged student for the program Agir Autrement at the secondary level.

   We suggest that the base allocations could either be increased proportionately (example 1.25 x the allocation for 1.25 times the size) according to predetermined sizes of schools; or, a per capita increase could be provided for schools with populations larger than 150 at the elementary level, and 100 students at the secondary level.

3. We suggest that each school that identifies an at-risk population should receive a basic minimum allocation for nutritional programs proportional to the costs reflected in the survey.

   a) $10,000 for K4 – K5
   b) $35,000 for elementary grades 1 – 6/7/8
   c) $25,000 for middle/high school

The basic allocations should be adjusted proportionally for size, and should reflect costs relative to regional cost of living, transport and delivery. Since the basic allocation should cover the human resource costs which the survey indicated were based on 47% of the costs, then any volume increases should be based on a per student allocation such as provided by Ontario for some of the elements of its Learning Opportunities Grant.

4. We would also like to suggest that each school, regardless of socio-economic indices, should receive a basic allocation of $20,000 per teaching level (not including preschool) for enhancing school success through extra-curricular and after school programs, with additional adjustments for size of school population, again based on a per student allocation.

5. In keeping with the provincial school initiatives towards healthy lifestyles such as those found in the western provinces, Quebec, Nova Scotia and Newfoundland/Labrador (see chart provided in Chapter 4, Program Diversity), and the First Nations concept of developing programming for the “whole child”, we would suggest that consideration be given to funding “Healthy Living” programs for First Nations Schools. This funding would provide for the teaching of sports, good nutrition and a healthy lifestyle to First Nations students.

   As an example of the levels of funding that would be required, the Quebec Ministry of Education provides supplementary funding under Measure 30250 based on $1000 per school (that has upper elementary and/or middle/secondary) and an amount of $8.09 per student.

# *3.0 Information and Communications Technology*

## 3.1 Introduction

At the end of March 2006, Industry Canada's First Nations SchoolNet program mandate ends, leaving over 90,000 First Nation students and nearly 500 First Nation schools across Canada without the funding necessary to continue supporting the broadband connections, the technical support and access to the communication technologies that has been delivered by the six Regional Management Organizations (RMOs) serving the First Nations across Canada.

As well, additional Federal government financial resources are required to ensure Infrastructure Canada and Industry Canada's National Satellite Initiative (NSI) can support the full bandwidth requirements ($40 million) to provide adequate satellite bandwidth for video conferencing applications including professional development seminars, postsecondary courses, telehealth, e-learning, etc, in more than 40 remote, satellite served partner Indigenous communities across Canada in an equitable and affordable manner as terrestrially served communities.

First Nations schools have made significant investments in technology over the past several years as First Nations leaders and educators realize that for First Nations children to be successful in school and abroad, they will need to have the ICT skills to advance. Many secondary students in remote First Nations communities are totally dependent on a high school curriculum delivered via the Internet. The situation is critical.

## 3.2 Background

Nearly every facet of our economy and society has been touched by information and communications technology (ICT). Consequently, ICT in education has become a priority for governments, educators, businesses and policy makers, in an effort to close the digital divide and to ensure that learners possess the skills necessary to succeed in today's technology-dependent society.

SchoolNet Canada is a partnership with the provincial and territorial governments, the education community and the private sector, which promotes the effective use of information and communications technologies in learning. The SchoolNet partnership connected Canada's schools and public libraries to the Internet in 1999.

Recognizing the challenges that First Nations schools may face in accessing and applying ICT technologies, Industry Canada created the First Nations SchoolNet program. Six non-profit Regional Management organizations work with Industry Canada to deliver the program to First Nations schools:

- Atlantic Canada First Nations Helpdesk (Sydney, Nova Scotia)
- The First Nations Education Council (CEPN-FNEC, Wendake, Quebec)
- Keewaytinook Okimakanak (K-Net, Balmertown, Ontario)
- Keewatin Tribal Council (Thompson, Manitoba)
- Keewatin Career Development Corporation (KCDC, La Ronge, Sask)
- First Nations Education Steering Committee (FNESC, Vancouver, BC).

The First Nations SchoolNet program has been established to give First Nations communities the opportunity to use fully up-to-date technology by offering their schools affordable high-speed Internet access through other ISP servers besides the DirecPC satellite terminals.

Industry Canada has partnered with the Assembly of First Nations, major Canadian telephone companies, and the First Nations communities and schools to offer this program and pay for the costs associated with equipment (computers, cameras, scanners etc), training and connectivity. Unfortunately, the SchoolNet program will be coming to an end March 2006, which may affect the ability of some First Nations schools to stay connected.

### 3.3 Literature and Research

There is no question that ICT in First Nations communities is becoming more and more of a priority as it provides remote and isolated regions with instant access to the rest of the world. In mainstream education systems, most schools have a fairly up to date computer lab, computers in the classroom and high speed connectivity to the internet.

The 2005 StatsCan Report on Connectivity and ICT Integration in First Nations Schools[91] makes a comparison of the average number of computers per student between those First Nations schools who responded to the StatsCan survey and other provincial schools in Canada. The table illustrates their findings:

[91] Statistics Canada (2005) *Connectivity and ICT Integration in First Nations Schools: Results from the Information and Communications Technologies in Schools Survey, 2003/04.* Johanne Plante. Culture, Tourism and the Centre for Education Statistics, Statistics Canada. Ottawa: Ministry of Industry 2005.

| Type of School | Rural Schools | Urban Schools |
|---|---|---|
| Responding First Nations Schools | 3.5 students /1 computer | 3.4 students/1 computer |
| Non-First Nations Schools | 3.4 students/1 computer | 5.4 students/1 computer |

Note: Smaller number for FN urban schools is related to smaller population in FN urban schools.

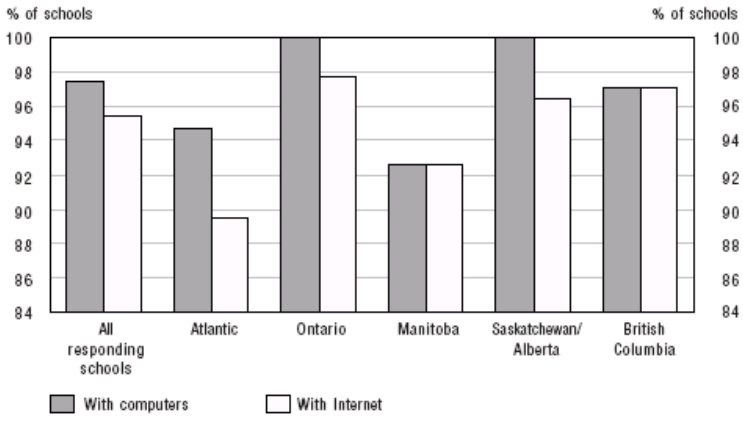
The survey did not include the First Nations Schools of Quebec under the FNEC SchoolNet (RMO). The FNEC conducted their own study for Quebec, and the results of their surveys, based on 36 First Nations schools, indicated a much higher ratio of 8.23 students to 1 computer.[92]

First Nations schools are not far behind in accessing up to date hardware and software, but in some cases, are finding it difficult to access high speed connectivity which is often due to the lack of infrastructure in the remote and isolated areas of Canada.

This is illustrated by the following chart taken from the StatsCan Report[93] on the *StatsCan Information and Communications Technologies in Schools Survey 2003/2004***,** which provides information on the proportion of computers and internet-connected computers by Regional Management Organizations (RMO) for those responding schools (excluding Quebec).

Figure 1

**Proportion of responding First Nations schools with computers and Internet-connected computers by RMO, 2003/04**




*Source: Information and Communications Technologies in Schools Survey 2003/04, Centre for Education Statistics, Statistics Canada.*

[92] FNEC (2003). *First Nations SchoolNet: Report On The Comprehensive Study of Schools' Needs.* First Nations Education Council, April.

[93] Statistics Canada (2005) *Connectivity and ICT Integration in First Nations Schools: Results from the Information and Communications Technologies in Schools Survey, 2003/04.* Johanne Plante. Culture, Tourism and the Centre for Education Statistics, Statistics Canada. Ottawa: Ministry of Industry 2005.

The FNEC Study[94] for Quebec provided the following summary chart on Computers/Internet Access for the responding 36 schools:

**Internet Access**

| | Number of schools (Yes) | Number of schools (No) | Number of schools (Other) |
|---|---|---|---|
| Current available Internet access | 34 | 2 | – |
| Past Internet access | 3 | | 32 |
| Administrative Internet access (email) | 33 | 3 | – |
| Public Internet access in community | 16 | 16 | 4 |
| Computers integrated into classrooms | 29 | 3 | 4 |
| Computer used as learning tools | 30 | 2 | 4 |

As previously mentioned there are six Regional Management Organizations delivering SchoolNet programs. After researching each of their respective websites there was not much in the way of financial information related to actual costs of delivering the program, except for the following:

| RMO | IT Hardware | Connectivity (including Satellite systems) | Professional Services & Training | Total ICT/SchoolNet Expenditures |
|---|---|---|---|---|
| BC: FNESC[95] | $1,070,566 | $376,744 | $206,035 | $2,032,013 |
| Ontario: K-Net[96] | $552,000 | $911,000 | $490,000 | $2,300,000 |
| Quebec: FNEC[97] | $735,000 | $530,000 | $330,000 | $1,595,000 |
| Atlantic Help Desk[98] | $250,000 | $480,000 | $220,000 | $950,000 |

The First Nations Education Council in Quebec, as previously cited, funded a comprehensive needs study in 2003 parallel to the StatsCan survey which gathered information about ICT from 36 First Nations Schools in Quebec. The study covered all aspects of ICT development and implementation and had fairly high rate of return.

[94] FNEC (2003). *First Nations SchoolNet: Report On The Comprehensive Study of Schools' Needs.* First Nations Education Council, April.
[95] First Nations Education Steering Committee viewed at www.fnesc.ca
[96] Keewaytinook Okimakanak (K-Net) viewed at www.knet.ca
[97] FNEC-CEPN adapted from ICT Strategic Planning document, Tim Whiteduck Coordinator.
[98] Information courtesy of Lauretta Welsh, Mi'kmaw Kina'matnewey, Nova Scotia.

Some of the barriers to ICT usage that were provided by the FNEC Quebec Study are provided in the following table reproduced from the report:[99]

| Number of Responses | Barriers to ICT Access |
|---|---|
| 28 | Lack of Teacher Training |
| 24 | Outdated/slow/not enough equipment |
| 22 | Lack of Knowledge on how to integrate ICTs into classroom/school use |
| 16 | Slow connectivity/limited bandwidth |
| 9 | lack of relevant aboriginal content |
| 10 | Low priority among staff in school and/or community leaders |
| 7 | Techno-phobia |
| 6 | High staff turnover |
| 4 | Low student attendance/ participation rates |

The StatsCan Report provides similar results: [100]

Table 8

**Percentage of responding First Nations schools citing challenges to using ICT by RMO, 2003/04**

| | Having sufficient funding for technology | Having enough training opportunities for teachers | Obtaining sufficient copies/ licenses of software for instructional purposes | Ensuring computers and peripherals are up to date | Obtaining software which is specific enough or adaptable |
|---|---|---|---|---|---|
| All responding schools | 73 | 52 | 48 | 46 | 43 |
| Atlantic | 63 | 50 | 60 | 40 | 53 |
| Ontario | 80 | 48 | 44 | 40 | 40 |
| Manitoba | 88 | 58 | 50 | 50 | 46 |
| Saskatchewan/Alberta | 56 | 41 | 48 | 41 | 48 |
| British Columbia | 74 | 65 | 44 | 59 | 35 |

*Source: Information and Communications Technologies in Schools Survey 2003/04, Centre for Education Statistics, Statistics Canada.*

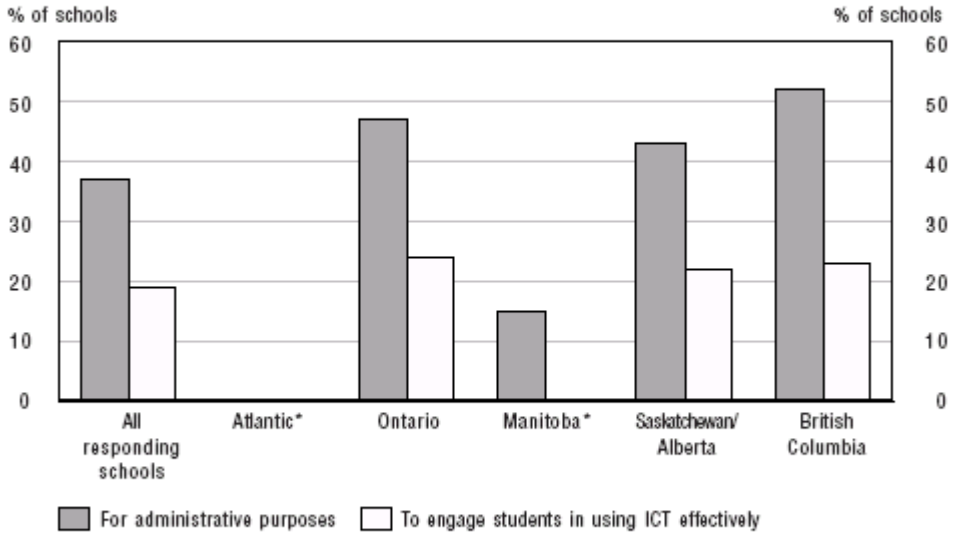
[99] FNEC (2003). *First Nations SchoolNet: Report on the Comprehensive Study of Schools' Needs.* First Nations Education Council, April.

[100] Statistics Canada (2005) *Connectivity and ICT Integration in First Nations Schools: Results from the Information and Communications Technologies in Schools Survey, 2003/04.* Johanne Plante. Culture, Tourism and the Centre for Education Statistics, Statistics Canada. Ottawa: Ministry of Industry 2005.

The need for teacher training to successfully implement the use of technology in the school curriculum is supported in both studies. The 2003 StatsCan Study reported that slightly less than a fifth (19%) of principals who returned their questionnaires felt that most of their teachers were adequately prepared to effectively engage students in using ICT, ranging from 22% in Saskatchewan/Alberta to 24% in Ontario. This compares to just under half (47%) of the teachers in the mainstream rural elementary and secondary schools across Canada. The regional distribution of the results is shown in the following chart is taken from the report[101]:

Figure 7

**Percentage of responding First Nations schools with more than 75% of teachers possessing ICT skills by RMO, 2003/04**




* Estimates suppressed to meet confidentiality requirements of the *Statistics Act*.

*Source: Information and Communications Technologies in Schools Survey 2003/04, Centre for Education Statistics, Statistics Canada.*

The StatsCan study presents a number of other findings with regards to ICT and First Nations schools. [102] According to this study:

- With regards to connectivity, 91% of responding First Nations schools used “broadband technologies” to access the Internet, with satellite

[101] Statistics Canada (2005) *Connectivity and ICT Integration in First Nations Schools: Results from the Information and Communications Technologies in Schools Survey, 2003/04.* Johanne Plante. Culture, Tourism and the Centre for Education Statistics, Statistics Canada. Ottawa: Ministry of Industry 2005

[102] Ibid

connection being the most popular method for more than half the of the responding First Nations schools in 2003/2004;

- While many are using broadband connections to access the Internet, 20% of responding First Nations schools are still using dial-up to access these technologies (p.29). This is directly related to broadband not being as available in smaller or more geographically remote communities.
- The largest concerns amongst surveyed principals were related to costs. ICT management has become more complex, putting increased pressure on school administrators to adjust their budgets to maintain their ICT infrastructures. About three quarters of principals reported that getting sufficient funding for technology was an extensive challenge to the use of ICT in their school.
- Related to this, "having enough training opportunities for teachers", "obtaining sufficient number of copies and licenses for instructional software" and "ensuring that computers and peripherals are up to date" also placed high among the challenges and all relate to costs (p.29).
- Only (14%) of principals reported having a technology plan for ICT acquisition, upgrading and replacement of hardware and software. The proportion of responding First Nations schools with such a plan fell well below the proportion (62%) reported by the other rural elementary and secondary schools across Canada.
- Despite these perceived and real financial challenges, about 95% of the principals recognize the importance of ICT integration and feel it is worth the investment and also feel that ICT enables the curriculum to be more challenging and enriching and permits students to go beyond the prescribed curriculum, facilitating and increased knowledge.

The FNEC Report[103] in Quebec had similar issues but strongly emphasized the following recommendations:

- "Budgetary constraints in many communities are making ICT advancements in schools, difficult. Thus (increased) funding would permit these schools to obtain hardware, educational software, and training for teachers" (p.44).
- To increase and sustain ICT funding for technology maintenance. Funding for technical services is needed in all communities.
- Increase funding to increase the scope and depth of teacher training as it relates to pedagogy in the classroom.

[103] FNEC (2003). *First Nations SchoolNet: Report On The Comprehensive Study of Schools' Needs.* First Nations Education Council, April.

The report also cited that it is crucial that Internet access as well as high-speed connectivity is made available to First Nations communities. The costs for connectivity vary with the type of access used. Most T1 lines average about $1500 per year as some provinces subsidize the cost of these lines.

Connectivity costs taken from the 2003 FNEC Quebec Study, although dated, are shown in the following chart:[104]

| No of Schools | Type of Connection | ISP Server | Monthly ISP Costs | Per School Yearly Costs | Total Costs # schools |
|---|---|---|---|---|---|
| 6 | Dial-up | Globetrotter, Sympatico | $18.00 to $35.00 | $216 - $420 | $1,296 - $2,520 |
| 7 | DirecPC | DirecWay, MIT, Kitigan Zibi, Globetrotter, Telus/Direc, PC | $20.00 | $240 | $1,680 |
| 3 | Cable | Tel Distribution, Cogeco | $210.00 | $2,520 | $7,560 |
| 2 | ISDN | Bell, Lino | $300.00 | $3,600 | $7,200 |
| 6 | A(DSL) | Telebec, Internet, Telus, Globetrotter, Cablo, Distribution | $245 - $600 | $2,940 - $7,200 | $17,640 - $43,200 |
| 2 | U Satellite | RAM TB | Not indicated | - | - |
| 1 | Local Community Network | Local | $215.40 a year | $215.40 | $215.40 |
| 2 | Satellite Bi-Directional | Tel sat. | Pilot project with SchoolNet | - | - |
| 1 | Satellite | Nearby Village has technology | $7,560.00 | $7,560 | $7,560 |
| 1 | No connection | N/A | N/A | - | - |
| **Based on 31 schools responding** | | | **Total Costs Using Maximum Range** | | **$69,935.** |

First Nations SchoolNet in BC, FNESC, provided the following table which also shows its annual costs for connectivity:[105]

[104] FNEC (2003). *First Nations SchoolNet: Report on the Comprehensive Study of Schools' Needs.* First Nations Education Council, April 2003.
[105] FNESC (2005). Table developed by Phillip Djwa, First Nations SchoolNet, BC.

| Table: Average Connectivity at school (BC SchoolNet) | | | | |
|---|---|---|---|---|
| **# of Schools** | **Type of Connectivity** | **Infrastructure $ (one time)** | **Access $ Monthly** | **Access $ Yearly** |
| 5 | T1 | 2000 | $1,750 | $21,000 |
| 38 | Cable /DSL | 100 | $60 | $720 |
| 12 | Dialup | 0 | $20 | $240 |
| 53 | Satellite | 1500 | $190 | $2,280 |
| 19 | Other | 3800 | $1000 | $12,000 |
| **127** | | **$5,400** | **$3,020** | **$36,240** |

The following two snapshots are provided to give some examples from the literature of the innovative application of technology for educational delivery among First Nations communities:

**Snapshot - Keewaytinook Internet High School** [106]

Keewaytinook Internet High School (KiHS) was established as a pilot project funded by Keewaytinook Okimakanak (KO) in 1999 in 5 grade eight classrooms within the KO council in Northern Ontario. In 2002, the program expanded to 13 First Nation communities in the northern Ontario region. KiHS offers a full grade 9 and 10 program. KiHS now offers a limited number of grade 11 and grade 12 courses.

KiHS is an Internet educational delivery program where students earn credits by working online. It means that students do not have to leave their communities after grade 8. KiHS is inspected by the Ministry of Education of Ontario and has been given the permission to grant provincially approved credits. The funding has been through the federal government with the primary source being Indian and Northern Affairs. Industry Canada has also contributed greatly in terms of technical infrastructure development, facilities as well as ICT hardware and software in the partner communities.

Each community has an accredited teacher present and a classroom where students attend each day from 9:00 AM to 4:00 PM. Students are required to attend the classroom to meet credit requirements. The teacher in the community tutors and mentors the students in all subject areas as well as instructs 2 online courses to students in all communities.

[106] For further information please see Keewaytinook Internet High School at http://kihs.knet.ca.

The main struggles with the program center on funding issues, which prevent the program from fully achieving its goals in relation to: Staff retention and recruitment, Professional development, Infrastructure, Community support, Special programs, Curriculum development, Technical support and upgrades.

The cost of the KiHS program in relation to other secondary programs that offer specialized delivery in our region is lower. Presently INAC is funding KiHS at a rate of $9400 per student, which enables First Nation students in our region to remain in their home communities. This revenue takes care of the salaries and transportation of teaching and support staff as well as administration. There are very little resources left to focus on goals relating to the above list of program requirements. When a student leaves their community to attend a residential type school or a public school the total funding is much higher. Program and service providers receive up to approximately $17 000 per student to attend schools outside their community.

KIHS – Annual Costs

| | |
|---|---|
| Salaries | $965,000 |
| Infrastructure | $278,000 |
| Service/Travel | $100,000 |
| Total | $1,343,000 |

**Snapshot: G-8 Program**

Another snapshot of technology-based education program delivery is the G8 Program. This program currently serves hundreds of students from 30 remote and rural First Nation communities stretching from the Hudson Bay to Lake Ontario. The G8 Supplementary Courses Program ("G8 Program") was created to help prepare First Nation students for the demands of high school. This program was introduced as a pilot project in April 2003 in eight remote First Nations communities across northwestern Ontario. Since its successful pilot, the number of participating communities continues to grow each year.

The program aims to address the difficulty that many First Nations students experience in making the transition from elementary school to high school. The G8 Program is an online resource designed to accompany (not replace) regular classroom instruction. Each year, the G8 Program offers three courses over three consecutive terms. Prior to each course, every First Nation elementary school in Ontario is invited to participate without cost.

The courses are delivered via a secure online platform that was adapted to showcase First Nations communities across Ontario. At the core of this platform

is a profile-driven directory that contains an introduction, a list of hobbies and a picture of all participants. This goes a long way to create an online *community*, rather than just a long list of names and locations. Students are asked to log in three times per week (the local teacher determines the actual day and hour). During this time, students review lessons and complete assignments. The flexibility of the G8 Program allows teachers to make the program fit their local schedule.

The course content is geared explicitly for First Nations students. Lessons often use subjects, places and situations that promote or reflect First Nations topics and environments. Courses also highlight the grade 8 topics that have a direct connection to the grade 9 curriculum.

Funding for the G8 Program is provided by the First Nation SchoolNet program, which is scheduled to end in March 2006. Currently, there is no funding for this program beyond this date.

The annual cost of the G8 Program is as follows:

- $60,000 – Full-time coordinator
- $25,000 – Part-time marker and curriculum writer
- $10,000 – Headphones and resources


Similar programs to these two snapshots are being operated across the country by First Nations Organizations or through First Nations SchoolNet. Some of these programs include the Headwaters new Grade 10 program in Northern Saskatchewan; the Wahsa Distance Education Centre in Northern Ontario with

upwards of 260 students graduating with Ontario Ministry Diplomas; the Cree School Board bridging program with Heritage College. There are other delivery applications using videoconferencing such as the calendar of workshops for teachers presently being given by the FNEC in Quebec.

McCullen & Rohrbach[107] in their review of distance education programs refer to a study by Gruber & Coldevin[108] which examined the need for properly trained Inuit people to manage the new territory of Nunavut. The study investigated the high cost and vast distances involved in education delivery in Canada's north and compared the cost of moving students to urban centers to complete their studies versus the incorporation of distance education.

Due to the high cost of travel and other expenses, the research found that the cost of distance education methods for students in Nunavut was comparable to and, in fact, was less expensive than the alternative. In addition to the cost savings and the benefits of having the training delivered on-site and allowing the student to remain part of the community, in the Nunavut example, the distance education model allowed more money to be spent on instructional material and translation.

It is important to recognize the benefits of distance learning and realize that by supporting distance education in the short term, remote First Nations communities will be better off socially and financially over the long term with the students remaining in their communities.

## 3.4 Examples of First Nations Schools

**1. Increasing Availability of Computers and Connectivity for Schools**

For this example, we were looking at the spending associated with increasing the number of computers in the school, or creating a computer lab, and upgrading the connectivity to the internet for these computers. The average spending for those examples we reviewed were as follows:

[107] McCullen & Rohrbach (2003). *Distance Education in Remote Aboriginal Communities: Barriers, Learning Styles and Best Practices*. College of New Caledonia Press, Prince George, British Columbia, 2003.

