OFFICE OF THE PARLIAMENTARY BUDGET OFFICER
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The Funding Requirement for First Nations Schools in Canada

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Note to Reader:

The Federal Accountability Act mandates the Parliamentary Budget Officer (PBO) to provide independent analysis to the Senate and House of Commons on the state of the nation's finances, the government's estimates and trends in the national economy. Given the size and scope of the proposed expenditure, the request is consistent with the PBO's mandate to support Parliamentarians in providing independent analysis on the state of the nation's finances and scrutiny of the Estimates (i.e. Planned Expenditures).

The cost estimates and observations presented in this report represent a preliminary set of data for discussion and may change, as detailed financial and non-financial data are made available to the PBO. The cost estimates and observations included reflect a point-in-time set of observations based on very limited and high level data obtained from the department and publicly available Estimates documents including the Departmental Performance Reports and Public Accounts of Canada. These high-level cost estimates and observations are not to be viewed as conclusions in relation to the policy merits of the initiative. They are provided to inform Parliamentary deliberations and to identify watch items for the final review as detailed financial data becomes available.

The authors would like to thank the members of the advisory panel for their comments and guidance. The advice and guidance of the members of the advisory panel implies no responsibility for the final product, which rests solely with the Office of the Parliamentary Budget Officer. We would like to thank Mr. Michael Wernick, Deputy Minister of INAC and his executive team that provided disclosure to the extent data was available. The department acknowledges the challenges identified in the report and has expressed its interest to work collaboratively with the PBO and Parliamentarians to find solutions for improving capital budgeting issues.

The Office of the Parliamentary Budget Officer (PBO) received a request from the Member of Parliament (MP) for Timmins-James Bay to analyze the reallocation of funding for schools on First Nations reserves, the fiscal impact of reallocation of funding on the school assets in question, and a comparison of First Nations schools with other jurisdictions. The request included other questions; however, given the breadth of the subject matter of the request, this report focuses on certain fundamental issues noted in the executive summary including estimation of the funding requirements for the schools on First Nations reserves.

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2. Abbreviations

Abbreviation	Full Form
AFN	Assembly of First Nations
ARV	Asset Replacement Value
BIA	Bureau of Indian Affairs (United States)
CFMP	Capital Facilities and Maintenance Program
CICA	Canadian Institute of Chartered Accountants
DM	Deputy Minister
DPR	Departmental Performance Reports
FN	First Nations
FY	Fiscal Year
GC	Government of Canada
HQ	Headquarters
ICMS	Integrated Capital Management Systems
INAC	Department of Indian and Northern Affairs Canada
LTCP	Long Term Capital Plan
NPRF	National Priorities Ranking Framework
O&M	Operating and Maintenance
P3	PPP, Public Private Partnership
PBO	Parliamentary Budget Officer
PPP	Public Private Partnership
PSAB	Public Sector Accounting Board
PWGSC	Public Works & Government Services Canada
TB	Treasury Board of Canada
TBS	Treasury Board Secretariat

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3. Executive Summary

The purpose of this report is to determine the GC's funding requirement for First Nations schools, based on a robust capital budgeting methodology. Despite the fact that the schools do not appear as assets in the financial statements of the GC, INAC has a mandate to build and to meet the operating and capital expenditure requirements related to schools on reserve according to the *Indian Act of 1867*. INAC bears responsibility for all the expenditures related to capital, operating and maintenance, and other education related expenditures for school infrastructure and services on First Nations reserves. The scope of this report therefore includes the following:

- A description of the current funding system involving three separate control gates, i.e., at the Parliamentary level, Treasury Board level and the departmental level. An understanding of the funding system is important given the lack of visibility in financial reporting to Parliament through the Estimates. There are **no specific appropriations by the Parliament for funding First Nations school infrastructure, although limited data on expenditure related to school infrastructure on First Nations reserves is made available in the DPR and RPP Estimates documents**

- An examination of the INAC department's capital budgeting methodology for funding school infrastructure

- PBO's proposed capital budgeting methodology for funding school infrastructure; and

- Estimation of the fiscal impact of GC's funding requirements to First Nations for school infrastructure based on the PBO's proposed capital budgeting methodology

Regardless of the choice of funding instrument (grants, contributions, or other financing arrangements), given the mandate to build and to meet the operating and capital expenditures related to First Nations schools, it is imperative to have a systematic approach and methodology to determine the annual funding that needs to be set aside each year by INAC for the First Nations school infrastructure.

Although the focus of the report is on capital budgeting to assess the school infrastructure funding requirements, for the sake of completeness in estimating the fiscal impact, the PBO has also examined other school related costs including operating and maintenance expenditures, instructional services expenditures, transportation, and off-

reserve costs, which are co-related with the existing condition of the school infrastructure on First Nations reserves.

In terms of financial materiality, of the total annual Parliamentary appropriations of $7.5 billion (for FY2007-08) for INAC as a whole, $243.7 million was spent on schools for capital, and operations and maintenance (or **3.25% of total appropriations**), $1.734 billion was spent on Instructional Services, Support, Off-reserve, and other expenditures (or **23.11% of total appropriations**) for FY2007-08[1]. Thus the **total annual expenditure** by INAC on school related expenditure for FY2007-08 amounts to $1.978 billion or **26.35% of the total appropriation for the INAC department).**

It is important for Parliamentarians to note that there are **no monies separately appropriated by the Parliament for funding First Nations school infrastructure**. The department works with an internal notional Long-Term Capital Plan under the Capital Facilities and Maintenance Program (CFMP) for funding school infrastructure.

In the absence of Parliamentary appropriations specifically for funding First Nations schools, and which can be tracked through Parliamentary reporting tools such as the Estimates, it is impossible to determine how much Parliament intended to appropriate for school infrastructure funding and consequently, how much was actually spent on schools.

3.1 A Snapshot of First Nations school infrastructure portfolio, PBO's proposed methodology, and PBO estimate of the Funding Requirements

According to the internal INAC ICMS database, there are 803 schools on First Nations reserves, of which 10 schools are listed as "Closed". Although some of these schools have their year of construction dating back all the way to the 18th century, most of them have been constructed since the 1960s. While the rate of new school construction averaged close to **35 new schools per year during the 1990-2000 period, this rate has dropped in recent years. Since the year 2006, only 8 new schools have been built according to the ICMS database.**

Of the 803 school assets that exist in various physical conditions, 726 schools have been reported as **"permanent structures",** whereas 77 have been reported as **"temporary structures".** For a detailed description of the various school infrastructure assets under INAC management, please refer to *"First Nations School Infrastructure Portfolio"* on page 35. Below we list the salient features of these 803 schools.

- Average size of the schools across all First Nations is **1,227.04 sq.m.** Schools in Saskatchewan are the largest with an average size of **1,584.7 sq.m,** whereas schools in British Columbia are the smallest with an average size of **869.72 sq.m**.
- 7 out of the 10 "Closed" schools are in Manitoba
- Only about **49% of the schools are in "Good"** condition. Close to 21% of all the schools are listed as **"Not inspected"**
- 19 of all the 25 schools (76%) listed in **"Poor"** conditions are in Alberta and British Columbia
- More than 60% of the schools in Saskatchewan are reported as **"Not inspected"**
- 12 of the 42 schools in Atlantic Canada are reported as **"Not inspected"**.

Although schools on-reserve are assets that belong to the First Nations and are funded through INAC Grants and Contributions, the mandate of the GC under the *Indian Act* to fund First Nations schools in effect necessitates the application of a robust capital

[1] Source: INAC

budgeting methodology to estimate the GC's future funding requirement to fulfill this mandate. In order to examine the funding requirement arising from school and education related expenditure in First Nations reserves, it is important to understand the types of costs involved in providing schools, the drivers of those costs and the method for estimating the future costs for the same.

For a detailed description of the PBO methodology for calculating the funding requirements for the First Nations School infrastructure, please refer to *"The PBO's Methodology and Financial Model for Capital Budgeting for First Nations Schools"* on page 26. In brief, the financial model as suggested by the PBO for determining the capital budgeting requirements for schools on First Nations reserves consists of the model inputs, model adjustments, model assumptions, and model sensitivity factors. The model inputs to determine the capital expenditures consist of the following:

- List of the school asset
- Existing physical condition as reported for each school
- The year of construction of the school
- Asset Replacement Value

These model inputs (A) are used along with the following assumptions based on extensive review of literature, and consultation with industry experts, various government departments and the panelists:

- Type classification of the schools
- A build life standard for each school
- Annual re-capitalization rate

The PBO also assigned a fixed estimated remaining life of 5 years for all school assets that have an estimated remaining life of 5 years or less, to provide for allocation of the replacement cost of the asset[2]. Due to this, the annual capital expenditure outlay for capital asset replacement stays flat at $230 million for the next five fiscal years (FY2009-10 to FY2013-14). Similarly, the re-capitalization expenditures for the next five fiscal years (FY2009-10 to FY2013-14), also stays flat at $57 million in the best-case and $78 million in the worst-case, respectively.

The model input data is however, not consistent throughout, and hence, to correct for these errors, the PBO applied adjustments to the following model input data:

- Estimated remaining life of the assets
- Asset Replacement Values

The above mentioned model inputs, assumptions and adjustments are then subjected to a sensitivity analysis, based on the base fiscal year, and assumptions for re-capitalization rate, broken down into upper and lower bound scenarios.

Briefly, the total funding requirement arising from school and education related expenditure in First Nations reserves is the sum of the following expenditure categories:

1. **Capital expenditures**, which consist of
    i. expenditures for **replacing and rebuilding existing school infrastructure**, as determined by asset replacement costs from engineering estimates

[2] As recommended by BC Housing

ii. **re-capitalization expenditures** required to ensure that the existing school infrastructure will *indeed be useable until the end of its useful shelf life as determined by engineering estimates*
iii. expenditures for **new school infrastructure projects**, to keep pace with the growing school and education requirements in First Nations reserves, if any

2. **Operating and maintenance expenditures** for existing school infrastructure and new school projects

3. **Other additional expenditures**, to fund for the school and education related funding requirement that are not captured by the above three expenditure items (for e.g., off-reserve funding requirement to fund students going off-reserve for education, transportation, teachers' salaries, etc.)

The Tables 1a and 1b below summarize the PBO's estimates of GC's funding requirement for the next five fiscal years, under best-case and worst-case sensitivity scenarios. The PBO has not been provided data by INAC regarding new school projects undertaken in First Nations reserves. Consequently, the PBO has been unable to provide an assessment of the historical need for new school projects.

Table 1a: Funding Requirement under various categories for the period FY2009-10 to FY2013-14, under the lower bound scenario

Best-Case ($ millions)	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14
Capital Expenditure (Asset replacement)	230	230	230	230	230
Capital Expenditure (Re-Capitalization)	57	57	57	57	57
Total Capital Expenditure	**287**	**287**	**287**	**287**	**287**
O&M Expenditure	119	124	129	134	140
Other Expenditures	1,864	1,922	1,980	2,039	2,097
Total	**2,270**	**2,333**	**2,397**	**2,460**	**2,524**

Table 1b: Funding Requirement under various categories for the period FY2009-10 to FY2013-14, under the upper bound scenario

Worst-Case ($ millions)	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14
Capital Expenditure (Asset replacement)	230	230	230	230	230
Capital Expenditure (Re-Capitalization)	78	78	78	78	78
Total Capital Expenditure	**308**	**308**	**308**	**308**	**308**
O&M Expenditure	119	124	129	134	140
Other Expenditures	1,864	1,922	1,980	2,039	2,097
Total	**2,291**	**2,354**	**2,418**	**2,481**	**2,545**

In terms of percentage, the following table lists the upper and lower bound projected annual expenditures for FY2009-10:

Table 1c: Funding Requirement under various categories for FY2009-10 as a percentage of total projected expenditures

Projected Annual Expenditures for FY2009-10	Best-Case	Worst-Case
Capital Expenditure (Asset Replacement)	10.12%	10.03%
Capital Expenditure (Re-Capitalization)	2.53%	3.41%
Total Capital Expenditure	**12.65%**	**13.44%**
O&M Expenditure	5.24%	5.19%
Other Expenditures	82.11%	81.36%

From Tables 1a and 1b**, for the FY2009-10** we have the following highlights:

- Funding requirements for total Capital expenditures (sum of capital asset replacement and re-capitalization expenditures) range from **$287 million to $308 million annually** for best and worst case scenarios, respectively (or approximately 12.65% to 13.44% of the total expenditures)
    - Of these, funding requirements for Capital asset replacement amount to $230 million (or approximately 10% of the total)
    - Funding requirements for re-capitalization expenditures range between $57 million and $78 million (or between 2.5% and 3.4% of the total)

- Funding requirements for operating and maintenance expenditures amount to $119 million (or between 5.2% and 5.25% of the total)

- Funding requirements for other expenditures such as instructional services, transportation, off-reserve costs, etc., amount to $1.864 billion (or approximately 81 to 82% of the total) forming the largest portion of the total cost

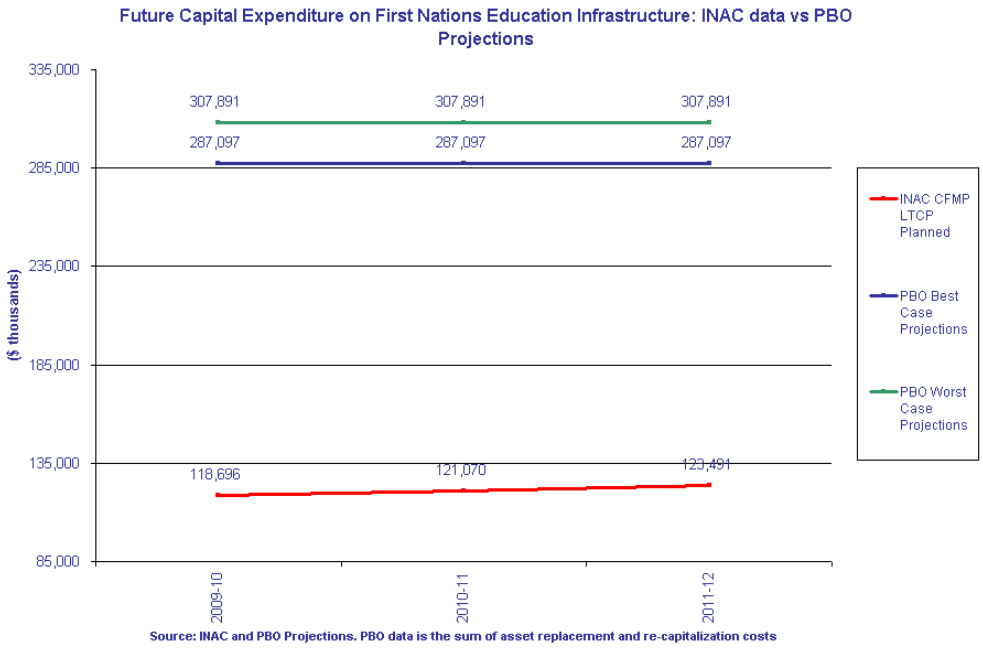
Thus the total funding requirement for FY2009-10 ranges between $2.27 billion to $2.29 billion, out of which capital expenditures account for 12.65% to 13.44%. The primary differences in the financial projections between upper and lower bound scenarios arise from the variance in the assumptions for re-capitalization expenditures under the capital expenditure category. The total difference between the two scenarios amounts to about $20 million annually. The difference between the two scenarios is small due to the fact that the average annual re-capitalization rate for the entire portfolio of 803 First Nations Schools amounts to 1.60% and 2.19% of the adjusted asset replacement values, under the best-case and worst-case assumptions, respectively. Extensive survey of published literature and discussion with panelists regarding capital budgeting for real estate school assets failed to yield a definitive and conclusive benchmark for school related re-capitalization expenditures. Hence the PBO decided to run a sensitivity analysis in consultation with industry experts and panelists to provide a range, based on best-case and worst-case scenarios. For detailed discussion on the application of the re-capitalization expenditure assumptions, please refer to *"Capital expenditures"* on page 41.

3.2 Comparison of INAC's planned expenditures vs. PBO's projected funding requirements

The PBO's analysis shows that the total funding requirement for capital expenditures as projected by the PBO methodology for the next three years ranges between $287 million to $308 million annually. Compared to the PBO projections, the planned capital expenditures as reported by INAC in its CFMP LTCP for the next three years range from $118 million to $123 million, annually.

Table 1d: INAC Planned capital expenditures vs. PBO projected capital expenditures

($ thousands)	FY2009-10	FY2010-11	FY2011-12
INAC CFMP LTCP Planned Capital Expenditures **(Source: INAC CFMP LTCP)**	118,696	121,070	123,491
PBO Best Case Projections: Capital Expenditures	287,097	287,097	287,097
PBO Worst Case Projections: Capital Expenditures	307,891	307,891	307,891



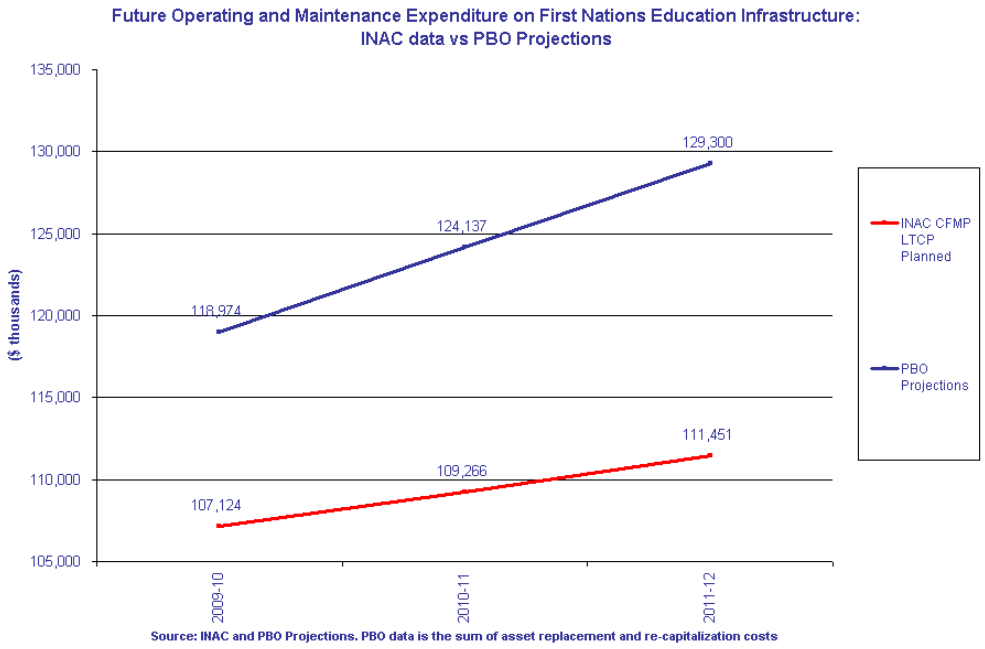
The Table 1d above lists the planned capital expenditures as reported by INAC under its CFMP LTCP plan, against the PBO best-case and worst-case projections for the likely funding requirement for capital expenditures.

Thus according to the PBO projections, for FY2009-10, INAC's plans for capital expenditure are under-funded to the tune of between $169 million in the best case, and $189 million in the worst-case scenario annually, as depicted in the chart above. Thus, the annual INAC Planned Capital Expenditures according to its CFMP LTCP **underestimates the likely expenditures compared to the PBO Best-Case and Worst-Case Projections (by more than 58%).**

Also, according to the PBO methodology and financial model for the total funding requirement for operating and maintenance expenditures, the projections for the next three fiscal years range from $118 million to $129 million. Compared to the PBO projections, the planned Operating and Maintenance expenditures as reported by INAC in its CFMP LTCP for the next three years range from $107 million to $111 million, annually.

