The Government of Newfoundland and Labrador's Fiscal Landscape (Paper 3)

Dr. D. May and Dr. W. Locke

REPORT UNDER CONSTRUCTION

Prologue

Although the title of this paper holds the promise of the fiscal options suggestions that could offer a long-term sustainable fiscal framework, the most important messages are that there should be important paradigm shifts occurring in public sector governance and in the analytical policy-making framework. These shifts should occur in areas of federal-provincial co-operation and in areas of provincial government fiscal responsibility.

Public Administration Challenges

At the beginning of 1948, the future economic prospects of the dominion of Newfoundland were very uncertain. The stimulus that the war effort had brought to Newfoundland were winding down. Many of the construction workers associated with that effort had returned to their jobs in the fisheries. This work was often harder and more dangerous with fewer economic rewards than was previously the case. The fishing sector, which was the mainstay of the vast majority of rural communities, was also in trouble as the traditional markets focused on rebuilding after the devastations of war. In addition, while new markets for fish were developing in the United States the demand was for frozen processed fish rather than dried salt fish that we traditionally produced. The result of this contracting economy was that many families were forced to rely on income support payments from dominion government. To be direct, the average standard of living was very low with many households living at the subsistence level.

The existing governance of the dominion was another issue to be addressed. The commission of government, which had governed the dominion for the past 14 years, was never intended to be permanent. Britain, as the governing parent, had its own post-war fiscal needs. It therefore lacked the will to continue in its temporary role being responsible for governing and financing Newfoundland. Canada had the enthusiasm to have Newfoundland join its confederation so that the country could truly be geographically seen as extending from "sea to sea" without potentially partial U.S. borders on either side. The above interest assumes that the United States might have shown some interest in acquiring Newfoundland but, in truth, it probably did not wish to alienate its wartime allies, Britain and Canada. The other option, for which there was considerable support, especially in the more urban areas of the Avalon, was to revert to self-government. Newfoundland's second referendum on the governance matters in 1948 showed that a slight majority of the population opted for confederation with Canada rather than self-government.

The slim majority of the population that voted for Confederation with Canada was primarily in the more rural areas of the province. As has been acknowledged elsewhere, women voters in particular hoped for better lives for their children and parents both in terms of their living standards and in their access to public services, namely education and health care.

Given the above, the primary fiscal challenge which the newly elected provincial government faced included development and delivering essential public services of comparable quality and standards equivalent to those that were available in the other provinces of Canada. A challenge which existed to varying degrees in the other provinces was that Newfoundland's population was geographically widely dispersed and lived in over a thousand small communities and settlements. The tasks challenges might have not been so daunting if there were not the problems of rampant tuberculosis, relatively few students with advanced levels of education, and the acknowledgement that most communities in the dominion were inaccessible by roads or ferry service,

If the above challenges of delivering public services were not enough for the new government, it was also expected to promote and support economic development in the private sector. The goal would be to provide good-paying permanent jobs that would guarantee a standard of living enjoyed by other workers in the Canadian economy and quickly emerging North American economy. The history of Newfoundland told of an over-reliance on low-paying jobs with insecure incomes in one occupation, fishing. In 1948, as explained in our Transition paper, this industry was in decline. While other industries and their associated occupations existed there did not seem to be a well-established industrial base consistent with a "modern" developed economy.

The problems faced by the new government were faced to some degree by all of the other provinces. What was unique to Newfoundland was the severity of these challenges. Newfoundlanders were, relative to the rest of Canada, on average a have-not population governed by a have-not province.

The aspirations of the population and the challenges to government still exist to some extent in 2021. They govern our thinking although the economy and the world around us has changed dramatically. Like our neighbours and our country, we are in transition. However, our rate of change is and will be more rapid.

Mission Accomplished?

By December 2010, the people of Newfoundland and Labrador and its government could confidently exclaim, "mission accomplished" with respect to meeting the challenges which faced the dominion of Newfoundland in 1948. The provincial government was running a healthy surplus and the average household had disposable incomes per capita comparable to that level in the rest of Canada.

Oversight by Britain had been removed as fiscal sustainability had been achieved. Although, Newfoundland and Labrador is a province within the Canadian federation, it was no longer the poorest cousin that was dependent on equalization from Ottawa. Now, the government struggled