[108] Gruber, S. & Coldevin, G. (1994). *Management training at a distance for Inuit Administrators. The Atii Pilot Project*. Journal of Distance Education. IX(2), 21-34.

| Increasing Availability of Computers | Average Costs | Percent |
|---|---|---|
| Computers | $37,500 | 57% |
| Peripheral | $5,000 | 8% |
| Software purchase | $5,000 | 8% |
| Annual Fees | $1,800 | 3% |
| Service Contracts | $9,333 | 14% |
| Other: | $7,000 | 11% |
| Total Costs | $65,633 | 100% |

## 2. Applying Computer Technology in the Classroom

The examples we reviewed included spending associated with the implementation of technology in the classroom, such as the use of internet research, and Smartboard technology. The average costs are summarized in the table below:

| Applying Technology in Classroom | Average Costs | Percent |
|---|---|---|
| Salary/Benefits | $22,000 | 66% |
| Technician | $6,500 | 20% |
| Software | $3,833 | 12% |
| Contracts | $0 | 0% |
| Administration | $1,000 | 3% |
| Total Costs | $33,333 | 100% |

The respondents stated that the use of the computer in the classrooms included such activities as using the Internet for science and social studies research, use of computer-based remediation programs, word processing and desktop publishing.

## 3. The Use of Computers for Education Program Delivery

The examples that we reviewed pertained to the spending for the use of ICT to deliver educational programming. Examples of using ICT for program delivery could be using a videoconference for training, using the internet to deliver a course or program, developing an interactive website, etc.

| Use of Computers for Program Delivery | Average Costs | Percent |
|---|---|---|
| Equipment | $20,000 | 15% |
| Salary Benefits | $69,800 | 52% |
| Training | $0 | 0% |
| Travel | $5,000 | 4% |
| Programming | $40,000 | 30% |
| Total Costs | $134,800 | 100% |

**Summary of the Anecdotal Feedback**

Most of the feedback from respondents was consistent with the issues identified in the literature review. The three most consistent themes were:

1. The priority placed on ICT and its importance as an essential skill;
2. Need for funding to cover the annual costs related to infrastructure, maintenance, training, and technical services;
3. The ability of instructors to effectively use technology in the labs and in the classroom.

The comments provided were:

- SchoolNet has been helped us access broadband
- SchoolNet finishes at the end of the year, and we won't be able to afford the $2000/month charges
- We have to access all types of initiative funding to be able to provide quality tech programs
- Funders need to look at actual costs and fund accordingly
- Overall funding is inadequate
- We have state of the art computers
- Some of our computers were donated
- We have at least one computer in every classroom
- Because of the large numbers of computers we employ one full time technician
- We have two full time computer instructors, whose sole responsibility is to teach computer classes
- Our computer lab is used by our Adult Education program
- Classroom use is for research, WP assignments, internet
- Computer lab instruction includes keyboarding, e-mail, internet, research, web page development

- We use computers for our remedial programs, it helps with the repetition.
- We use classroom teachers to teach computers and some don't feel they have the level of skill needed to teach computers
- One respondent mentioned that technical support is difficult to come by in a remote community and it is a volunteer, her husband, who provides all the tech support, free of charge.

### 3.5 Summary of Findings

Each school is provided with funding for start-up costs. Nevertheless, the replacement costs, and/or upgrading of ICT are not provided and must be taken out of the school budget in most cases. This is an area of concern among the schools that we reviewed, and is mentioned as a concern expressed in the StatsCan and FNEC reports.

From the results of the sampling, we can summarize the total average spending for a school by level for technology:

| | Infrastructure | Application | Educ Delivery | Total |
|---|---|---|---|---|
| Preschool | $7,413 | $1,879 | $15,336 | $25,172 |
| Elementary | $27,532 | $13,153 | $51,902 | $93,835 |
| Middle | $5,263 | | 0 | $5,263 |
| Secondary | $43,350 | $2,400 | $70,125 | $115,600 |
| Total Cost | $83,558 | $17,432 | $137,362 | $239,869 |

From the examples that we reviewed, the annual infrastructure costs break down to:

| Average Annual Costs for Infrastructure | | |
|---|---|---|
| Computers | $37,500 | 64% |
| Equipment | $5,000 | 9% |
| Software purchase | $5,000 | 9% |
| Annual Fees | $1,800 | 3% |
| Service Contracts | $9,333 | 16% |
| Total of the averaged | $58,633 | 100% |

A detailed overview of the start-up costs for small, medium and large size schools in BC is provided by FNESC at the end of this chapter. The total costs

provided for computers, installation, basic ICT hardware, and connectivity ranges from $17,390 for a small BC First Nations school (less than 40 students), $44,650 for a medium size school, and $103,636 for a large school (over 100 students).

The type of ISP connection available dictates the cost of connectivity rather than the geographic location. There are some First Nations communities that are not isolated but that have difficulties connecting because of a lack appropriate infrastructure and services to the community. However, the costs for remote and isolated communities are much greater when it comes to the shipping and delivery of equipment, and the purchasing of technical services.

Over the past 3 years Industry Canada has been able to lever over $40 million for the First Nation SchoolNet program from within their IHAB programs. By the end of this fiscal year it looks like nearly 50% of the First Nation schools across Canada will have access to a broadband connection (minimum of 1.5M capacity with video conferencing capabilities). Schools have relied heavily on the Connecting Canadians and the First Nations SchoolNet initiatives to be able to afford these infrastructures.

With the SchoolNet set to finish at the end of March 2006, there will have to be some kind of follow up initiative to ensure First Nations communities continue to be able to access broadband capabilities. Broadband is also being used extensively for videoconferencing for the delivery of educational programs, workshops and professional development, and together with internet access, this technology and support is absolutely critical for program delivery in remote or isolated communities.

Many First Nations communities are concerned about the annual costs related to maintaining the infrastructure and connectivity. These costs include equipment replacement and maintenance. The salary for a technician starts at $85/hour and generally a minimum of 100 hours of upkeep are required per year, provided that are no major system failures.

As the literature review suggests, the overwhelming majority of the school administrators feel that ICT is of paramount importance to the skill development of their students and that it is worth the investment, but there is financial pressure when there isn't an adequate level of funding to support quality ICT. Because ICT is such a high priority, the cost of providing adequate funding may be at the expense of other necessary, but lower priority programming.

### 3.6 Considerations

Judging by the number of schools (97%) who have ICT infrastructure, it would seem that a concerted effort has been made to connect First Nations communities to the information highway. Schools have made it a priority to provide quality ICT infrastructure and programming to ensure that First Nations students develop the same competencies, and have access to programs they may not otherwise have access to. The next step is to provide the necessary training and development to integrate technology into the curriculum to enhance the educational opportunities of First Nations learners, and to promote effective and efficient learning for First Nations students.

From the literature review, survey results, and anecdotal feedback, we can begin to identify the following issues:

- SchoolNet has been an important initiative in assisting First Nations communities and schools in connecting to the Internet, but it is set to end in March of 2006.
- Most First Nations school administrators agree that ICT is a priority and worth the investment, but there needs to be more consistent funding levels that meets the unique ICT needs of First Nations communities, especially those in isolated and remote areas, or in areas with difficulties in connectivity.
- Some schools “get by” using volunteer assistance or donated computers because their budget won’t allow for the expenditure.
- Teachers need to have more training in the effective use of ICT in the classroom.
- There is a need for technical support such as the services of a technician for each First Nations School.
- In order to have quality ICT many turn to initiative funding that may not be there from year to year.

Based on these identified issues we suggest the following:

1. There should be continued on-going funding for the First Nations SchoolNet program.

2. ICT funding should be a priority for First Nations schools, and there should be regional initiatives towards promoting innovations in First Nations school technology.

3. We believe that the funding should be based on a flexible transfer arrangement so that equipment purchases can be staggered, and repairs can be managed when necessary. The flexible funding would allow the schools to develop ICT plans.

4. The provision of adequate funding for quality ICT programming should be based on the unique ICT funding needs of each First Nations community in regards to differences in connectivity and training.

5. We would suggest establishing a base line ICT funding based on school size and then adding on incremental funding based on various factors that influence expenditures such as school/grade configuration, remoteness and indexation.
   The base line school funding should include the following elements before adjustments are made:
   - Infrastructure costs
     - Small Schools $25,000
     - Medium Schools $50,000
     - Large Schools $100,000
   - Annual allocation for replacement and depreciation costs for infrastructure based on estimated amortization over 5 years.
   - Annual Connectivity costs depending on availability:
     - Dialup $300 average annually
     - T1 - $21,000 annually
     - Cable/DSL - $3500 average annually
     - Satellite - $3,300 average annually
     - Other types - $12,000 annually
   - Annual salary/benefits for technician/teacher of $65,000 per school with indexation (salary allocation adjusted upwards for larger schools with a K-12 configuration)
   - Annual allocation of 1% of teaching staff salary for local training/upgrading in educational applications and computer technology
   - Annual software upgrade and licensing allowance of at least $7,500 per school to include upgrading virus software.
   - Base annual allocation per school of $9,000 for Service Contracts for technical services, with

additional dollars to cover the travel costs for the technician especially for remote or special access communities.

6. We would suggest that funding be established that would promote teacher training and effective ICT usage in First Nations communities.

7. We believe that with the priority placed in ICT Technology, there should be support and adequate resourcing for innovative and successful access and distance education programs for remote and isolated communities. The funding frameworks should address their needs for teacher retention and staffing, curriculum development, professional development, program delivery, etc.

| **Unique Cost Drivers Schools (BC SchoolNet – FNESC)** | | **PER SCHOOL** | | | | | |
|---|---|---|---|---|---|---|---|
| | | **Small** 1-40 Students | Cost | **Medium** 40-100 Students | Cost | **Large** 100+ Students | Cost |
| **TOTAL SCHOOLS** | **138 schools** | 85 | | 36 | | 17 | |
| **Startup Costs** | **Unit costs** | Units | | | | | |
| Computer (P4, 80GBHD, 512MB RAM, keyboard, LCD) | $1,350.00 | 5.33 | $ 7,200 | 21.33 | $28,800 | 53.33 | $72,000.00 |
| Server | $2,600.00 | 1 | $ 2,600 | 1 | $ 2,600 | 2 | $ 5,200.00 |
| **Number of Labs** | | 1 | | 2 | | 4 | |
| **Student Lab Install** | | | | | | | |
| Server - 5 hours | $250.00 | 1 | 250 | 2 | $ 500 | 4 | 1,000.00 |
| Client machines - 30 hours | $1,500.00 | 1 | $ 1,500 | 2 | $ 3,000 | 4 | $ 6,000.00 |
| Cabling | $2,000.00 | 1 | $ 2,000 | 2 | 4,000 | 4 | $ 8,000.00 |
| | | | $ - | | $ - | | $ - |
| **ICT Essentials** | | | $ - | | $ - | | $ - |
| Printer | $ 350.00 | 1 | 350 | 3 | 1,050 | 4 | $ 1,400.00 |
| Router | $ 50.00 | 1 | 50 | 2 | 100 | 4 | $ 200.00 |
| Video Projector ( XGA 1700 Lumens) | $1,650.00 | 1 | $ 1,650 | 1 | 1,650 | 2 | $ 3,300.00 |
| Switch | $ 50.00 | 1 | $ 50 | 3 | $ 150 | 6 | $ 300.00 |
| **Software** | | | | | | | |
| MS Office | $ 3.50 | 5.33 | $ 19 | 21.33 | $ 75 | 53.33 | $ 186.67 |
| Virus Protection | 69.00 | 5.33 | $ 368 | 21.33 | 1,472 | 53.33 | 3,680.00 |
| | | | $ - | | $ - | | $ - |
| **Connectivity - based on our average numbers** | | | $ - | | $ - | | $ - |
| Average Cost - from Assumptions | | 1,253.65 | $ 1,254 | 1,053.48 | $ 1,053 | 2,069.72 | $ 2,069.72 |
| Delivery/Shipping | $ 100.00 | 1 | $ 100 | 2 | 200 | 3 | $ 300.00 |
| TOTAL | | | $17,390 | | 44,650 | | 103,636 |

# *4.0 Programming Diversity*

## 4.1 Introduction

In Canada, education is a provincial jurisdiction. As such, each province establishes its own system of education from preschool through university. Each level of education has its own educational outcomes packaged into exit profiles. Depending on the path the student is following, there are different course options for the student to pursue to complete the appropriate exit profile.

Because not all learners are the same, and the exit profiles do not all have the same requirements, most of the provinces provide different levels of the core curriculum courses in maths, science, and languages in addition to choices for program options. Most provinces stream the students through two main pathways, a classic education leading to postsecondary; and, an occupational option leading to either a basic skills certification or a vocational diploma. Schools or districts may add in local requirements such as a cultural component for ethnic minorities, or ESL, FSL or literacy options. School boards may develop particular vocational options in their secondary schools to meet the needs of local industry.

All of these differences are created in an effort to achieve the educational goals of all the levels of the educational system: the school, the local district, the region, and the province. This creates a lot of programming diversity in education across Canada.

## 4.2 Background

Indian Affairs maintains that the objective of the Elementary-Secondary Education Program is to provide "eligible students living on reserve with elementary and secondary programs comparable to those required in provincial schools by the statutes, regulations or policies of the province in which the reserve is located."[109]

The Canada First Nations Funding Agreement (CFNFA) specifies that "the Council will ensure that registered Indian Students ordinarily resident on reserve or on lands belonging to Her Majesty in Right of Canada and other students for

[109] INAC (2005). First Nations Data Collection Profiles

whose education the Minister accepts funding responsibility have access to kindergarten, elementary and secondary level education programs and services comparable to programs and services required to be in public schools generally in the province/territory in which the service is being provided and ensure that the service is delivered to a standard sufficient to enable students to transfer within the school systems of the provinces without academic disadvantage."[110]

Nevertheless the worldview and educational goals of the province may not conform to those of the First Nations jurisdiction. A current textbook on multicultural education states "…in practice, the knowledge being disseminated is skewed toward perpetuating the worldview and interests of the dominant group in power. That is our institutions and educational system tend to propagate a worldview that is predominantly Eurocentric, Judeo-Christian, middle-class, white and male" (Gnosh, 2002, p. vii).

The Assembly of First Nations study *Tradition and Education: Towards a Vision of Our Future, Volume 1* states that: "First Nations maintain that mainstream education programs and curricula are largely irrelevant to the values, philosophies and needs of their people, families and communities. To obtain the best possible education for First Nations children, a comprehensive restructuring of education is needed. A new system must be designed to meet the needs of First Nations people, rather than forcing them into an alien system which does not meet their needs" (v. 1, 58).

The second volume of Tradition and Education[111] adds that: "The success of the school system depends on the quality of the curriculum. It should promote the contributions that First Nations have made within their own territories, to Canada and to the world. It should be value-based, contain a spiritual dimension, develop the cultural identity of the student and promote parental participation" (v. 2, 76).

First Nations educator, Marie Battiste writes: "Cognitive imperialism, also known as cultural racism, is the imposition of one worldview on a people who have an alternative worldview, with the implication that the imposed worldview is superior to the alternative worldview" (Battiste, 2000, p.193). First Nations students live

[110] INAC (2005) general text taken from the Canada First Nations Funding Agreement. Indian and Northern Affairs Canada, 2005.
[111] AFN (1988). *Tradition and Education: Towards A Vision of Our Future, Volume 1.* Ottawa: Assembly of First Nations, 1988.

this reality when they must answer a question one way for a Canadian History test, and another way for Native Studies.

The delivery of educational programs and services is diverse and often difficult. Based on DIAND's population estimates for 2003, there are 445,436 status Indians living on-reserve, with 285,139 off-reserve. As members of 52 nations or cultural groups, First Nations speak more than 50 languages. On-reserve status Indians live in 614 widespread communities, most of which are small and many of which are isolated. Only six percent of these 614 communities have more than 2,000 residents, and 61 percent have fewer than 500 residents.[112]

Size and funding levels determine the programs that can be given. Changes in provincial curriculum or new educational program initiatives leave First Nations schools without the resources to keep up with the provincial programs. First Nations schools are at a disadvantage especially at the secondary level. In Ontario, the secondary curriculum for Grades 11 & 12 requires that 4 destination-related course options be provided at each senior level for English, Maths, and Science & Technology. A First Nations secondary school would be hard-pressed to be able to provide these options even with creative scheduling.

Unlike provincial schools, First Nations secondary schools are funded in the same manner as the elementary schools, without consideration of the need to provide streaming within the major core subjects, and additional options for certification. Most schools can only provide basic courses. In many cases, students have to spend a transitional year in a UCEP program to get the extra maths or science options that the community could not afford to give.

For similar reasons, First Nations students who graduate, without going on to postsecondary, do not have the skills to immediately enter the workforce, unlike many of their provincial counterparts. First Nations youth must seek funding from another federal department, and attend a provincial secondary school with vocational options, or a training center, thus delaying their entry into the workforce by another year or two.

The lack of resources to provide appropriate vocational and skills training leaves First Nations secondary schools with limited options to try and retain, and little maneuverability to work with, early school leavers and school dropouts. In a

[112] INAC (2003). Cited from *Indian and Northern Affairs Canada and Canadian Polar Commission Performance Report*, period ending March 31, 2003.

similar manner, the needs of exceptional students for academically challenged programs are also difficult to address.

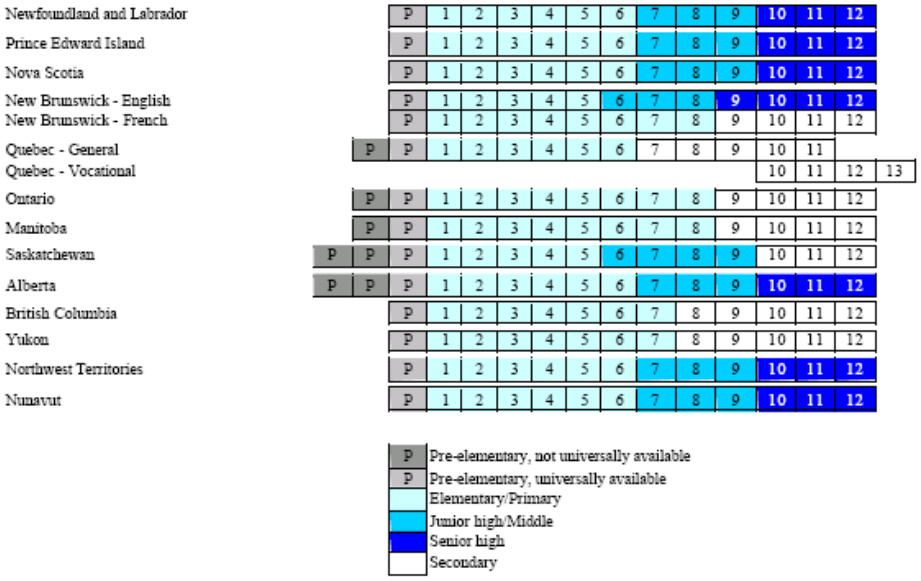
First Nations schools struggle regardless to keep up with the changes, and to provide students with a comparable program of study, while still providing local cultural programming. This chapter outlines the inherent difficulties and the burden of cost First Nations schools.

## 4.3 Literature and Research

The following table taken from the Council of Ministers of Education of Canada demonstrates the variation in the divisions of elementary and secondary education in the provincial public system in Canada.[113]

**Figure 1: Organization and Structure of Elementary and Secondary Schools**

**Levels within elementary-secondary schools, by jurisdiction**




*Source:* Statistics Canada and Council of Ministers of Education, Canada. Education Indicators in Canada: Report of the Pan-Canadian Education Indicators Program 2003 (Toronto, Ontario: Canadian Education Statistics Council, 2003), 172.

[113] CMEC (2005). *Education in Canada,* Council of Ministers of Education of Canada, revised July 2005. Viewed at www.cmec.ca

The provinces regularly evaluate outcomes, assess student achievement and learning and review their educational goals. Consequently, they adjust their curriculum objectives or create new initiatives to achieve higher educational outcomes. This increases the burden of First Nations schools that are required to provide comparable programming without any additional resources.

An example is the Educational Reform in Quebec, which has implemented wide-sweeping changes in the curriculum for elementary, and presently in secondary schools. This translates into extra subjects, extra time in specialist options such as Physical Education and the Arts, changes in class groupings, and infrastructure, and extensive in-service workshops. The First Nations schools in Quebec have not received any funding targeted to support these changes or the professional development of the First Nations teaching staff.

Other provincial initiatives include early intervention literacy programs and numeracy programs, such as shown in the chart on the following pages, which have been implemented across most of the provinces. This was based on research which indicates that as many as 20% of all primary children never become fluent readers, and remain hesitant readers right through school into adulthood. All students who learned to read in Kindergarten were found superior in reading skills and in all education indicators as seniors in High School (Hanson and Farrell, 1995). Regrettably, any First Nations child who does not acquire reading fluency in the primary grades is not likely to do so in later school years, and is destined to either leave school early, or leave with a lower form of certification.[114]

As well as early literacy initiatives, many provinces provide English Second Language (ESL) or French Second Language (FSL) programming for those students who do not have proficiency in the language of instruction. The need for second language programming also impacts on First Nations schools. The tradition of textbook driven learning in public school systems, and in most First Nations schools, does not take into account the First Nations student's proficiency in English.

In many First Nations homes, there are dialects of English that are an integral part of the child's personal identity. The teachers and the school program need to develop strategies to adjust teaching methods to meet the needs of individual

[114] FNEC BC School District 73 (1998) *Improving School Success for First Nations Students*, First Nations Education Study, School District No. 73 Kamloops/Thompson, B.C., 1998.

children[115]. Such interventions would include providing the teaching of English as a Second Language programming, using an ESL approach to the curriculum and the use of culturally relevant materials (McEachern 1990).

There is a range of provincial programming that is used to address specific socio-economic needs in the student population. There are considerations here for First Nations communities such as population mobility, traditional hunting, trapping and fishing communities, higher ratio of single parent families, as well as negative attitudes towards education and a lack of parenting skills as a result of the legacy of residential schooling. First Nations schools try to develop programs that address issues that have a direct and significant impact on school readiness and the physical and emotional health of a large proportion of First Nations students.

As well as comparable programming, most First Nations Schools endeavor to provide culturally appropriate programming. Jon Reyhner (1991) for the USA Indian Nations at Risk Task Force affirmed that traditional 'native orientation' to programming is not a handicap in regard to school success. Schools need to provide both the closeness and the culturally appropriate curriculum that 'Native at risk' students need to succeed. Education systems must teach the people's own histories, ways of knowing and learning, languages, literature, arts and sciences (Hart 2002). To do so increases the diversity of programming that a First Nations school must provide.

The Auditor General of Canada in the 2000 Report[116] on Elementary and Secondary Education stated that "the Department will need to further take into account the cultural and special needs of Indian students as well as socio-economic factors that can affect success in education." Breaker & Kawaguchi (2002) in their report[117] to the Minister's Working Group on Education recommended that a commitment to the concept of "equity of access" to educational services in First Nation communities must be a key principle in a renewed approach to First Nation education.

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[115] Brown, Gerald L. (1991) *Reading and Language Arts Curricula in Elementary and Secondary Education for American Indians and Alaska Natives*, Indian Nations at Risk Task Force, Washington, D.C.