Table 1e: INAC Planned capital expenditures vs. PBO projected capital expenditures

($ thousands)	FY2009-10	FY2010-11	FY2011-12
INAC CFMP LTCP Planned O&M Expenditures **(Source: INAC CFMP LTCP)**	107,124	109,266	111,451
PBO Projections: O&M Expenditures	118,974	124,137	129,300



The Table 1e above lists the planned operating and maintenance expenditures as reported by INAC under its CFMP LTCP plan, against the PBO projections for the likely funding requirement for operating and maintenance expenditures. Thus, according to the PBO projections, for FY2009-10, INAC's plans for operating and maintenance expenditures are under-funded by about $11 million annually, as depicted in the chart above. The INAC Planned Operating and Maintenance expenditures according to its CFMP LTCP **underestimate the likely expenditures compared to the PBO projections (by more than 10%).**

Note:
Historically, INAC's Actual Expenditure for Capital and Operating and Maintenance under the CFMP LTCP has been much lower than its Planned Expenditure. This "reallocation" or "diversion" of funds notionally earmarked for school-related capital and O&M expenditure **amount to an average of about $20 million each year, or an annual average of about 8.73%** for FY2002-03 to FY2007-08. Over the FY2002-03 to FY2007-08 period, a total of $1.386 billion was "notionally" allocated towards education related capital and O&M expenditures, whereas only about $1.265 billion was actually spent. **Thus about $121 million were diverted or re-allocated to other programs and projects from the education related capital and O&M planned expenditures.** Please refer to *"INAC CFMP LTCP Planned vs Actual Expenditures (Capital and Operating and Maintenance only)"* on page 64 for details on this reallocation of funds.

Thus the PBO notes that **due to this historical trend in reallocation of funds notionally earmarked for school related capital and O&M expenditure under the CFMP LTCP, the actual expenditures for the capital and operations and maintenance are likely to be much lower than the comparisons shown in the Tables 1d and 1e and charts above.**

3.3 Challenges to Estimating the Fiscal Impact

The PBO notes the following four key challenges in estimating the fiscal impact of the funding requirement of the schools on First Nations reserves:

- **Lack of program-specific Parliamentary appropriations**: Although there are costs incurred due to the GC's obligation to fund First Nations schools, it is important to note that **there are no school-specific appropriations by the Parliament**, which makes it impossible to isolate the total amounts of money appropriated by the Parliament for funding First Nations schools.

- **Lack of a well-defined and robust capital budgeting methodology**: INAC does not have a capital budgeting methodology for estimating the funding requirement for the school infrastructure.

- **Absence of asset recognition in the books of First Nations**: Depreciation is an accounting concept that allows the representation of the decline in value of capital assets over time to match the usage[3]. First Nations are scheduled to initiate reporting under the same rules as local governments under PSAB guidelines for reporting on tangible assets effective April 1, 2010. From this point onwards, First Nations will recognize schools in their books and depreciate them over the applicable depreciable life[4]. Although depreciation and capital budgeting for asset replacement are two completely different concepts, the recognition of the assets in the books of First Nations will provide some basic baseline data including number of assets, year of build, residual value, write offs etc.

- **Absence of reliable data and portfolio wide asset management plans and building condition reports:** The responsibility for monitoring of the condition of capital assets has been transferred to INAC's regional offices, which handle most of the financial expenditures for capital assets. There is no standard reporting approach; and currently there are significant discrepancies in terms of quality and usefulness of the reports submitted to INAC HQ by the regions on the condition of capital assets, including schools. At last count, 803 schools were recorded in INAC's ICMS database for school capital assets for which the actual remaining useful life of the assets is unknown. **The absence of portfolio-wide asset management plans and Building Conditions Report (which provide updates on the asset condition and re-capitalization required) is further exacerbated by the absence of any reliable portfolio information such as asset replacement values based on proper engineering and market estimates. This makes it difficult for INAC to make any meaningful cash flow projections for capital expenditures related to school infrastructure.**

  In its December 2002 report[5], the Office of the Auditor General of Canada reported that most of the reports required from INAC do not provide adequate information on performance or results; that little or no information collected from the First Nations is being used by the federal organizations in their reports to Parliament, and that the reports do not provide baseline data, nor is there benchmarking of best practices, and that this reported information is not used to set funding levels.

[3] *"Economic Concepts: Depreciation"*, Canadian Economy Online, http://www.canadianeconomy.gc.ca/English/economy/depreciation.html

[4] *" Report of The Financial Reporting by First Nations Study Group",* CICA, http://www.psab-ccsp.ca/download.cfm?ci_id=45478&la_id=1&re_id=0

[5] *"2002 December Report of the Auditor General of Canada, Chapter 1: Streamlining First Nations Reporting to Federal Organizations"*, Office of the Auditor General of Canada, http://www.oag-bvg.gc.ca/internet/docs/20021201ce.pdf

3.4 Considerations for Parliament

In the *"National and International Survey in School Infrastructure and Education delivery"* on page 53, we have provided an overview of national and international practices in school infrastructure and delivery of educational services. We have also provided the following list of considerations based on this overview.

1. PBO estimates of the funding requirements for schools in FN are based on data received from the department. Given the data reliability issues noted earlier, in order to make the data useful and to enable the application of a capital budgeting methodology, the PBO had to rationalize the data received from INAC. INAC may also wish to consider collecting reliable bottom-up data and undertake an estimate of the funding requirements based on a robust capital budgeting methodology.

2. Appropriations sought by Parliament for funding First Nations schools should be clearly reflected by TBS as a separate line item in the Estimates.

3. Treasury Board may wish to fence the appropriations sought from Parliament for school funding to ensure that there are no reallocations from within the funds earmarked for First Nations schools funding.

4. Treasury Board Secretariat and the Department of Finance may wish to consider working with INAC to explore alternative financing structures and options (such as public-private partnerships, debt-service grants or guarantees) *where possible*, aligned with the underlying business case of owning and operating First Nations schools.

5. The department may wish to consider implementing a robust capital budgeting methodology[6] for estimating the funding requirements for the school infrastructure; and

6. The department may wish to consider implementing asset management, with
   - periodic asset review
   - timely, and independent engineering estimates to determine the actual replacement values of the First Nations school assets and
   - accurate asset reporting

[6] In the absence of capital budgeting methodology, it is unclear, what financial due diligence is carried out by Treasury Board Secretariat, prior to approval of monies for school infrastructure in the Annual Reference Level Update.

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4. INAC Departmental funding: How money moves around

INAC receives appropriations through Mains and Supplementary Estimates, similar to other GC departments. However, the majority of the expenditure on First Nations reserves is made through Grants and Contributions, via transfer payments from INAC to the respective First Nations communities. A significant portion of these annual transfer payments are for the Community Infrastructure Program, which includes expenditures made for capital, operating and maintenance of schools on First Nations reserves.

The GC's mandate to provide schools and standards for their construction is derived from the *Indian Act of 1867*, according to which:

- *"The Minister may, in accordance with the Act, establish, operate and maintain schools for Indian children"* - Section 114 (2) of the *Indian Act of 1867*[7]
- *"The Minister may, (a) provide for and make regulations with respect to standards for buildings, equipment, teaching, education, inspection and discipline in connection with schools"* - Section 115 of the *Indian Act of 1867*[7]

Thus, a key part of INAC's mandate relates to the provision of education infrastructure on-reserve. The funds in question are appropriated by Parliament annually for each department via Mains and Supplementary Estimates.

4.1 How the GC funds departments including INAC – how money moves around

This section briefly covers the current funding system, which is similar to that for all government programs, describing how funding authority is provided to departments and the limited discretion that departments have when it comes to moving funds between targeted funding areas. Broadly speaking, there are three separate control gates for approval and reallocation of monies, namely:

- At the Parliamentary level (appropriations at the Vote level)
- At the Treasury Board level (allotment level)
- At the Department level (actual expenditure)

[7] *"Indian Act (R.S., 1985, c. I-5)"*, http://laws.justice.gc.ca/en/ShowDoc/cs/I-5//20090103/en

4.1.1 At the Parliamentary Level

Following the presentation of the Budget, the GC tables the Main Estimates. The Estimates contain details of the GC's proposed spending, by department and agency, for the coming fiscal year and are aligned with the framework outlined in the Budget Speech. The Main Estimates identify the spending authorities (Votes) and the amounts to be included in subsequent appropriation acts (also known as supply bills). Parliamentary approval of the supply bills provides departments with effective spending authority.

It is important to note that there are **no monies specifically appropriated by Parliament for school infrastructure funding at any point in time**. The department has a notional five-year plan called the Long Term Capital Plan, for funding school infrastructure, amongst other capital expenditures. In the absence of a delineated and specific Parliamentary appropriation for school infrastructure funding, which could be tracked through Parliamentary reporting tools such as the Estimates (including the DPR and RPP documents), **it is impossible to determine how much Parliament intended to appropriate for funding schools, and consequently, how much was eventually spent on school funding.**

4.1.2 At the Treasury Board Level

Prior to seeking spending authority from Parliament, departments must prepare a Treasury Board submission for new programs. The Treasury Board generally places caps on the size of transfers permitted to recipients from departmental grants and contributions. Transfers above this amount would normally require the department to make a Treasury Board submission requesting permission to exceed the cap. However, due to a Treasury Board decision in 2005, this policy does not apply to INAC's Capital Facilities and Maintenance Program, through which school infrastructure is funded. Hence, the PBO notes that:

- Firstly, the Treasury Board policy on Long Term Capital Plans does not apply in the case of INAC, given the funding instrument used to finance the schools is through Grants and Contributions; and
- Secondly, given the non-applicability of Treasury Board policy on long term capital plans, the department is not required to submit a long term capital plan based on a robust capital budgeting methodology while requesting approvals from the Treasury Board.

Thus, the PBO is unaware of any oversight on the part of Treasury Board at the level of funding for school infrastructure on account of these two reasons[8].

[8] INAC is subject to the pilot project, which is replacing the LTCP Policy, referred to as *"Implementation Strategy for the Policy on Investment Planning – Assets and Acquired Services and the Policy on the Management of Projects"*. This new policy states in section 2.2: *"It is important to note that these policies do not apply to investments or projects funded through grants and contributions. Grants and contributions are covered by other Treasury Board policy instruments"*, http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=13969&section=text - sec4.2

4.1.3 At the Department Level

Once Parliament has approved funds by Votes, departments are required to maintain funds within each Vote unless they seek Parliamentary approval to move funds between Votes.

Note:
Note must be made of the fact that although departments need to seek Parliamentary approval to move funds between Votes, Parliamentary approval is not required to move funds from one program to another within the same Vote category. Thus in the case of INAC, since all the funding for First Nations reserves is made via Grants and Contributions, **there is no effective Parliamentary oversight for individual program spending** once the funding level is approved for the Grants and Contributions vote.

Once departmental funding has been approved by Parliament, most of the funds are transferred via block funding i.e., a single transfer to cover First Nations funding in the respective regions for the entire fiscal year. **It is at this regional level that most of the expenditure decisions are made, based on the national priorities ranking framework (NPRF)[9]. There is no stated requirement to seek approval from the Deputy Minister (DM) or other INAC HQ staff for these expenditure decisions.**

While there are numerous reporting controls in place to ensure recipient First Nations communities use the funds as intended, (e.g., providing INAC with financial statements etc.) the actual expenditure of funds by the department receives relatively little scrutiny. It is important to re-emphasize that there are **no monies specifically appropriated by Parliament for school funding at any given point in time**.

Issue: The "2% Funding Cap" and its impact
There has been some confusion regarding a funding cap that was imposed on funding for INAC. This was an issue as noted by some of the panelists. However, the PBO has been unable to source from INAC any policy document that indicates this as a multi-year funding cap. Please refer to *"Appendix: The "2% Funding Cap" and its impact"* on page 67 for a detailed discussion on the issue of this stated 2% funding cap.

The PBO would like to emphasize that the program or policy to which this 2% funding cap applies to, or the size of this funding cap has no bearing whatsoever on the underlying financial model for capital budgeting for First Nations School infrastructure as proposed in detail in *"PBO Estimates of the Funding Requirements"* **on page 35.**

4.1.4 Impact of the lack of fenced funding and school-specific appropriations by Parliament

As noted earlier due to the absence of Parliamentary appropriations specific to school infrastructure expenditure, INAC works with an internal notional long-term capital plan (LTCP) under the Capital Facilities and Maintenance Program (CFMP) for funding school infrastructure. The notional planned monies originally earmarked for school funding can often be expended on other programs and projects under various expenditure items.

Thus, the difference between the reported planned expenditure and the actual expenditure reflects what the PBO estimates have been monies re-allocated from spending on school infrastructure to other programs and projects. The actual

[9] *"Fact Sheet: Capital Facilities and Maintenance Program "*, http://www.ainc-inac.gc.ca/ai/mr/is/cap-mgmt-eng.asp

expenditures for schools under capital and O&M expenditures categories are generally lower than the planned expenditures as reported in the CFMP LTCP.

The difference in the historical "actual expenditures" and the "planned expenditures" using the most recent "planned expenditure" figures is as given in the table 2 below:

Table 2: Difference between Planned Expenditures for the CFMP LTP Education as reported with the latest "Actual expenditure" data for respective years, and the actual expenditures, for the period FY2002-03 to FY2007-08

($ thousands)	FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08	Total
Total Planned Expenditures (Capital + O&M)	240,344	245,151	216,024	220,345	216,595	248,485	1,386,944
Total Actual Expenditures (Capital + O&M)	213,037	211,784	213,440	189,004	194,769	243,701	1,265,735
Difference (reallocations)	-27,307	-33,367	-2,584	-31,341	-21,826	-4,784	-121,209
Difference in percentage (reallocations)	-11.36%	-13.61%	-1.20%	-14.22%	-10.08%	-1.93%	
Source: INAC							

Thus, over the FY2002-03 to FY2007-08 period, $1.386 billion was "notionally" slated for expenditure towards education related capital and O&M costs, whereas about $1.265 billion was actually spent. **Thus about $121 million were diverted or re-allocated to other programs and projects from the education related capital and O&M planned expenditures.**
Please refer to *"INAC CFMP LTCP Planned vs Actual Expenditures (Capital and Operating and Maintenance only)"* on page 64 for details on this reallocation or diversion of funds.

5

5. INAC Historical funding

This section deals with the various financial funding data for INAC, by appropriations, and education related programs. For a detailed description of the historical annual INAC funding and expenditure, please refer to *"Appendix: Detailed Historical funding for INAC"* on page 58.

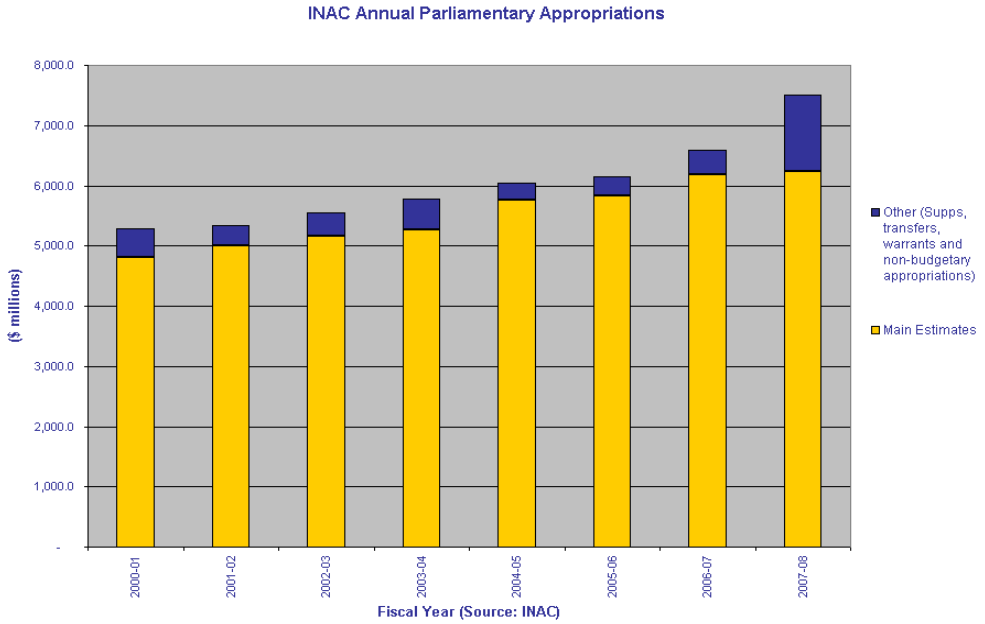
5.1 INAC Historical Parliamentary Appropriations

Like all GC departments, INAC receives its funding through budgetary Parliamentary Appropriations via Mains and Supplementaries, and non-budgetary appropriations. The Table 3 below shows the annual appropriations for INAC from FY2000-01 to FY2007-08. The data is split into Main Estimates and Supplementaries, and non-budgetary.

Table 3: INAC Budgetary and non-budgetary appropriation data for FY2000-01 to FY2007-08

($ million)		FY2000-01	FY2001-02	FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08
INAC (Budgetary)	Main Estimates	4,804.6	5,011.0	5,157.2	5,262.0	5,760.8	5,825.5	6,189.7	6,232.2
	Sub-Total Supps 'A'	295.6	142.5	95.1	321.9	119.8	0.0	187.7	209.3
	Sub-Total Supps 'B'	0.0	31.6	126.9	0.0	3.9	0.0	32.8	867.6
Other Adjustments / Transfers / Warrants		57.3	24.1	36.0	45.6	28.4	190.9	34.8	62.9
Total Budgetary Appropriations		**5,157.5**	**5,209.2**	**5,415.2**	**5,629.5**	**5,912.8**	**6,016.4**	**6,445.0**	**7,372.0**
Total Non-Budgetary Appropriations		121.5	136.9	137.3	152.8	133.9	139.4	149.7	134.9
Total Appropriations		**5,279.0**	**5,346.2**	**5,552.6**	**5,782.3**	**6,046.7**	**6,155.8**	**6,594.7**	**7,506.9**
Source: INAC									

As can be seen from the chart below, INAC receives on average about 92% of its annual appropriations through the Main Estimates, and about 8% of its annual appropriations via supplementaries, adjustments, transfers, warrants, or non-budgetary appropriations. However, for FY2007-08, INAC received about $6.23 billion via Mains Estimates as opposed to a total appropriation of $7.5 billion, implying that 17% of its appropriation was received via supplementaries, etc.



5.2 INAC Historical Educational Expenditures (Capital and Operating & Maintenance)

A portion of the annual INAC funding is notionally earmarked for expenditure on infrastructure in First Nations reserves via the Community Infrastructure program. The expenditure for school infrastructure (both capital and O&M) is drawn from this Community Infrastructure program. The Table 4a below shows the annual expenditure (both authorized, and actual), under the Community Infrastructure expenditure category.

Table 4a: Historical Community Infrastructure expenditure (all On-Reserve)

($ millions)	FY2000-01	FY2001-02	FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08
Community Infrastructure (Authorized)	960.6	914.7	960.2	928.1	965.5	973.9	1,139.4	1,092.6
Community Infrastructure (Actual)	958.1	902.8	963.4	935.9	930.0	938.7	1,070.3	1,032.2
Source: INAC								

It is through this Community Infrastructure program that INAC's Capital Facilities and Maintenance Plan (CFMP) is funded, which in turn contains the expenditure funds for school infrastructure related capital, and operations and maintenance expenditures. Table 4b below shows the actual annual expenditure for school related capital and O&M.

Table 4b: Historical Education/School Expenditure for Capital and O&M all On-Reserve

($ millions)	FY2000-01	FY2001-02	FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08
O&M Expenditure Education Facilities (Actual)	62.3	81.3	88.5	92.9	95.7	99.0	96.7	108.3
Capital Expenditure Education Facilities (Actual)	151.1	154.3	124.6	118.9	117.8	90.0	98.0	135.4
Total Capital and O&M Expenditure Education (Actual)	**213.3**	**235.6**	**213.0**	**211.8**	**213.4**	**189.0**	**194.8**	**243.7**
Source: INAC								

Thus, for FY2007-08, $108.3 million was spent on O&M expenditures, and $135.4 million was spent on capital expenditures, for school education infrastructure on First Nations reserves.

5.3 INAC Historical Educational Expenditures (Instructional Services, Support and Other)

INAC expenditure for schools (excluding capital and O&M expenditure) consists of instructional services for provincial, federal, band **and** private schools, special education, post-secondary education, transportation, cultural centres, and other expenditures. Table 5 below shows the annual expenditure on these expenditure categories, divided into direct and indirect expenditures, and **excludes all capital and operating and maintenance expenditures**. Indirect expenditures are for internal INAC services. All these expenditures are outside of the Community Infrastructure and CFMP expenditure programs.

Table 5: Other education related expenditures, including off-reserve expenditures, transportation, etc.

($millions)	FY2000-01	FY2001-02	FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08
Total Direct Expenditures	1,274.8	1,326.8	1,360.5	1,428.9	1,484.4	1,528.3	1,579.2	1,627.0
Total Indirect Expenditures	0.00	106.67	123.79	109.40	95.84	90.91	100.58	107.77
Total Instructional Services, Support, Off-Reserve & Other Expenditures	**1,274.7**	**1,433.4**	**1,484.2**	**1,538.3**	**1,580.2**	**1,619.2**	**1,679.8**	**1,734.7**
Source: INAC								

5.4 Total Summation for INAC Historical Educational Expenditures

Thus, expenditure on schooling and education in First Nations reserves consists of capital, O&M, and instructional services and support expenditures. These are all funded by INAC. Summarizing all annual INAC expenditures for education and schools, shown below in Table 6a is the total summation of the historical educational expenditures for INAC.

Table 6a: Total summation of INAC historical educational expenditures by category

($ millions)	FY2000-01	FY2001-02	FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08
O&M Expenditure Education Facilities (Actual)	62.3	81.3	88.5	92.9	95.7	99.0	96.7	108.3
Capital Expenditure Education Facilities (Actual)	151.1	154.3	124.6	118.9	117.8	90.0	98.0	135.4
Instructional Services, Support, Off-Reserve and Other	1274.7	1433.4	1484.2	1538.3	1580.2	1619.2	1679.8	1734.7
Total INAC Educational expenditure	1,488.1	1,669.1	1,697.3	1,750.1	1,793.6	1,808.2	1,874.6	1,978.4
Source: INAC								

Thus, from Table 6a above, for FY2007-08, INAC funded $108.3 million for O&M, $135.4 million for capital, and $1.734 billion for instructional services, support and off-reserve and other expenditures. This expenditure totals $1.978 billion for FY2007-08. From Table 3 on page 20, INAC received $7.5 billion in total annual appropriations. Thus, out of these $7.5 billion, INAC funded $1.978 billion for school related educational expenditure, which constitutes 1.978 / 7.5 = 26.37% of the total annual INAC departmental appropriations.

In terms of annual rate of growth:

Table 6b: Annual rate of growth of INAC historical educational expenditures by category

Annual rate of growth	FY2001-02	FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08	Average
O&M Expenditure Education Facilities (Actual)	30.50%	8.86%	4.97%	3.01%	3.45%	-2.32%	12.00%	8.64%
Capital Expenditure Education Facilities (Actual)	2.12%	-19.25%	-4.57%	-0.93%	-23.60%	8.89%	38.16%	0.12%
Instructional Services, Support, Off-Reserve and Other	12.45%	3.54%	3.65%	2.72%	2.47%	3.74%	3.27%	4.55%
Total INAC Educational expenditure	12.16%	1.69%	3.11%	2.49%	0.81%	3.67%	5.54%	4.21%
Source: INAC								

From Table 6b above, total O&M expenditures are growing at an average rate of 8.64% annually, whereas the capital expenditures are growing at a rate of 0.12% annually. Other expenditures such as instructional services, support, and off-reserve and other expenditures are growing at a rate of 4.55% annually. The total INAC educational expenditures (summation of operating and maintenance, capital, and instructional services, support and off-reserve and other expenditures) are growing at an annual rate of 4.21% as indicated in the table above.

6

6. Challenges to estimating the Fiscal Impact of First Nations School Funding Requirement

The determination of the fiscal impact of the funding requirement to the GC arising from the school related infrastructure requires a fair estimation of the costs likely to be incurred under various expenditure categories, and their associated cost drivers. The funding requirement to the GC for the school infrastructure in the First Nations reserves fall under the following categories:

1. **Capital expenditures**, which consist of
   - iv. expenditures for **replacing and rebuilding existing school infrastructure**, as determined by asset replacement costs from engineering estimates
   - v. **re-capitalization expenditures** required to ensure that the existing school infrastructure will *indeed be useable until the end of its useful shelf life as determined by engineering estimates*
   - vi. expenditures for **new school infrastructure projects**, to keep pace with the growing school and education requirements in First Nations reserves, if any

2. **Operating and maintenance expenditures** for existing school infrastructure and new school projects

3. **Other additional expenditures**, to fund for the school and education related funding requirement that are not included in the above three expenditure items (for e.g., off-reserve funding requirement to fund students going off-reserve for education, transportation, teachers' salaries, etc.).

Please refer to *"The PBO's Methodology and Financial Model for Capital Budgeting for First Nations Schools"* on page 26 for a detailed description of these costs and their associated cost drivers.

The ability of the INAC department or the PBO to estimate the fiscal impact of funding the school infrastructure consisting of 803 schools is predicated on two factors, namely:

1. A robust and established capital budgeting methodology, and

2. Reliable and consistent baseline data with critical portfolio information relating to the school infrastructure assets.

However, in the case of INAC, neither of these key enablers is present at the current time. Noted below are some of the significant challenges to estimating the total cost to the Government of Canada; within a reasonable level of assurance. This is due to a number of reasons, including a lack of reliable data on key variables such as design life of assets, asset replacement values based on real engineering estimates and market factors, etc., coupled with inconsistent and insufficient financial reporting in the DPRs and RPPs, which do not isolate specific Parliamentary appropriation for First Nations schools in particular. Based on discussions with INAC officials and review of information provided by them, the Office of the Parliamentary Budget Officer has determined that:

- There is no stated capital budgeting methodology or financial model, for any school related expenditure for First Nations
- There is absence of formalized asset management of the school infrastructure assets, including building condition reports
- Similarly, there is no integrated portfolio strategy with regards to the various school infrastructure assets, and their interplay with the various needs of the First Nations school going population.
- There is no independent review or valuation of assets (engineering assessment or otherwise).

INAC provided the PBO with data including a list of school related assets currently on First Nations reserve. There are several discrepancies and inconsistencies with the data provided, namely:

- Incorrect recording of the design life of school infrastructure
- Lack of appropriate categorization of school related infrastructure
- Incorrect, and conflicting reporting of the estimated remaining life of the assets
- Inconsistent reporting of asset replacement values
- Subjective assessment of the condition of various school assets

Hence the PBO has applied corrections to the data provided by INAC, as per industry norms and benchmarks, and in consultation with industry experts and panelists, as duly noted, to more accurately reflect the nature of the school related infrastructure. Please refer to"*PBO Estimates of the Funding Requirements"* on page 35 for complete analysis.

In addition, the PBO has examined the impact of the various factors that were perceived to be playing a role in determining the funding requirement for First Nations schools, such as the 2% funding cap, the population growth on the First Nations reserves, etc. The PBO has however found that the 2% funding cap is not a driver for the funding requirement. Also, the population growth issue cannot be confirmed with the current dataset available, which fails to show a significant growth in population on First Nations reserves.

7

7. The PBO's Methodology and Financial Model for Capital Budgeting for First Nations Schools

The objective of this section is to describe the methodology used by the Office of the Parliamentary Budget Officer (PBO) to estimate the fiscal impact of GC's commitments to fund the school infrastructure in the First Nations.

In order to examine the funding requirement arising from school and education related expenditure in First Nations reserves, it is important to understand the types of costs involved in providing schools, the drivers of those costs and the method for estimating the future costs for the same.

Schools on-reserve are assets that belong to the First Nations and are therefore not included in the balance sheet[10] of Canada. However, the legal obligations to fund First Nations schools, which can be seen to create a flow-through requirement, necessitate application of a robust capital budgeting methodology to estimate the GC's future funding requirement. Capital budgeting decisions are important to the GC's ability to meet its funding commitments for infrastructure for on-reserve schools because they indicate future financial needs to be provided by the GC.

7.1 The methodology

A robust methodology for capital budgeting is important for a variety of reasons including:

- Capital expenditures typically require large outlays of funds.
- The cost of raising these funds (notionally the interest rate the GC must offer on government bonds) can be significant. With reduced fiscal flexibility, the timing of capital investment becomes important for the First Nations and GC, as they have to allocate scarce resources amongst competing priorities.
- Capital budgeting decisions require a long-term commitment and planning.

The total funding requirement arising from school and education related expenditure in First Nations reserves is the sum of the following expenditure categories:

[10] The on-reserve schools are not reflected in INAC's financial statements or Public Accounts of Canada as these assets belong to the First Nations

1. **Capital expenditures**, which consist of
   i. expenditures for **replacing and rebuilding existing school infrastructure**, as determined by asset replacement values from engineering estimates
   ii. **re-capitalization expenditures** required to ensure that the existing school infrastructure will *indeed be useable until the end of its useful shelf life as determined by engineering estimates*
   iii. expenditures for **new school infrastructure projects**, to keep pace with the growing school and education requirements in First Nations reserves, if any
2. **Operating and maintenance expenditures** for existing school infrastructure and new school projects
3. **Other additional expenditures**, to fund for the school and education related funding requirement that are not captured by the above three expenditure items (for e.g., off-reserve funding requirement to fund students going off-reserve for education, transportation, teachers' salaries, etc.).

The table below discusses each of the above mentioned expenditure categories and their associated cost drivers, and the relevant methodology for capital budgeting for those expenditure categories.

Expenditure Category	PBO methodology for capital budgeting	Cost drivers
Capital Expenditures	The funding for capital expenditures fall under three different categories: 1. **Expenditures for replacing and rebuilding existing school infrastructure:** These expenditures arise from allocating the replacement cost of the schools to fund the requirement arising from replacing and rebuilding the asset once its useful life expires. For example, if an asset is due for replacement in the year 2014, and its Asset Replacement Value (ARV), (based on accurate market value estimates) is determined to be $100, then ($100 / (2014 – 2009[11])) = $100 / 5 = $20 is allocated over each of the years 2009, 2010, 2011, 2012, and 2013 into a provisional sinking fund (holding for requirement), to be used to rebuild capital assets.	Cost drivers for the various capital expenditures: 1. **Rate of use and abuse:** Rate of use and abuse of existing capital assets should be reflected in the building condition assessments. These assessments should reveal the physical condition of the asset, and also yield a market replacement value for that asset. It will also provide a basis for estimating the accelerated depreciation (or front-ending) of the assets, or the converse, i.e. possible extension of the life of the asset beyond its specified build life. Accelerated depreciation can occur due to various causes, classified mainly into natural and man-made. Natural causes include weather, catastrophes, etc. Man-made causes include un-suitable building standards, mismatch of building standards to the weather conditions, and abuse and damage of the assets.

[11] Current year assumed to be 2009

2. ***Re-capitalization expenditures (also known as "capital renewal):*** These expenditures ensure that the existing school infrastructure is kept in working condition until the time the assets are replaced or rebuilt. Re-capitalization is inherently different from depreciation or from operating and maintenance expenditures[12]. Depreciation is a non-cash expense used for accounting purposes. Operating and maintenance expenditures are merely expenditures such as utilities, water, sewage, etc., that do not in any way constitute capital expenditures. Re-capitalization is the actual physical rebuilding and reconditioning of capital asset **subsystems**, short of total capital asset replacement.

   Traditionally, an engineering assessment of the real estate property is used to determine the exact condition of the asset, and to determine the total re-capitalization expenditure required on an annual basis, in terms of the actual asset replacement value. If, for example, an asset is due for replacement in the year 2014, and its ARV is determined to be $100, and the engineering estimates determine a re-capitalization expense rate of 2% per year, then 2% * $100 = $2 will be allocated over each of the years 2009, 2010, The biggest cost driver affecting this cost category is the accelerated depreciation of the school infrastructure asset. Extensive use and abuse of the asset will lead to premature expiry of the asset, leading to a higher cost allocation over a shorter period of time. For example, if an asset was originally due for replacement in the year 2014, and its ARV is determined to be $100, but due to extensive use and abuse it has been determined that the asset will reach its expiry in the year 2012 itself, then ($100 / (2012 – 2009[11])) = $100 / 3 = $33.3 is allocated over each of the years 2009, 2010, and 2011 into the provisional sinking fund, reflecting a higher cost allocation on an annual basis when compared to the normal case when the asset would have expired in due course in 2014, requiring an expense of only $20 annually.

2. **Remoteness of the asset location:** All costs incurred to deliver the capital asset to its completed status will be capitalized (CICA guidelines), and the remoteness of the location will trap the transportation costs, liquidity issues affecting the contractual process, as well as the standards to which the infrastructure is being built. There should be a direct linear co-relation between the asset replacement values and remoteness of the location, for infrastructure assets of the same given size, specification, material, and build life, i.e. the more remote the location, the higher the asset replacement

[12] *"Re-capitalization & Capital Renewal--What's the Number? The Problem of Planning For and Managing Waves of Expiring Assets"*, January 2001, Steve Westfall, Tradeline Inc., Rick Biedenweg, Pacific Partners Consulting Group, Tom Henderson, Building Technology Associates, Phillipe Locke, DuPont, Bob Papa, Bristol-Myers Squibb, Tim Prime and Matt Kelly, Freddie Mac, http://www.tradelineinc.com/reports/E81F7036-BECE-11D4-95B9005004022792

	2011, 2012 and 2013 towards re-capitalization expenditure. 3. ***Capital investments in new school infrastructure*** is the expenditure required to keep pace with the growing demand for such infrastructure in the First Nations, in line with the rate of growth of the population, and the steady (statistically proven) increase in the number of school going population year over year, if any.	value. **3. Size of the infrastructure:** On account of economies of scale, generally there tends to be a negative co-relation between the size of the real estate properties and their replacement values. Smaller real estate properties cost more to build or replace on a per unit area basis than larger properties. 4. **Investment in new school infrastructure:** This should be related to largely two issues: a. Rate of growth of school going population (which is directly co-related to rate of growth of general population in the First Nations), b. Policy directives and changes that affect the investment rate
Operating and Maintenance expenditures	Operating and maintenance expenditures include items such as janitorial work, general maintenance of facilities, utilities, water, sewage, etc.	Operating and maintenance expenditure will be directly co-related with the building standard used for constructing the assets, which include the build quality, building material, size of the schools, and the remoteness of the location. Larger schools imply a larger expenditure on operations and maintenance.
Off-reserve school funding and other additional expenditures	Off reserve funding refers to the total expenditures incurred by INAC to reimburse the provincial governments for costs associated with First Nations students attending provincial schools. A section of the eligible school going population has historically been attending off-campus schooling in provincial schools. This expenditure is a separate category that is currently funded on an ad-hoc expense basis. Historically, the off-reserve funding has shown a linear	There could be several drivers related to off-reserve schooling: 1. Lack of appropriate school infrastructure facilities (lack of rooms, heating, water, etc.) 2. Lack of quality school facilities (lower quality of education standard, lower quality of instruction, etc.) 3. Limited levels of education delivery (higher and technical education not provided on-reserve) 4. Lack of accessibility (First Nations schools might be more remote than nearby provincial schools)

	trend, with increasing annual expenditures. Please refer to *" Off-Reserve funding requirement and other additional expenditures"* on page 47 for more details. Other additional expenses incurred during the regular functioning of the school that are not covered in the operating and maintenance expenditures will be covered in this category. These expenses include the salaries for teaching and operations staff, etc. (i.e. all expenditures required for the proper functioning of the schools that are not already covered in the other categories).	5. Policy issues and changes regarding the required criteria to qualify for off-reserve funding The cost drivers for other additional expenditure categories are directly related to: 1. Size and spread of the asset, implying the total number of students that can be housed. This will be correlated with the number of teaching staff, and the amount of other additional expenditures required. 2. Remoteness of the location

7.2 The proposed financial model

Based on the details provided for each of the listed 803 schools in the INAC ICMS database, and the PBO methodology developed for the capital budgeting of the First Nations school infrastructure, the PBO developed the following financial model to project future funding requirements based on the limited data set available.

The basic model inputs consist of the following (as listed in the block A of the chart below):

- List of the school asset
- Existing condition as reported for each school. This condition is reported subjectively in the INAC ICMS database variously as "New", "Good", "Fair", "Poor", "Closed", and "Not Inspected".
- The year of construction of the school
- Asset Replacement Value

Given the limited amount of data available, these model inputs (A) are used in tandem with the following assumptions based on extensive review of literature, and consultation with industry experts, various government departments and the panelists:

- Type of the schools, divided into "Fixed", and "Portable"
- A build life standard for each school: This has been fixed at 40 years for "Fixed" structures and 25 years for "Portable" structures
- Re-capitalization rate: This is the annual expenditure required on re-capitalization expenses, based on the existing condition as reported for each school
- Current fiscal year has been assumed to be 2009

Re-capitalization rate is the replacement of building subsystems, or in other words, capital renewal. It is not to be confused with operating and maintenance expenditures, which account for merely the monies required to keep the systems running, but not to fix the systems when there are failures or damage. A large re-capitalization rate would indicate either an increasing number of expiring assets that need to be addressed immediately, or a set of assets in extreme neglect and bad physical condition.

The model input data is however, not consistent throughout and several errors were noted by the PBO. To correct for these errors, the PBO applied adjustments (C) to the following model input data:

- Estimated remaining life: the estimated remaining life is now calculated based on the type of the school asset, and based on the year of construction.
- Asset Replacement Values: During discussions with INAC, the PBO noted that the ARV as reported for each school in the INAC ICMS database was understated, and that historically, the actual expenditure for asset replacement was much higher than the amount as reported in the database. The PBO then applied a test of reasonableness to test for the historical under-estimation of the ARV as reported by INAC. The department was requested to provide the PBO with a statistically significant geographically dispersed random sample of schools that were rebuilt. This sample featured an ARV as listed in the INAC ICMS database, and the actual cost as incurred during the reconstruction. The difference between the two values is the under-estimation of the ARV. The average under-estimation of the ARV across this statistically significant sample was determined to be 19.30%. Based on this exercise, the ARV as reported for each school in the INAC ICMS database has been treated to an inflation of 19.30%.