[116]OAGC (2000). *Indian and Northern Affairs Canada: Elementary and Secondary Education*. Report of the Auditor General of Canada, Ottawa, April 2000. (Page 4-5)

[117] Breaker & Kawaguchi (2002). *Infrastructure and Funding in First Nations Education. A Literature Review and Summary Recommendations.* The Minister of Indian Affairs and Northern Development Canada. Education Renewal Initiative. December, 2002

**Table: An Overview of Different Provincial Educational Program Initiatives**

| | Literacy Initiatives | School Success | ESL/FSL FN Language | Technology | Healthy & Safe Schools | School Readiness | Career/ Vocational | Curriculum Changes |
|---|---|---|---|---|---|---|---|---|
| **BC** | ▪ K5 - Grd 1 Literacy ($0.74M)<br>▪ Literacy Innovations & Reading Campaign ($5M) | ▪ Targeted funding for improving school success for FN Students ($45M) | ▪ ESL based on $1,100/ student ($1M)<br>▪ FSL grants based on $1,100/ student ($70M) | | ▪ Action Schools! BC ($14.5M)<br>▪ Health Promotion ($1M)<br>▪ Development of Framework for 2 above ($.02M) | ▪ K5 Readiness ($3M) | ▪ Cooperative Educ ($1.5M)<br>▪ Secondary Sch Apprenticeship & Career Tech Centers ($32M)<br>▪ ACE It partnerships $2000/student | |
| **AB** | ▪ Literacy programs included in the School Improve-ment Projects<br>▪ FN literacy programs ($0.46M) | ▪ Outreach Program for At Risk ($6.3M)<br>▪ School Improvement Projects include literacy, maths, class size and stay in school ($70M)<br>▪ FNMI Policy Funding for FN Students in prov. schools ($35M)<br>▪ $3.4M to increase no. of First Nations teachers and | ▪ ESL provides $1,040 per student<br>▪ First Nations language and native studies in secondary ($1.75M) | ▪ Classroom Learning Technologies ($1.2M) | ▪ New Wellness Program for physical activity ($40.5M) | | ▪ Pilot Youth Apprenticeship Project ($4M)<br>▪ Transitions Education | ▪ Implement New Social Studies Program Grades 1 – 3<br>▪ New textbooks & resources for new social studies program ($12.8M) |

| | Literacy Initiatives | School Success | ESL/FSL FN Language | Technology | Healthy & Safe Schools | School Readiness | Career/ Vocational | Curriculum Changes |
|---|---|---|---|---|---|---|---|---|
| | | staff in prov schools, and professional development. | | | | | | |
| **SK** | | ▪ Kids First Preschool Support Prog & Preschool Readiness Prog ($48,346/ prog + startup $) ($10M) | | | ▪ Anti-bullying Strategy ($0.25M over 3 yrs)<br>▪ Health Education and Life Transitions Program | | ▪ Evergreen Curriculum for Grades 10-12 includes Practical and Applied Arts (Vocational Programming) | |
| **MB** | ▪ Early Literacy Program ($0.2M) | ▪ Early Numeracy Program: $15/student<br>▪ Early Behavior Intervention Program: $22/eligible student Program | | ▪ Senior Years Technology Program for Voc/Business & Marketing: $165/student per category I credit and $55/student per Category II credit and $5,500 per approved program ($6.2M) | ▪ Healthy Schools Curriculum | | ▪ Tech-Voc Educ 3-yr. Renewal Initiative ($4.5M) | |
| **ON** | ▪ Literacy Initiatives K-8 Schools ($200M) | ▪ Every Child Program to reduce school ratios K4-3, teacher | ▪ FN Language Courses ($0.43M) | | | | | ▪ Revised Mathematics Program 1-8<br>▪ Revised Canadian & |

| | Literacy Initiatives | School Success | ESL/FSL FN Language | Technology | Healthy & Safe Schools | School Readiness | Career/ Vocational | Curriculum Changes |
|---|---|---|---|---|---|---|---|---|
| | | training in literacy & numeracy, specialists, funding innovations for reading, maths & writing, principal training, etc, ($8.3 Billion) (4 yr. Plan) | | | | | | World Studies 9-10 |
| **QC** | | ▪ Homework Assistance Program ($20M)<br>▪ Paraprofessional Support services for students ($20M)<br>▪ Educational Success for First Nations Students ($1.5M) | | ▪ New workplace technology and work study courses at secondary (2007) | ▪ Measure 30250 to support Healthy Lifestyles Education and Sports in schools | | ▪ Vocational Education for Voc HSL Diploma or Attestation for Semi-Skilled Trades ($530.7M) | ▪ Ped Renewal 2005-2010:<br>▪ Elementary extra arts/gym/ languages (2006)<br>▪ New grad. requirements for science /maths & sec. 5 second language (2009)<br>▪ New grad. requirements for arts, phys educ & ethics /religion (2010) |

| | Literacy Initiatives | School Success | ESL/FSL FN Language | Technology | Healthy & Safe Schools | School Readiness | Career/ Vocational | Curriculum Changes |
|---|---|---|---|---|---|---|---|---|
| **NB** | ▪ Quality Learning Agenda:<br>▪ 125 reading specialists for k5 to grade 2 to encourage strong literacy skills<br>▪ 200 new teachers to reduce the PTR to 15.8<br>($15.3M additional for 2005-2006) | ▪ Additional per capita allocation for FN students ($1.2M) | | ▪ Quality technology enhance-ment fund ($1.8M) | | | | ▪ Atlantic Canada Essential Graduation Learnings and Common Core Curriculum Outcomes |
| **NS** | ▪ Literacy Success Strategy – Reading Recovery Program K5-1 (Sept 2005) as part of Learning for Life Program | ▪ Teacher Mentoring Program for Literacy and Math Support for Students ($3M)<br>▪ Learning for Life II: Brighter Futures Together | | | ▪ Youth Pathways and Transitions Program<br>▪ Safe and Healthy Learning Environment (anti-bullying and safety initiatives) | | | ▪ Atlantic Canada Essential Graduation Learnings and Common Core Curriculum Outcomes<br>▪ New curriculum and |

| | Literacy Initiatives | School Success | ESL/FSL FN Language | Technology | Healthy & Safe Schools | School Readiness | Career/ Vocational | Curriculum Changes |
|---|---|---|---|---|---|---|---|---|
| | | Initiative:<br>o Mathematics Strategy<br>o Reduce class sizes grades 1 & 2<br>o Increased Prof supports for special needs-language pathologists ($21.4M total) | | | | | | resources Health Education grades 4-6<br>▪ New Science program for grades K5-3<br>▪ New Preschool Program Pilot |
| **PEI** | | | | | | | ▪ Vocational options provided at High School Level – 8 courses required for certification in addition to regular language, maths, etc. | ▪ Atlantic Canada Essential Graduation Learnings and Common Core Curriculum Outcomes |
| **NF/ LB** | | ▪ Reducing class size at primary level (1-3) ($3.1M)<br>▪ Cultural Connections - fine arts and culture strategy for schools, | ▪ ESL and French Immersion Programs | | ▪ Safe and Caring Schools Action Plan | | ▪ Technology Education and Industrial Arts at High School level<br>▪ Career Education and Cooperative Educ | ▪ Atlantic Canada Essential Graduation Learnings and Common Core Curriculum Outcomes<br>▪ New learning |

| | Literacy Initiatives | School Success | ESL/FSL FN Language | Technology | Healthy & Safe Schools | School Readiness | Career/ Vocational | Curriculum Changes |
|---|---|---|---|---|---|---|---|---|
| | | includes 25 new teachers ($3M per year for 3 years) | | | | | | resources to support Curriculum ($2.5M) |
| **YK** | ▪ Reading Recovery* Program for grade 1 | ▪ Individual Learning Centre – second chance for high school dropouts to graduate | ▪ FN Language Instructors Training ($184,000) | | | | | |
| **NWT** | | ▪ Student Success Initiatives and Focus Schools under SSI<br>▪ Counseling and Healing Strategies ($10,000 per community + $60/FTE)<br>▪ Inclusive schooling and support programs | ▪ First Nations Languages and Cultural Programs K-12 ($6.34M)<br>▪ French language programs | | | | | |

**Note:**
**Reading Recovery ™** is being used across provinces for Early Literacy – this program targets bottom 20% of readers in grade 1 for intervention with this program.

## 4.4 Examples of First Nations School Costs

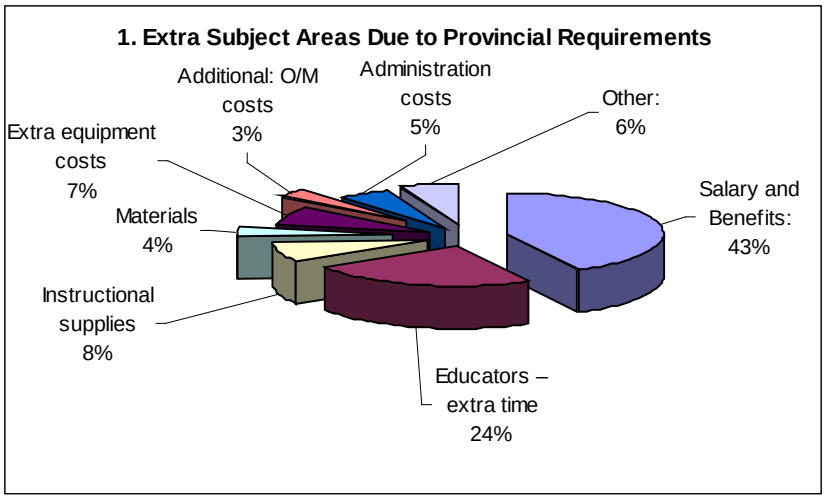
Surveys were sent out to First Nations schools to try and identify some examples of the spending involved in trying to deliver a range of programs that includes both local and comparable programming with the province. The discussion of the responses is grouped according the following areas:

**1. Extra Subject Areas Due to Comparable Provincial Requirements**

This question addressed the situation of a First Nations school where providing a comparable program of study to the province might imply additional subject areas, more frequency of the subject within the school timetable, or additional credit options for secondary.

A common strand in the responses was the need to provide extra periods of Physical Education. In addition, the surveys reported costs in addition to the core program related to the delivery of Computer Education, Information Technology, Native Language as Language Arts, Ojibway Language and Culture as a credit course, and Cree Second Language. One survey reported that they did not have the facilities to deliver Physical Education or Science relevant to the cultural needs of the students, so they depended on Field Trips to deliver both programs.

The main expenditure indicated in the surveys was for salary. The combined salary cost for additional teachers and educators amounted to 67% of the total expenditures, with another 19% for extra materials, supplies and equipment, and the balance of 14% related to overhead costs as shown in the following chart:



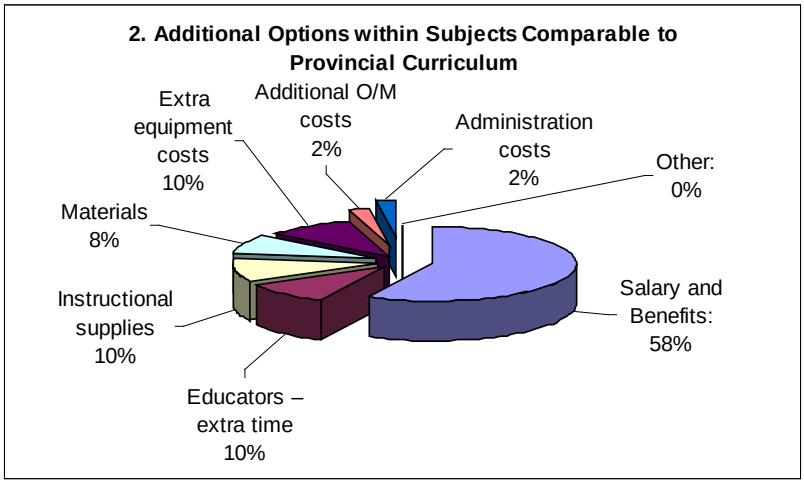
The average spending reported by school level is shown in the following table.

| Level | Cost/Level | Percentage |
|---|---|---|
| Preschool | $11,322 | 13% |
| Elementary | $35,164 | 40% |
| Middle School | $24,046 | 27% |
| High School | $18,265 | 21% |
| Total Costs | $88,798 | 100% |

**2. Additional Options within Subjects as comparable with Provincial Curriculum**

Additional options might include language options based on degree of fluency, prerequisites to course content, variations in degree of difficulty for maths or science, or transitional programs. Some fewer schools reported being able to provide additional programming options within the core subjects. Those alternatives reported on included Remedial Language Arts, Transitional Mathematics, and Objiway Language Arts. One school reported costs related to working with the Public School District to get licensing for PLATO (computer-assisted learning) to be able to deliver the provincial science curriculum. Another stated that they needed funding for a laboratory technician for their science programs, but they cannot afford the cost.

The breakdown of costs by expenditure for additional options includes 68% for salary costs for teachers and educators, and 28% for supplies, materials and equipment, and 4% for additional administration and overhead costs:



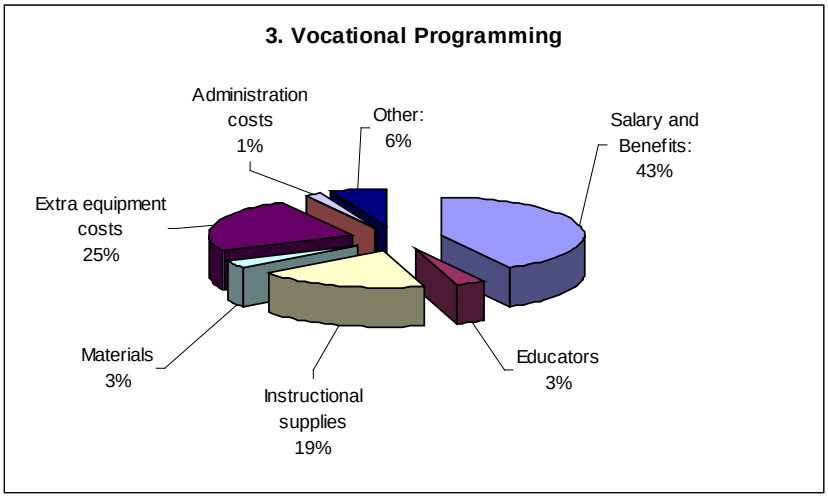
Extra options are mainly provided at the secondary level so the average spending per level for the surveys is presented for middle and high schools:

| Level | Cost/Level | Percentage |
|---|---|---|
| Preschool | $0 | 0% |
| Elementary | $0 | 0% |
| Middle School | $55,258 | 44% |
| High School | $71,484 | 56% |
| Total Costs | $126,742 | 100% |

**3. Vocational Programming as per Provincial Curriculum**

There were only 2 examples of vocational programming among those surveyed as most schools found the costs prohibitive. One program was Forestry, and the other was a semi-skilled program for the fabrication of wooden sleighs and toys. Both schools stated that their programs included life-skills, wilderness camping and locally adapted curriculum, but did not lead to Ministry certification; although, one community was trying to get their program certified to increase the employability of their graduates. There was a suggestion among those surveyed for the development of regional centers for vocational training for First Nations secondary students.

The average spending for the 2 secondary vocational programs was $128,650. The breakdown of expenditures indicated less being spent for salaries (46%) and a greater amount (47%) for materials, supplies and equipment than in the previous areas of programming:



**4. Extra Programming Due to Student Needs**

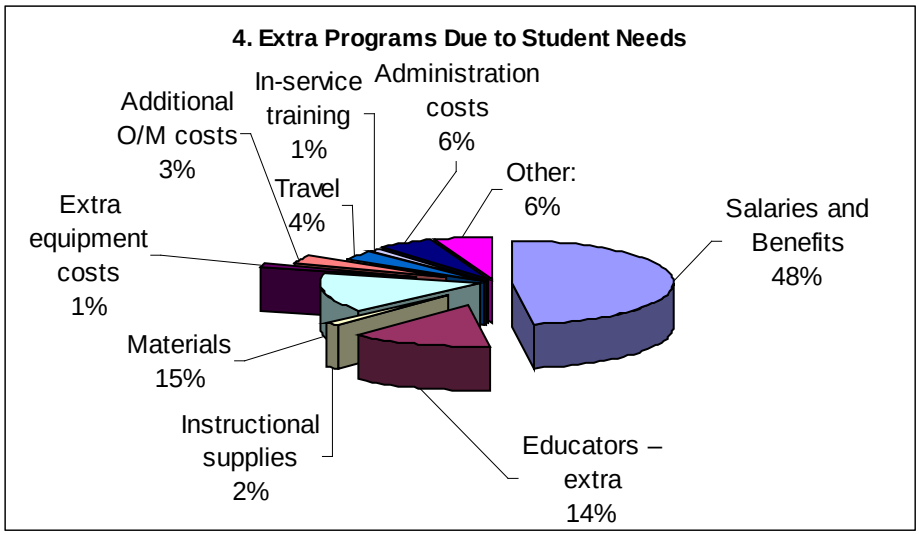
This type of extra school programming might include locally developed courses, cultural programs, and interventions to meet the specific learning needs of the students. All of the schools which we surveyed provided extra programming, and in general they included:

- Hot lunch, milk and nutrition programs,
- Upgrading and basic skills,
- Literacy skills at the end of elementary to increase language proficiency for the high school program,
- Language and Culture programs, and in some cases First Language as Language Arts
- Native Studies in secondary school.
- Native Arts and Crafts through all grade levels
- Outdoor School Cultural Programs such as on the Trap line or Cultural Camps.
- Preschool language immersion programs.
- Early Literacy and Numeracy programs.

One respondent stated that the school was continuously writing various proposals to seek additional grants to help with the costs of the added programming, and fund-raising is done annually by all of the elementary teachers. Another principal manages 12 different projects in an effort to bring in additional resources to provide community programming.

A related concern to extra programs raised by one of the respondents is the difficulty in providing staff lodging in remote/isolated communities. The INAC formula provides lodging for 1 teacher per 10-16 students. With the supplementary funding initiatives in special education, new paths and technology, the schools hire more staff, and these are not accounted for under the present formula. There is often not enough lodging to support all of these staffing needs. The formula for school staff lodging should be revised and the difficulty should also be addressed through infrastructure and capital.

The expenditures for local programs in the following chart indicate that schools are spending 62% on staff salaries, 18% for supplies, materials and equipment, 14% in overhead (which included 1% for in-service) and 6% for administration:




The average of spending reported by school level is shown in the following table.

| Level | Cost/Level | Percentage |
|---|---|---|
| Preschool | $11,322 | 13% |
| Elementary | $35,164 | 40% |
| Middle School | $24,046 | 27% |
| High School | $18,265 | 21% |
| Total Costs | $88,798 | 100% |

## 4.5 Summary of Findings

Provincial initiatives address the fact that early literacy intervention is needed for at least 20% of grade 1 students, and that students who do not learn to read fluently in the early years never will. Many First Nations students grapple with the difficulties of “dialectical English or French” which prevent them from properly grasping the language of instruction. The preceding chart shows that many provinces provide additional funding for ESL and FSL.

The literature supports that education systems must teach the people’s own histories, ways of knowing and learning, languages, literature, arts and sciences first and foremost (Hart 2002, p. 33). The survey examples show that First Nations schools endeavor to provide cultural programming in addition to comparative programs of study.

Many First Nations students who do not profile for postsecondary education are severely disadvantaged by the lack of vocational programs and skill training. They must spend additional years after graduation seeking skills training that could have been provided during their years in high school.

Each province/territory in Canada manages its own education system which varies from province to province. The provinces/territories implement curriculum innovations or additional educational projects to increase student achievement, or to modify educational outcomes or to address specific needs within their student populations. These initiatives enable provincial/territorial education systems to reach planned educational goals.

First Nations schools provide comparable programming to the provinces so that students can transfer from one jurisdiction to another without penalty. Therefore, First Nations schools must often provide additional programs, options or increase course frequency to remain comparable. Depending on the type of programming, remaining comparable means additional educational costs without the provision of additional resources.

Most schools also spend extra dollars for community programs as indicated in the examples we obtained. The common themes for community-based programming included nutrition programs, literacy and upgrading, and language and cultural programs.

The total average spending to provide a range of programming within the schools obtained from the examples we studied is:

| Teaching Level | Extra Subject/ Frequency | Additional Options | Vocational programs | Local Needs Programs | Totals Per Level |
|---|---|---|---|---|---|
| **Preschool** | $11,322 | N/A | N/A | $10,025 | $21,347 |
| **Elementary** | $35,164 | N/A | N/A | $52,613 | $87,777 |
| **Middle School** | $24,046 | $55,258 | N/A | $14,133 | $93,438 |
| **High School** | $18,265 | $71,484 | $128,650 | $26,098 | $244,497 |
| **Per K-12 School** | $88,798 | $126,742 | $128,650 | $102,868 | $447,058 |

First Nations cannot be expected to achieve the goals of two different educational systems with only the funding for one core program. If they must continue to provide comparable programming with the provinces, then they must be funded appropriately to provide the same quality programming. This is being

done across Canada in each province for minority francophone boards whether their schools are large or small.

## 4.6 Considerations

Based on the literature reviewed, and the examples of costs we were able to obtain from First Nations schools, we provide the following considerations as a starting point from which further evaluation, analysis and adjustments should be made:

1. For First Nations schools to provide comparable programming with the province, then certain program deliverables must be met. This implies equal access to educational opportunities. This can only happen through adequate resources.

   The amounts provided by the provinces under various program initiatives translate province wide into additional human resources, instructional materials and professional development above the core program needs. The same should be considered for First Nations schools that have to provide comparable programs of study.

   The examples of costs we took from First Nations schools implied that for the extra subject requirements such as additional periods of physical education, providing information technology, or giving First Nations language as a credit course required an average of $90,000 for a K-12 school or an average of at least 1 full teacher plus additional materials & equipment, and overhead.

2. Whether a First Nations school has 50 or 500 students, the program of study must be delivered. Therefore we would suggest that the use of base allocations be considered in formulating some aspects of a resource base. A base allocation if properly calculated would ensure that the basic service is delivered no matter the size of the school. The base allocation can be adjusted for size using an additional per capita allocation, and then indexed for location if appropriate to the type of service being delivered.

   This would be an important consideration for resourcing literacy initiatives where securing a teacher, and purchasing an established program license, materials and training would be the same need for each school,

with only size making a difference. It would be the same for other areas of programming such as a vocational course, or a language and culture program, and a school nutrition program. This approach is used often in provincial funding where a base allocation is provided, and then adjusted through a per capita allocation for school populations over a specific size.

Due to the importance of literacy, the necessitation of English Second Language and French Second Language approaches for "dialectical" students, and the need for upgrading programs at all levels, we would suggest that First Nations schools be provided with the opportunity to develop a local 5-year plan to address local literacy, second language and upgrading needs. The plan could be funded using a base allocation of $30,000 per school (using examples of costs from the surveys) and then adjusted for size using a per capita allocation.

3. Some provinces use a program of professional development for key or master teachers who will assist/mentor other teachers in providing literacy programs, and in using ESL or FSL approaches in teaching. This could be an effective approach for First Nations Schools. The program could be developed and implemented by a regional First Nations organization in conjunction with a postsecondary institution. We suggest that the financing could be established based on estimated costs from a needs assessment undertaken by the regional organization.

4. The First Nations youth population is rapidly growing at a faster rate than the Canadian population, and delivery of quality education and training will have an even greater impact in a few years. Recent statistics indicate that by 2017, the larger percentage of the work force in Manitoba will be First Nations.

   Therefore, we believe that it is absolutely necessary to conduct a study on the feasibility of putting in place regional vocational training centers for First Nations senior high school students that will provide provincial accreditation and licensing.

   In the meantime, so that First Nations can provide some comparative programming in this area for immediate needs, a level of funding should be considered for local vocational and semi-skills programming initiatives. A suggestion would be to look at the costs provided in the examples from

the surveys, with a basic allocation of $130,000 for each vocational class (with a minimum of 7 students, and a maximum of 15 students per class).

5. In addition to the suggestions made in Chapter 2 regarding Opportunities Funding for successful schools, we would suggest that any funding framework for First Nations schools include consideration for cross-curricular activities such as the arts, music, leisure sports, etc. as an important component of a successful and adequately funded school.

# *5.0 Pupil Teacher/Educator Ratios/Class Size and Composition*

## 5.1 Introduction

Research generally indicates that "student/educator ratio" and "teacher salaries" are the two primary cost drivers in public education in Canada. Researchers with the Ministry of Education of Ontario[118] (Lawton, Ryall and Menzies, 1996) used a linear regression of 1993/94 and 1994/95 provincial data on student/educator ratio and teacher salaries (including the costs of teacher pension plans) to indicate that these two factors were mainly responsible for 62% of the variation in inter-provincial costs.

There are differences in annual costs for each educational system whether provincial, territorial or First Nations. These cost differences are difficult to measure when there are choices made to employ better-educated, more experienced staff, or to reduce class size, or to hire more specialized staff, or they may choose to hire more expensive administrators (Fowler & Monk 2001). Provinces may choose to decrease class sizes or to hire specifically qualified teachers to assist in early literacy. Often it is the quality of these choices that make the difference in costs.

In addition to quality, there are other conditions of work that can affect the cost. The provincial or regional collective agreements which determine salary scales and working conditions can have an impact on cost. For example, in Quebec, because of the current negotiated collective agreement, the amount of instruction time for teachers is less than the students instruction time, so therefore more teachers must be hired, which reduces the pupil-teacher ratio, and increases the total costs for teacher salary accordingly.

## 5.2 Background and Literature

The pupil-teacher ratio is an indicator of the instructional relation between the number of students and teachers. This type of ratio is calculated by dividing the number of full-time students by the number of full-time teachers within a school, school district or educational system. This can be reported at the school, board or district level, or at the provincial level. The data for enrollments and staffing is

[118] METO (1996). *A Study on Costs.* Lawton, Dr. Stephen; Ryall, Dr. Mark; and Menzies, Dr. Teresa. Ministry of Education and Training Ontario, August 1996.

always expressed in full-time equivalents for this ratio; however, in some literature there is a reference to a headcount ratio that refers to the number of individuals rather than their equivalence to full-time presence.

The pupil-teacher ratio does not indicate the average number of students per class, but is used for the purposes of calculating the number of teachers to be hired, and for establishing budgets. The school timetable often provides for different groupings of classes for various subjects and pedagogical needs so the size of a class often fluctuates during the school day. If a teacher conducts a different number of classes than students generally take, then pupil-teacher ratios will differ from the average class size. The average class size is a better indicator of the overall class experience of most teachers and students than is the pupil-teacher ratio.