The above model inputs, assumptions and adjustments are then subjected to a sensitivity analysis (D), based on the following variables:

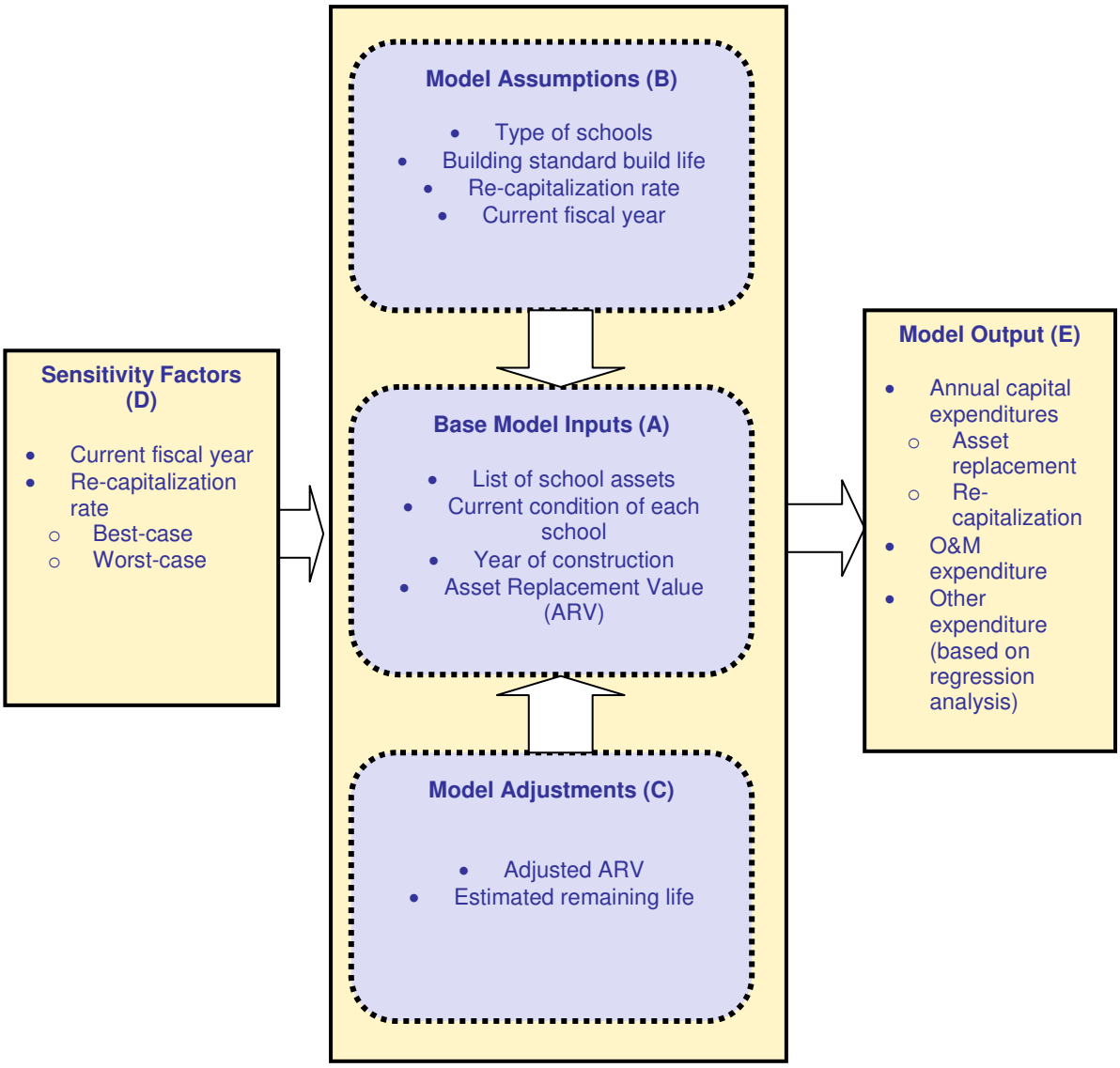
- Current fiscal year
- Assumptions for re-capitalization rate. This assumption is broken down into best-case and worst-case scenarios. The following re-capitalization rates have been used for the best-case and worst-case scenarios, based on the facility condition reported in the INAC ICMS database:

Facility Condition	Annual Re-Capitalization rate	
	Worst-Case	Best-Case
Closed	0%	0%
Poor	4%	3%
Fair	3%	2%
Good	2%	1.5%
New	2%	1.5%
Not Inspected	2%	1.5%

7.2.1 Interaction of model inputs, assumptions and sensitivity factors

Based on the above-mentioned factors, the model then calculates the following (E):

- Annual Capital expenditures for each school asset, split into annual asset replacement expenditures and annual re-capitalization expenditures
- Operating and Maintenance expenditures, and
- Other expenditures



The entire financial model is described in the chart above. Each school asset listed in the INAC ICMS database serves as a model input (A), to which the model assumptions (B) and model adjustments (C) are applied. To this combined adjusted and corrected model, the sensitivity factors (D) are applied, which lead to the effective model output in (E).

7.2.2 Model Example

Amisk Lake School is in Beaver Lake Cree Nation - 460, Alberta. It belongs to a First Nations band. This site is located at Beaver Lake. This particular school was constructed in the year 1981. The following features as described in the INAC ICMS database characterize this school[13].

Financial Model inputs, adjustments, assumptions, sensitivity, and outputs for sample case. All basic inputs sourced from the INAC ICMS database.

Name	Amisk Lake School
Band number	460
Location	Beaver Lake Cree Nation, Alberta
Site	Beaver Lake 131 – 06701
Base Model Inputs (A)	
Year of construction	1981
Current condition of school	"Fair"
Asset Replacement Value	$1,317,154
Design life	1 year (erroneous data)
School type	Permanent
Model Assumptions (B)	
School type	Fixed
Building standard build life	40 years
Re-Capitalization rate	Best-case: 2%, Worst-case: 3%
Current fiscal year	2009
Model Adjustments (C)	
Asset Replacement Value	$1,317,154 * 119.30% = $1,571,398
Estimated remaining life	1981 + 40 – 2009 = 12 years
Sensitivity Factors (D)	
Current fiscal year	2009
Re-capitalization rate	Best-case: 2%, Worst-case: 3%
Model Output (E)	
Annual asset replacement expenditure	$1,571,398 / 12 = $130,950 (8.33%)
Annual re-capitalization expenditure	Best-case: 2% * $1,571,398 = $31,428 Worst-case: 3% * $1,571,398 = $47,142
O&M expenditure and other expenditure	Projected over the total portfolio of 803 school assets

Thus, as listed in the table above, the Amisk Lake School for Band 460 was constructed in Beaver Lake Cree Nation at Beaver Lake 131 – 06701, Alberta in 1981. As per the INAC ICMS database, the asset is marked with a wrong design life of 1 year, since it is a permanent structure and in existence, and "Fair" condition since 1981 to-date. Hence the PBO rationalized the design life to 40 years, based on the classification standard assumed for "Fixed" assets.

Given that the school type is a "Fixed" structure, it has been assigned a building standard build life of 40 years, giving it 12 years of estimated remaining life. The subjected

[13] All model inputs sourced from the INAC ICMS database.

assessment of “Fair” state has been translated into a re-capitalization rate of 2% in the best-case and 3% in the worst-case scenarios for sensitivity analysis.

The Asset Replacement Value of $1.317 million has been treated with an inflation factor of 19.30% to arrive at a more realistic Asset Replacement Value of $1.57 million.

This ARV of $1.57 million needs to be set aside over the remaining 12 years to account for capital asset replacement for this school. This amounts to annual capital asset replacement expenditure of $130,950 or about 8.33% of the ARV of this school. Also, based on the ARV of $1.57 million, the re-capitalization expenditures amount to $31,428 in the best-case and $47,142 in the worst-case, using 2% and 3% as the assumptions for re-capitalization rate respectively.

8

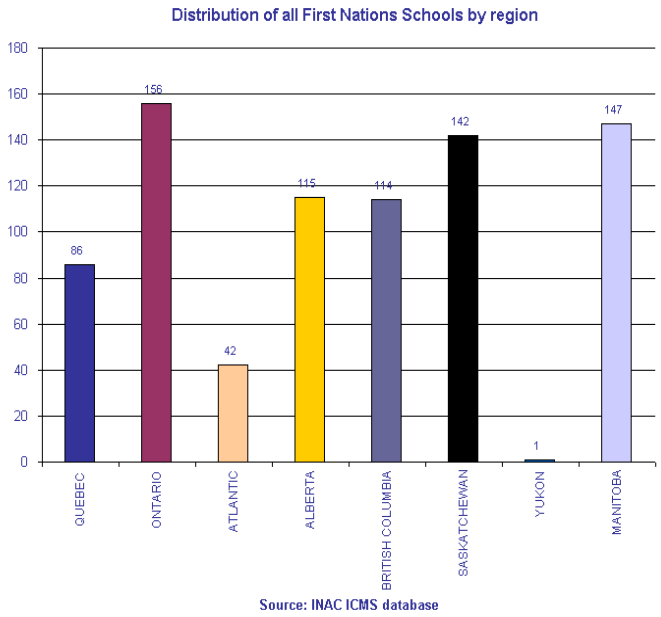
8. PBO Estimates of the Funding Requirements

Further to the financial model described above, the PBO applied the financial model to estimate the funding requirements of the out years, for all the school assets listed in the INAC ICMS database. In the following sections, we look at the portfolio of school assets as model inputs, apply adjustments to the model, use the assumptions, and apply the sensitivity factors to determine the annual funding requirements.

8.1 First Nations School Infrastructure Portfolio

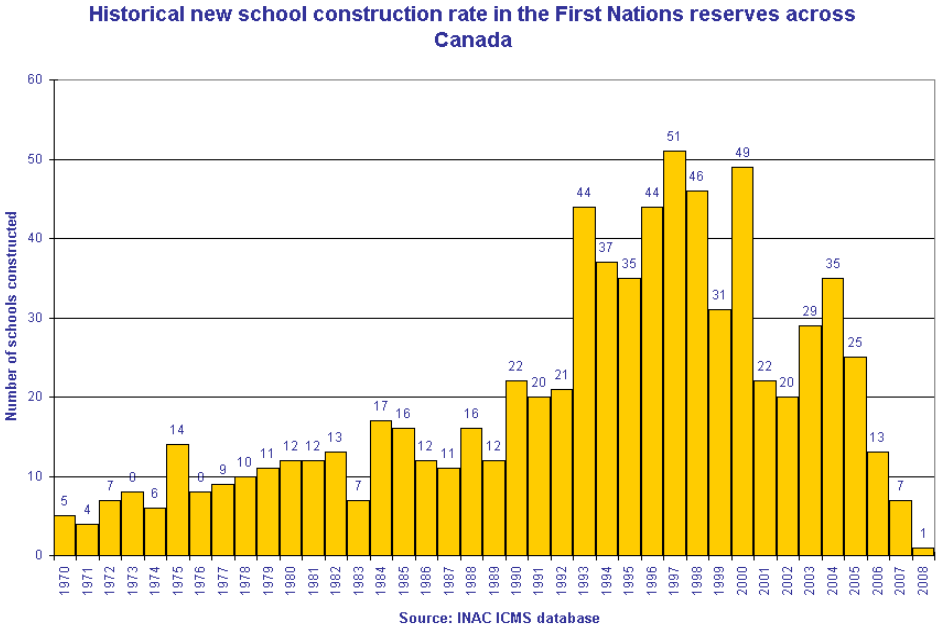
This section describes the portfolio and the salient characteristics of the First Nations school infrastructure assets across Canada.

According to the INAC ICMS database, there are a total of 803 records for schools in existence across all the First Nations in Canada. The following figure shows the regional distribution of these schools. From a relative comparison perspective, Yukon is an outlier, since only one school is reported for that region.



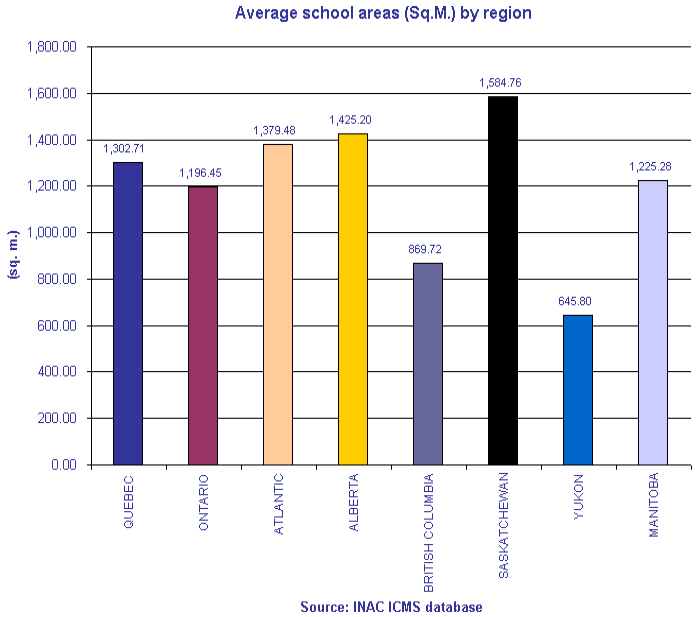
Majority of the schools exist in the provinces of Ontario, Saskatchewan, Manitoba, Alberta, British Columbia and Quebec. The Atlantic Provinces and Yukon feature relatively far fewer schools.

These schools were constructed over a wide time span ranging from the year 1700 to-date. Majority of the schools, were however constructed since the 1950s. The chart below shows the historical school construction rate for schools in First Nations reserves since FY1970-01.



As the chart shows, the school construction schedule picked up momentum in the early 1990s, and averaged over 35 per year. **This construction schedule has tapered off recently, and according to the INAC ICMS database, there have been only 8 new schools built since the year 2006.**

The INAC ICMS database also lists schools by their sizes in terms of sq. m. Assessing the schools by their relative sizes, by region; we arrive at the following chart.



Source: INAC ICMS database

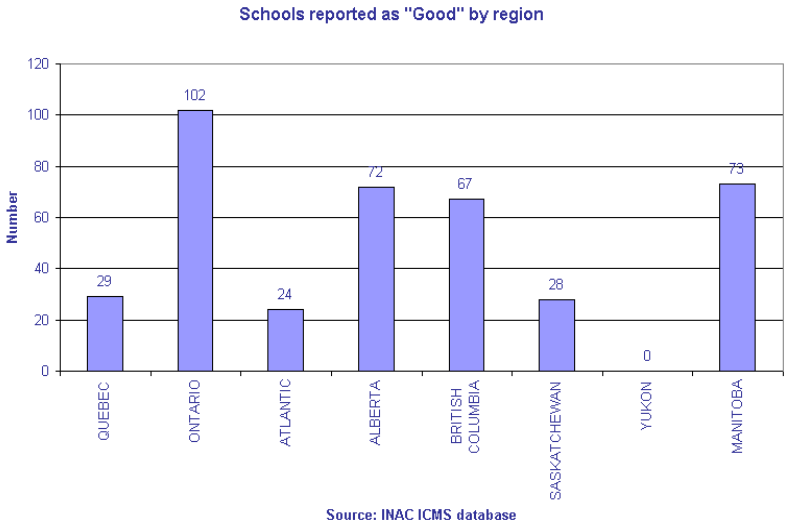
Issues:
The average size of the schools across all First Nations is **1,227.04 sq.m**. As is evident from the chart above, the province of Saskatchewan features relatively large schools, with average sizes of about **1,584.7 sq.m,** almost 30% larger than the average. British Columbia on the other hand features the smallest schools, with average sizes of only about **869.72 sq.m**. The reasons for the wide fluctuation are not known. Given that there is no standard reporting procedure, it is imperative to ascertain whether the school areas are being reported accurately, and if yes, what is the driver behind such large variation in school sizes in reserves across various provinces. Also, it is unclear whether population pressures are determining the size of the various schools across the First Nations reserves. Please refer to *"Appendix: Population Growth Issue in First Nations Reserves"* on page 69 for a discussion on the census on population living on First Nations reserves.

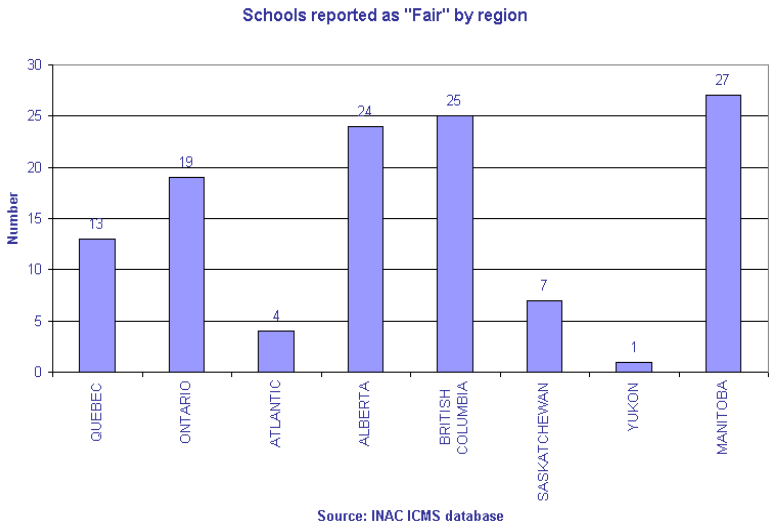
8.2 Physical condition of the assets in the portfolio

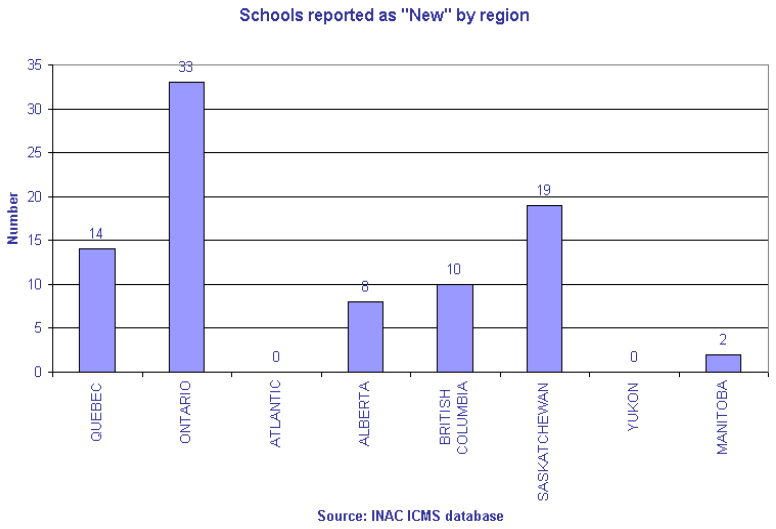
Analyzing the 803 records for schools listed in the INAC ICMS database shows that 10 schools have been closed down, whereas 793 schools still exist. There are 726 schools reported as “permanent structures”, and 77 as “temporary structures”, or “portables”. The ICMS database does not provide accurate information about either the design life of the school assets, or of the estimated remaining life of the assets. Given that INAC does not have in place portfolio-wide asset management or capital budgeting policies; in order to rationalize the data, the PBO undertook a study to determine a standard design life (and consequently, an estimated remaining life) for the assets. Permanent structures were assigned a design life of 40 years, and temporary structures were assigned a design life of 25 years, for asset-wide categorization and standardization. Based on this categorization, capital assets that are up for replacement in **5 years or less** from the date of the writing of this report (year 2009) have been assigned a **fixed estimated remaining life of 5 years**. This is because if these school assets are not assigned a re-capitalization expenditure for the 5 years, then 100% of the capital asset replacement expenditure needs to be assigned immediately.

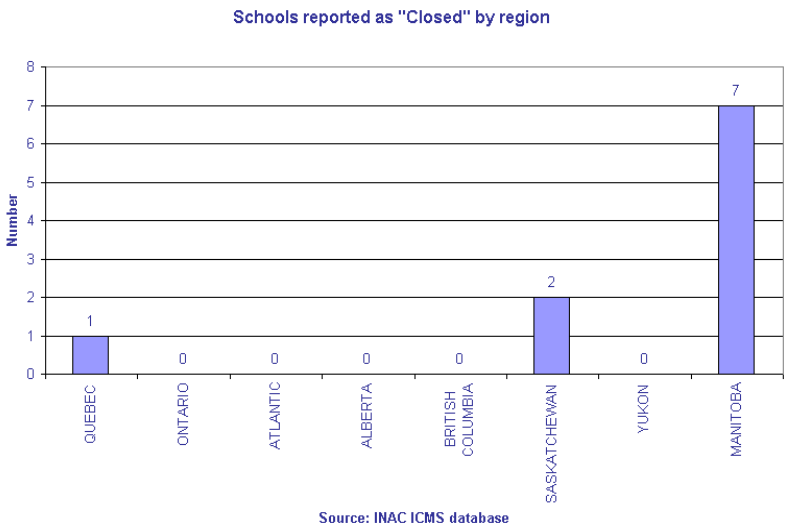
Based on this exercise, the financial model as developed by the PBO indicates that the average remaining life of the First Nations schools is about 21.78 years, i.e. all of the existing 803 First Nations Schools are likely to need replacement by FY2030-31.

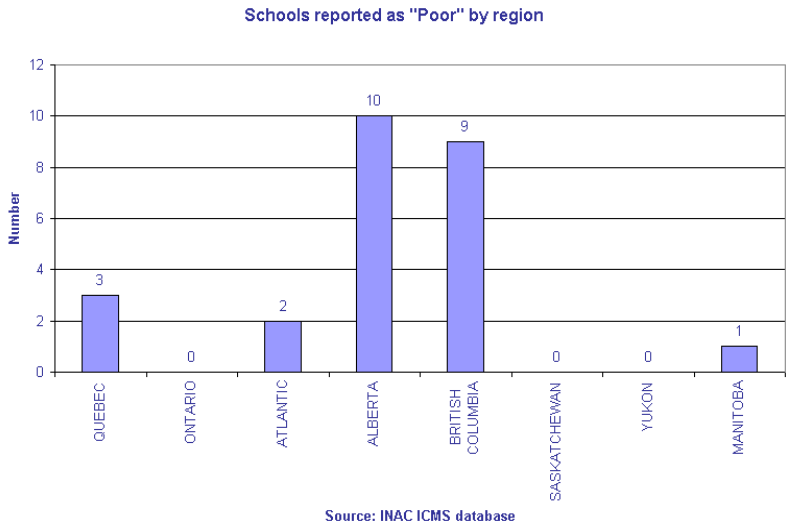
The following charts divide the schools according to the categorization of their condition as reported in the INAC ICMS database, sorted by province or territory or region.

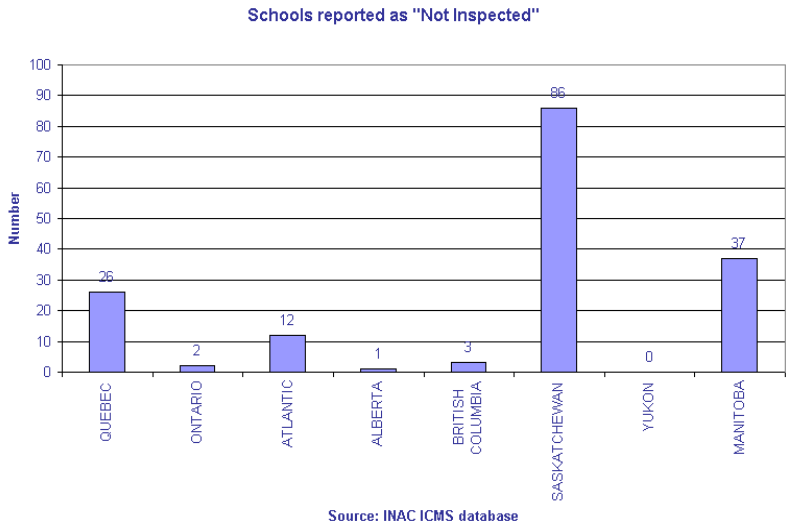



Schools reported as "Fair" by region
Number
30
25
20
15
10
5
0
13
19
4
24
25
7
1
27
QUEBEC
ONTARIO
ATLANTIC
ALBERTA
BRITISH COLUMBIA
SASKATCHEWAN
YUKON
MANITOBA
Source: INAC ICMS database


Schools reported as "New" by region
Number
35
30
25
20
15
10
5
0
14
33
0
8
10
19
0
2
QUEBEC
ONTARIO
ATLANTIC
ALBERTA
BRITISH COLUMBIA
SASKATCHEWAN
YUKON
MANITOBA
Source: INAC ICMS database


Schools reported as "Closed" by region
Number
8
7
6
5
4
3
2
1
0
1
0
0
0
0
2
0
7
QUEBEC
ONTARIO
ATLANTIC
ALBERTA
BRITISH COLUMBIA
SASKATCHEWAN
YUKON
MANITOBA
Source: INAC ICMS database





Salient features of the distribution:

- 7 out of all the 10 Closed schools are in Manitoba
- Only about 49% of the schools are in **"Good"** condition. Almost 21% of the schools are listed as **"Not inspected"**.
- 19 of all the 25 schools (76%) listed in **"Poor"** conditions are in Alberta and British Columbia
- More than 60% of the schools in Saskatchewan are reported as **"Not inspected"**.
- 12 of the 42 schools in Atlantic Canada are reported as **"Not inspected"**.

8.3 Decomposition of the estimated funding requirement into sub-categories

The section titled *"The PBO's Methodology and Financial Model for Capital Budgeting for First Nations Schools"* on page 26 provides details about the expenditure items that need to be estimated to determine the total funding requirement for the First Nations schools based on a sound capital budgeting exercise. The following sections describe the analysis for determining the funding requirement under each of those categories.

Based on the layout of the portfolio of the school assets as described above, and the methodology and financial model for capital budgeting as developed by the PBO, the following sections detail the analysis of the projected future expenditure under various categories for the school infrastructure on First Nations reserves. These expenditures consist of capital, O&M and other expenditure items such as instructional services, off-reserve costs, etc.

8.3.1 Capital expenditures

As detailed in *"The PBO's Methodology and Financial Model for Capital Budgeting for First Nations Schools"* on page 26, capital expenditures consist of replacement and rebuild of existing infrastructure, re-capitalization expenditure for existing infrastructure, and expenditures for new school projects:

- Provision of funds for **replacing and rebuilding existing school infrastructure:** This expenditure item is determined by allocating the asset replacement value (ARV) equally over each year of the remaining estimated life of each asset in the portfolio.
- Annual **re-capitalization expenditures** (required until the asset is up for replacement or rebuild): This expenditure item is determined by applying an industry standard re-capitalization expenditure based on an accurate ARV, using two scenarios: a best-case scenario and a worst-case scenario. The best-case scenario assumes that the school assets of the First Nations are maintained in a generally better condition than in the worst-case scenario. Extensive survey of published literature and discussion with panelists regarding capital budgeting for real estate school assets failed to yield a definitive and conclusive benchmark for school related re-capitalization expenditures. Hence the PBO decided to run a sensitivity analysis in consultation with industry experts and panelists to provide a range, based on best-case and worst-case scenario. Table 7 below provides the re-capitalization expenditure assumptions for the two scenarios.

Table 7: Annual Re-capitalization expenditure for schools under various reported conditions, under the best-case and worst-case scenarios

Facility Condition	Annual Re-Capitalization rate	
	Worst-Case	Best-Case
Closed	0%	0%
Poor	4%	3%
Fair	3%	2%
Good	2%	1.5%
New	2%	1.5%
Not Inspected	2%	1.5%

- Funding requirement for **new school infrastructure projects.** The PBO has not been provided data by INAC regarding new school projects undertaken in First Nations reserves. Consequently, the PBO has been unable to provide an assessment of the historical need for new school projects.

The basic information required for determining the capital expenditures under capital asset replacement and rebuild and re-capitalization categories include:

- the design life of the assets,
- the estimated remaining life for each asset, and
- the estimated replacement value of the assets

Data received in the INAC ICMS database has been unreliable, with no accurate recording of the design life, the estimated remaining life, or the asset replacement values.

- To correctly determine the design life, the PBO has employed an asset-categorization strategy in which permanent structures are assigned a design life of 40 years, whereas temporary structures are assigned a design life of 25 years[14].
- To correctly determine the estimated remaining life, all schools marked as "Closed" have an estimate remaining life of zero. It is assumed that all assets that are up for retirement within the next 5 years or less will be assigned an estimated remaining life of 5 years to provide for sufficient funding for the capital asset replacement. Otherwise, the school assets have been assigned an estimated remaining life based on the year of construction and the design life as determined by the above asset-categorization strategy.
- The Asset Replacement Values for each school as provided by INAC in the ICMS database are mathematically generated based on an outdated formula[15] and do not reflect current market conditions for asset replacement values. Therefore, the PBO used additional statistically significant data **provided by INAC** to test the reasonableness of the data provided by the department and to correctly estimate the overshoot between the mathematically projected asset replacement values and the actual expenditures likely to be incurred when the assets are indeed replaced. The following section deals with this historical overshoot between the projected and the actual ARV costs, based on **schools chosen randomly by INAC that were eventually replaced**.

8.3.2 PBO's Test of Reasonableness for INAC's Asset Replacement Values (ARV)

In its November 2004 report, the Office of the Auditor General of Canada reported that the funding formula for band-operated schools has not been modified since its inception in the late 1980s[16]. During the course of this study carried out for determining the fiscal impact of funding First Nations schools in Canada, **the PBO has not found any improvement in the situation** as reported by the Office of the Auditor General of Canada in its 2002[5] and 2005 reports.

Table 8 below lists the schools randomly chosen by INAC, which were rebuilt or replaced in due course. The table shows the ARV as projected by INAC before the school was constructed, and the Actual ARV costs that were incurred when the school was eventually re-built or replaced[17].

[14] As recommended by BC Housing
[15] As described by INAC officials to the PBO
[16] "2004 November Report of the Auditor General of Canada: Chapter 5—Indian and Northern Affairs Canada—Education Program and Post-Secondary Student Support", Office of the Auditor General of Canada, http://www.oag-bvg.gc.ca/internet/docs/20041105ce.pdf
[17] All data in the table is sourced from INAC

Table 8: Random statistical sample of school projects depicting the divergence between Projected ARV and Actual ARV

Number	Asset Name	Province or Territory	Type	Size (Sq. M)	Design Life	Estimated Remaining Life	Year of Estimation	Projected ARV at the time of Estimation ($)	Actual ARV after asset build completion ($)	Overshoot Factor
1	Aroland - Johnny Therriault Memorial School	Ontario	Rural - Zone 2	1,943	50	47	2008	5,666,000	8,241,843	145.46%
2	Lac La Croix - Zhingwaago Za'iganning School		Rural - Zone 2	1,675	40	36	2008	4,887,416	8,900,503	182.11%
3	Constance Lake - New School		Urban - Zone 1	3,951	50	45	2008	9,147,413	14,596,213	159.57%
4	Sandy Lake - Thomas Fiddler Memorial Elementary School		Remote - Zone 4	4,718	25	19	2008	21,188,099	15,231,382	71.89%
5	Deer Lake - New School K4-10		Remote - Zone 4	3,561	40	34	2008	15,992,457	15,211,180	95.11%
6	Shawanosowe School - Whitefish River		Rural - Zone 2	1,422	40	39	2008	3,333,360	3,695,552	110.87%
7	Pakua Shipi school	Quebec	Remote	1,800	50	41	2000	4,652,600	8,380,376	180.12%
8	Karonhianonha school		Urban	3,250	50	45	2005	4,500,000	6,996,186	155.47%
9	Immersion school		Urban	1,460	50	42	2001	3,725,000	3,143,380	84.39%
10	Amikobi school		Urban	2,630	50	40	1999	3,615,000	6,246,250	172.79%
11	Waycobah Cape Breton Nova Scotia	Atlantic	Rural	4,874	N/A	N/A	N/A	13,160,530	9,917,062	75.35%
12	Shubenacadie Nova Scotia		Rural	4,868	N/A	N/A	N/A	N/A	8,171,552	
13	Sheshatshiu Labrador		Rural	5,390	N/A	N/A	N/A	7,077,255	21,525,300	304.15%
14	Indian Brook		Rural	N/A	N/A	N/A	N/A	9,821,291	0	
15	Little Black River School	Manitoba	Rural	2,850	N/A	N/A	N/A	N/A	10,146	
16	Mosakahiken Cree Nation School		Rural	5,110	N/A	N/A	N/A	N/A	19,239	
17	Chemawawin School		Rural	5,126	N/A	N/A	N/A	N/A	13,553	
18	Dakota Plains School		Rural	1,060	N/A	N/A	N/A	N/A	3,179,144	
19	Pauingassi School		Remote	2,595	N/A	N/A	N/A	N/A	7,512,270	
20	SK'ELEP SCHOOL OF EXCELLENCE #7107 (688 Kamloops; 07173-A3A-024000-01)	British Columbia	Urban	2,273	50	35	2008	5,195,686	5,330,171	102.59%

21	SK'IL' MOUNTAIN COMM SCHOOL #9142 (595 Seton Lake; 08151-A3A-019000-01)		Rural	2,114	50	32	2008	6,475,201	4,092,468	63.20%
22	DITIDAHT COMMUNITY SCHOOL #1424 (662 Ditidaht; 06899-A3A-003000-02)		Rural	1,765	50	35	2008	5,248,748	4,586,968	87.39%
23	Skeetchestn Community School #6914 (687 Skeetchestn; 07169-A3A-009000-02)		Rural	1,441	50	36	2008	4,413,796	4,530,659	102.65%
24	NEW HESQUIAHT SCHOOL #5872 (661 Hesquiaht; not in ICMS yet)		Remote	1,298	50	50	2008	5,444,308	7,447,966	136.80%
25	N/A	Sasketchewan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
26	Erminskin School		Urban	4,680	30	30	2008	13,295,880	14,109,100	106.12%
27	Blood Sapoyi School		Rural	3,471	30	30	2005	12,797,489	7,514,600	58.72%
28	Whitefish Atigameg	Alberta	Rural	4,205	30	30	2004	16,006,154	10,458,700	65.34%
29	Dene Tha' Chatea		Rural	4,175	30	30	2006	18,127,850	11,705,500	64.57%
30	Stoney Bighorn		Urban	2,400	30	30	2008	17,605,800	17,605,800	100.00%
31	N/A	Yukon	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Average Overshoot										**119.30%**
Source: INAC										

The column for "Overshoot Factor" depicts the Actual ARV after the assets were rebuilt as a percentage of the Projected ARV at the time of estimation. This "Overshoot Factor" **confirms the conclusion by the Office of the Auditor General of Canada in November 2004 that funding formula used by INAC for band operated schools has not been updated or modified since its inception in the late 1980s.**

Averaging the different schools listed in the table, the Actual ARV of all schools rebuilt amounts to 119.30% of the ARV mathematically projected by INAC. **Thus, based on this random statistical sampling, an ARV correction factor of 19.30% has been applied to the ARV values as provided by INAC in its ICMS database**.

Based on the assumptions as listed in *"Capital expenditures"* on page 41, and the adjusted asset replacement value as determined in *"*PBO's Test of Reasonableness for INAC's Asset Replacement Values (ARV)*"* on page 42, the following tables 9a and 9b list the total capital expenditure requirement for the next 5 years.

Table 9a: Annual Capital Expenditure for school rebuilding and replacement.

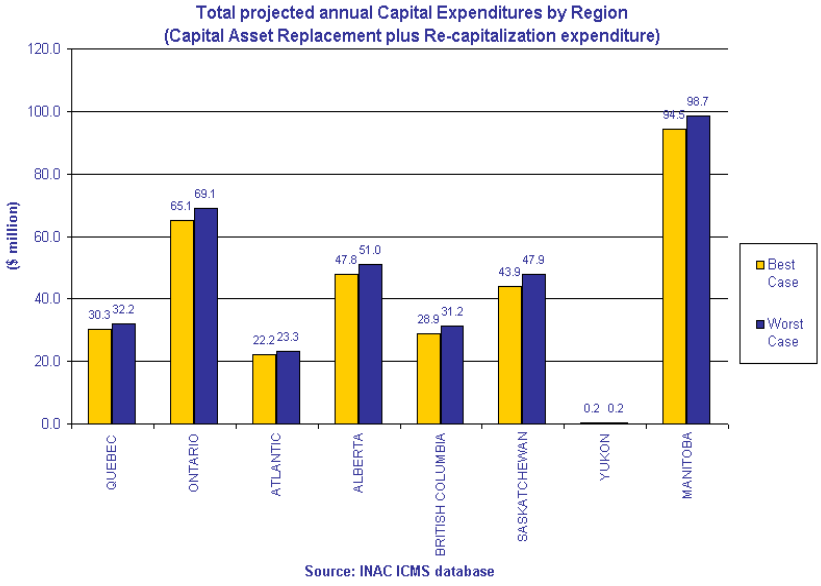
($ millions)	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14
Capital Expenditure for school rebuild and replacement	230	230	230	230	230

Table 9b: Annual Re-Capitalization Expenditure under best-case and worst-case scenarios.

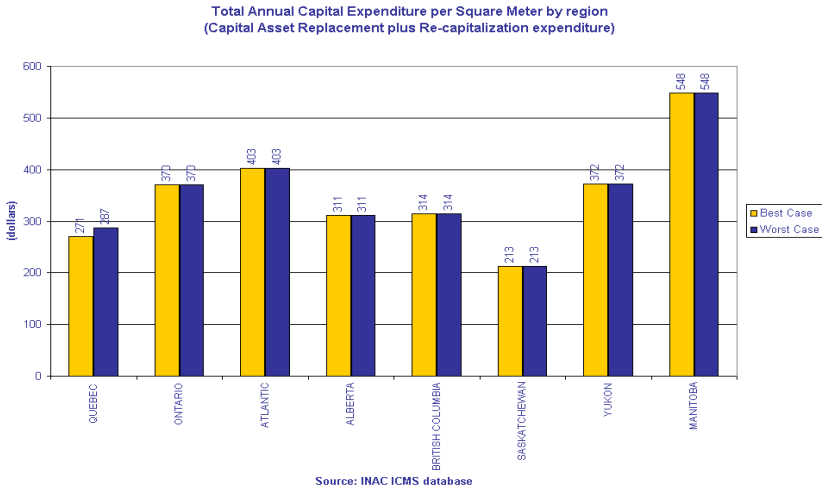
($ millions)	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14
Re-Capitalization Expenditure (Best-Case)	57	57	57	57	57
Re-Capitalization Expenditure (Worst-Case)	78	78	78	78	78

The average capital asset replacement rate amounts to 7.68% annually, whereas the average re-capitalization rate amounts to 1.60% and 2.19% annually, as a percentage of the adjusted ARV, under the best-case and worst-case scenarios respectively.

The following chart depicts the total best-case and worst-case scenarios for the total capital expenditures required per region **on an annual basis, for FY2009-10.**



The chart below depicts the total annual capital expenditure per unit area required in a best-case and worst-case scenario, by region. Saskatchewan has the lowest capital funding requirement per sq.m, whereas Manitoba has the highest capital funding requirement per sq.m.



The above chart shows wide differences in the total capital funding requirement per square meter by region. The exact reasons for these differences are not clear, but could be attributed to remoteness of the schools in the various provinces, or the general condition of the assets. For example, it could be inferred that schools in Manitoba are either remote, or in a generally worse condition, than say the schools in Quebec, since the per-square meter unit capital funding requirement for Manitoba is about $548, whereas for Quebec it ranges from $271 to $287 per square meter.

Issues:
The INAC ICMS database reports over 60% of the schools from Saskatchewan as **"Not Inspected"**. Given this issue, it is pertinent to note that the capital budgeting assumptions applied to the schools in Saskatchewan may not accurately reflect the true situation on the ground. Due to this issue, the capital funding requirement as a function of size applied to Saskatchewan may need revision upon receipt of accurate data.

8.3.3 Operating and Maintenance Expenditures

The PBO has been unable project O&M expenditures for schools based on publicly available best practices and data for school infrastructure projects. However, the annual Operating and Maintenance expenditures have been growing linearly over the last 8 years. Table 10 below shows the total Operating and Maintenance expenditures over the last 8 years.