Although the pupil-teacher ratio (PTR) is established as the number of students per teacher, there is another hidden variable that determines the number of teachers. This would have an impact where the actual teaching time is less than the students' instruction time. This means that it will require more than 1 teacher to cover the instruction time of a group of students as the teaching time is less than the students' class time. Therefore, the pupil-teacher ratio is actually a composite indicator that is the result of three variables:

- The average number of students per class,
- The average teaching time of teachers,
- The average instruction time for students.

The table provides an overview of the Pupil Teacher Ratios (PTR) across Canada. For those provinces that report only a pupil-educator ratio, the pupil-teacher ratio was calculated as indicated in the notes. The reported averages in the table, unless otherwise indicated, cover all types of schools, and all grade levels from K5 to grade 12.

**Table: Current Provincial Pupil Teacher Ratios**

| Province/Territory | Average Pupil Teacher Ratio | Funded Variants Within the Province |
|---|---|---|
| BC | Average Ratio is 21.2 $^{\Psi}$ | Not known for rural schools |
| Alberta | Average Ratio is 21.9 to 1$^{\Psi}$ | Not known for rural schools |
| Saskatchewan | Average Ratio is 20.4 to 1 $^{\omega}$ | Fransaskoises schools ratio is 13 to 1 |
| Manitoba | Average Ratio is 18 to 1 $\pi$ | Francophone Division is 15.4 to 1<br>Frontier Schools Division is 15.6 to 1<br>Whiteshell S. R. District is 12.5 to 1<br>Pine Falls S. R. District is 12.6 to 1 |

| | | |
|---|---|---|
| Ontario | Average Ratio is 18.98 ψ<br>Elementary Ratio is 20.3 to 1ψ<br>Secondary Ratio is 16.8 to 1ψ | Not known for rural schools<br>Data on francophone schools not available |
| Quebec | Average Ratio is 15.7 to 1β<br>Average Ratio for Vocational Education is 10.3 to 1 | **Littoral School Board** has ratios of:<br>K4 is 12.18 to 1 (part-time classes)<br>K5 is 6.09 to 1<br>Elementary is 9.195 to 1<br>Secondary is 7.686 to 1<br>**Cree School Board** has ratios of:<br>K4 is 25.09 to 1 (half-day classes)<br>K5 is 12,545 to 1<br>Elementary is 10.98 to 1<br>Secondary is 8.86 to 1<br>**Kativik School Board** has ratios of:<br>K4 is 24.3995 to 1 (half-day classes)<br>K5 is 12.1997 to 1<br>Elementary is 12.7488 to 1<br>Secondary is 5.9408 to 1 |
| New Brunswick | Average Ratio is 19.13 to 1ψ | Ratio for Francophone Schools is 18.5τ |
| Nova Scotia | Average Ratio is 16.2 | Francophone Acadian Board is 12.9 ~ |
| PEI | Average Ratio is 19.3 to 1 and 14 to 1 for vocational ☼ | Not known for rural schools |
| Labrador/Newfoundland | Average Ratio is 13.6 to 1 ɘ | Francophone Conseil scolaire is 5.9 to 1 |
| Yukon | Average Ratio is 11.246μ | Some rural schools have ratios of 5.5, 7.0, 8.75 and so on for an average of 10.03 ϕ |
| NWT | Average Ratio is 15.5 to 1κ | Not known |
| **Canadian Average** | Expressed only in PER | - |
| USA | Average Ratio is 15.7 to 1β | Not known |

**Notes:**

ψ Calculated from total FTE enrolment divided by total number of FTE teachers 2004/2005

ω Saskatchewan Education Indicators 2004

π Reference Frame Budget Manitoba 2004/05

β Quebec Educators Indicators 2005 and Quebec: Indicateurs de gestion 2004

τ New Brunswick, Department of Policy and Planning, May 2005: Summary Statistics 2004-2005

~Nova Scotia is reported from Department of Education Statistical Summary 2002-2003

☼ Ministry of Education of PEI

ɘ Newfoundland/Labrador – Education Statistics Elementary & Secondary 2004-2005, Ministry of Education NFLB

μ Student Information and Assessment Human Resources Services, Yukon Department of Education, Whitehorse, Yukon.

ϕ Yukon Public Schools Annual Report 2003-2004

κ Reference letter from Charles Dent, Minister Educ., Culture and Employment, NWT.

Many of the provinces use a broader concept of teaching staff referring to a "pupil-educator" ratio. As defined in the report by Statistics Canada[119], educators comprise "principals, vice principals and professional non-teaching staff which includes, among others, education consultants, guidance counselors and religious and pastoral counselors. It excludes substitute/supply teachers, temporary replacement teachers, teachers on leave, student assistants, teaching assistants and consultants".

The pupil-educator ratio must also not be confused with class size, which reflects the organization of the school. This ratio is much smaller than the class size or pupil-teacher ratio because it accounts for the personnel outside the class (principals, counselors, consultants or specialists).

**Table: Provincial Pupil-Educator Ratios**

| **Province/ Territory** | **Pupil Educator Ratios for 2002-2003 (Statistics Canada)** |
|---|---|
| BC | Average Ratio is 17.1 to 1 |
| Alberta | 17.5 to 1 |
| Saskatchewan | 15.1 to 1 |
| Manitoba | 14.9 to 1 |
| Ontario | 16.7 to 1 |
| Quebec | 14.3 to 1 |
| New Brunswick | 16.6 to 1 |
| Nova Scotia | 16.2 to 1 |
| PEI | 15.6 to 1 |
| Labrador/Newfoundland | 13.5 to 1 |
| Yukon | 11.8 to 1 |
| NWT | 16.3 to 1 |
| Nunavut | 17.0 to 1 |
| Canadian Average | Not available |

The 1996-1997National Funding Formula used by INAC to fund First Nations schools prescribes an average K-12 pupil-educator ratio (PER) of 17 to 1 as stated in the description of the Unit Cost Component in the notes below[120].

[119] StatsCan (2004). *Summary public school indicators for the provinces and territories, 1996-1997 to 2002-2003,* Francois Nault. Catalogue no. 81-595-MIE2004022. Culture, Tourism and the Centre for Education Statistics Division, Statistics Canada, Ministry of Industry, 2004.

[120] The Unit Cost Component description states that the following PTR's of 15 to 1 (preschool and secondary) and 19 to 1 (elementary), include the school's professional staff, principal, vice-principal, teachers, teacher-aides, specialists, substitute teachers, para-professionals and First Nations language coordinators.

The Canadian Council on Learning states: "Class size refers to the specific number of students enrolled in a particular teacher's classroom. Pupil-teacher ratio refers to the total number of students enrolled in a school (district) divided by all the teachers in the school (or district)." [121] Pupil-teacher ratios are used for financing, hiring and budgeting considerations. Class size is dependent on the school organization, and provides a more definitive view of the educational experience of the student.

The following table provides an overview of average class sizes in public education in Canada (where available):

| **Province/ Territory** | **Average Class Sizes** | **Variants Within Province** |
|---|---|---|
| BC ⌖ | Average Class size for 2004/05 is 23.2<br>(Note: the provincial standards indicate a maximum class size for Kindergarten of 22 and for grades 1-3 of 24) | Stikine District average class size is 12.7<br>Nisga'a District average class size is 13.7<br>Central Coast District Average Class Size is 14.7 |
| Alberta✡ | Alberta Average Class Size 2004/05<br>K-3 19.3<br>4-6 21.7<br>7-9 23<br>10-12 24 | Not known |
| Saskatchewan ⍵ | Average Class Size is 20.4<br>By level the average number of educators is as follows (not in FTE's):<br>K5 16.3<br>Elem. 19.6<br>Middle 20.5<br>Second 20.8 | Average class size 15.4 for rural schools<br>Average Class size for Fransaskoises schools is 14.6 ♈ |
| Manitoba | Average class size for Elementary is 24.5<br>Average class size for Secondary is 21.1 | Not known |
| Ontario ◊ | Education indicators were not available. Technical paper states:<br>Average Class size is 24.5 for Elementary<br>Average Class size is 23 for Secondary<br>Planned "Cap" of 20:1 for K5 to grade 3 | Not known |
| Quebec | Average Class for K is 22<br>Average Class Size for grades 1-2 is 25<br>Average Class Size for Grade 3 is 27<br>Average Class Size for Upper Elementary is 29<br>Average Class Size for Secondary is 21 | Cree School Board average class size is between 15 and 18 |
| New Brunswick | Average Class Size for K5 is 20.3<br>Average Class Size for Elementary is 24.1 | Average Francophone Class Size is 18.3:<br>Average class for K5 is 18.7 |

[121] CCL (2005). *Lessons in Learning*. Canadian Council on Learning viewed at http://www.ccl-cca.ca/english/resources/carnet.asp

| | | |
|---|---|---|
| | Secondary is not reported | Average Class Size for Elementary is 23.5<br>Secondary is not reported |
| Nova Scotia ~ | Average Class Size Elementary is 23.4<br>Average Class Size Junior High is 25.5<br>Average Class Size Senior High is 23.5 | Not known |
| PEI ☼ | Primary level (grades 1-3) – 20.9 students<br>Elem. level (grades 4-6) – 23.6 students.<br>Junior level (grades 7-9) – 25.3 students.<br>Senior level (grades 10-12) – 25.1 students. | Not known |
| Labrador/Nwfld* | K-3 - Average class size is 18.2<br>Grades 4-6 – Average class size is 20.9<br>Grades 7-9 – Average class size is 23.3 | Rural schools have very low numbers. |

Notes:
⌖ BC-School Enrolments Report for 2004/05
✡Alberta Education Annual Report Results for 2004/05
ω Saskatchewan Indicators 2004
♈Based on Materials sent by Saskatchewan Education French Schools Division
~ Nova Scotia Funding Framework, December 2004
◊ Ontario Min of Educ Technical Paper 2004 reports on these class sizes, other information was not available.
☼ PEI Ministry of Education, Staffing and Funding Program Review Instructional Staffing Model, Class sizes.
* Canadian Council on Learning. Notes of Ratios.

The average class size for First Nations schools is not available through information retained by INAC. The Overview of Departmental Data 2003 provides an inventory of how many physical classrooms there are, and student population, but does not collect data on average class size.

In the literature today, there are a lot of studies on class size, and the effects of class size on educational outcomes. In 1977 a two year study on the effect of class size was conducted in Toronto on students in grades 4 and 5. The study was done over 2 years, and investigated the effects of class size on teachers' expectations, on student achievement, and some class process variables. The study appeared to show no significant differences in achievement other than in math concepts for those in smaller classes. The study reported little difference to the students, but the teachers teaching the smaller classes reported less behaviour problems and more individualized instruction time.

Another early initiative was in 1984 in Indiana in the United States, called Prime Time, the program was to reduce class sizes in the first three grades of school over a 3 year period. The results showed positive outcomes for individualized

instruction, teacher satisfaction, and time on task. The results for achievement were not conclusive.

Tennessee's Project STAR (Student/Teacher Achievement Ratio) is perhaps the largest and most widely cited experimental study on the effects of class size and student achievement. The project was initially a state-wide four year longitudinal study of class size for K-3 utilizing inner city, urban, suburban, and rural classes (Nye, Zaharius, Cain, Fulton, Achilles and Tollet 1994). Project STAR revealed a number of characteristics of small classes. There were statistically significant differences among all class types on all student achievement measures in all subjects and in every year. The maximum effect of reducing class size was in kindergarten and grade 1, but the effect levelled off and declined in second and third grade even when students remained in smaller classes (Folger 1989).

The benefits of smaller classes were substantially greater for minority students or students attending inner-city schools in each year of the study. The benefit for minority students was two or three times as large as that for white students in most comparisons (Finn & Achilles 1999). Pupils in smaller classes had relatively fewer examples of poor discipline. Teachers had more on-task time in small classes than in regular classes, and this remained constant all year. Early identification of special needs in small classes seemed to reduce later special education placements (Achilles et al 1996).

As a result of the positive findings from Project STAR, a Lasting Benefits Study was undertaken to track the original sample of STAR students from small classes (Nye et al 1991). The study indicated that:

- STAR students outperformed, showed more effort and initiative and were better behaved than their peers in normal-sized classrooms. There were no significant additional gains in subsequent years relative to the students in normal classes;
- STAR students continued to outperform children from normal classes at a decreasing rate; by grade 8 the difference was quite small.
- STAR students were less likely to fail a grade, and their special education needs were identified earlier. A small class setting appears to make it more difficult for a child to withdraw or for the teacher to overlook the needs of children at risk, and as such, the positive effects of small classes are likely to be greater for minority or other at-risk students (Finn 1998).
- Instruction took less time, clerical and other non-instructional tasks and managing pupil behaviour all took less time. As a result, the teachers used

the extra time to cover the required objectives in more depth, and were able to add more enrichment activities to the classroom (Johnson 1990).

In recent years, the results of Project STAR have been scrutinized and critiqued but the result of the critiques appears to be a relevant focusing of the findings rather than a dismissal of the findings. For example, it is clear to everyone that disadvantaged students may benefit far more from smaller classes than other students (Hanushek 1999).

Project STAR led to other similar class size projects such as the California Class Reduction Initiative (CSR) in 1996 to reduce class sizes for K-3 to improve early literacy; and, the Student Achievement Guarantee in Education (SAGE) program in Wisconsin (1996-97). One of the problems encountered with the state wide CSR initiative was not having enough qualified teachers and adequate infrastructure for the additional classes.

Achievement results were reported for CSR with teachers spending more time in working individually with problem readers, and less time on discipline. Preliminary findings of the SAGE project suggested that the first grade students performed better than comparison students in reading, language arts, mathematics, and in the total scores on the CTBS (Reducing Class Size 1999). The SAGE teachers believed that reduced class size benefited all students, but they commented on its particular benefits for special education students. The individualization within small classes may prevent future needs for special education for some students, spare early labelling, and for those already diagnosed, increase the time they spend in the regular classroom (Evaluation 1999).

In January 2000, Edmonton Public Schools in partnership with the University of Alberta and Alberta Learning conducted a six month pilot project to examine the impacts of small class size on student growth and achievement at grade one in high need schools. The results indicated that:[122]

- The smaller classes provided a better learning environment for students since they encouraged more cooperation and were calmer;
- There were fewer distractions;
- Students participated in a greater variety of activities and spent more time on task;

[122] Alberta 2002. *Commission on Class Size and Composition – Final Report.* Appendix D Public Discussion Paper. April.

- Teachers reported more time on planning;
- Students talked about noise reduction, increased concentration, an increase in activities and in teacher's attention, and their enjoyment of the smaller classes.

Educational researchers Bruce Biddle and David Berliner (2002) undertook a broad examination of research into class size from a variety of investigative traditions. Based on their review of research from a variety of sources addressing a vast landscape, they conclude that:[123]

- when it is planned thoughtfully and funded adequately, long term exposure to small class sizes in the early grades generates substantial advantages for students and those extra gains are greater the longer students are exposed to those classes
- extra gains from small classes in the early grades are larger when class size is reduced to less than 20 students
- extra gains from small class sizes in the early grades are found for various academic topics and for both traditional measures of student achievement and other indicators of student success
- extra gains from small classes in the early grades are retained when students are returned to standard-size classrooms, and those gains are still present in the upper grades and the middle and high school years
- although extra gains from small class sizes in the early grades appear for all types of students and seem to apply equally to boys and girls) they are greater for students for students who have been traditionally disadvantaged.

Similar conclusions were found in a synthesis of the research on class size *Reducing Class Size, What Do We Know* by the US Department of Education[124]. The article also stated that the research data collected from relevant studies indicated that if class size is reduced from substantially more than 20 students per class to below 20 students, the related increase in student achievement moves the average student from the 50$^{th}$ percentile up to somewhere above the 60$^{th}$ percentile. For disadvantaged and minority students the effects are somewhat larger. This is seen primarily in the early grades up to grade 4.

[123] Biddle & Berlinger (2002). *Smaller Class Sizes – What does the Research Say?* in Lessons in Learning – Making Sense of the Class Size Debate. Canadian Council on Learning, September 2005 viewed at http://www.ccl-cca.ca/english/resources/carnet.asp
[124] US Dept of Educ (1999). *Reducing Class Size, What Do We Know?* March 1999 viewed at http://www.ed.gov/pubs/ReducingClass/Class_size.html#conclusion

The CD Howe Institute Commentary recently spoke against the provincial initiatives of class size reduction as spending money without solid evidence that it will raise student achievement. This conclusion was made as a result of the author's investigative analysis of achievement scores using databases from the SAIP and PISA international achievement tests. The author correlated the responses to questions on class size and other factors with achievement scores. His conclusions were that the correlations made with the data did not support that smaller class size resulted in higher achievement scores (Guillemette 2005). In addition, the stated student responses to other questions on class noise and distractions did not seem to correlate with lower achievement scores.

However, given the obvious restrictions and the limited focus of this type of investigation, and the lack of concrete research into other factors involved in classroom process such as teacher effectiveness, family background, parental involvement, and socio-economic limitations, it is important to remember that the goals of education extend beyond a simple focus on student academic achievement. Such a conclusion is too limiting and lacks an educational focus. If investing in small classes in the primary grades leads to fewer discipline problems, fewer grade retentions, students being more likely to complete high school, and improved teacher morale, one might assume the cost would be worth it (Finn 1998). On either side, justifying class reduction policies strictly on achievement may understate the many benefits that have yet to be fully researched.

Nevertheless, there are policy considerations for implementing class size reduction as pointed out in an article by Wagner 2001. Small class size will not make up for poor teaching. The availability of qualified teachers can have an impact on universal application unless class size reduction is properly planned. The research suggests that high-quality instruction and altered teacher practices are crucial to the success of any class size reduction, and require appropriate professional development. It may also require additional classroom space in some schools.[125]

The complexity of the classroom composition is another important factor to be considered in discussing class size. The composition of the classroom can become complicated with the integration of students with special needs,

[125] SAEE (2001). *Class Size Policy.* Katherine Wagner, Spring 2001. Society for the Advancement of Excellence in Education.

English/French as Second Language students, high needs or at risk students, and multiple grade/subject classes. In some jurisdictions, this is facilitated by school-based funding formulas that incorporate weighting factors permitting smaller classes in situations where there are significant numbers of students at risk and/or with special needs.

The following weighting system provides one example of a potential model for adjusting class size (and associated funding) to reflect differences in the complexity of classroom composition:[126]

| **Factor:** | **Weight:** |
|---|---|
| Students being instructed in multiple-grade/subjects | 1.3 |
| Mild special needs students including gifted and at risk | 1.5 |
| Moderate special needs students | 2.5 |
| ESL/FSL | 2.5 |
| Severe special needs students (including behavioural) | 3.0 |
| Multiple severe special needs and medically fragile | 4.0 |

In determining the functional size of a class, the number of students falling into each category would be multiplied by the factor weight indicated. As the composition of the classroom increased in complexity, the number of students enrolled in the class would thereby be reduced.

However, in some jurisdictions such as in Quebec, and the United States, weighting is used for students in a particular pedagogically sensitive teaching level where there would be a need for more educational resources, such as grades 1 – 3, the first year of secondary school, or the senior years of high school to provide more resources for subject options.

Nevertheless, in many jurisdictions, small numbers of students or declining enrollments or isolation has necessitated the use of multi-grade class groupings to be able to provide a teacher. This is not the same as deliberate multi-age grouping which supports a different philosophy related to the work of Gaustad (1997) on heterogeneous groupings and individualized self-paced learning.

A multi-grade class is an administrative device used to cope with uneven class size or lack of sufficient funding to support a teacher for each class. This occurs

[126] ATA (2002). “Improving Public Education: Supporting Teaching and Learning”. Alberta Teachers Association. Edmonton, Alberta, 2002. ISBN 1-894552-30-X

very frequently in First Nations schools where 61% of the communities have populations under 500[127]. The demographics of these communities do not provide an adequate number of students to form a class based on the funded average pupil-teacher ratio of 17 to 1.

Veenman (1995) reviewed 56 studies from 12 countries including 4 from Canada to compare the academic/cognitive and non-cognitive effects between multi-grade and single grade classrooms. Although there were not significant differences in learning, there were considerations such as increased stress on teachers, the requirements for optimal class size, and concerns for more research into optimal combinations of grade levels. Miller (1989, 1991) identified six key variables for successful multi-grade teaching:

- Classroom organization,
- Classroom management and discipline,
- Instructional organization and curriculum,
- Instructional delivery and grouping,
- Self-directed learning,
- Peer tutoring.

Mason and Burns (1996) argue that while multi-grade classes are good for some students, they are potentially harmful and onerous for most. They believe that the demanding nature of multi-grade teaching reduces the quality of instruction. The demands on the teacher are greater due to increased workload (more preparation/grouped instruction/teaching time) and more complex class organization (less instructional time/ less individual attention/ greater management demands). Extra supports appear necessary to effectively manage multi-grade classrooms (Mason & Burns 1996).

The situation of a multi-grade classroom can be exacerbated or moderated by the following factors (Russell et al. 1998):

- The choice of teacher, teacher ability, skill in organization and planning, and teaching experience;
- Class size;
- Balance in size of year-level subgroups;
- Number of students with challenging behavioural problems;
- Number of students at risk;
- Range of student abilities, achievement and learning styles;

[127] INAC (2003). Cited from *Indian and Northern Affairs Canada and Canadian Polar Commission Performance Report*, period ending March 31, 2003

- Arrangements for students to mix with their year-level peers for activities such as sports and excursions;
- Organization of a two-year curriculum so that students do not miss out on curriculum coverage;
- Amount of time taken to deal with additional parent pressure;
- Additional time and pressure from other ongoing school-level changes.

The first six factors in the list above are especially applicable to the situation of many First Nations schools where there is not always a choice of quality teachers or teachers with experience; the age groupings are not always balanced; there is a higher proportion of students at risk, and special needs students; not all students come to school with the same basic skills and preparedness; and some students require English Second language or French Second Language instructional methodologies. These factors together could have a negative impact on any multi-grade teaching situation where the curriculum of more than one grade level has to be taught.

The reduction of pupil-teacher ratios for First Nations schools, and the standard of smaller class sizes will require additional funding, and will have implications for teacher training and infrastructure. Nevertheless the research indicates that such initiatives will have a positive benefit on students at risk, and long term benefits on school retention and behavior.

Successful learning for students in general, and First Nations in particular, depends on the range of pedagogical and organizational factors within the classroom, school and community context, and all of which exist within the wider context of funding policy. The promotion or consideration of any variable should always be made with the local factors and local context of the application in mind.

## 5.4 Examples of First Nations Schools

This section will provide an overview of the reported Pupil Teacher Ratios of First Nations schools by region. The information is available based on raw data collected through the Teacher Information Forms. Currently the PTR information is provided in the standard summary reports prepared at the culmination of the annual teacher information data collection exercise. However, those reports contain rudimentary data that has not been adjusted to compensate for data collection deficiencies. This has a severe impact on the PTR calculations. These PTR summaries are now being refined to compensate for the data collection

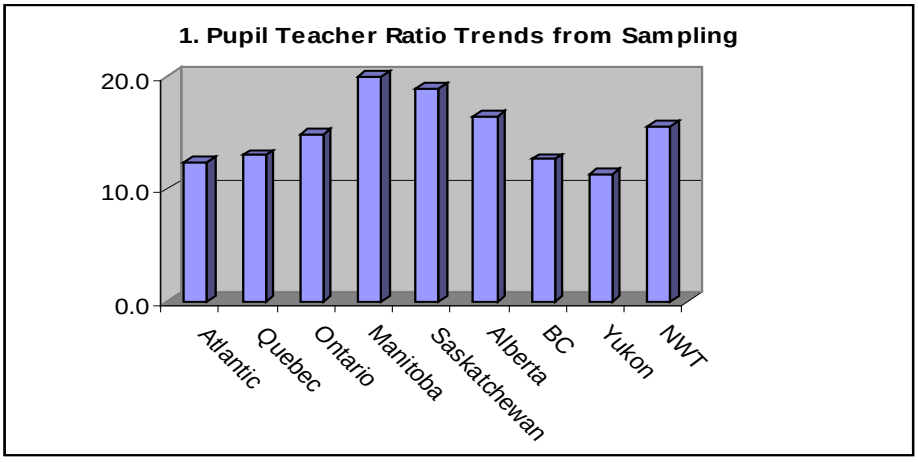
deficiencies. Once this work is done, the table will be completed, and the following chart will be revised.

**1. Examples of Pupil Teacher Ratios in First Nations Schools**

| Region | Schools | Pre-School | Primary | Middle School | High School | School Average |
|---|---|---|---|---|---|---|
| Atlantic | | | | | | |
| Quebec | | | | | | |
| Ontario | | | | | | |
| Manitoba | | | | | | |
| Saskatchewan | | | | | | |
| Alberta | | | | | | |
| BC | | | | | | |
| Yukon | Reported[1] | .. | … | … | … | **11.3**[3] |
| NWT | Reported[2] | … | … | … | … | **15.5**[3] |
| | | | | | | |

[1] Fax Transmission Bob Walker, Council Liaison, Department of Education, Whitehorse, Yukon.
[2] Correspondence Charles Dent, Minister of Education, Culture and Employment, Yellowknife, NT
[3] These reported ratios for the Yukon and NWT are not included in the overall average ratio

The following chart which provides a visual overview of the overall PTR by province will be revised with the refined PTR data.