Table 10: Annual Operating and Maintenance expenditures for First Nations schools from FY2000-01 to FY2007-08

($ millions)	FY2000-01	FY2001-02	FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08
Operating and Maintenance expenditures	62.3	81.3	88.5	92.9	95.7	99.0	96.7	108.3

A regression analysis for the Operating and Maintenance expenditures shows and adjusted R^2 of 80.43%, showing a high degree of annual linear growth. Given the fact that this expenditure is tied to the operation of the school assets, a projection of these expenditures into the future will give an appropriate proxy for estimating the funding requirement for operating and maintenance expenditures for the out years. The following statistical output shows the regression analysis.

SUMMARY OUTPUT					
Regression Statistics					
Multiple R	0.912286575				
R Square	0.832266795				
Adjusted R Square	0.80431126				
Standard Error	6.132143006				
Observations	8				
ANOVA					
	df	SS	MS	F	Significance F
Regression	1	1119.487685	1119.487685	29.77109247	0.001578052
Residual	6	225.6190671	37.60317785		
Total	7	1345.106752			
	Coefficients	Standard Error	t Stat	P-value	
Intercept	-10253.08429	1895.733392	-5.408505401	0.001650582	
Year	5.162796595	0.946210208	5.456289258	0.001578052	

Based on the above regression analysis, the annual O&M expenditures for the next five years were projected. Table 11 below lists the Operating and Maintenance funding requirement for the next
6 years:

Table 11: Projected Annual Operating and Maintenance expenditures for First Nations schools from FY2008-09 to FY2013-14

($ millions)	FY2008-09	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14
Operating and Maintenance expenditures	113.8	119.0	124.1	129.3	134.5	139.6

8.3.4 Off-Reserve funding requirement and other additional expenditures

Other expenditures related to school infrastructure, such as instruction, teachers' salaries and transportation costs, which are incurred and paid for separately under other expenditure categories, and off-reserve funding requirement, have been growing linearly over the last 8 years. Table 12 below shows the total off-reserve and other additional expenditure over the last 8 years.

Table 12: Annual off-reserve school expenditures from FY2000-01 to FY2007-08

($ millions)	FY2000-01	FY2001-02	FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08
Off-Reserve expenditure and other additional expenditures	1,274.8	1,433.5	1,484.3	1,538.3	1,580.2	1,619.2	1,679.8	1,734.7

A regression analysis of these expenditures shows an adjusted R^2 of 94.36%, showing a very high degree of annual linear growth. The following statistical output shows the regression analysis:

SUMMARY OUTPUT					
Regression Statistics					
Multiple R	0.9754697				
R Square	0.9515412				
Adjusted R Square	0.9434647				
Standard Error	34.814225				
Observations	8				
ANOVA					
	df	SS	MS	F	Significance F
Regression	1	142797.06	142797.06	117.81641	3.623E-05
Residual	6	7272.1817	1212.0303		
Total	7	150069.24			
	Coefficients	Standard Error	t Stat	P-value	Lower 95%
Intercept	-115278.82	10762.712	-10.710946	3.91E-05	-141614.25
Equivalent Year	58.308919	5.3719516	10.854327	3.623E-05	45.164217

Based on the above regression analysis, the off-reserve and other additional expenditures were projected. Table 13 below lists the off-reserve and other funding requirement for the next 5 years:

Table 13: Projected annual off-reserve and other school expenditures from FY2009-10 to FY2013-14

($ millions)	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14
Off-Reserve expenditure and other additional expenditures	1,863.8	1,922.1	1,980.4	2,038.7	2,097.0

Issues: One of the advisory panelists noted that the level of operating and maintenance expenditures and off-reserve expenditures are impacted by the physical condition of the school infrastructure **on-reserve**. The PBO concurs with this conclusion, given that physical condition of schools on-reserve is an important cost driver for the expenditures (as noted in *"The PBO's Methodology and Financial Model for Capital Budgeting for First Nations Schools"* on page 26).

However, there is a general lack of data, which hinders the accurate prediction of the amount by which the above-mentioned expenditures are likely to be impacted. Hence this additional factor has been left out of the analysis, pending further receipt of accurate data.

8.4 Total cost summation for First Nations school funding requirement

Tables 14a and 14b below show the total funding requirement of the GC for funding First Nations schools over a five year period based on two different scenarios, i.e, a best-case and worst-case scenario. The data in these tables are based on the portfolio of 803 First Nations schools. For a detailed description and calculation of the funding requirement, please refer to *"PBO Estimates of the Funding Requirements"* on page 35. A detailed description of the PBO methodology and financial model for capital budgeting for the First Nations school infrastructure assets is noted in *"The PBO's Methodology and Financial Model for Capital Budgeting for First Nations Schools"* on page 26.

As can be seen from the tables 14a and 14b below, the total annual requirement between FY2009-10 to FY 2013-14 ranges from $2.27 billion to $2.54 billion.

Table 14a: Funding requirement under various categories for the period FY2009-10 to FY2013-14, under the best-case scenario

Best Case ($ millions)	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14
Capital Expenditure (Asset replacement)	230	230	230	230	230
Capital Expenditure (Re-Capitalization)	57	57	57	57	57
Total Capital Expenditures	**287**	**287**	**287**	**287**	**287**
O&M Expenditure	119	124	129	134	140
Other Expenditures	1,864	1,922	1,980	2,039	2,097
Total	**2,270**	**2,333**	**2,397**	**2,460**	**2,524**

Table 14b: Funding requirement under various categories for the period FY2009-10 to FY2013-14, under the worst-case scenario

Worst Case ($ millions)	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14
Capital Expenditure (Asset replacement)	230	230	230	230	230
Capital Expenditure (Re-Capitalization)	78	78	78	78	78
Total Capital Expenditures	**308**	**308**	**308**	**308**	**308**
O&M Expenditure	119	124	129	134	140
Other Expenditures	1,864	1,922	1,980	2,039	2,097
Total	**2,291**	**2,354**	**2,418**	**2,481**	**2,545**

From the above tables 14a and 14b, for the FY2009-10, the total expenditures include the following:

- Funding requirement for Capital asset replacement amounting to $230 million (or approximately 10% of the total),
- Funding requirement for re-capitalization expenditures range between $57 million and $78 million (or between 2.53% and 3.41% of the total), under the best-case and worst-case scenarios, respectively,
- Funding requirement for operating and maintenance expenditures amount to $119 million,
- Funding requirement for other expenditures such as students going off-reserve for education, transportation, instructional services, etc., amount to $1.864 billion, forming the largest portion of the total cost.

9

9. Funding Gap: comparison of the estimated funding requirements based on PBO methodology and financial model with INAC's planned expenditures

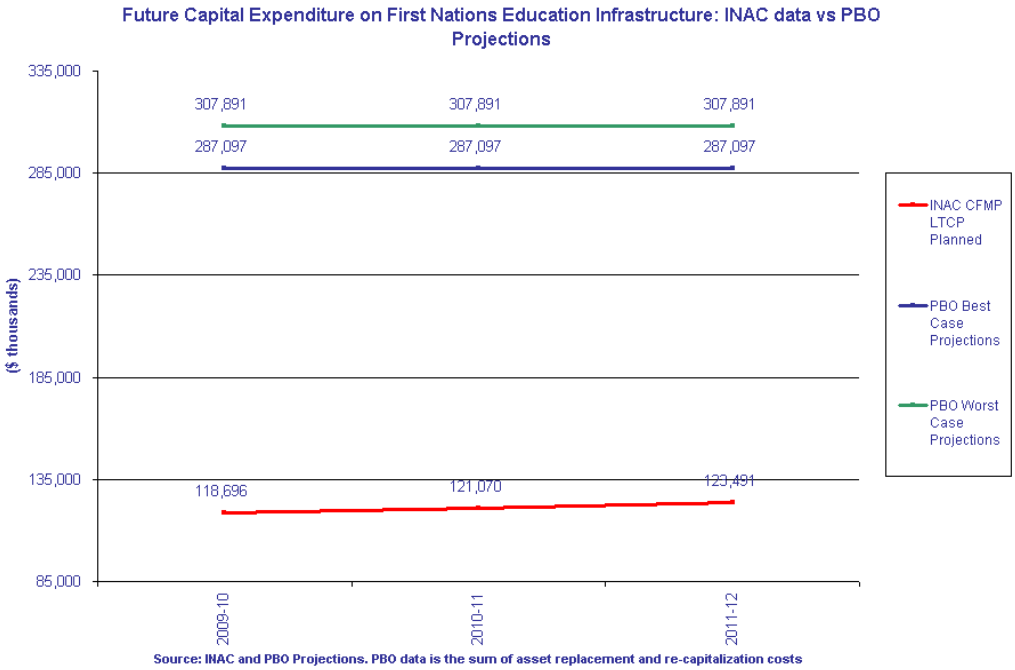
Based on the preceding analysis of the funding requirement for First Nations school infrastructure, it is pertinent to compare these projected funding requirements against INAC's own planned expenditures for the same. However, given that INAC's planned expenditures under the CFMP LTCP under the Community Infrastructure program only include the capital and O&M expenditures, in the sections below we will compare only the capital and O&M projections between the INAC data and PBO data.

From Tables 14a and 14b, the PBO analysis shows that the total funding requirement for **capital expenditures alone** as projected by the PBO methodology for the next three years range between $287million to $307million annually. Compared to the PBO projections, the planned capital expenditures as reported by INAC in its CFMP LTCP for the next three years range from $118 million to $123 million, annually. Shown in the table 15a below are the PBO's best-case and worst-case projections compared with the INAC CFMP LTCP planned capital expenditures.

Table 15a: INAC Planned capital expenditures vs. PBO projected capital expenditures

($ thousands)	FY2009-10	FY2010-11	FY2011-12
INAC CFMP LTCP Planned Capital Expenditures **(Source: INAC CFMP LTCP)**	118,696	121,070	123,491
PBO Best-Case Projections: Capital Expenditures	287,097	287,097	287,097
PBO Worst-Case Projections: Capital Expenditures	307,891	307,891	307,891

The data as provided in the table 15a above is graphically plotted in the chart below for better perspective.



The Table 15a above lists the planned capital expenditures as reported by INAC under its CFMP LTCP plan, against the PBO best-case and worst-case projections for the likely funding requirement for capital expenditures.

Thus according to the PBO projections, for FY2009-10, INAC's plans for capital expenditure are under-funded by about $169 million in the best case, and $189 million in the worst-case scenario, as depicted in the chart above. Thus, the annual INAC Planned Capital Expenditures according to its CFMP LTCP **underestimates the likely gross expenditures compared to the PBO Best Case and Worst Case Projections (by more than 58%).**

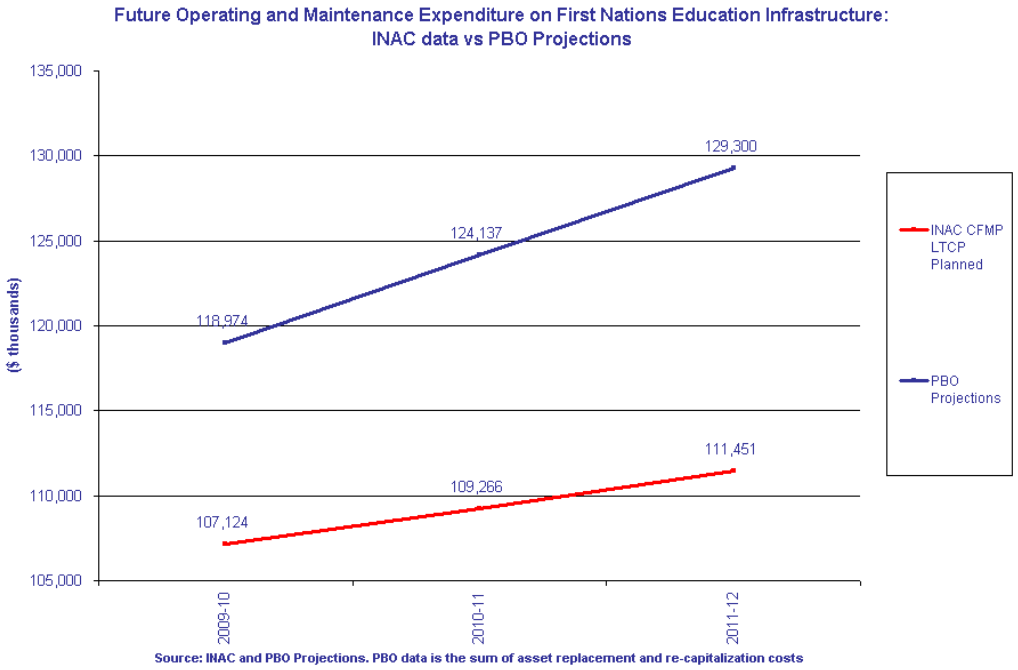
Also, from Tables 14a and 14b, according to the PBO methodology for the total funding requirement for Operating and Maintenance expenditures, the projections for the next three fiscal years range from $118 million to $129 million. Compared to the PBO projections, the planned Operating and Maintenance expenditures as reported by INAC in its CFMP LTCP for the next three years ranges from $107 million to $111 million, annually.

Table 15b: INAC Planned capital expenditures vs. PBO projected capital expenditures

($ thousands)	FY2009-10	FY2010-11	FY2011-12
INAC CFMP LTCP Planned O&M Expenditures **(Source: INAC CFMP LTCP)**	107,124	109,266	111,451
PBO Projections: O&M Expenditures	118,974	124,137	129,300

The data in Table 15b above is the INAC projected planned O&M expenditures and the PBO projected required O&M expenditures. The same data has been shown graphically in the chart below for better perspective.

The Table 15b above lists the planned operating and maintenance expenditures as reported by INAC under its CFMP LTCP plan, against the PBO projections for the likely funding requirement for operating and maintenance expenditures. Thus, according to the PBO projections, for FY2009-10, INAC's plans for operating and maintenance expenditures are under-funded by about $11million, as depicted in the chart above. Thus the INAC Planned Operating and Maintenance expenditures according to its CFMP LTCP **underestimate the likely expenditures compared to the PBO projections (i.e. by more than 10%).**



Source: INAC and PBO Projections. PBO data is the sum of asset replacement and re-capitalization costs

Note:

Historically, INAC's Actual Expenditure for Capital and Operating and Maintenance under the CFMP LTCP has been much lower than its Planned Expenditure. This "reallocation" or "diversion" of funds notionally earmarked for school-related capital and O&M expenditure **amount to an average of about $20 million each year, or an annual average of about 8.73%** for FY2002-03 to FY2007-08. Over the FY2002-03 to FY2007-08 period, a total of $1.386 billion was "notionally" allocated towards education related capital and O&M expenditures, whereas only about $1.265 billion was actually spent. **Thus about $121 million were diverted or re-allocated to other programs and projects from the education related capital and O&M planned expenditures.** Refer to *"INAC CFMP LTCP Planned vs Actual Expenditures (Capital and Operating and Maintenance only)"* on page 64 for details on this reallocation of funds.

Thus the PBO notes that **due to this historical trend in reallocation of funds notionally earmarked for school related capital and O&M expenditure under the CFMP LTCP, the actual expenditures for the capital and operations and maintenance are likely to be even lower than the comparisons shown in the tables 15a and 15b and the charts above.**

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10. National and International Survey in School Infrastructure and Education delivery

The sections below describe the various national and international practices in school infrastructure and education delivery. It covers various categories such as ownership model of school infrastructure, accounting methodology for capital assets, funding mechanisms, and capital budgeting methodology and principles.

Ownership of School Infrastructure					
First Nations New Zealand[18]	First Nations United States[19]	First Nations Canada[20]	Alberta[21]	British Columbia[22]	Ontario[23]
Owned by the Ministry of Education.	Owned by the federal government or tribe. Qualified tribal councils have option to take over ownership;	Owned by First Nations band. Usually managed by local band. In rare cases, GC manages operations	Owned by school boards.	Owned by school boards.	Owned by school boards.

[18] Responses to PBO questionnaire from NZ Ministry of Education, Nov. 2008 (unless otherwise indicated).
[19] Interviews with staff from Bureau of Indian Affairs, November 2008, January 2009, (unless otherwise indicated).
[20] Interviews with staff from INAC, October, 2008 – January 2009 (unless otherwise indicated).
[21] Responses to PBO questionnaire from Edmonton Public School Board, Nov. 2008, (unless otherwise indicated).
[22] Responses to PBO questionnaire from BC Ministry of Education, Nov. 2008, (unless otherwise indicated).
[23] Interview with CFO from Ottawa Carleton District School Board (OCDSB) Nov. 2008

	otherwise, schools owned by the Bureau of Indian Affairs (BIA).	of the school for the band, but band retains ownership.			
There is no established best practice in the available literature. Local ownership is the model used across Canadian First Nations and provinces; a mixed approach is used in the United States & federal ownership is used in New Zealand. In the United States, if a tribe wishes to take ownership of a school, it must demonstrate financial and managerial capability to do so before ownership is transferred.					

Depreciable Life for Accounting Purposes					
First Nations New Zealand[24]	First Nations United States[25]	First Nations Canada[26]	Alberta[27]	British Columbia[28]	Ontario[29]
Buildings are depreciated over 75 years or less based on materials used.	Use a 50 year straight line depreciation for all school buildings[30]	Assets are not reflected on the books, and hence currently there is no depreciation of assets. PSAB guidelines will be adopted in 2010.	Follows PSAB PS3150; depreciates buildings over 40 years.	Follows CICA 4400; BC government suggests 40-year depreciation period but allows discretion by board.	Follows PSAB PS3150; depreciates buildings over 40 years as mandated by Ministry of Education.
The recognition of schools as assets is a very new development in public sector accounting. PSAB requirements for recognizing schools as tangible capital assets have only taken effect this year in Canada. According to the 21st Century School Fund, US jurisdictions began to recognize schools on their financial statements only within the last 5 years. Recommended best practices for deciding specific depreciation schedules, as set out by PSAB include allowing jurisdictions freedom in choosing depreciation schedules based on local conditions and using expert assessments by qualified appraisers.					

[24] Responses to PBO questionnaire from NZ Ministry of Education, Nov. 2008 (unless otherwise indicated).
[25] Interviews with staff from Bureau of Indian Affairs, November 2008, January 2009, (unless otherwise indicated).
[26] Interviews with staff from INAC, October, 2008 – January 2009 (unless otherwise indicated).
[27] Responses to PBO questionnaire from Edmonton Public School Board, Nov. 2008, (unless otherwise indicated).
[28] Responses to PBO questionnaire from BC Ministry of Education, Nov. 2008, (unless otherwise indicated).
[29] Interview with CFO from Ottawa Carleton District School Board (OCDSB) Nov. 2008
[30] Responses to PBO questionnaire from Bureau of Indian Affairs, Nov. 2008.

Source of Funds / Funding Mechanism					
First Nations New Zealand[31]	First Nations United States[32]	First Nations Canada[33]	Alberta[34]	British Columbia[35]	Ontario[36]
No separate school system for Aboriginals; they attend state schools, funded by the New Zealand government.	US government responsible for funding replacement schools (BIA can fund only 184 schools at any given point in time). In rare cases, tribes have used their own source of funds or a special appropriation to pay for construction. An Act of Congress is required to divert construction funds.	GC provides funding via grants and contributions to First Nations. Significant discretion at regional level to redirect funds from school construction to other First Nations priorities.	Previously, AB government built schools and transferred ownership to the school boards. Recently used P3 approach to build 16 schools across AB. No upfront cost to school boards. AB government will transfer funds to boards to cover monthly payments to P3 consortium.	School board issues debt to fund construction, BC government transfers funds to school board (debt-service grants) to make interest payments on debt.	ON government funds operations, re-capitalization and new construction via grants based mainly on student enrolment levels.
Alberta recently used a P3 to build 16 schools by bundling the schools into a single design-build-maintain contract. The minimum contract size of $50 million[37] to justify a P3 required the bundling of the schools into a single contract. Numerous state and local school boards across the US have begun issuing debt to finance a backlog of school re-capitalization and new construction rather than waiting for cash appropriations. The long-term nature of the debt (30 years or longer) allows debt service payments to better match the useful life of the school. The tax advantage provided by municipal bonds also decreases the cost of funds for the jurisdiction[38]. Debt financing is a relatively new development, which has come about in part by the recognition of schools as depreciable assets.					

[31] Responses to PBO questionnaire from NZ Ministry of Education, Nov. 2008 (unless otherwise indicated).
[32] Interviews with staff from Bureau of Indian Affairs, November 2008, January 2009, (unless otherwise indicated).
[33] Interviews with staff from INAC, October, 2008 – January 2009 (unless otherwise indicated).
[34] Responses to PBO questionnaire from Edmonton Public School Board, Nov. 2008, (unless otherwise indicated).
[35] Responses to PBO questionnaire from BC Ministry of Education, Nov. 2008, (unless otherwise indicated).
[36] Interview with CFO from Ottawa Carleton District School Board (OCDSB) Nov. 2008
[37] Interview with BC Housing, December 2008 and Partnerships BC staff, Jan. 2009.
[38] Interview with 21st Century School Fund, Jan. 2009

Methodology for assessing operating and maintenance (O&M), re-capitalization & asset replacement funding requirements					
First Nations New Zealand[39]	First Nations United States[40]	First Nations Canada[41]	Alberta[42]	British Columbia[43]	Ontario[44]
O&M: Maintenance funds are based on enrolment, school size, materials used to construct, and location[45] Re-capitalization: Funding is formula driven based on school & property size. Asset replacement	O&M: Funding is set to match historic cost experience. Re-capitalization: Based on a database of sub-systems. 15 year capital plans are projected with focus on first 5-years. Asset replacement: Decision to fund replacement	O&M: Funding is based on area/size of the asset and remoteness[46] Asset replacement: Funding for new school construction is in the form of grants and is provided based on projected enrolment and square footage per pupil	O&M and Re-capitalization: Funding is based mostly on student enrolment, age and size of buildings and location[47] Asset replacement: Funding is based on board requests for project investment via a 3-year capital plan.	O&M: Funding is based predominantly on student enrolment[48] Re-capitalization: Grants are provided based on enrolment and the average age of the schools[49] Asset replacement: All school boards submit 5-year capital	O&M: Funding is based enrolment and school size[50] Re-capitalization: Funding is based on square footage and age of school. The province uses an asset tracking management system to provide estimates of projected

[39] Responses to PBO questionnaire from NZ Ministry of Education, Nov. 2008 (unless otherwise indicated).
[40] Interviews with staff from Bureau of Indian Affairs, November 2008, January 2009, (unless otherwise indicated).
[41] Interviews with staff from INAC, October, 2008 – January 2009 (unless otherwise indicated).
[42] Responses to PBO questionnaire from Edmonton Public School Board, Nov. 2008, (unless otherwise indicated).
[43] Responses to PBO questionnaire from BC Ministry of Education, Nov. 2008, (unless otherwise indicated).
[44] Interview with CFO from Ottawa Carleton District School Board (OCDSB) Nov. 2008
[45] *"State Schools Property Management Handbook"*, New Zealand Ministry of Education, http://www.minedu.govt.nz/educationSectors/Schools/SchoolOperations/PropertyManagement/StateSchools/StateSchoolsPropertyManagementHandbook.aspx and *"Resourcing Handbook",* New Zealand Ministry of Education, http://www.minedu.govt.nz/educationSectors/Schools/SchoolOperations/Resourcing/ResourcingHandbook.aspx
[46] Schools Space Accommodation Standards Manual & Cost Reference Manual, INAC.
[47] *"2008–2009 Funding Manual for School Authorities"*, http://education.alberta.ca/admin/funding/manual.aspx
[48] *"Operating Grants Manual, 2008/09"*, March 2008, Resource Management Division, Ministry of Education, British Columbia, http://www.bced.gov.bc.ca/k12funding/funding/08-09/estimates/welcome.htm
[49] *"Annual Facility Grant for 2005/06",* Ministry of Education, British Columbia, http://www.bced.gov.bc.ca/capitalplanning/resources/2005-06/afg_funding_05-06.pdf
[50] *"Pupil Accomodation Grants"*, Communications and Planning & Facilities Departments, Toronto Catholic District Board, http://www.tcdsb.org/facilities%20issues/Understanding%20Pupil%20Accommodation%20Grants.PDF

: Future projections are based on depreciation of assets, and new school and roll projections. Both 5 year and 10 year projections are made based on this data.	schools is based on safety and physical conditions of existing schools.	guidelines. Priority is given to capital funding related to health and safety, over-crowding, curriculum requirements & the return of First Nations students from provincial schools to create a 5-year capital plan. INAC does not have a defined methodology for projecting capital funding requirement for schools.	Prioritization is based on health and safety, student enrolment, building condition and education program needs.	plans. Province prioritizes all requested capital projects and commits funds to the highest priority projects 3 years out.	expenditures. Asset replacement: Formula driven; when schools reach 120% capacity a new school is built to address overcrowding. A grant is provided based on projected enrolment and space per pupil guidelines. Longer term planning is done with 20-year capital plans submitted by the school boards.

Among Canadian jurisdictions considered, INAC is unique in not factoring enrolment into operational funding level decisions. The current funding model rewards over-projection of enrolment by the band & diverts funding from other areas both to construct larger than required schools and to the operational costs attached to that unused space. Adding enrolment as a factor in deciding operational funding levels would better target funds away from underused schools & encourage better enrolment projections as unused space might not qualify for operational funding from INAC and require bands to find other sources of funds to pay for operations. Moreover, adopting the BIA approach of using past enrolment to project future enrolment, which has proven very accurate, could help INAC in better projecting actual space requirements for future schools. INAC is reviewing how to improve its model for projecting future space requirements because it is aware the current method, based on the nominal role and the assumption of 100% repatriation of First Nations students from provincial schools to newly built on-reserve schools, leads to unnecessarily large schools being built.

Over the last decade, best practices have begun to emerge from the private sector around budgeting for operations, re-capitalization and capital replacement of large portfolios of tangible capital[12]. The use of sub-system tracking databases has been identified as the best approach for proper budgeting and planning by Public Works and Government Services Canada[51], the Governments of Ontario[52], and New Zealand[53] and several private-sector and not-for-profit experts[54].

[51] Interview with Michael Blaschuk, BC Housing (former Chief Appraiser for PWGSC).

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11. Appendix: Detailed Historical funding for INAC

This section deals with the financial data for INAC, by appropriations, and education related programs.

11.1 INAC Historical Parliamentary Appropriations

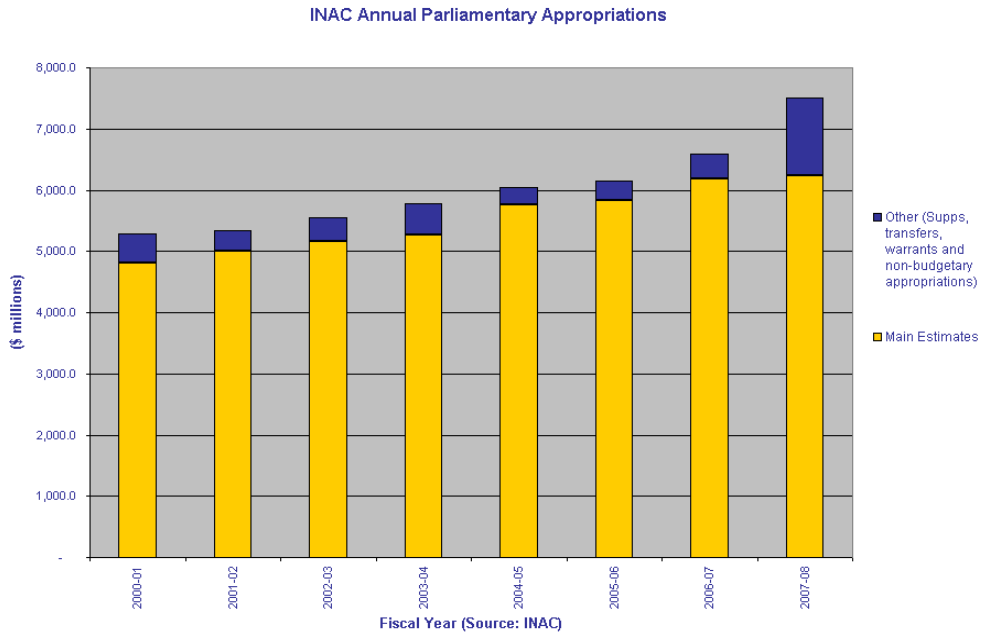
The following Table 16 shows the annual appropriations for INAC from FY2000-01 to FY2007-08. The data is split into Main Estimates and Supplementaries. The Supplementaries are themselves split into adjustments and transfers. Other adjustments, transfers and warrants, and the non-budgetary appropriations are shown separately.

[52] Interview with CFO from Ottawa-Carleton District School Board, Nov. 2008
[53] Response to PBO questionnaire from New Zealand Ministry of Education, Nov. 2008
[54] *"Model Policies in Support of High Performance School Buildings for All Children"*, October 2006, BEST, http://citiesandschools.berkeley.edu/reports/BEST_2007_Model_Policies.pdf

Table 16: INAC Budgetary and non-budgetary appropriation data for FY2000-01 to FY2007-08

($ millions)		FY2000-01	FY2001-02	FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08
INAC (Budgetary)	**Main Estimates**	**4,804.6**	**5,011.0**	**5,157.2**	**5,262.0**	**5,760.8**	**5,825.5**	**6,189.7**	**6,232.2**
Supps "A"	Adjustments to Appropriations	276.0	142.5	88.6	321.9	103.9	0.0	181.9	145.3
	Transfers	19.7	0.0	6.5	0.0	15.9	0.0	5.8	64.0
	Sub-Total Supps 'A'	**295.6**	**142.5**	**95.1**	**321.9**	**119.8**	**0.0**	**187.7**	**209.3**
Supps "B"	Adjustments to Appropriations	0.0	1.0	120.2	0.0	0.0	0.0	0.0	868.1
	Transfers	0.0	30.6	6.7	0.0	3.9	0.0	32.8	(0.6)
	Sub-Total Supps 'B'	**0.0**	**31.6**	**126.9**	**0.0**	**3.9**	**0.0**	**32.8**	**867.6**
Other Adjustments / Transfers / Warrants		57.3	24.1	36.0	45.6	28.4	190.9	34.8	62.9
Total Budgetary Appropriations		5,157.5	5,209.2	5,415.2	5,629.5	5,912.8	6,016.4	6,445.0	7,372.0
Total Non-Budgetary Appropriations		121.5	136.9	137.3	152.8	133.9	139.4	149.7	134.9
Total Appropriations		**5,279.0**	**5,346.2**	**5,552.6**	**5,782.3**	**6,046.7**	**6,155.8**	**6,594.7**	**7,506.9**
Source: INAC									

As can be seen from the chart below, INAC receives about 92% of its annual appropriations through the main estimates, and about 8% of its annual appropriations via supplementaries, adjustments, transfers, warrants, or non-budgetary appropriations. However, for FY2007-08, INAC received about $6.23B via main estimates as opposed to a total appropriation of $7.5B, implying that 17% of its appropriation was received via supplementaries, etc.



11.2 INAC Historical Educational Expenditures (Capital and Operating & Maintenance)

The following Table 17 details the annual expenditure (both authorized, and actual), under the Community Infrastructure expenditure category. It is through this expenditure category, that INAC's Capital Facilities and Maintenance Plan (CFMP) is funded, which in turn contains the expenditure funds for school infrastructure related capital and operations and maintenance expenditures.

Table 17: Community Infrastructure expenditure, and Education/School Expenditure - Contribution Funding (all On-Reserve)

($ millions)	FY2000-01	FY2001-02	FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08
Community Infrastructure (Authorized)	960.6	914.7	960.2	928.1	965.5	973.9	1,139.4	1,092.6
Community Infrastructure (Actual)	958.1	902.8	963.4	935.9	930.0	938.7	1,070.3	1,032.2
O&M Expenditure Education Facilities (Actual)	62.3	81.3	88.5	92.9	95.7	99.0	96.7	108.3
Capital Expenditure Education Facilities (Actual)	151.1	154.3	124.6	118.9	117.8	90.0	98.0	135.4
Total Capital and O&M Expenditure Education (Actual)	**213.3**	**235.6**	**213.0**	**211.8**	**213.4**	**189.0**	**194.8**	**243.7**
Source: INAC								

11.3 INAC Historical Educational Expenditures (Instructional Services, Support and Other)

The Table 18a below shows the annual expenditure on support services that are rendered to students both on and off-reserve, and **excludes all capital, and operating and maintenance expenditures.** These expenditures are all outside of the Community Infrastructure and CFMP expenditure.

The expenditure categories are split into two main categories:

- Direct Services, and
- Indirect services

Direct Services include services such as:

- Support for Students Off-Reserve, which include
  - Instructional Services – Provincial and Private Schools
  - Special Education
- Support for Students On-Reserve, which include
  - Instructional Services – Federal Schools
  - Instructional Services – Band Schools
  - Special Education
- Support for Students On and Off-Reserve (expenditures that cannot be separated further), which include
  - Transportation, and
  - Other expenditures
- Post Secondary Expenditures, and
- Cultural centres

Indirect Expenditures include Internal services

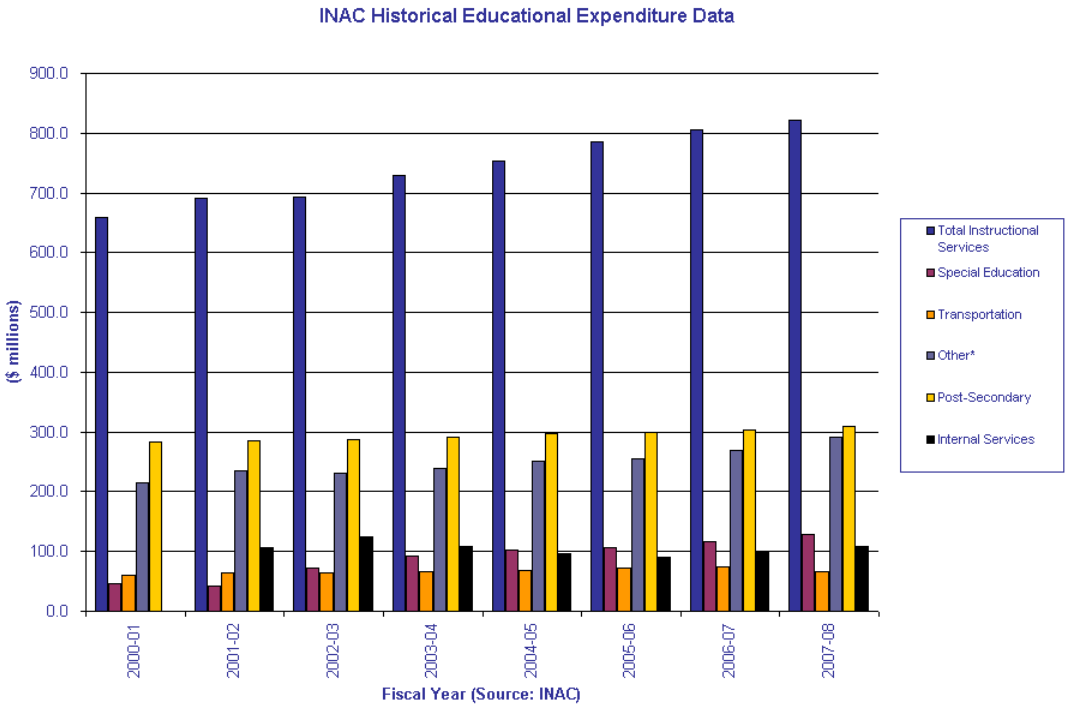
Table 18a: Other education related expenditures, including off-reserve expenditures, transportation, etc.

Direct Expenditures ($million)		FY2000-01	FY2001-02	FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08
Education expenditure (off-reserve data)	Instructional Services - Provincial and Private Schools	278.6	278.8	291.6	306.6	321.4	331.3	348.1	359.9
	Special Education	8.0	11.2	12.0	19.5	22.6	22.8	27.2	17.3
Education expenditure (on-reserve data)	Instructional Services - Federal Schools	2.0	8.3	7.2	7.4	9.0	15.6	15.8	12.3
	Instructional Services - Band Schools	377.8	403.6	394.1	416.0	423.6	437.6	442.5	449.2
	Special Education	37.3	30.9	61.3	72.9	80.3	83.6	90.2	111.5
Education (on and off-reserve data)	Transportation	60.6	63.3	64.7	66.4	68.7	71.9	73.8	65.8
	Other*	215.6	235.7	231.3	239.3	252.1	255.3	268.3	291.8
Post-Secondary		283.9	285.2	288.1	290.4	297.5	300.2	303.4	309.2
Cultural centres		11.0	9.7	10.2	10.4	9.3	10.0	10.0	10.0
Total Direct Expenditures		**1,274.8**	**1,326.8**	**1,360.5**	**1,428.9**	**1,484.4**	**1,528.3**	**1,579.2**	**1,627.0**
Indirect Expenditures ($ millions)									
Internal Services		0.00	106.67	123.79	109.40	95.84	90.91	100.58	107.77
Total Indirect Expenditures		**0.00**	**106.67**	**123.79**	**109.40**	**95.84**	**90.91**	**100.58**	**107.77**
Total Expenditures ($ millions)									
Total Direct Expenditures		1,274.8	1,326.8	1,360.5	1,428.9	1,484.4	1,528.3	1,579.2	1,627.0
Total Indirect Expenditures		0.00	106.67	123.79	109.40	95.84	90.91	100.58	107.77
Total		**1,274.7**	**1,433.4**	**1,484.2**	**1,538.3**	**1,580.2**	**1,619.2**	**1,679.8**	**1,734.7**

*Comprised of: Student Accomodation Service (All school types), Financial Assistance Allowances (All school types), Guidance & Counselling, Advice & Assitance (Provincial schools), Comprehensive Education Support Services, Teacher Recruitment & Retention, Parental & Community Engagement Strategy, New Paths for Education, Youth Employment Strategy Program, First Nations SchoolNet, National Aboriginal Achievement Foundation, Gathering Strength, Labrador Inuit Comprehensive Healing Strategy, James Bay/Northern Quebec Education Agreement (Quebec), Mi'kmaq Education Authority (Atlantic).

Source: INAC

The chart below plots the above data.



Based on the above data the following table 18b depicts the annual rate of growth in the expenditure under each category.

Table 18b: Annual rate of growth of Other Education related expenditures categories.

Annual rates of growth	FY2001-02	FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08	Average
Total Instructional Services	4.93%	0.30%	5.37%	3.28%	4.05%	2.79%	1.86%	3.23%
Special Education	-7.11%	74.06%	26.03%	11.36%	3.49%	10.31%	9.73%	18.27%
Transportation	4.45%	2.20%	2.67%	3.47%	4.56%	2.64%	-10.87%	1.30%
Other*	9.32%	-1.87%	3.46%	5.32%	1.28%	5.11%	8.74%	4.48%
Post-Secondary	0.45%	1.02%	0.79%	2.44%	0.91%	1.06%	1.93%	1.23%
Cultural centres	-12.04%	5.75%	1.83%	-10.31%	7.66%	-0.56%	-0.27%	-1.14%
Internal Services			16.05%	-11.63%	-12.39%	-5.14%	10.63%	7.15%

The Special Education expenditure category shows an average annual growth of more than 18% since FY2001-02.

11.4 Total Summation for INAC Historical Educational Expenditures

Shown below is the total summation of the historical educational expenditures for INAC.