## 5.5 Summary of Findings

Class size and teachers' salaries are the most critical elements of any cost study for First Nations education. The literature has shown that class size is a significant determinant of school success for students who are otherwise challenged in a classroom environment. The composition of a First Nations classroom is unique to First Nations schools due to:

- the prevalence of special needs students and students at risk in the classroom population,
- the number of students requiring a second language approach due to dialectical spoken English or French,
- the unique Language and Culture curriculum being taught in addition to the provincial curriculum,
- the learning style difference of the students,
- the teaching style difference of a First Nations teacher,
- the distinctive social context of a First Nations classroom,
- the location of the school.

There is still an enormous gap in the achievement levels of First Nations students. While there is dispute concerning its effect on achievement after the first grade, it is documented that reducing class size has lasting benefits in regards to reducing discipline problems, early identification of special needs, grade retention, and less likelihood of dropping out of school. Most importantly, it has been documented as having the greatest benefit for disadvantaged populations.

Reducing the pupil teacher or pupil educator ratio will also reduce the number of multi-grade classrooms that predominant many First Nations schools. All of this should be incorporated into a planned initiative to reduce the achievement gap. The needs of francophone boards have been addressed in all of the provinces and territories of Canada regardless of the ratios, the same must be done for First Nations.

In most provinces, there are exceptions for the average pupil-teacher ratio, which are accepted and funded by that province. These lower pupil teacher ratios are funded so that all students have equal opportunity to access the same educational resources as other students. The predominant examples of this are the francophone boards which by and large have much smaller class sizes than the regular provincial schools. There are other examples across the provinces

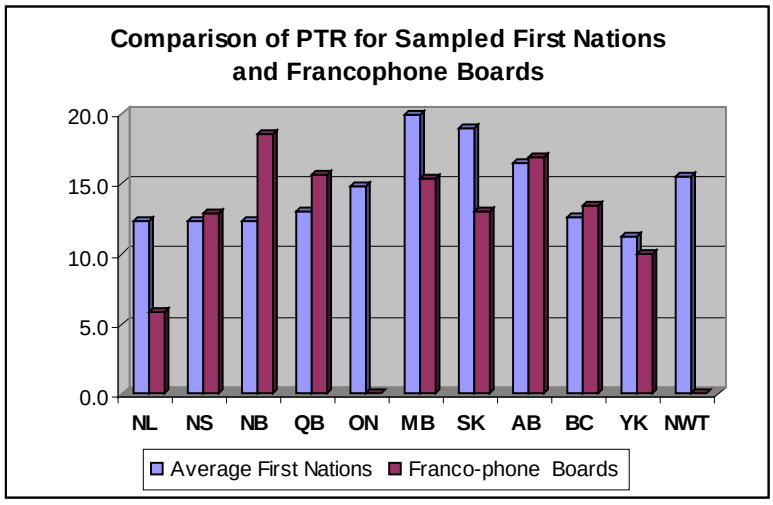
such as the Special Revenue Districts in Manitoba, the Special Status School boards in Quebec, the Frontier Schools in Manitoba, and many rural school boards.

The next table will be updated once the refined First Nations PTR is made available, as explained earlier. This table provides a comparison with the average regional First Nations PTR and the francophone or other boards in each region:

**Table: Comparison with First Nations Schools PTR and Francophone Boards**

| | Pupil Teacher Ratios | | | | |
|---|---|---|---|---|---|
| **Region** | **Average First Nations** | **Franco-phone Boards** | **Other Boards** | **Other Boards** | **Other Boards** |
| Nfld/Labrador | | **5.9** | | | |
| Nova Scotia | | **12.9** | | | |
| New Brunswick | | **18.5** | | | |
| Quebec | | **15.7** | **11.2** | **10.8** | **7.3** |
| Ontario | | **..** | **18.9** | | |
| Manitoba | | **15.4** | **15.6** | **12.5** | **12.6** |
| Saskatchewan | | **13.0** | **15.4** | | |
| Alberta | | **16.9** | | | |
| BC | | **13.5** | **12.7** | **13.7** | |
| Yukon | | **10.1** | **10.03** | **8.75** | |

The chart will also be updated with the refined PTR to provide a visual demonstration of this comparison:



## 5.6 Considerations

We would like to provide the following considerations as a starting point for further review, analysis and recommendation.

1. The literature review supports that reducing class size has lasting benefits in regards to reducing discipline problems, early identification of special needs, grade retention, and less likelihood of dropping out of school. Most importantly, it has been documented as having the greatest benefit in increasing student achievement particularly in the early grades for disadvantaged populations. We would suggest that a reduction in class size or pupil-teacher ratios could be an important consideration for revising how First Nations schools are funded.

2. An important consideration with reducing pupil teacher ratios and class size is the availability and retention of qualified and experienced teachers. This requires being able to pay salaries and benefits that are equitable to the provinces. Currently the funding methodology does not consider teacher's salary separately from the block of funding, and cannot guarantee the salary of a teacher for each classroom, or the adequacy of that salary. Perhaps considering the salary as a separate line item would facilitate ensuring equity and adequacy.

   Attached to increasing staffing through lower pupil-teacher ratios or a reduction of class size, is ensuring the availability of qualified and specially trained teachers. This would have implications for teacher training programs and professional development

   We believe that the teachers' salary payable for each First Nations school should be comparable as a minimum to the provincial salary scale in the region. Therefore, there would be regional differences in the amount paid to First Nations schools for teachers' salary and benefits.

   The actual teaching workload of a First Nations teacher may exceed that of a provincial teacher working under a collective agreement. To ensure equity, therefore, this difference could either be calculated in deriving a pupil-teacher ratio, or an adjustment upwards could be made in the salary scale.

3. Based on the results of the literature review, the pupil-teacher ratios among francophone boards and rural boards, and the examples we were able to secure from First Nations schools, we would like to suggest the following ranges for PTR if new ones are established:

| | |
|---|---|
| Pre-School | 10 to 1 |
| Grades 1 - 3 | 10 to 1 |
| Upper elementary | 12 to 1 |
| Middle/Junior High | 12 to 1 |
| Secondary/Senior High | 10 to 1 |

4. One of the notable suggestions from the literature review is the use of student weighting which permits resourcing to be targeted to needs. The literature had suggested that student weighting could be used in two different manners.

   The first was in relation to class size, where using weighting for students at risk, with specific learning needs or with difficulties in coping with the language of instruction permits the school to create manageable classes within the average class size.

   The second is to use weighting to target teaching resources for pedagogically sensitive teaching levels such as grade 1, secondary 1 or the later secondary grades to enable the provision of program options.

   We would like to suggest that student weighting be considered as a possible option for managing the diversity of First Nations school populations.

# *6.0 School Administration*

## 6.1 Introduction

The role of the school principal is extremely important in terms of educational leadership and the quality of education provided by the school. It is the principal who provides the vision for the school's educational plan, who is responsible for ensuring the plan's implementation, evaluation and review and for ensuring the participation of parents in the school as partners in their child's education.

The costs of school administration include all of the expenses incurred for the direct management of schools. Funding for principals, vice-principals and administrative staff fall within this category. School management costs also include administrative support (clerical etc), supplies for administrative purposes and the costs of information technology to support school management.

## 6.2 Background and Literature

The Ministry of Education of Nova Scotia has an agreement with school boards and the Nova Scotia Teachers' Union that there should be a principal in every building or group of buildings designated as a school. (The number of buildings comprising a school is limited by the ability to effectively implement the duties of a principal taking into account geography, student and teacher numbers, and local considerations). The belief is that there should be a pedagogical leader or visionary in every school, who is also both an administrator and staff supervisor. Funding is provided on the basis of the number of campuses rather than on the basis of enrollment.

In provincial schools, the requirement of a vice-principal to assist the principal in the management of the school is dependent on the number of teachers, or the number of students. Principals and vice-principals often have teaching responsibilities as well as supervisory responsibilities. The allocation of time between their two functions is largely dependent on the size of the school. The cost for their salaries comes from the school administration budget.

In some cases, the salaries for principals and vice-principals are related to the salaries for teachers based on the collective agreements or provincial salary scales. There is an additional supervisory allowance usually based on the number of teachers in the school. In many boards, the vice-principals receive about half of the supervisory allowance of the principal.

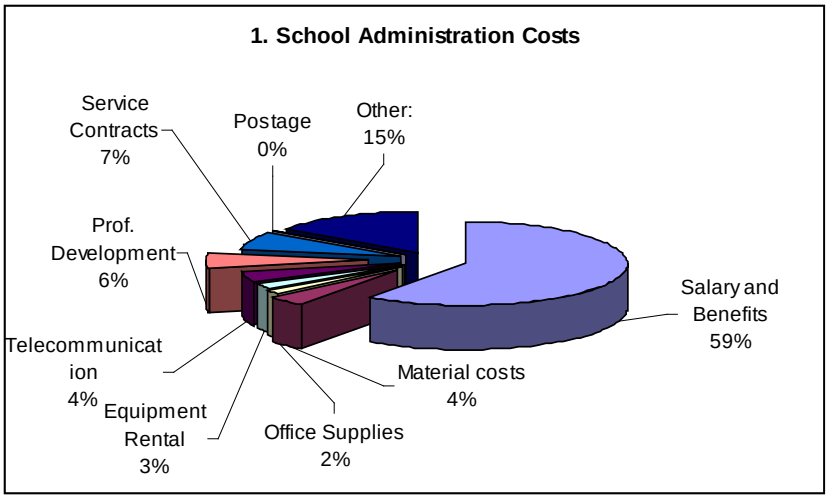
Most schools also have a secretary whose workload is often tied to the school enrollment, staffing or school function. In New Brunswick, for example, a full-time (FTE) Category I Secretary is allocated for every 30 educators on staff. But as a minimum, a part-time 0.5 FTE Category II Secretary is allocated for every school for the school year and full-time for a full calendar year for a secondary school (9-12). In addition, 20% replacement costs are allocated for the school secretaries.

In Ontario, the foundation grant forms the core funding for schools. It uses a funding matrix composed of various funding elements for books and supplies, computers, and staffing etc. The staffing component of the funding is based on the numbers of eligible staff per 1000 students multiplied by average salaries plus benefits. The following chart provides an example of the salary component for in-school administration in Ontario for 2004-2005[128]:

| | Elementary Schools | | | Secondary Schools | | |
|---|---|---|---|---|---|---|
| **Position** | **# per 1000** | **Salary** | **Benefits** | **# per 1000** | **Salary** | **Benefits** |
| Principal | 2.75 | $85,808 | 12% | 1.1 | $93,580 | 12% |
| Vice-Principal | 0.75 | $78,302 | 12% | 1.5 | $82,606 | 12% |
| Dept. Head Allowances | - | - | - | 9.0 | $3,530 | 12% |
| Secretary | 3.67 | $30,673 | 18% | 5.33 | $32,312 | 18% |

## 6.3 Examples of First Nations Schools

From the surveys, we were able to look at the nature of the expenditures as shown in the following chart:




[128] Min of Educ, Ontario (2004). *Technical Report for 2004-2005* viewed at Ministry of Education's website at: http://www.edu.gov.on.ca.

The average spending from the examples by school level were as follows:

| Level | Cost/level | Percentage |
|---|---|---|
| Preschool | $29,035 | 13% |
| Elementary | $70,930 | 32% |
| Middle School | $69,402 | 31% |
| High School | $54,344 | 24% |
| Total | $223,711 | 100% |

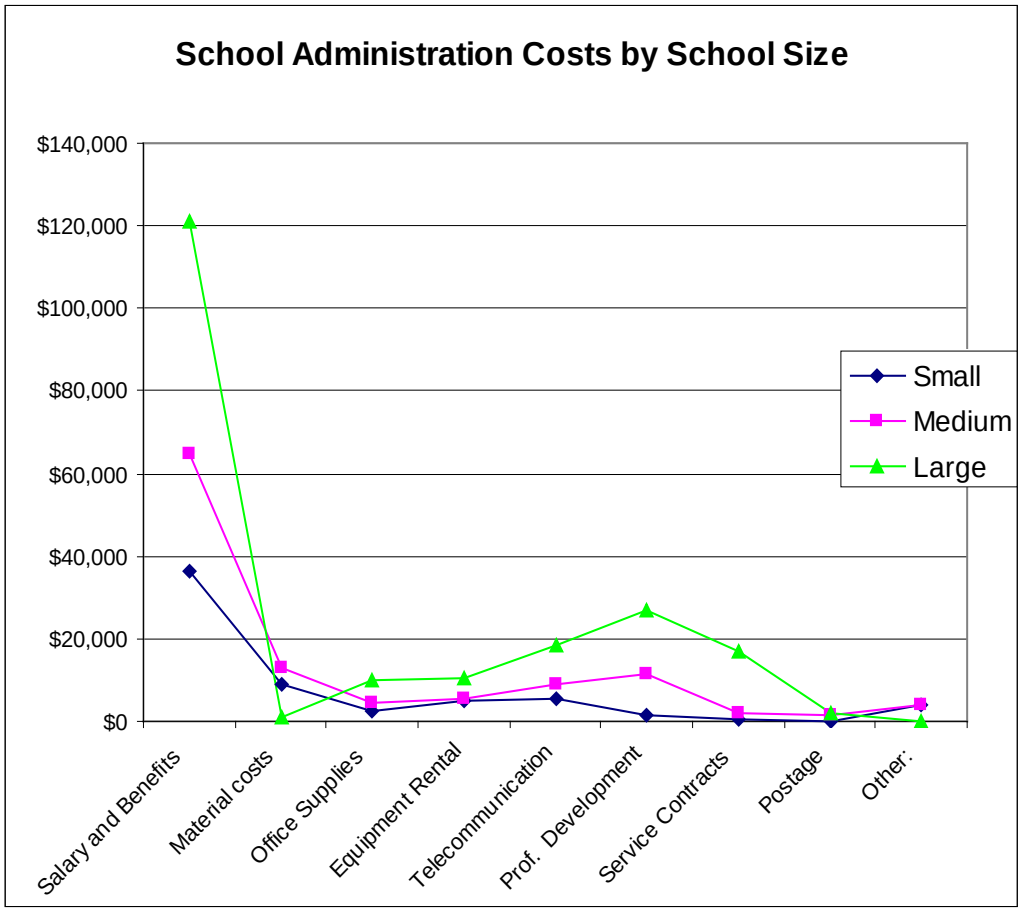
Some anecdotal comments provided by the respondents included:

- We have difficulty in covering the cost of substitute teachers. We are obliged to provide 15 sick days per teacher under band policy, but we do not have enough funding in the budget to provide for 15 days of substitution per teacher at a cost of $125.00 per day.
- Our administrative costs are elevated by the situation and conditions of the infrastructure:
    - High school students from secondary 2 up go to provincial high schools, there are no paved roads, and the bus repair costs are elevated.
    - We use trailer classrooms, lots of repairs and overhead, the community needs a new school.
    - We need proper housing for teachers. We are using trailer teacherages that are very costly to maintain for plumbing, maintenance, water and sewage disposal.
- Principal's salaries should be funded under administration, and staff benefits and related costs should be included separate under administration, not under instructional services.
- All budgets must reflect annual cost of living rates.

## 6.4 Summary of Findings

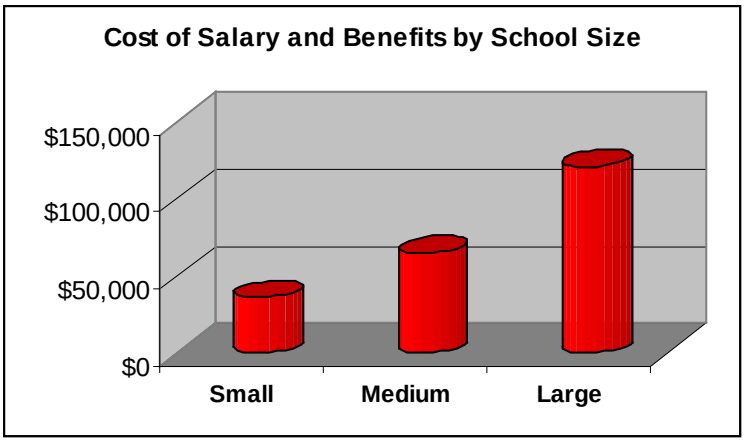
The provinces consider that the salaries for the principal, vice-principal and school secretary as part of a separate administration grant. The actual proportion of a full-time position for each of these posts is determined by the number of students, the number of teachers and the number of buildings that constitute the school.

Charting the average expenditures by school size confirms the proportionate ratio between school size and administrative costs. There is one anomaly for material costs for large schools, but this is due to the limited examples we had for large schools.

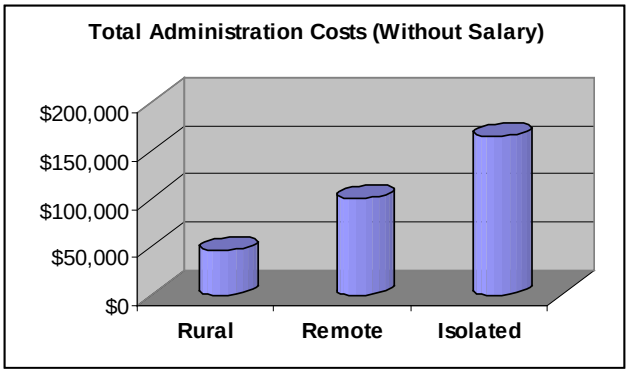



The spending for school administration is directly proportional to the size of the school, and indirectly proportional to geographic location. The spending for the salary component is specifically sensitive to school size, but not particularly for geographic location, however, the other non-salary expenses were sensitive to location. The following charts demonstrate these findings.

The spending for salary and benefits increases approximately 50% with school size as shown in the following chart.




The chart on the right shows the comparison of total non-salary spending by geographic index (without urban). The spending increases proportionately with distance and access.




## 6.5 Considerations

Based on the examples from First Nations schools, we would like to offer the following suggestions for consideration for further review and analysis:

1. The literature review from the provinces and the examples from First Nations Schools would seem to indicate that First Nations schools should be provided with a base allocation for School Administration that would allow for school management costs, the salary of a principal (with teaching duties) and a school secretary as a minimum. The proportion of time spent by the principal in teaching could be considered as part of the pupil-teacher ratio.

2. A per capita allocation would not provide sufficient funding for a small First Nations school. Nevertheless, there should be a designated person in charge, someone to answer the phone when the principal is teaching, and a person to undertake the type of reporting being required of First Nations schools. We would suggest that a base allocation for school administration could be considered for all First Nations schools, with a per capita allocation to adjust for size, and an indexation for geographic location.

   The base allocation should consist of salary and benefits for a principal and secretary based on a 72% and 28% ratio, as well as a minimum of $20,000 for management costs.

   The base allocation should be reviewed after 2 years and if necessary adjusted to ensure adequacy.

3. We would suggest strongly that there be an amount (possibly 2% of the salary costs) provided for the professional development of school administrators. This would be extremely critical for administrators from remote and isolated communities, and would require indexation to cover additional travel costs. If principals are to function well as school leaders they must continue to remain updated on the latest innovations in education, as well as remain informed on new changes and initiatives in provincial education programs.

# *7.0 Education Authority*

## 7.1 Introduction

A local First Nations education authority is constituted differently from one community to another. In some First Nations communities, a local education authority may be an elected school board composed of members at large or members representing various elements of the local education program; in others it may be parents selected from the local school. In all cases, the local education authority is responsible for overseeing the local community education program, and its school(s), through its administrator, usually the Director of Education. Most local education authorities receive a mandate from the community ratified by the Band Council or directly from the Band Council. Some education authorities may actually manage the education funds but remain accountable to the Council.

A school committee is composed of parents selected or elected according to school or community custom. They meet regularly with the principal and teacher representative to discuss school and policy matters, to plan school activities as well as being consulted on the school's program of study. They support other parents in the school, and help to organize activities and events.

A school council is a collective association of parents, teachers, principals, staff, students (where appropriate), and community representatives who seek to work together to promote the well-being and effectiveness of the entire school community and thereby to enhance student learning. A school council provides a means to facilitate cooperation among all the concerned participants in the local school. School councils provide valuable advisory assistance to the school principal and to the local education authority or Band Council.

School councils or school committees have considerable influence on their schools through their advice and involvement. School boards, Boards of Education, and First Nations Educational Authorities, on the other hand, have direct responsibility for the entire operation of their schools, and the education program. The local educational authority or school board usually administers the school(s) through their CEO which is the Superintendent, Director General or Director of Education.

## 7.2 Background and Literature

School Councils operate in most provincial schools, and usually liaison together through a provincial association. In BC, the First Nations School Councils participate in the First Nations Schools Association, a regional organization of First Nations Schools. In Quebec, the Directors of Education of the 22 member communities participate in the First Nations Education Council, which is a regional association of community education authorities mandated by their Band Councils.

The Cree School Board in northern Quebec is a First Nations School Board that is funded (75%) by INAC through the provincial ministry of education. It receives a base allocation of $2.7M or 3.87% of its budget for the general administration of its schools and services, as well as the operations of a School Council for each of its schools. This is in addition to the $6.27M (8.96%) for finance and administration services. [129]

Almost every school in the Yukon has a school council. They have three to seven members, including a chairperson. The Department of Education of the Yukon funds a school council for each school through contribution agreements. School council members receive honoraria of up to $500 per year for attending meetings. The Department of Education pays the travel and accommodation costs of school council members to attend annual conferences. School councilors are elected to two-year terms. They are elected by the parents of the school's students, and by those living in the school's attendance area. The Department of Education has a Council Liaison who works with the School Councils and School Board. The Yukon also has one Francophone School Board, of which the school board Trustees are elected for three-year terms.[130]

The NWT has 5 Divisional Education Councils, 2 Districts Education Authorities (Yellowknife), and a francophone school board. The Councils/Authorities receive funding for administration that includes staffing, travel, and administration costs. There is a staffing matrix that is used to determine the number of staff based on FTE enrollment and the number of communities serviced by the education authority/council. The District Education Authorities in Yellowknife raise a portion of their funding through school taxes, but those Education Councils outside of

[129] MELS (2005). *Règles d'allocation des subventions de fonctionnement et d'investissements pour les années scolaires 2004-2005 à 2008-2009.* Commission scolaire Crie. Direction Générale du Financement et de L'équipement, Ministere de l'éducation, loisirs et sports, Quebec.
[130]Yukon (2005). Government of Yukon, Department of Education viewed at www.education.gov.yk.ca

Yellowknife are funded solely by an administration formula for administration staff as well as a Community Base of $15,000 plus School FTE x $86.[131]

School Boards in Nova Scotia receive stipends and allowances for school board members ranging from $13,500 for the Chair to $8,200 for members in stipends plus $1,600 to $2,200 in allowances.[132] In Manitoba funding to school boards is included in the general allocation under Base Support which is a per student allowance.

In Ontario, the formula includes a specific category for the costs associated with Trustees and governance. It includes $5,000 per trustee as honoraria with another $5,000 per trustee for travel and expense allowance. There are additional amounts of $15,000 for honoraria for chair and vice chair and for student representation (expenses). There is also a board governance component that provides a base amount of $85,702 plus a per-pupil amount of $186, with indexations for geography and enrollment.[133]

In Ontario, there is also funding provided for administrative staff based on one director per board, and a number of supervisory officers. The base amount provided is $452,325 with a per pupil amount of $12 for first 10,000 students and $17 for the next 10,000 students. This is also indexed for geography and enrollment, and subject to the new rural funding formulas.[134]

There is no specific funding formula component for board governance in British Columbia with the majority of funding through the Basic Allocation which is a per student formula. In Alberta, there is not a specific formula either with the costs coming from the Basic Instruction component and from a Small Board Administration component for boards with up to 2000 pupils.

This Alberta Small Board Administration consists of a base allocation of $416,160 for boards with enrollments of 2000 students or less, and an exponentially decreasing amount for enrollments between 2000 and 3000

[131] NWT (2005). 2005-2006 School Funding Framework. Section No. 2-015 to 2-022. Finance and Administration Manual. Education Boards. NWT Education, Culture and Employment..
[132] Nova Scotia (2004) *Nova Scotia Regional School Boards Formula Funding Framework.* December 2004.
[133] Ontario (2004). Ministry of Education Technical Paper, Spring 2004.
[134] Ibid

students. The funding is not provided for boards with enrollments above 3000 students. There is also an allocation of $57,222 provided for charter schools.[135]

In Quebec, there is a similar type of base allocation of $476,000 given by the Ministry of Education for the administration of small school boards with enrolments of less than 2000 students, again exponentially decreasing the amount for enrolments up to a maximum of 12,000 students. [136]

## 7.3 Examples of First Nations Local Authorities

Many of the First Nations Local Authorities have more than one school within their communities such as separate elementary and secondary schools, or an immersion school as well as a regular elementary and a secondary school.

**1. School Committee Expenses**

The following table provides an overview of the average spending for a school committee taken from the examples we reviewed.

| | Average Costs per School |
|---|---|
| Honoraria/stipends | $ 8,534 |
| Travel costs | $ 2,444 |
| Overhead | $ 125 |
| Materials | $ 213 |
| Postage | $ 87 |
| Other: Prof. Dev. | $ 639 |
| Total Costs | $ 12,043 |

**2. Education Authority Expenses**

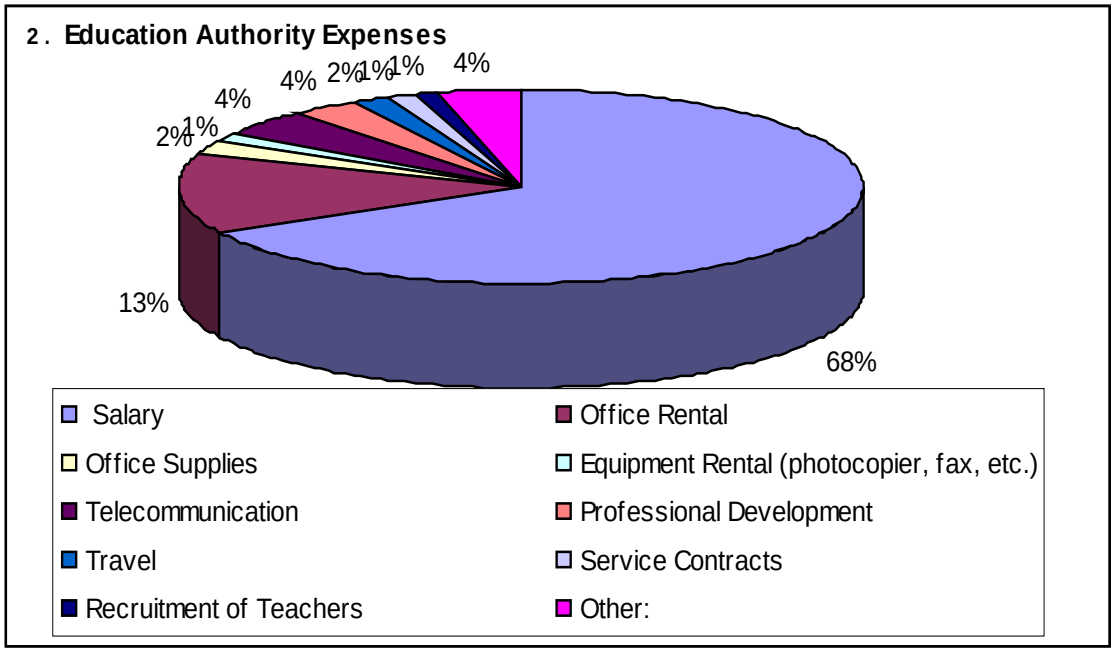
We looked at several examples of spending for a local education authority. Here are the average expenses:

[135] Alberta (2005). *Funding Manual for School Authorities 2005-2006.* Ministry of Education of Alberta, 2005

[136] MELS (2004). *Régles Budgetaires 2004-2005*. Ministry of Education, Leisure and Sports. Québec, 2004.

| Type of Expenditure | Average |
|---|---|
| Salary | $336,221 |
| Office Rental | $65,849 |
| Office Supplies | $12,299 |
| Equipment Rental | $7,034 |
| Telecommunication | $21,016 |
| Professional Develop | $17,857 |
| Travel | $8,329 |
| Service Contracts | $6,529 |
| Teacher Recruitment | $5,229 |
| Other: | $19,687 |
| Total | $500,048 |

The next chart shows how these expenses are distributed on average. The major expenditures are for salary/benefits (68%) and office rental (13%).




**4. Responsibilities of Education Authorities**

The following table provides 7 different examples of the responsibilities of a local education authority:

| | Examples of Local Education Authorities | | | | | | |
|---|---|---|---|---|---|---|---|
| **Responsibilities** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| Number of schools | 3 | 1 | 4 | 2 | 3 | 4 | 4 |
| Tuition Agreements | 0 | 1 | N/P | 3 | 1 | 1 | 4 |
| Projects/ Educ Prog. | 6 | 3 | N/P | 1 | 1 | 4 | 0 |
| Number of Departments | 8 | 0 | N/P | 3 | 4 | 0 | 3 |
| Number of Buildings: | 6 | 2 | 4 | 4 | 4 | 5 | 5 |
| Number of School Buses | 21 | 1 | N/P | 4 | 16 | 6 | 0 |
| # Transportation Contracts | 0 | 1 | N/P | 1 | 0 | 9 | 1 |
| Area (in kms$^2$) managed | 5000 | 30 | N/P | 45000* | 26000* | 60 | 1394 |
| Annual Teacher Turnover: | 5% | 30% | N/P | 1.50% | 3-5% | < 5% | 6% |
| **Staff Supervision:** | | | | | | | |
| Total Teaching Staff | 138 | 15 | N/P | 44 | 66 | 130 | 77 |
| Teaching Support Staff | 0 | 15 | N/P | 5 | 6 | 0 | 60 |
| Professional Staff | 1 | 1 | N/P | 0 | 1 | 1 | 0 |
| Counselors | 0 | 0 | N/P | 0 | 0 | 6 | 0 |
| O/M staff | 9 | 2 | N/P | 7 | 10 | 14 | 12.5 |
| Transportation staff | 24 | 0 | N/P | 1 | 22 | 0 | 0 |
| Curriculum Dev. Staff | 16 | 0 | N/P | 2 | 2 | 0 | 3 |
| Other Staff Supervised | 2 | 0 | N/P | 9 | | 3 | 0 |
| Total Staff Supervised | 190 | 33 | N/P | 68 | 107 | 154 | 152.5 |
| Total E/S Student Pop | 1004 | 380 | 1142 | 230 | 500 | 1117 | 989 |

*Provided in acres$^2$

**5. Average Salary/Scales for Education Authority Staff**

The type of staff and the average salaries that were paid for the identified positions are:

| **Position** | **Aver. Salary** |
|---|---|
| Director | $74,165 |
| Superintendent | $80,000 |
| Secretary | $31,833 |
| Postsecondary Officer/Clerk | $40,036 |
| Associate Director | $53,000 |
| Executive/ Admin Assistant | $39,433 |
| Assistant/Deputy Director | $68,946 |
| Finance Manager | $80,000 |
| Curriculum/Lang Arts | $78,000 |
| Special Education Coordinator | $59,184 |
| Executive Secretary | $37,443 |

The following is an example of a salary scale that was provided by one of the First Nations communities surveyed:

| Sample Scale Education Authority | Salary Range | |
|---|---|---|
| | Min | Max |
| Director of Education | $55,838 | $69,808 |
| Assistant Director of Educ | $42,574 | $53,208 |
| Spec Educ Coordinator / Ped Counselor | $30,845 | $61,892 |
| Executive Secretary | $33,272 | $41,613 |
| Post- Secondary Officer | $33,272 | $41,613 |
| Administrative Assistant | $33,272 | $41,613 |

## 7.4 Summary of Findings

In Alberta and Quebec, smaller school boards (usually of less than 2000 students) are funded using a base allocation, with a declining scale for boards between 2000 and 3000 students. Other provinces provide stipends and travel allowances for school board members or trustees, and Ontario provides specific funding for administrative staff working under a school board. The territories provide funding for school councils and education authorities, as well as travel expenditures.

First Nations schools provide honoraria and cover the expenses of their school committees based on an average cost of $12,000 per school from the examples that we have viewed.

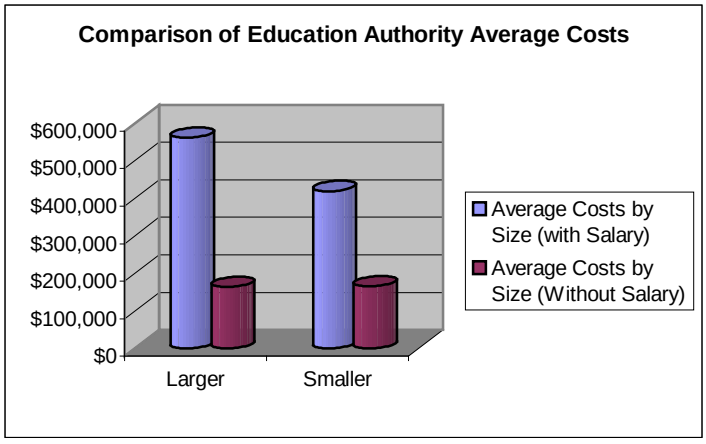
We have seen that an average local education authority of medium size would manage at least:

- 3 schools,
- 2 tuition agreements with provincial schools,
- An average of 4 buildings,
- 8 school buses or a bussing contract,
- At least 3 different departments,
- Several funding projects,
- An average of 78 teachers with a turnover of at least 8%,
- A total average staffing of 118,
- A student body (for elementary/secondary) of around 760 students. (Two of the education authorities sampled had over 1100 students.)

The largest expenditure for a local education authority is salary (68%), which was dependent on the size of the education authority. The non-salary costs, as shown by the examples we viewed, were not affected by size and remain the same for larger or smaller education authorities.

**Average Expenses for an Education Authority by Size (Without Salary)**

| | Larger | Smaller |
|---|---|---|
| Office Rental | $63,483 | $69,003 |
| Office Supplies | $19,125 | $3,197 |
| Equipment Rental | $8,750 | $4,746 |
| Telecommunication | $34,250 | $3,370 |
| Professional Dev | $6,250 | $33,333 |
| Travel | $10,000 | $6,100 |
| Service Contracts | $6,250 | $6,900 |
| Recruitment Teachers | $6,400 | $3,667 |
| Other: | $8,525 | $34,570 |
| Total Costs | $163,033 | $164,885 |




## 7.5 Considerations

Taking into account the review of the literature, and the examples of local education authorities that we reviewed, we would believe that the amount of $20,000 that was provided for education administration under the previous national distribution formula some ten years ago would no longer be adequate for First Nations communities. This is true, particularly in light of the changes to the

education programs and schools, and the development of First Nations education programs and schools.

The role of parents in the education of their children is extremely important, and is a major premise of the 1972 National Indian Brotherhood (NIB) Indian Control of Indian Education Policy Statement, and other literature. Therefore, we would suggest that:

1. Within the context of a formula, a separate allocation is provided for funding school committees within the range of the examples provided which averaged $12,000 per school. The allocation should be based on a per capita grant since the scope of the school committee would be in relation to the size and enrolment of the school.

2. Parents and other stakeholders should ultimately be part of the decision making process for the community schools and education programs. They can oversee the program through an administrative center. Currently, the extensive program reporting and accountability requirements of the Elementary and Secondary program presuppose that an administrator is in place to be responsible for these programs, and to meet the reporting deadlines.

   Therefore, we suggest that consideration be given to providing a base allocation for an education authority that would cover the salary of a Director or other administrator, a secretary or other assistant, and basic overhead costs.

   The amount of the allocation could be based on a similar formula to self-governing agreements which provide an amount of 5% of the total budget for administration costs. Administration of the Elementary and Secondary program could be based on 5% of the total budget which would allow for differences in size and responsibilities between First Nations communities.

   This allocation is different from the administration dollars needed to operate schools; this is for the cost of managing the Elementary and Secondary programs within the community. This should not replace the school administration dollars.

# SECTION 3: COST VARIABLES

## *1.0 School Size*

### 1.1 Introduction

The size of a school is determined in one of two ways, by looking at the total enrollment or by looking at the average grade size. However, looking at the total enrollment is misleading. The grade configuration of the school must be taken into account when analyzing school size for funding purposes.

A K-12 school with a population of 250 students is actually a lot smaller than a K – 6 (or 8) Elementary School with a population of 200 students because the number of students at each grade level is greater in the elementary school. In the same way, a K-3 school with a population of 200 would be larger than the Elementary School in the previous comparison.

### 1.2 Background and Literature

Within the 1996-1997 National Funding Formula for First Nations schools, there is a Small School factor that is applied as an adjustment to the total amount of core funding. The small school factor is calculated based on the average number of students per grade in the school using the following grid:

- 5 students per grade = an adjustment of 0.05
- 6 - 10 students per grade = an adjustment of 0.25
- Students >10 = 0.00

In BC, the Small Communities portion of the Supplement for Unique Geographic Factors provides additional funding for districts that need to operate schools in remote communities with small populations. There are three categories comprising the Small Community Supplement:

A. Elementary Small Community Funding

**Eligibility:** Communities with 250 or fewer elementary school-age FTE students:

For each community with 110 or fewer elementary FTEs: Lesser of $126,000 or ($10,000 x FTEs)

For each community with 110 to 250 elementary FTEs: $126,000 – ($900 x (FTEs – 110))

B. Secondary Small Community Funding

**Eligibility**: Communities with 635 or fewer secondary school-age FTE students:

For each community with 100 or fewer secondary FTEs: FTEs x $3,745

For each community with 100 to 635 secondary FTEs: $374,500 – ($700 x (FTEs – 100))

C. Grade 11 and 12 Small Community Funding

**Eligibility:** Communities eligible for the Secondary Small Community Funding, and with school-age enrolments in Grades 11 and/or 12:

For each community with 15 or fewer Grade 11 & 12 FTEs: $10,000 per FTE

For each community with more than 15 and less than 215 Grade 11 & 12 FTEs:

$150,000 – ((FTEs – 15) x $750)[137]

Contrary to the picture of schools in BC and many other provinces, remote and isolated First Nations communities in provinces such as Northern Manitoba are often quite large, indicating that the small schools factor would need to be addressed separately from the geographic factor.

In funding small school boards, many of the provinces such as Alberta and Quebec use a base allocation to ensure that basic services and programs can be delivered. Similarly, the same is also applied to small schools within a board, where the school enrollment does not provide for class sizes as large as those anticipated by a funding matrix.

In Quebec, a form of school organization supplement is applied to small schools, based on a calculation which provides the salary to give an extra post (s) to support the organization of a small school. In addition, there is a base allocation of $19,500 for schools with 100 students or less. The Ministry in Quebec also provides forms of student weighting to provide assistance with organizing for course options. An example is provided below from the Budget Regulations Manual.[138]

[137] BC (2005). *2005/06 Operating Grants Manual*. Ministry of Education of British Columbia, March 2005.

[138] MELS (2005). *Régles Budgetaires*. Direction Générale du Financement et de l'équipement, Ministère de l'éducation, loisirs et sports, Québec

Lorsqu'un groupe ou moins est formé par degré pour le secondaire 1 et 2, un ajustement est apporté pour faciliter le dédoublement des groupes pour les cours à option :

| Total des élèves de la commission scolaire (tel qu'il est défini au document D, page 3) | Ajustement en groupe |
|---|---|
| 9 000 élèves ou plus | 0,33 groupe |
| Moins de 9 000 élèves | 0,50 groupe |

Cet ajustement s'applique également pour le secondaire 3, 4 et 5.

Student weighting is another form of providing resources targeted to a specific area of need or academic sensitivity.

Manitoba provides small schools support geared mainly for rural schools. The support is provided in the form of whichever is least costly – the actual cost of the small school program, or the application of per student supplements based on a grid.

In Ontario, similar to BC, funding for small boards is part of the Remote and Rural Allocation which supports the higher per-pupil costs for goods and services. It is based on a per pupil allocation of $308 that decreases with the size of the enrollment.

In Alberta, the funding manual provides for "small schools by necessity" funding. This is applied to schools where, because of distance, students cannot be transported to another school, and for which there are no other schools within this distance that can accommodate additional students or grade levels. The formula provides a base allocation of $78,030 for each school with a funded enrollment of 150 or less, and a decreasing amount for an enrollment between 151 and 226. It also provides a variable allocation in addition to the base. The variable allocation is provided to schools which have a particular grade configuration and a peak enrollment.

Nova Scotia provides a Class Size Supplement based on a calculation of the average enrolment per grade level per board minus the provincial average, multiplied by a teacher resource matrix, multiplied by the average teacher salary per board, plus benefits. This is to ensure that all small schools have adequate teaching resources.

## 1.4 Examples of First Nations Schools

Nationally, in terms of size enrolment, 53.1% of First Nations schools have up to 100 students, 43.6% of schools have between 101 and 500 students, and 3.3% of schools have more than 500 students. Of interest is the fact that 24.1% of schools have less than 26 students.

The following table provides the national picture of First Nations schools by enrolment:[139]

| Enrolment Range | Total | % of Schools |
|---|---|---|
| 1-10 | **53** | **10.3%** |
| 11-25 | **71** | **13.8%** |
| 26-50 | **73** | **14.2%** |
| 51-100 | **76** | **14.8%** |
| 101-200 | **104** | **20.2%** |
| 201-300 | **77** | **15.0%** |
| 301-500 | **43** | **8.4%** |
| 501-750 | **10** | **1.9%** |
| >750 | **7** | **1.4%** |
| **Total** | **514** | **100.0%** |

The next table provides the average size of First Nations schools by teaching level and by region[140].

| | Average Number of Students per Teaching Level | | | | Average School Size |
|---|---|---|---|---|---|
| **Regions** | **Average # Kindergarten** | **Average # Elementary** | **Average # Secondary** | **Average # Special Class** | |
| Atlantic** | 21 | 58 | 1 | 0 | 57 |
| Quebec | 37 | 129 | 87 | 0 | 189 |
| Ontario | 24 | 102 | 68 | 0 | 119 |
| Manitoba | 46 | 201 | 69 | 0 | 230 |
| Saskatchewan | 33 | 121 | 66 | 0 | 196 |
| Alberta | 43 | 131 | 51 | 0 | 178 |
| British Columbia | 13 | 32 | 29 | 15 | 44 |

** Note: There appear to be a lot of anomalies in the data for the Atlantic region. Many of the students and schools appear not to be included which may have happened because they are under the Mi'kmaw Kina'matnewey Self-Government Agreement.

[139] Table prepared using INAC Spreadsheet # Band and Federal Schools, Collette Lacasse.
[140] Table was prepared using data from INAC Excel Spreadsheet # BDFDSCH, Collette Lacasse.

The last table divides the First Nations schools by region and by size. Schools have been categorized as either less than 100, between 100 and 400, or over 400 students. There are four schools in rural and isolated Manitoba that have between 900 and 1200 students, as well as the Wahsa Distance Education Center in northern Ontario that provides educational services to approximately 1000 isolated students.

| | **School Size Per Region** | | | | | | |
|---|---|---|---|---|---|---|---|
| **Regions** | **Less than 100** | | **100-400** | | **over 400** | | **Total Schools** |
| | Number | Percent | Number | Percent | Number | Percent | |
| Atlantic | 12 | **80%** | 3 | **20%** | 0 | **0%** | 15 |
| Quebec | 11 | **28%** | 26 | **65%** | 3 | **8%** | 40 |
| Ontario | 74 | **62%** | 41 | **34%** | 4 | **3%** | 119 |
| Manitoba | 31 | **40%** | 32 | **42%** | 14 | **18%** | 77 |
| Saskatchewan | 18 | **22%** | 62 | **76%** | 2 | **2%** | 82 |
| Alberta | 20 | **32%** | 40 | **65%** | 2 | **3%** | 62 |
| British Columbia | 106 | **89%** | 13 | **11%** | 0 | **0%** | 119 |
| **Totals** | **272** | **53%** | **217** | **42%** | **25** | **5%** | **514** |

## 1.5 Summary of Findings

The following table provides an overview of the results of the application of the National Formula Small Schools factor to an Elementary K-8 of varying populations of 50, 90 and 100 students.

| **K-8** | **# of Grades** | **Core Funding** | **Small School** | **Total Core Funding** | **Per Capita** |
|---|---|---|---|---|---|
| 50 | 10 | $4,522 x 50 = $226,100 | $11,305 (factor of 0.05) | $237,405 | $4,748 |
| 90 | 10 | $4,522 x 90 = $406,980 | $10,745 (factor of 0.25) | $417,725 | $4,819 |
| 100 | 10 | $4522 x 100 = $452,200 | - | $452,200 | $4,522 |

The results of the table indicate that:

- Those schools with enrolments greater than 50 students but remaining within the eligible range, receive more funding per capita than do small schools (with a higher factor);
- Schools who exceed 90 students (but do not have very many more students) receive much less per capita than schools of between 50 and 90 students.

In many provinces the costs of small boards and small schools are tolerated based on the belief that all students should have access to the same quality of services and programming, and therefore equal opportunity to the same educational outcomes.

The following charts show examples of the types of funding provided to ensure that adequate and not equal funding is provided:

| | | |
|---|---|---|
| Francophone Board (210 students) | Labrador/Newfoundland [141] | $21,334 per student |
| Frontier School Boards | Manitoba [142] | $12,696 per student |
| Francophone Board | Manitoba | $10,203 per student |
| Conseil francophone | Saskatchewan [143] | $13,816 per student |
| Schools North | Saskatchewan | $10,606 per student |
| Moyenne Cote Nord | Quebec [144] | $12,874 per student |
| Cree School Board | Quebec | $22,258 per student |
| Kativik School Board | Quebec | $22,858 per student |

The basic principle is that regardless of size, there are some costs that will always exist such as the salary of the teacher, and others that are proportional to the size of the program such as the number of textbooks. Funding small schools is about adequacy, to ensure that there is a full salary for the teacher, and enough qualified teachers to deliver the same quality programming as a student in any other school.

[141] Nfld/Lab (2005). Education Statistics - Elementary-Secondary, 2004-2005. Ministry of Education
[142] Manitoba (2005) Frame Budget 2004-2005, Ministry of Education. Manitoba
[143] Saskatchewan (2004), Saskatchewan Indicators Report, 2004.
[144] FNEC (2005). An Analysis of Educational Costs and Tuition Fees: Preschool, Elementary and Secondary. First Nations Education Council.

## 1.6 Considerations

Small schools have the least resources to be able to provide both comparable provincial curriculum and local cultural programming. All students have the right to access to the same educational outcomes. Therefore we would suggest that:

1. The adjustment for small schools should not be based on the approach of multiplying the core funding by a decimal percentage. The core funding is insufficient, so the percentage will be insufficient also.

2. Rather, the adjustment for small schools should be either:
    i. A base allocation to ensure that adequate programming and services are provided perhaps similar to BC which provides a supplement of up to $180,000 for an elementary school with less than 250 students, up to $300,000 for a secondary school with less than 100 secondary students; and up to $150,000 for a school with less than 15 secondary students for grades 11 and 12; or,

    ii. A salary supplement per class based on a calculation of the difference in the class enrolment and the actual pupil-teacher ratio as a percentage multiplied by the average teacher's salary. This would provide the extra salary to ensure adequate teacher resources, and the ability to organize according to pedagogical needs as shown in the following example:

| Teaching Level | Hiring PTR | Class Enrollment | Population Difference | Factor | Average Salary | Salary Supplement |
|---|---|---|---|---|---|---|
| **Grade 6** | **12** | **8** | **4** | **0.33** | **$38,000** | **$12,540** |
| Calculation | | | 12-8 | 4/12 | | 0.33 x $38,000 |

# *2.0 Geography and Location*

## 2.1 Introduction

The allocation of funds to First Nations for many programs is influenced by factors such as geographic location, distance from major population centres, and the local climatic condition. First Nations are classified according to these factors and assigned remoteness and environmental indices which are used in calculating funding allocations. The Band Classification Manual provides a listing of First Nations and their remoteness and environmental indices, as well as the city centre, the service centre, and the most populous reserve that is used to determine the indices.

Presently under the National Funding Formula, First Nations schools are indexed for location/distance using these combined Geographic indices from Annex F of the Band Classification Manual. However, since at the time of implementation only 50% of the costs were considered as sensitive to this index, the geographic index that is listed for each community is applied to only 50% of the core funding. The index is applied to offset higher service delivery costs, and second level consultative costs, as well as teacher recruitment and isolation premiums.

## 2.2 Background and Literature

In BC, variations in location and demography are addressed through the Supplement for Unique Geographic Factors. The physical and environmental component of the Supplement for Unique Geographic Factors recognizes four characteristics of districts:

- Low district enrolment,
- Rural factors, measured by the population of the community where the board office is located, combined with the distance to Vancouver (Ministry of Education) and to the nearest regional education centre,
- Sparseness, measured by the distance between the board office and each school,
- Climate, defined by the number of degree days of heating above the provincial minimum.[145]

[145] BC Min. of Educ (2003). *Operating Grants Manual 2003/04—2005/06*, Ministry of Education, pp. 15-16.

The province of Manitoba provides "sparsity support" – for rural and northern schools with a dispersion factor A/B of less than 10 (where A is the total eligible enrollment and B is the area of the school division). The formula provides an additional amount of $11 per student. As well, Manitoba provides a Northern allowance of $550 per eligible pupil for Frontier School Division and school divisions/districts that lie north of the 53rd parallel.

Northern allowance funding for Alberta recognizes the added cost of operating schools, to obtain services and to move goods to schools located in the northern regions of the province. Northern allowance funding is provided to a school jurisdiction based on the FTE funded enrolment of all schools located in their respective zones. Zones are described as follows:

a) Lower Zone – schools located between the 55th and 56th parallels of latitude, e.g. Grand Prairie, High Prairie and Slave Lake.

b) Intermediate Zone – schools located between the 56th and 57th parallels of latitude, e.g. Peace River, Fort McMurray and Manning.

c) Upper Zone – schools located north of the 57th parallel of latitude, e.g. Fort Vermilion, High Level and Zama City.