Table 19a: Total summation of INAC historical educational expenditures by category

($ millions)	FY2000-01	FY2001-02	FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08
O&M Expenditure Education Facilities (Actual)	62.3	81.3	88.5	92.9	95.7	99.0	96.7	108.3
Capital Expenditure Education Facilities (Actual)	151.1	154.3	124.6	118.9	117.8	90.0	98.0	135.4
Instructional Services, Support, Off-Reserve and Other	1274.7	1433.4	1484.2	1538.3	1580.2	1619.2	1679.8	1734.7
Total INAC Educational expenditure	1,488.1	1,669.1	1,697.3	1,750.1	1,793.6	1,808.2	1,874.6	1,978.4
Source: INAC								

In terms of annual rate of growth:

Table 19b: Annual rate of growth of INAC historical educational expenditures by category

Annual rate of growth	FY2001-02	FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08	Average
O&M Expenditure Education Facilities (Actual)	30.50%	8.86%	4.97%	3.01%	3.45%	-2.32%	12.00%	8.64%
Capital Expenditure Education Facilities (Actual)	2.12%	-19.25%	-4.57%	-0.93%	-23.60%	8.89%	38.16%	0.12%
Instructional Services, Support, Off-Reserve and Other	12.45%	3.54%	3.65%	2.72%	2.47%	3.74%	3.27%	4.55%
Total INAC Educational expenditure	12.16%	1.69%	3.11%	2.49%	0.81%	3.67%	5.54%	4.21%
Source: INAC								

Total O&M expenditures are growing at an average rate of 8.64% annually, whereas the capital expenditures are growing at a rate of 0.12% annually. Other expenditures such as instructional services, support, and off-reserve and other expenditures are growing at a rate of 4.55% annually. The total INAC educational expenditure (summation of operating and maintenance, capital, and instructional services, support and off-reserve and other expenditures) is growing at an annual rate of 4.21% as indicated in the table above.

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12. Appendix: INAC CFMP LTCP Planned vs Actual Expenditures (Capital and Operating and Maintenance only)

The difference between the projected planned expenditure and the actual expenditure reflects what the PBO estimates have been monies re-allocated from spending on school infrastructure to other programs and projects. Historically, the actual funds spent on schools for capital and O&M expenditures are generally much lower than the projected expenditure in the CFMP LTCP.

The table 20a below lists the various “Planned expenditures” under the capital and O&M expenditures categories under the Education item for the CFMP LTCP as reported by INAC to the PBO. Note that in the colored portions of the table, the “planned expenditure” data as reported in one year varies with the one reported the next year.

Table 20a: Planned Expenditures for the CFMP LTP Education as reported with "Actual expenditure" data for different years, for the period FY2002-03 to FY2010-12

($ thousands)		FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08	FY2008-09	FY2009-10	FY2010-11	FY2011-12
As reported with 2001-02 Actual expenditure data	Planned Capital Expenditures	157,406	160,791	164,007	167,287	170,633					
	Planned O&M Expenditures	82,938	84,360	86,047	87,768	89,523					
	Total	240,344	245,151	250,054	255,055	260,156					
As reported with 2002-03 Actual expenditure data	Planned Capital Expenditures		160,791	164,007	167,287	170,633	174,046				
	Planned O&M Expenditures		84,360	86,047	87,768	89,523	91,314				
	Total		245,151	250,054	255,055	260,156	265,360				
As reported with 2003-04 Actual expenditure data	Planned Capital Expenditures			121,308	123,734	126,208	128,733	131,307			
	Planned O&M Expenditures			94,716	96,611	98,543	100,514	102,524			
	Total			216,024	220,345	224,751	229,247	233,831			
As reported with 2005-06 Actual expenditure data	Planned Capital Expenditures					115,650	145,521	128,516	118,696	121,070	
	Planned O&M Expenditures					100,945	102,964	105,024	107,124	109,266	
	Total					216,595	248,485	233,540	225,820	230,336	
As reported with 2006-07 Actual expenditure data	Planned Capital Expenditures						145,521	131,216	118,696	121,070	123,491
	Planned O&M Expenditures						102,964	105,023	107,124	109,266	111,451
	Total						248,485	236,239	225,820	230,336	234,942

Source: INAC

For example, in the year FY2005-06, the total planned expenditure reported was $255.05 million as reported with the FY2002-03 "actual expenditure" data, whereas it was $220.34 million as reported with the FY2003-04 "actual expenditure" data.

To put things in perspective, if one uses the latest "planned expenditures" for each respective year, then one gets the following table of "planned expenditures" for the CFMP education data. For example, in this case of planned expenditures for FY2005-06, the data as reported with the FY2003-04 actual expenditure data is treated as the latest and most reliable.

Table 20b: Planned Expenditures for the CFMP LTP Education as reported with the latest "Actual expenditure" data for different years, for the period FY2002-03 to FY2010-12

($ thousands)	FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08	FY2008-09	FY2009-10	FY2010-11	FY2011-12
Planned Capital Expenditures	157,406	160,791	121,308	123,734	115,650	145,521	131,216	118,696	121,070	123,491
Planned O&M Expenditures	82,938	84,360	94,716	96,611	100,945	102,964	105,023	107,124	109,266	111,451
Total	**240,344**	**245,151**	**216,024**	**220,345**	**216,595**	**248,485**	**236,239**	**225,820**	**230,336**	**234,942**
Source: INAC										

Thus, the difference in the total "actual expenditures", and the total "planned expenditures" using the latest "planned expenditure" figures is as given in the table 20c below:

Table 20c: Difference between Planned Expenditures for the CFMP LTP Education as reported with the latest "Actual expenditure" data for different years, and the actual expenditures, for the period FY2002-03 to FY2010-12

($ thousands)	FY2002-03	FY2003-04	FY2004-05	FY2005-06	FY2006-07	FY2007-08	Total
Total Planned Expenditures (Capital + O&M)	240,344	245,151	216,024	220,345	216,595	248,485	1,386,944
Total Actual Expenditures (Capital + O&M)	213,037	211,784	213,440	189,004	194,769	243,701	1,265,735
Difference (reallocations in terms of Planned Expenditure)	-27,307	-33,367	-2,584	-31,341	-21,826	-4,784	-121,209
Difference (reallocations as a % of Planned Expenditure)	-11.36%	-13.61%	-1.20%	-14.22%	-10.08%	-1.93%	
Source: INAC							

Thus, over the FY2002-03 to FY2007-08 period, $1.386 billion was "notionally" allocated towards education related capital and O&M expenditures, whereas about $1.265 billion was actually spent. **Thus about $121 million were diverted or re-allocated to other programs and projects from the education related capital and O&M planned expenditures.**

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13. Appendix: The "2% Funding Cap" and its impact

The Budget Plan for FY1996-97 indicates that *"Spending on Indian and Inuit programming (excluding land claims and northern programs) for the Department of Indian Affairs and Northern Development will increase by 2 per cent in each of 1997-98 and 1998-99[55]",* but contains no reference to a stated multi-year policy that implements this 2% funding cap.

Yet the same Budget Plan for FY1996-97 states on a different page that *"Even including spending restraint in this and the 1995 budget, DIAND spending will grow a cumulative 12.7 per cent to 1998-99 compared to a 24.4-per-cent decline in all other departments"*[56], the spending for DIAND is not capped, but will grow 12.7% to FY1998-99. Cross-checking with the Main estimates for FY1996-97[57] for INAC yields the Table 21a below:

Table 21a: Main Estimates for Indian and Inuit Programming for FY1996-97

($ thousands)	1996-97 Main Estimates						1995-96 Main Estimates
	Budgetary				Non-budgetary	Total	
	Operating	Capital	Transfer Payments	Total	Loans, investments and advances		
Claims	41,370	…	328,816	370,186	38,953	409,139	420,215
Indian and Inuit Programming	141,056	3,528	3,472,371	3,616,955	…	3,616,955	3,488,468
	182,426	3,528	3,801,187	3,987,141	38,953	4,026,094	3,908,683

Source: 1996-97 Main Estimates, Part II", http://www.tbs-sct.gc.ca/est-pre/19961997/e96me2.pdf

From the above Table 21a, the rate of growth for Indian and Inuit programming between 1995-96, and 1996-97 is ((3,616,955 / 3,488,468) – 1) = 3.68%, indicating that the often noted 2% funding cap was not instituted in FY1996-97.

[55] *"Budget Plan 1996: Aboriginal Spending"*, pp45, as received from INAC.
[56] *"Budget Plan 1996: Departmental savings from Program Review"*, pp38, as received from INAC.
[57] *"1996-97 Main Estimates, Part II"*, http://www.tbs-sct.gc.ca/est-pre/19961997/e96me2.pdf

The actual spending figures also do not show any indication of a 2% funding cap for Indian and Inuit Programming. From the INAC DPRs, we have the following data in the Table 21b below for Indian and Inuit Programming, for FY1996-97 to FY2003-04 (The "Indian and Inuit Programming" line item is not reported since FY2003-04).

Table 21b: Indian and Inuit Programming Planned, Authorized and Actual spending for FY1996-97 to FY2003-04

Indian and Inuit Programming ($ millions)	FY1996-97	FY1997-98	FY1998-99	FY1999-00	FY2000-01	FY2001-02	FY2002-03	FY2003-04
Planned	3,617.00	3,771.59	3,856.14	4,002.96	4,202.87	4,321.84	4,427.31	4,558.80
Authorized		3,731.60	4,187.19	3,991.03	4,213.82	4,282.00	4,402.63	4,509.00
Actual	3,705.50	3,675.92	4,141.73	3,946.34	4,173.91	4,227.51	4,359.79	4,441.90
Source: INAC DPRs								

Table 21c: Annual rate of growth for Indian and Inuit Programming Planned, Authorized and Actual spending for FY1996-97 to FY2003-04

Indian and Inuit Programming	FY1997-98	FY1998-99	FY1999-00	FY2000-01	FY2001-02	FY2002-03	FY2003-04	Average
Planned	4.27%	2.24%	3.81%	4.99%	2.83%	2.44%	2.97%	3.37%
Authorized		12.21%	-4.68%	5.58%	1.62%	2.82%	2.42%	3.33%
Actual	-0.80%	12.67%	-4.72%	5.77%	1.28%	3.13%	1.88%	2.75%
Source: INAC DPRs								

From the above table, the average planned, authorized, and actual spending figures for the "Indian and Inuit Programming" line item as reported in the INAC DPRs shows an average annual growth of 3.37%, 3.33% and 2.75% respectively, fairly different from a 2% funding cap. It should also be noted that there is wide variation in the funding from year to year, and evidently in many years the funding growth has exceeded 2% rate of growth.

Note: The data for Table 21b and 21c above has been sourced from INAC DPRs, since the INAC RPPs feature inconsistent reporting when it comes to "Planned Spending" for the Indian and Inuit Programming. The Table 21d below lists the differences between the data as reported for the Indian and Inuit Programming "Planned Spending" line item between the INAC DPRs and RPPs:

Table 21d: Indian and Inuit Programming: Variance in reporting by INAC in different Estimates documents.

Indian and Inuit Programming (data in $millions)	FY1997-98	FY1998-99	FY1999-00	FY2000-01	FY2001-02	FY2002-03	FY2003-04
Planned Spending (Source INAC DPRs)	3,771.59	3,856.14	4,002.96	4,202.87	4,321.84	4,427.31	4,558.80
Planned Spending (Source INAC RPPs)	3,771.60	3,787.90	3,821.00	4,202.90	4,321.80	4,332.30	4,386.00
Variance between DPR and RPP data	-0.01	68.24	181.96	-0.03	0.04	95.01	172.80
Source: INAC DPR and RPPs							

The table 21d above shows marked differences in reporting between the DPR and RPP, for the same line item or program, the Indian and Inuit Programming. The PBO notes that the **variance in the data is for Planned spending figures**, and not for actual spending or authorized spending.

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14. Appendix: Population Growth Issue in First Nations Reserves

This section attempts to determine whether the rate of growth of population is an important driver requirement for funding school infrastructure assets in First Nations reserves. To analyze the population growth issue, the PBO requested data source from Statistics Canada and the INAC department. The following sections deal with the data provided by both institutions.

14.1 Statistics Canada data and population growth in First Nations reserves

To analyze the population growth issue on First Nations reserves, the PBO requested data from Statistics Canada regarding the census on the First Nation's reserves. The following data has all been sourced from Statistics Canada. Table 22a below shows the population census for the year 2006 as provided by Statistics Canada[58].

Table 22a: 2006 Census data

Census data 2006	Total - Area of residence	On reserve	Rural	Total urban	Urban non-census metropolitan area	Urban census metropolitan area
Total - Aboriginal and non-Aboriginal identity population	31,241,030	342,865	5,926,685	24,971,480	5,039,875	19,931,595
Total Aboriginal identity population	1,172,790	308,490	240,825	623,470	257,305	366,165
North American Indian single response	698,025	300,755	85,210	312,055	123,895	188,160
Métis single response	389,780	4,320	114,905	270,555	109,680	160,870

[58] *"2006 Census Data: Aboriginal Identity (8), Area of Residence (6), Age Groups (12) and Sex (3) for the Population of Canada, Provinces and Territories, 2006 Census - 20% Sample Data",* Statistics Canada, http://www12.statcan.gc.ca/english/census06/data/topics/RetrieveProductTable.cfm?TPL=RETR&ALEVEL=3&APATH=3&CATNO=&DETAIL=0&DIM=&DS=99&FL=0&FREE=0&GAL=0&GC=99&GK=NA&GRP=1&IPS=&METH=0&ORDER=1&PID=89121&PTYPE=88971,97154&RL=0&S=1&ShowAll=No&StartRow=1&SUB=0&Temporal=2006&Theme=73&VID=0&VNAMEE=&VNAMEF=

Inuit single response	50,480	435	31,065	18,980	14,765	4,210
Multiple Aboriginal identity responses	7,740	160	1,835	5,745	2,165	3,585
Aboriginal responses not included elsewhere	26,760	2,825	7,810	16,135	6,800	9,335
Non-Aboriginal identity population	30,068,240	34,375	5,685,855	24,348,005	4,782,575	19,565,435
Source: Statistics Canada - 2006 Census. Catalogue Number 97-558-XCB2006006.						

Table 22b below shows the population census for the year 2001 as provided by Statistics Canada[59].

Table 22b: 2001 Census data

Census data 2001	**Total - Area of residence**	**On reserve**	**Total off reserve**	**Rural non-reserve**	**Total urban**	**Urban non-census metropolitan area**	Urban census metropolitan area
Total - Aboriginal and non-Aboriginal population	29,639,035	321,855	29,317,175	5,782,375	23,534,805	5,575,485	17,959,320
Total Aboriginal identity population	976,305	286,080	690,225	196,130	494,095	214,220	279,875
North American Indian single response	608,850	272,410	336,435	73,190	263,250	111,480	151,765
Métis single response	292,305	7,315	284,995	85,970	199,015	84,940	114,085
Inuit single response	45,075	1,810	43,260	31,070	12,195	9,105	3,090
Multiple Aboriginal responses	6,665	520	6,145	1,570	4,575	2,155	2,420
Aboriginal responses not included elsewhere	23,415	4,025	19,390	4,330	15,060	6,545	8,515
Total non-Aboriginal population	28,662,725	35,775	28,626,955	5,586,245	23,040,710	5,361,260	17,679,445
Source: Statistics Canada - Cat. No. 97F0011XCB2001001							

[59] *"2001 Census Data: Aboriginal Identity (8), Age Groups (11B), Sex (3) and Area of Residence (7) for Population, for Canada, Provinces and Territories, 2001 Census - 20% Sample Data"*, Statistics Canada, http://www12.statcan.gc.ca/english/census01/products/standard/themes/RetrieveProductTable.cfm?Temporal=2001&PID=62715&APATH=3&GID=355313&METH=1&PTYPE=55440&THEME=45&FOCUS=0&AID=0&PLACENAME=0&PROVINCE=0&SEARCH=0&GC=99&GK=NA&VID=0&VNAMEE=&VNAMEF=&FL=0&RL=0&FREE=0

To determine an annual rate of change between the two datasets as provided by Statistics Canada for the years 2001 and 2006, we get the following table:

Table 22c: Annual average rate of change of population in Canada. The rate of change between 2006 and 2001 is divided by 5 to arrive at the annual average.

Annual estimated rate of growth of population (between 2001 and 2006)	Total - Area of residence [2]	On reserve [3]
Total - Aboriginal and non-Aboriginal identity population	**1.08%**	**1.31%**
Total Aboriginal identity population	4.03%	1.57%
North American Indian single response	2.93%	2.08%
Métis single response	6.67%	-8.19%
Inuit single response	2.40%	-15.19%
Multiple Aboriginal identity responses	3.23%	-13.85%
Aboriginal responses not included elsewhere	2.86%	-5.96%
Non-Aboriginal identity population	0.98%	-0.78%

Thus, the average annual rate of growth of the Total population on reserve amounts to 1.31%, as opposed to the average annual rate of growth of all Canadian population of 1.08%. This would imply that the population on First Nations reserves is growing slightly faster than the Canadian national average.

However, Ida Trachtenberg[60] (Statistics Canada) notes that:

> *"Please note that any historical comparison of Aboriginal data must adjust for incompletely enumerated reserves and settlements and other changes in reserves, to allow for comparison of the same areas across the different census year periods. The counts in adjusted tables used for historical comparison may differ from those based on unadjusted data.* ***Some Indian reserves and settlements did not participate in the census as enumeration was not permitted, or it was interrupted before completion. In 2006, there were 22 incompletely enumerated reserves, down from 30 in 2001.*** *The attached table provides the* ***adjusted data*** *for 2001 and 2006."*

Thus, it is not possible to use Statistics Canada data for population growth analysis on First Nations reserves, since the data provided by Statistics Canada is neither primary data, nor complete.

[60] In email correspondence with the authors of the report.

14.2 INAC data and population growth in First Nations reserves

In addition to the data discrepancies as noted above, the following table as provided by INAC lists the total school going population on First Nations reserves, as identified in the nominal roll call, from the Data Operations Section, using WebIntelligence.

Table 22d: Total school going population on First Nations reserves, split into on-reserve students and off-reserve students.

Fiscal Year	Total school going	On-reserve students	Off-reserve students
2000-01	112,701	69,131	43,571
2001-02	112,546	68,578	43,968
2002-03	113,216	68,373	44,843
2003-04	113,138	68,737	44,401
2004-05	114,720	69,589	45,131
2005-06	115,299	68,434	46,865
2006-07	113,121	67,478	45,643
2007-08	112,996	68,576	44,420

Source: INAC

Representing the Table 22d above in terms of annual rate of change, we get the Table 22e below.

Table 22e: Annual rate of change in Total school going population on First Nations reserves, split into on-reserve students and off-reserve students.

Fiscal Year	Total school going	On-reserve students	Off-reserve students
2000-01			
2001-02	-0.14%	-0.80%	0.91%
2002-03	0.60%	-0.30%	1.99%
2003-04	-0.07%	0.53%	-0.99%
2004-05	1.40%	1.24%	1.65%
2005-06	0.50%	-1.66%	3.84%
2006-07	-1.89%	-1.40%	-2.61%
2007-08	-0.11%	1.63%	-2.68%
Average	0.04%	-0.11%	0.30%

From the Tables 22d and 22e above, the average annual rate of growth in **total school going population** for the FY2000-01 to FY2007-08 period is **0.04% only.** The average annual rate of growth in **on-reserve student population, i.e. First Nations population that utilizes school infrastructure provided on reserve** is –0.11%, i.e. declining annually by 0.11%. **Thus, the data as provided by INAC for school going population on-reserve actually shows a negative growth, i.e. shrinkage.**

Hence the PBO determines that the rate of growth of population as an important cost driver in school infrastructure expenditure is inconclusive, since there is incomplete and conflicting data for the same.


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