As well in Alberta, the relative cost of purchasing goods and services adjustment (RCPA) funding recognizes the local cost difference of goods and services among school jurisdictions. 20% is applied to the Total Eligible funding provided by Alberta Education to a school jurisdiction in a school year and adjusted by the RCPA Adjustment Factor. 47% is applied to all Transportation and Boarding funding (ECS to Grade 12), provided by Alberta Education to a school jurisdiction for a school year and adjusted by the RCPA Adjustment Factor.

The Distance/urban Factor in Ontario is part of the Remote and Rural Allocation. This component takes into account the additional costs of goods and services related to remoteness and the presence or absence of urban centers. This also recognizes that much like remote boards, French-language school boards in southern Ontario operating in a minority language context face higher costs obtaining goods and services. Distance is measured from the nearest defined cities of Toronto, Ottawa, Hamilton, London or Windsor to the town or city located nearest to the geographic center of the board. A per pupil allocation is provided. Boards are also funded on the School dispersion component which recognizes the costs of providing goods and services to students in widely dispersed schools.

In Quebec, the geographic factors include remoteness and density of population, and are applied to the Base Allocations for Administration, Equipment and the Youth Sector. They are based on:

- Average distance between the administration buildings of the school commission;
- Average distance between the schools and the Administration Centre of the school commission (dispersion);
- The distance between the Administrative Centre of the school commission and the regional offices of the Ministry of Education;
- The distance between the Administrative Centre of the school commission and the Ministry of Education offices in Quebec City or Montreal.

## 2.3 Examples of First Nations Schools

Nationally, the distribution of First Nations schools by Geographic Index according to the Band Classification Manual is as follows:[146]

| | Urban* | Rural | Remote | Special Access | Total |
|---|---|---|---|---|---|
| **Number of Schools** | 162 | 241 | 13 | 98 | 514 |
| **% of Schools** | 31.5% | 46.9% | 2.5% | 19.1% | 100.0% |
| **Total Students** | 19,179 | 34,496 | 2,141 | 16,775 | 72,591 |
| **% of Students** | 26.4% | 47.5% | 2.9% | 23.1% | 100.0% |

* Urban is defined by INAC as a school within 50 km of a Service Center which could be a small town/village where basic government and banking services can be obtained (e.g., Geraldton, Ontario)

The following table provides the national distribution of school size within those geographic indices:[147]

| Enrolment Range | Number of Schools in Each Remoteness Zones | | | | Total | % of Schools |
|---|---|---|---|---|---|---|
| | Urban* | Rural | Remote | Special Access | | |
| 1-10 | 20 | 24 | 1 | 8 | **53** | **10.3%** |
| 11-25 | 24 | 33 | 2 | 12 | **71** | **13.8%** |

[146] INAC (2006). Excel spreadsheet # Band and Federal Schools, Collette Lacasse, INAC
[147] Ibid

| Enrolment Range | Number of Schools in Each Remoteness Zones | | | | Total | % of Schools |
|---|---|---|---|---|---|---|
| | Urban* | Rural | Remote | Special Access | | |
| 26-50 | 22 | 39 | 2 | 10 | **73** | **14.2%** |
| 51-100 | 27 | 30 | 1 | 18 | **76** | **14.8%** |
| 101-200 | 35 | 47 | 2 | 20 | **104** | **20.2%** |
| 201-300 | 20 | 42 | 2 | 13 | **77** | **15.0%** |
| 301-500 | 12 | 19 | 2 | 10 | **43** | **8.4%** |
| 501-750 | 1 | 3 | 1 | 5 | **10** | **1.9%** |
| >750 | 1 | 4 | 0 | 2 | **7** | **1.4%** |
| **Total** | **162** | **241** | **13** | **98** | **514** | **100.0%** |

The last table shows the geographic indexes of First Nations schools by regions:

| Regions | Urban | Rural | Remote | Special Access | Total Schools |
|---|---|---|---|---|---|
| Atlantic | 10 | 5 | 0 | 0 | 15 |
| Quebec | 26 | 8 | 3 | 3 | 40 |
| Ontario | 31 | 46 | 0 | 42 | 119 |
| Manitoba | 6 | 45 | 0 | 26 | 77 |
| Saskatchewan | 10 | 64 | 4 | 4 | 82 |
| Alberta | 33 | 26 | 0 | 3 | 62 |
| British Columbia | 46 | 47 | 6 | 20 | 119 |
| **Totals** | **162** | **241** | **13** | **98** | **514** |

**Anecdotal Comments:**

Some of those schools that we surveyed made comments regarding the current form of geographic index. The general nature of the comments was:

- Many felt that there is no consideration for the conditions of the road providing access. The only condition that is used is distance, but in some cases the access is more difficult and costly than for a fly-in community with 3 regular flights a day landing in the community.
- In one example, delivery was refused to their area because of the remoteness and the type of road access, so the community had to provide storage for delivered items in another town further away. The

community had to send a pickup to collect the delivered items. These extra costs are not considered.

- Others mentioned having an urban designation although they were rural communities away from town, with small gravel roads.

## 2.4 Summary of Findings

Many of the provinces address the remoteness factors by providing additional funding generated in different ways. Many provinces provide a "Northern Allowance" for remote and isolated schools in the northern regions of the province.

In addition, Alberta provides a special allocation that addresses regional cost differences in purchasing. This is applied to the particular cost-sensitive portion of the education program such as transportation, etc. The province of Ontario applies a similar approach for purchasing. Other provinces such as Manitoba address the additional costs of sparsity or dispersion.

The INAC remoteness and isolation factors that are used for calculating the community indexation for education are based on a Band Classification Manual, and do not take into consideration the educational realities of First Nation Communities. The designation of distance from a service center may not accommodate the pedagogical needs of the community that may require educational services which are not found in the closest service center.

The following is a resume of the definitions that are used by the Band Classification Committee for classifying all the communities regarding geographic index.[148]

***City Centre:*** *A major population centre where various economic indices can be defined for calculating operation and maintenance (O&M) funding requirements for departmentally funded capital assets.*

***Service Centre:*** *The nearest community in which a First Nation can access government services, banks and suppliers. The nearest community would have the following services available:*

*(a) Suppliers, material and equipment (i.e. for construction, office operation,);*

[148] INAC (2005). *Band Classification Manual.* Corporate Information Management Directorate Information Management Branch. May 2005.

*(b) A pool of skilled and semi-skilled labour;*
*(c) At least one financial institution (i.e., bank, trust company, credit union…)*
*(d) Provincial services (such as health services, community and social services, environment services);*
*(e) Federal services (such as Canada Post, Employment Centre)*

***Road Access:*** *Includes surface transportation on year-round paved or gravelled roads linking a First Nation community with the nearest service centre. Under this definition, ferry service forming part of the provincial road network and capable of transporting adequate quantities of required material, equipment and supplies, constitutes road access. Temporary disruptions (such as during spring thaw) are not considered to constitute a break in normal access.*

***Geographic Zones:***

*Zone 1:* *The First Nation is located within 50 km of the nearest service centre with year-round road access.*
*Zone 2:* *The First Nation is located between 50 and 350 km from the nearest service centre with year-round road access.*
*Zone 3:* *The First Nation is located over 350 km from the nearest service centre with year-round road access.*
*Zone 4:* *The First Nation has no year-round road access to a service centre and, as a result, experiences a higher cost of transportation.*

As can be seen above, these references apply very well when referring to the purchasing of office supplies, or banking services, or the services of a contractor. However, in most cases, the factors do not pertain to the business of schools and schooling. They do not consider the following educational needs:

- The distance to access regional or provincial pedagogical services for the school.
- The distance to the nearest provincial school with the same language of instruction.
- The additional costs of hiring qualified replacement teachers.
- The distance to the nearest First Nation School within the same Nation for language and cultural sharing.
- The distance to be traveled to a city to seek teachers or professional services for the school.
- Road access that also affects the ability to hire teachers who may not want to travel the road or the distance, and the additional cost of maintaining boarding for teachers and other professionals.

- Access to library resources particularly for remote communities, available in the working language of the community.
- Cost of moving teachers to the community for the school year.

## 2.5 Considerations

Having reviewed how the provinces address this variable, and the concerns of the First Nations schools we reviewed, we would like to suggest that:

1. A new form of remoteness formula should be developed to be used specifically for the education program that will address the higher costs of obtaining goods and services of a pedagogical nature for First Nations schools. This new formula should consider the distance from a pedagogical center rather than a service center.

2. A review should be conducted of the actual classification of the communities and their schools in reference to urban, rural, remote and special access that would take into account the situation of the actual location of the community and the road access provided, rather than just measuring the distance.

# *3.0 Annual Indexation*

## 3.1 Introduction

In addition to increases in volume or surface area, indexation is a built-in adjustment to a funding formula that allows the dollar component to remain current with any cost of living increases. Currently the 1996 National Funding Distribution Formula does attempt to address volume increases in each region, but does not have cost of living indexation built into it.

Currently, multi-year agreements provide the indexation in place of the national formula. Those First Nations communities who are on a multi-year agreement receive an annual adjustment of an average of 2%, but those First Nations who are on an annual FTA agreement do not benefit from any indexation at all, however, they continue to receive volume increases. Those on multi-year agreements may experience a 5% increase in volume so the average indexation adjustment of 2% is often lost in the volume increase.

## 3.2 Consumer Price Index

The Consumer Price Index is a measure of the rate of price change for goods and services bought by consumers. It is the most widely used indicator of price changes in Canada. The CPI is relevant to all those who earn and spend money. When prices rise, then the purchasing power of money drops. When prices drop, it means the purchasing power of money increases. The CPI is frequently used to estimate the extent to which this purchasing power of money changes in Canada; it is a measure of inflation (or deflation).

The Consumer Price Index is linked directly or indirectly to most forms of social and welfare payments, rental agreements, spousal and child support payments, contractual and price-setting arrangements and cost of living adjustment clauses (COLA) for wages.

## 3.3 Education Price Index

The Education Price Index (EPI) was established in the 1970's to estimate whether changes in elementary and secondary education operating expenditures are attributable to inflation or variations in the quantity and quality of goods and services purchased by schools, including teaching services. The EPI is used mainly to indicate price changes in elementary and secondary education, and to express its expenditures in constant dollar amounts. The following table provides

the level and annual growth rate of the EPI and its major components compared with the Consumer Price Index (CPI).

| **Level and annual growth rate of the EPI and its major components compared with the CPI (1992=100)** | | | | | |
|---|---|---|---|---|---|
| | **1999** | **2000** | **2001** | **2002** | **2003** |
| **Education Price Index (EPI)** | **110.1** | **113.5** | **116.9** | **120.1** | **124.2** |
| Salaries and wages | 106.5 | 108.9 | 112.1 | 115.4 | 119 |
| Teachers' salaries | 106.3 | 108.5 | 111.5 | 114.9 | 118.6 |
| Non-teaching salaries | 108.3 | 112.3 | 117.5 | 120.1 | 121.8 |
| Non-salary | 127.9 | 135.8 | 139.9 | 142.9 | 149.2 |
| Instructional supplies | 153.9 | 167.7 | 167.7 | 168.5 | 168.5 |
| School facilities, supplies & services | 109.4 | 118 | 124.7 | 127.7 | 139.8 |
| Fees and contractual services | 122.7 | 126.8 | 131.9 | 136.2 | 143 |
| **Consumer Price Index (CPI)** | **110.5** | **113.5** | **116.4** | **119** | **122.3** |
| Note: Growth rates may differ slightly due to rounding. | | | | | |

## 3.4 Provincial Indexation for Public Education

All funding for the salaries of provincial educators are automatically indexed annually for cost of living increases, for increases in the cost of employee's share and for step increments for experience. For example, in Ontario, the funding grant automatically provides 12% for educators' salary, and 18% for secretary's salary according to the corresponding collective agreements. Most provincial allocations other than salary are indexed annually where applicable according to the appropriate EPI index.

In addition to regular indexation, the province of Alberta provides the Relative Cost of Purchasing Goods and Services Adjustment (RCPA) Funding which recognizes the local cost difference of goods and services among school jurisdictions. A percentage (20%) of this is applied to total eligible funding, and a larger percentage (47%) is applied to all transportation and boarding funding. The index has a minimum value of 1.0 for all school jurisdictions to ensure that a school jurisdiction will not lose funding under the RCPA formula.

## 3.5 Analysis of National Formula in relation to EPI

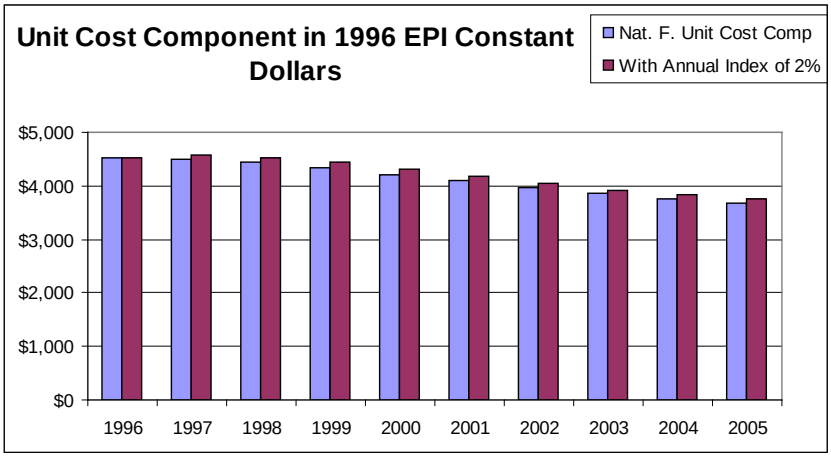
The following chart provides an overview of the Education Price Index and some of the sub-indexes, such as teachers' salary, since the last change in the National Formula in 1996. The latest published index is only for 2003.

**Table: Education Price Index and Components 1996- 2003[149]**

| EPI Index categories | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|---|---|---|---|
| Canadian Education Price Index | 138.2 | 139.31 | 140.61 | 143.88 | 148.31 | 152.71 | 156.92 | 162.2 |
| Teachers' salaries | 102.38 | 102.94 | 103.96 | 106.25 | 108.51 | 111.49 | 114.85 | 118.64 |
| Non-teaching salaries | 101.72 | 103.2 | 105.94 | 108.29 | 112.28 | 117.47 | 120.09 | 121.82 |
| Instructional supplies | 155.47 | 152.45 | 148.99 | 153.89 | 167.74 | 167.74 | 168.52 | 168.51 |
| School facilities, supply/services | 102.12 | 105.84 | 105.97 | 109.37 | 117.99 | 124.71 | 127.67 | 139.75 |
| Fees and contractual services | 114.27 | 117.97 | 119.97 | 122.73 | 126.84 | 131.94 | 136.18 | 142.97 |

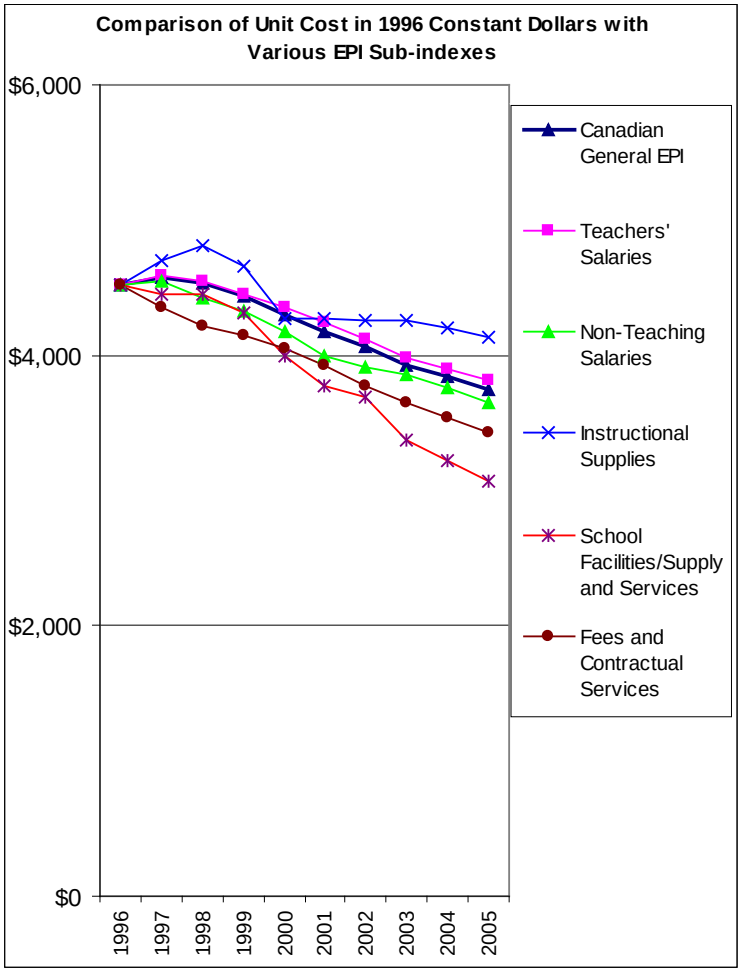
In 2003, the Education Price Index (EPI) increased 3.4%, while the rate of inflation as measured by the Consumer Price Index (CPI) rose 2.8%. According to Statistics Canada, between 1992 and 2003, the EPI increased 24% or an average annual increase of 2.2%[150]. This has tremendously affected the purchasing ability of First Nations education systems to be able to deliver comparative services. Currently in 2005, the National Formula Unit Cost Component of $4,522 if expressed in 1996 EPI constant dollars would be only $3,672. Even with the 2% increase provided each year thereafter to the regions for cost of living, the National Formula Base Allocation to the regions for 2005 expressed in 1996 EPI constant dollars is $3,745 per student.

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Nat. F. Unit Cost Comp** | $4,522 | $4,486 | $4,446 | $4,346 | $4,215 | $4,093 | $3,981 | $3,850 | $3,764 | $3,672 |
| **With Annual Index of 2%** | $4,522 | $4,576 | $4,535 | $4,433 | $4,300 | $4,175 | $4,061 | $3,927 | $3,839 | $3,745 |

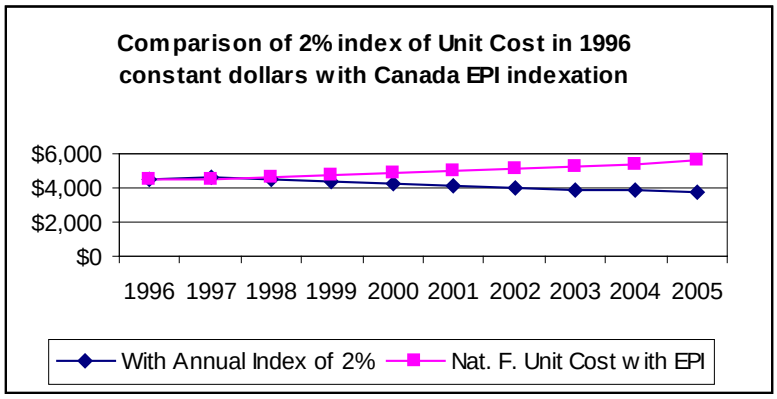


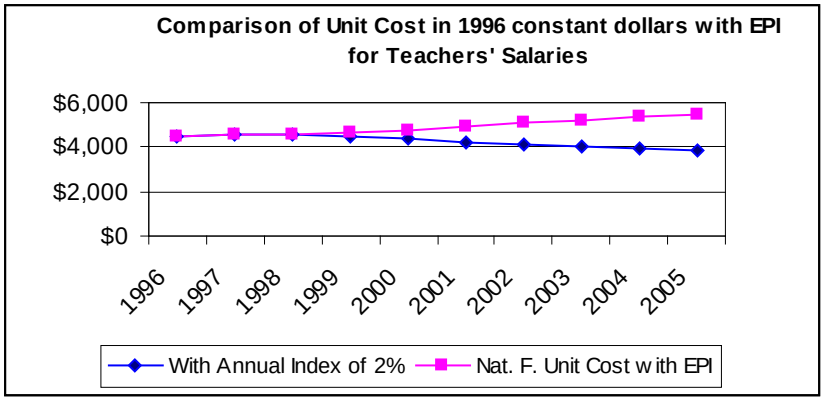

[149] SC (2005). "Education Price Index", The Daily, Statistics Canada, Friday March 11, 2005 viewed at http://www.statcan.ca/Daily/
[150] ibid

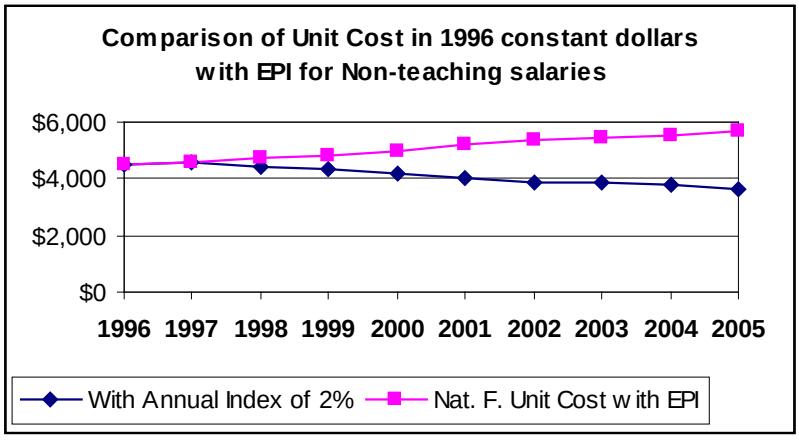
The next chart provides a view of comparison of the National Formula Unit Cost component of $4,522 in 1996 constant dollars with the EPI and various sub-indexes.

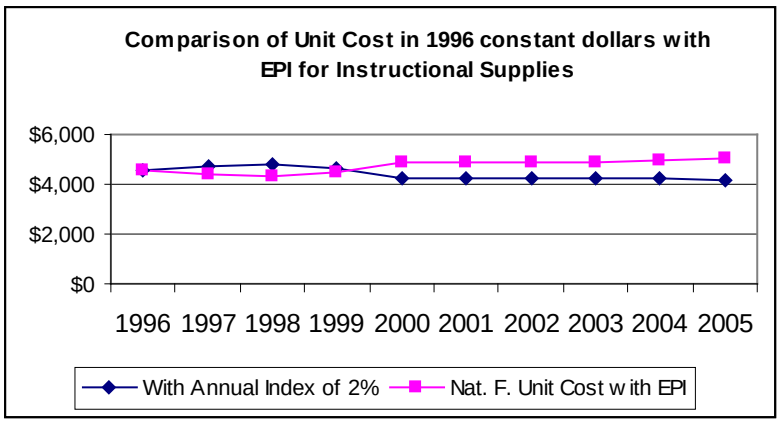


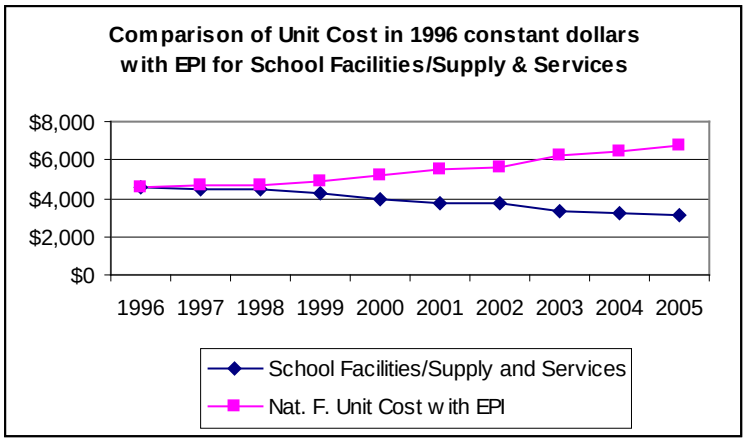

The following charts provide comparisons of the Indexed National Unit Cost Component in 1996 constant dollars compared to the same amount indexed according to each of the various EPI sub-indexes for teachers' salaries, non-teaching salary, instructional supplies, school facilities /supply and services, and fees and contractual services.

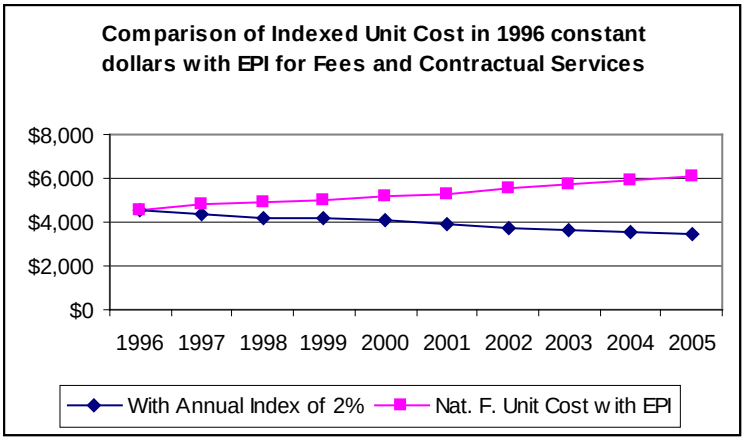

Comparison of 2% index of Unit Cost in 1996 constant dollars with Canada EPI indexation
$6,000
$4,000
$2,000
$0
1996 1997 1998 1999 2000 2001 2002 2003 2004 2005
With Annual Index of 2%
Nat. F. Unit Cost with EPI


Comparison of Unit Cost in 1996 constant dollars with EPI for Teachers' Salaries
$6,000
$4,000
$2,000
$0
1996 1997 1998 1999 2000 2001 2002 2003 2004 2005
With Annual Index of 2%
Nat. F. Unit Cost with EPI


Comparison of Unit Cost in 1996 constant dollars with EPI for Non-teaching salaries
$6,000
$4,000
$2,000
$0
1996 1997 1998 1999 2000 2001 2002 2003 2004 2005
With Annual Index of 2%
Nat. F. Unit Cost with EPI


Comparison of Unit Cost in 1996 constant dollars with EPI for Instructional Supplies
$6,000
$4,000
$2,000
$0
1996 1997 1998 1999 2000 2001 2002 2003 2004 2005
With Annual Index of 2%
Nat. F. Unit Cost with EPI


Comparison of Unit Cost in 1996 constant dollars with EPI for School Facilities/Supply & Services
$8,000
$6,000
$4,000
$2,000
$0
1996 1997 1998 1999 2000 2001 2002 2003 2004 2005
School Facilities/Supply and Services
Nat. F. Unit Cost with EPI


Comparison of Indexed Unit Cost in 1996 constant dollars with EPI for Fees and Contractual Services
$8,000
$6,000
$4,000
$2,000
$0
1996 1997 1998 1999 2000 2001 2002 2003 2004 2005
With Annual Index of 2%
Nat. F. Unit Cost with EPI

### 3.6 Summary of Findings

The funding provided for public education in the provinces and territories is indexed annually to meet the cost of education increases provided by the EPI, as well as the annual salary increases due to scale and increased cost of employer's share. Some provinces such as Alberta provide separate funding for the cost of purchasing goods and services in particular areas.

The funding under the National Formula not been increased since 1996-1997. The current 2005 funding of $4,522 Unit Cost provided in 1996 constant EPI dollars is actually $3,745 even with the 2% indexation

The charts on the previous pages have indicated the gap that currently exists in First Nations funding in many areas from the lack of appropriate indexation.

To be accurate, any comparison of per-student spending among different provinces should take into account regional differences in terms of the cost of living, which affect the amount of per student spending. An example is in Quebec. The cost of living is lower in Québec than the average for the rest of Canada (about 8% lower in 2002-2003). If comparison data is adjusted to take the cost of living into account, per-student spending is even higher in Québec (in real terms). In the same way, a funding formula cannot remain the same across the country; it should take into account regional differences in cost of living.

### 3.7 Considerations

Therefore we would suggest that consideration be given to the following:

- The provision of a retroactive adjustment to First Nations schools for the deficiency in EPI indexation.
- The funding for salary should include an automatic annual indexation.
- The funding for all other allocations (non-salary) should include an appropriate annual indexation according to the relevant EPI sub-index.
- That in any funding formula, indexation should not replace annual increases in funding due to volume increases.
- The formula must be reviewed every 5 years for adequacy, and to account for any changes in funding priorities.

# SECTION 4: SUMMARY

The following section provides a summary of the findings and suggestions from each of the chapters on Cost Drivers.

| Cost Driver | Description/Findings | Findings/Considerations |
|---|---|---|
| **Section 3, Chapter 1, Pages 38 - 66** | | |
| **First Nations Language and Culture** | Language and culture is seen as a critical component of a First Nation child's identity, especially as they enter and go through adolescence.<br>All First Nations learners have a right to learn about who they are through their language and culture. Indeed, language, culture, spiritual values and self-identity are inseparable.<br>Many First Nations schools are trying to deliver some measure of language and cultural programs with very limited resources.<br>The Federal government through various initiatives has committed to continue to work with First Nations people to establish programs to preserve, protect, and teach First Nations languages, and to ensure that these languages are kept alive for future generations.<br>Therefore any funding framework for First Nations education must adequately support the teaching of language and the transmission of cultural knowledge. | • Given the critical state of some First Nations languages, we would suggest that until the process of developing a funding framework is completed, immediate resourcing be made available to support First Language programs, with complementary resourcing for program development and capacity building.<br>• We suggest that the basic K-12 First Nation Language funding for First Language Immersion programs should be equivalent to the overall level of province/territory and Canada Heritage funding of Minority First Language and Second Language Programs which basically provides $11,304 per student. This compares favorably to the example of a self-contained full immersion model based on $8,635 per student.<br>• As with all resourcing for education, the allocations should be indexed annually according to the EPI, with 75% of the allocation indexed using the salary sub-index, and 25% according to the Instructional Supplies sub-index.<br>• For curriculum development we are suggesting that an initial level of funding be made available based on the results of the surveys which is $688/student, and which is comparable to amounts provided to the Cree Schools in Quebec. We are suggesting that this should be reviewed after two years for adequacy.<br>• To adequately support the teaching of language as a subject with sufficient frequency to be effective, we are suggesting that the funding should be within the same funding levels as the provincial English Second Language of just over $1000/FTE.<br>• An increase in language programming and development is accompanied by an increased need for trained language teachers and curriculum developers. There is also a need to provide some in-service training for language speakers who work in the classrooms in increase their effectiveness, and to increase community capacity building in the area of curriculum planning and development. |

| Cost Driver | Description/Findings | Findings/Considerations |
|---|---|---|
| | | • Professional development for language teachers should be funded at the rate of at least 1% of their salary budgets.<br>• We would recommend that communities receive an additional 1% of their language allocation to cover the costs of travel and lodging for cultural camps.<br>• Consideration should be given to funding ancestral language programs and curriculum development based on First Nations methodologies and reflective of a seamless life-long approach. This should be supported with field-based research to improve delivery and development. |
| **Section 3, Chapter 2, pages 67 - 86** | | |
| **Socio-Economic Determinants** | Those who consider equality of education to mean equality of funding make an assumption that all students are on the same playing field. Research suggests otherwise.<br>To successfully reduce the achievement gap, more must be taken into consideration than basic school reform. A students' ability to succeed is dependent on factors that exist outside the classroom.<br>These factors must be addressed to increase the success of First Nations students in school | • We believe that it would be important for the Department of Indian Affairs to recognize, as the provinces have, the need to address socio-economic determinants within the funding formula to increase the learning opportunities of many First Nations students. This element of the formula should consider that:<br>i. First Nations schools have a higher proportion of students at risk.<br>ii. The formula should contain a variable to accurately reflect the needs of each particular school's socio-economic demographics.<br>iii. Similar to the Quebec Formula, a form of index would need to be developed to accurately reflect the diversity of needs between the communities.<br>• First Nations schools should be able to offer a high quality basic skills program to increase learning opportunities. To do this the formula should provide each school with a minimum basic allocation proportional to school size (based on grade configuration), and indexed for location (access to services). The basic allocations per teaching level which would reflect the average costs reported in the sampling would be.<br>i. $30,000 for K4 – K5<br>ii. $80,000 for elementary grades 1 – 6/7/8<br>iii. $50,000 secondary grades 8 –12 (Sec 1- 5)<br>• These allocations should be increased for size either on a proportionate basis or using a per capita allocation.<br>• We suggest that each school that identifies an at-risk population should receive a basic minimum allocation for nutritional programs proportional to the costs reflected in the survey.<br>a)$10,000 for K4 – K5<br>b)$35,000 for elementary grades<br>c)$25,000 for middle/high school |

| Cost Driver | Description/Findings | Findings/Considerations |
|---|---|---|
| | | • These allocations should be indexed for size and regional costs of purchasing<br>• We would also suggest that each school, regardless of socio-economic indices, should receive a basic allocation of $20,000 per teaching level (not including preschool) for enhancing school success through extra-curricular and after school programs, with additional adjustments for size of school population, again based on a per student allocation.<br>• We would suggest that consideration be given to funding "Healthy Living" programs for First Nations Schools. This funding would provide for the teaching of sports, good nutrition and a healthy lifestyle to First Nations students similar to Quebec which is based on $1000 per school and an amount of $8.09 per student. |
| **Section 3, Chapter 3, pages 87 - 106** | | |
| **Technology** | SchoolNet has been an important initiative in assisting First Nations communities and schools in connecting to the Internet, but it is set to end in March of 2006.<br>Most First Nations school administrators agree that ICT is a priority and worth the investment, but there needs to be more consistent funding levels that meets the unique ICT needs of First Nations communities, especially those in isolated and remote areas, or in areas with difficulties in connectivity.<br>Some schools "get by" using volunteer assistance or donated computers because their budget won't allow for the expenditure.<br>Teachers need to have more training in the effective use of ICT in the classroom.<br>There is a need for technical support such as the services of a technician for each First Nations School. | ▪ There is a critical need for continued funding for the First Nations SchoolNet program.<br>▪ ICT funding should be a priority for First Nations schools, and there should be regional initiatives towards promoting innovations in First Nations school technology.<br>▪ We believe that the funding should be based on a flexible transfer arrangement so that equipment purchases can be staggered, and repairs can be managed when necessary. The flexible funding would allow the schools to develop ICT plans.<br>▪ The provision of adequate funding for quality ICT programming should be based on the unique ICT funding needs of each First Nations community in regards to differences in connectivity and training.<br>▪ We would suggest establishing a base line ICT funding based on school size and then adding on incremental funding based on various factors that influence expenditures such as school/grade configuration, remoteness and indexation.<br>▪ The base line school funding should include the following elements before adjustments are made:<br>o Infrastructure costs<br>Small Schools $25,000<br>Medium Schools $50,000<br>Large Schools $100,000<br>o Annual allocation for replacement and depreciation costs for infrastructure based on estimated amortization over 5 years.<br>o Annual Connectivity costs depending on availability:<br>Dialup $300 average annually |

| Cost Driver | Description/Findings | Findings/Considerations |
|---|---|---|
| | | T1 - $21,000 annually<br>Cable/DSL - $3500 average annually<br>Satellite - $3,300 average annually<br>Other types - $12,000 annually<br>o Annual salary/benefits for technician/ teacher of $65,000 per school with indexation (salary allocation adjusted upwards for larger schools with a K-12 configuration)<br>o Annual allocation of 1% of teaching staff salary for local training/upgrading in educational applications and computer technology<br>o Annual software upgrade and licensing allowance of at least $7,500 per school to include upgrading virus software.<br>o Base annual allocation per school of $9,000 for Service Contracts for technical services, plus travel costs.<br>• We would suggest that funding be established that would promote teacher training and effective ICT usage in First Nations communities.<br>• We believe that with the priority placed in ICT Technology, there should be support and adequate resourcing for innovative and successful access and distance education programs for remote and isolated communities. The funding frameworks should address their needs for teacher retention and staffing, curriculum development, professional development, program delivery, etc. |
| **Section 3, Chapter 4, pages 107 - 127** | | |
| **Program Diversity** | Addressing program diversity means additional costs to a school of providing a comparable program of study with the province, as well as providing First Nations curriculum.<br>The provinces provide extra funding for initiatives such as early literacy, numeracy, and health/physical education. In addition there are changes to the provincial curriculum that affect the amount of time spent in a given curriculum area.<br>The provincial curriculum provides course options within the major subject areas. First Nations Schools are limited by resourcing to provide only the basic curriculum. In general, they are not able to match the provinces in providing | • First Nations Schools need additional resourcing to be able to provide comparable quality programs of study with the province.<br>• Some resourcing should be provided using a base allocation rather than per capita to ensure that the service can be provided. This type of approach should be used for critical initiatives such as literacy.<br>• A program of professional upgrading and certification should be considered for instructing key teachers in literacy and ESL/FSL techniques<br>• A study should be considered on the feasibility of putting in place regional vocational training centers considering the projected increases in First Nations populations within the labor market.<br>• Cross-curricular programming should be considered as part of the funding framework for a quality successful First Nations school. |

| Cost Driver | Description/Findings | Findings/Considerations |
|---|---|---|
| | technical/vocational and skills programming as an option at the secondary level. | |
| **Section 2, Chapter 5, pages 128 - 145** | | |
| **PTR/Class Size/ Composition** | The high percentage of students at risk and special needs within the First Nations student populations, the numbers of students who require a second-language approach to instructional language, and the lower levels of educational attainment indicate a need to implement smaller class sizes through an investigation of a more appropriate pupil-teacher ratio. The literature indicates that smaller class size is an effective intervention, particular in the early grades for student achievement, with lasting benefits especially for disadvantaged students and students at risk. | • We would suggest that a reduction in class size or pupil-teacher ratios could be an important consideration for revising how First Nations schools are funded.<br>• Smaller class sizes has implications that should be considered for:<br>o Teacher retention through comparable salary/benefits<br>o Availability of quality teachers<br>o Regional differences in average salaries<br>o Additional workload of First Nations teachers<br>• We would suggest the following ratios as a point of discussion:<br>Pre-School 10 to 1<br>Grades 1 - 3 10 to 1<br>Upper elementary 12 to 1<br>Middle/Junior High 12 to 1<br>Secondary/Senior High 10 to 1<br>• We would like to suggest that student weighting be considered as a possible option for managing the diversity of First Nations school populations, and the needs of pedagogically sensitive areas of the curriculum. |
| **Section 2, Chapter 6, pages 146 - 151** | | |
| **School Administration** | First Nations Schools are not funded appropriately to cover the costs of school administration. Most provinces fund the salary of a principal, a school secretary and basic administrative overhead costs through a separate school administration budget. | • The literature review from the provinces and the examples from First Nations Schools would seem to indicate that First Nations schools should be provided with a base allocation for School Administration<br>• The base allocation should consist of salary and benefits for a principal and secretary based on a 72% and 28% ratio, as well as a minimum of $20,000 for management costs.<br>• The base allocation could be adjusted through a per capita allocation for larger schools<br>• All allocations should be adjusted for remoteness and indexed according to the EPI index.<br>• A percentage of the salary amount towards professional development is suggested for school principals who must remain updated on all innovations and changes in education. |
| **Section 2, Chapter 7, pages 152 - 160** | | |
| **Educational Authority** | Local First Nations Educational Authorities vary from being elected school | • A separate allocation could be provided for school committees within the range of the examples |

| Cost Driver | Description/Findings | Findings/Considerations |
|---|---|---|
| | boards, to selected parents from the local school. Most manage the school(s) and education programs through a Director of Education, and based on a mandate from the Band Council. The average educational authority will manage at least 2- 3 schools, | provided which averaged $12,000 per school<br>• Consideration should be given to providing a base allocation for an education authority that would cover the salary of a Director or other administrator, a secretary or other assistant, and basic overhead costs.<br>• Self –government agreements stipulate 5% for administration, it is suggested that this amount be considered for the local administration of the education program. |
| **Section 3, Chapter 1, pages 161 - 167** | | |
| **School Size** | Small schools are currently funded using a decimal index to proportionately increase the overall funding allocation for a smaller school. Currently this type of approach attached to a per capita allocation is ineffective in providing adequate resources for a smaller school, and the practice actually provides less per capita for a school of less than 50 students than a school of between 50 and 90 students. The provinces tend to use a base allocation with additional variables to ensure an adequacy of resources for all schools. The provinces accept to fund small schools within the francophone boards at a much higher per capita cost. This is based on the premise that all students are entitled to the same quality program, and access to the same educational outcomes. | • Rather than using an index attached to a per capita grant, the adjustment for small schools should be either:<br>i. A base allocation to ensure that adequate programming and services are provided perhaps similar to BC which provides a supplement of up to $180,000 for an elementary school with less than 250 students, up to $300,000 for a secondary school with less than 100 secondary students; and up to $150,000 for a school with less than 15 secondary students for grades 11 and 12; or,<br>ii. A salary supplement per class based on a calculation of the difference in the class enrolment and the actual pupil-teacher ratio as a percentage multiplied by the average teacher's salary. This would provide the extra salary to ensure adequate teacher resources, and the ability to organize according to pedagogical needs. |
| **Section 3, Chapter 2, pages 168 - 174** | | |
| **Geographic Index** | Currently First Nations educational funding is indexed for remoteness using the Band Classification Geographic and Environmental Indexing. This type of approach is inappropriate for pedagogical needs. Most provinces use an approach that considers distance from pedagogical or educational administrative center, and the relative cost of purchasing within the region. Consideration should be also given to road access, as sometimes it is easier to access a fly-in community with regular flights than to try to reach a remote community with poor road access. | • A new form of remoteness formula should be developed to be used specifically for the education program that will address the higher costs of obtaining goods and services of a pedagogical nature for First Nations schools. This new formula should consider the distance from a pedagogical center rather than a service center.<br>• A review should be conducted of the actual classification of the communities and their schools in reference to urban, rural, remote and special access that would take into account the situation of the actual location of the community and the road access provided, rather than just measuring the distance. |
| **Section 3, Chapter 3, pages 175 - 181** | | |
| **Indexation** | The funding for First Nations schools has not been appropriately indexed over the last ten years. The current 2005 funding | • The provision of a retroactive adjustment to First Nations schools for the deficiency in EPI indexation.<br>• The funding for salary should include an automatic |

| Cost Driver | Description/Findings | Findings/Considerations |
|---|---|---|
| | of $4,522 Unit Cost provided in 1996 constant EPI dollars is actually $3,745 even with the additional 2% indexation that has been provided annually. | annual indexation.<br>• The funding for all other allocations (non-salary) should include an appropriate annual indexation according to the relevant EPI sub-index.<br>• That in any funding formula, indexation should not replace annual increases in funding due to volume increases.<br>• The formula should be reviewed every 5 years to ensure continued adequacy and to account for changes in funding priorities. |

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# SECTION 6: APPENDICES

**Table 1: Sources of Provincial Educational Funding[151]**

| Province | Sources of Educational Funding |
|---|---|
| **BC** | 100% provincial funding. School districts lost the right to local taxation through legislation in 1990. |
| **Alberta** | 100% funding by block grant system (general revenue and property taxes); Board have option of up to 3% additional funding by local property taxation on approval of electors. |
| **Saskatchewan** | School divisions raise 60% of school operating costs from property taxes, grants from Indian Affairs and tuition fees (2%) and balance of 40% comes from provincial general revenues. |
| **Manitoba** | Province pays 65% of school operating costs from general revenues. School divisions raise 28% in property taxes and the remainder (7%) comes from the Federal government for First Nations education. |
| **Ontario** | 100% provincial funding. School boards lost the right to local taxation in 1998. |
| **Quebec** | Just less than 85% comes from provincial grants, and just over 15% comes from local property taxes and school board revenues from tuition fees, rentals and project-sharing. |
| **New Brunswick** | 100% provincial funding from general revenues. |
| **Nova Scotia** | Province bears 80% of the cost of education from general revenues. The remainder comes from property taxes set by the province, collected by the municipalities, and turned over to the school boards. |
| **PEI** | 100% provincial funding from general revenues. |
| **Newfoundland & Labrador** | 100% provincial funding from general revenues. |
| **The Territories** | 100% provincial funding from general revenues (except Yellowknife: a portion of local tax base pays 25-30% of operation and maintenance costs. |

**Table 2: Additional Provincial/Territorial Funding for First Nations Students in Public Schools above regular allocations[152]**

| Province/ Territory | Nature of Additional Provincial/Territorial Funding Provided to First Nations Students Above Regular Educational Funding | Per Capita (if applic) | Total Amount of Funding |
|---|---|---|---|
| **British Columbia** | Targeted funding to improve achievement of First Nations students and may not be redirected. Examples of district programs include language teaching, cultural events, First Nations support workers, development of curricula, inclusion of native studies, etc.(About $10M of the $45M is provided for First | $950 /FTE District Funding | $45M |

[151] CTF Economic Services at BCTF Website: http://www.bctf.ca/education/EdFinance/faq.html
[152] The funding initiatives outlined in this table have been researched from documents available on the websites of each of the provincial and territorial ministries of education.

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|---|---|---|---|
| | Nations Support Workers)<br>Pilot project in Kamloops/Thompson to hire First Nations teacher for school. | | $0.08M |
| **Alberta** | 1. FNMI Policy provides additional funding per First Nations child for school jurisdiction projects to undertake support services such as liaison workers, preparation for post-secondary education, support for at-risk children, parental involvement and in-school cultural supports<br>2. Targeted funding to support goals of FNMI Strategy which included for 2003/2004 (latest info published) $1.75M for First Nations language and native studies courses in secondary schools, and access to training programs; $3.393M to increase no. of First Nations teachers and staff, and professional development; and, $0.46M to increase literacy opportunities, and enrolment in post-secondary programs and employment opportunities. (2003-2004). | $1,040/ FTE | $35M<br><br>$5.6M |
| **Saskatchewan** | 1.IMED Program grants (seed money) of up to $40,000 per project to develop initiatives that affirm, encourage and value the histories, cultures, languages and perspectives of First Nations peoples with matching funding of up to $15,000 from School Division or from INAC (if school has tuition agreements).<br>2. Elder/Outreach Program provides grants of $15,000 per project. Total funding provided by province for these grants is $2.2M | | $2.2M |
| **Manitoba** | **1.First Nations Academic Achievement Grants**<br>The First Nations Academic Achievement Grant is provided to assist school divisions/districts with current programming or the implementation of new programs that target academic success for First Nations students.<br>**2.Building Student Success with First Nations Parents**<br>Proposal-based funding for projects involving parental involvement in education<br>**3. First Nations Education Plan for 2004-2007.**<br>There does not appear to be any targeted funding attached to this plan | | $6.9M<br><br>$0.4M |
| **Ontario** | Native Language funding (section 24 of the Education Grants Regulation for 2004-2005). Provincial curriculum guides, and an evaluation framework support native Language Teaching.<br><br>The Technical Paper that accompanies the Education Funding Regulations (2004/5) states that $530.5 M is budgeted for languages but this includes 5 provincial programs French First Language, French Second Language, ESL/ESD, FSL/FLD and Native Language<br><br>**Learning Opportunities Grant** – funding for Cultural Centers Alternative Schools | **Elem:** $243.19/ or $432.33 / student<br>**Second:** $64.46 x credits or $85.25 x credits/ student | $0.43M<br><br>0.4M |
| **Quebec** | **Cree Educational Plan** for the Cree School Board (75% is financed by federal government or $3.075M therefore provincial contribution is established at $1.025M) | | $1.025M |

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|---|---|---|---|
| | **Educational Success for First Nations Students** project-based funding for language upgrading on school entry or general academic upgrading.<br>**PELO Language** funding for language of origin includes funding for Algonquin Sec 1 & 2 courses – unable to tease out costs from total PELO funding. It covers the salary of the teacher and class materials per school board that offers program. | | $1.5M<br><br>Not available |
| **Atlantic** | **New Brunswick:**<br>Per capita allocation for FN students enrolled in School District<br>**Nova Scotia**:<br>Mi'qmaq Services Directorate: responsible for providing leadership, direction and planning required for the development and implementation of policies, procedures, programs and services to ensure that Miq'maq Nova Scotians benefit from a fully supportive learning environment in the public schools.<br>Development and Implementation of Miq'maq Language Programs in High School (part of a $341,000 budget for Language Programs)<br>**PEI:**<br>First Nations Steering Committee, however First Nations needs and/or languages not addressed in education budget for PEI | $445/ FTE | $1.2M<br><br>Not available<br><br>Not available<br><br>- |
| **Labrador/ Newfoundland** | **Native Peoples' Education:**<br>Appropriations provide for the operation of schools in designated native communities and major part is recoverable from the Federal Government. (Total $2.02M minus $1.980M)<br>(Native Peoples' Teacher Education Fund financed entirely by Federal Government - $357,400)<br>**Labrador School Board:**<br>Native Funding Grant for In-service Support for Innu students<br>**Funding for Addressing the Philpott report:** issues regarding Innu education | $40/FTE | $0.221M<br><br>Not available<br><br>$0.5M |
| **Yukon** | Budget for FN Language Instructor Trainees: $184,000<br>Funding for Pilot of First Voices Program in 2 schools and 3 communities $150,000<br>Funding to undertake reform of education system to better meet the needs of First Nations $794,000 | | $1.128M |
| **Northwest Territories** | **First Nations Languages K-12 program** (without administrative or departmental costs) (2004/5 Main Estimates)<br>**Language and Culture:** (2004/5 Main Estimates)<br>Native communications $ 70,000<br>Dene Language Programming $100,000<br>Cultural Projects $111,000<br>**Language Communities:** (2004/5 Main Estimates)<br>Language Research and Development $743,000<br>Language Acquisition and Maintenance $540,000 | | $6.34M<br><br>$0.281M<br><br>$1.283M |
| **Total Funding Provided to First Nations Students by the Provinces/ Territories Above Regular Provincial/Territorial Educational Funding** | | **Upwards of $115M** | |