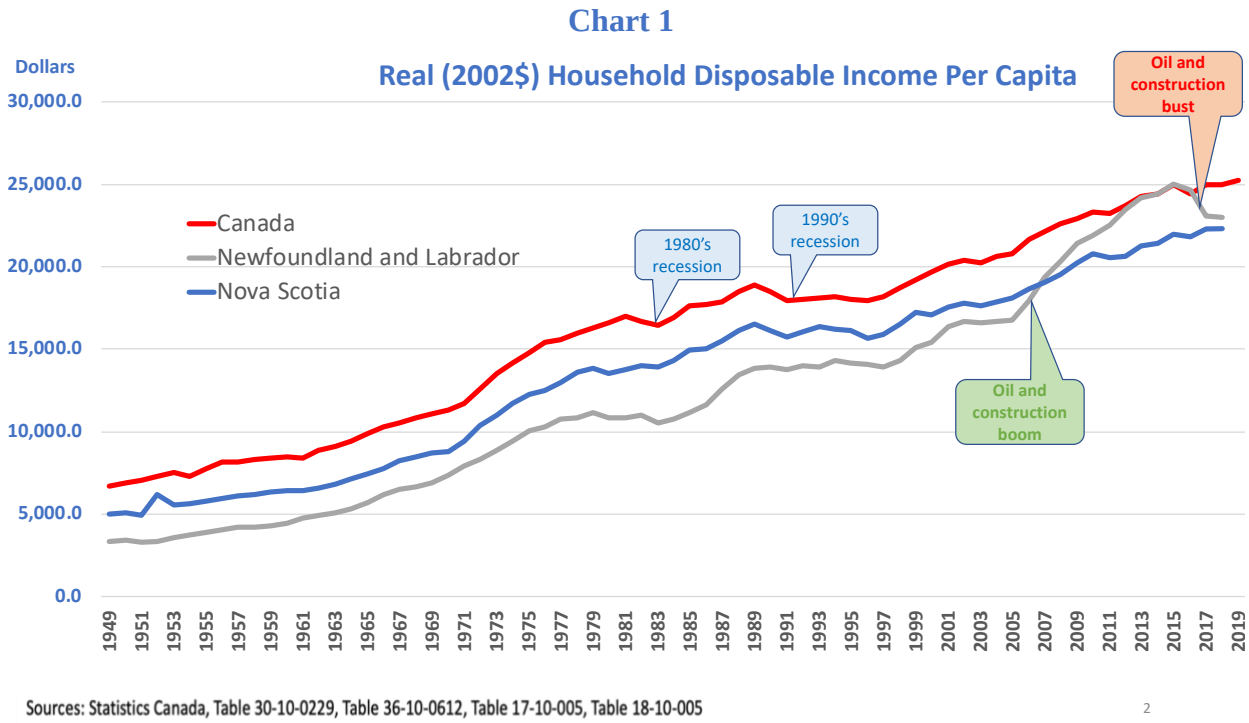
to spend all the revenue that came its way. Surpluses existed. Revenue had been directed to the reduction of its long-term debt obligations associated with unfunded pension and health benefit obligations. The Great Recession which had hit other parts of the world, particularly the United States and central Canada seemed to have less of an impact on this province.

What our second paper on Newfoundland and Labrador's transition illustrated was that there was hardly an aspect of the population's lives that the provincial government did not affect. With respect to the delivery of essential public services, the province took over more direct responsibility for the delivery of K-12 education and health care services both of which had partially involved religious organizations. Memorial University had greatly expanded both in terms of the percentage of the province's students passing through its doors and graduation as well as the number of programs being offered. The road network was expanded and brought up to North American standards. Marine services were modernized and the railway in Newfoundland was abandoned.

The provincial government at times also took responsibility for the physical location of the population and the existence of communities. Going to the top of Signal Hill and looking back over the city, one can easily spot the presence of government from the blinking lights of the airport to the payment beneath your feet which helps to entomb a former British military compound.

The private sector has also been transformed. Although the fishing sector still played an important role the economy with its labour markets had become more diversified. The greatest change as far as the province was concerned was the emergence of the oil industry and the associated support industries in its exploration, development and production phases. Quietly, the economy, in a manner similar to other developed economies, had the vast majority of its jobs in the service-producing rather than the goods-producing sector. As for particular industries then the retail trade sector stood out.

. How have we progressed in general economic and then strictly fiscal terms? As **Chart 1** below demonstrates and as was discussed in the previous paper, we have done very well. By 2013, we became "have" households in a "have" province. We maintained both of those positions until 2016.



The above Chart is crudely related to standards of living but from a theoretical economic perspective it is not ideally reflective of our economic well-being. In order to move in this direction, we should focus on our current levels of consumption by households and adjust by our wealth both physical and financial. For example, most of us would agree that a household that owns a large new home has a higher level of economic well-being than a family which rents their accommodation, all else being equal. In our second paper we mentioned the importance of home production to some households and so consumption from this production should be included in our measure.

We should also take into consideration expenditures on our behalf by non-profit organizations such as **NL ones** and by all levels of government. In this latter case, consider health care. We in Canada may find ourselves with lower levels of adjusted household disposable income than our friends in the United States but then our taxes are being used to provide more equitable levels of health care for all residents.

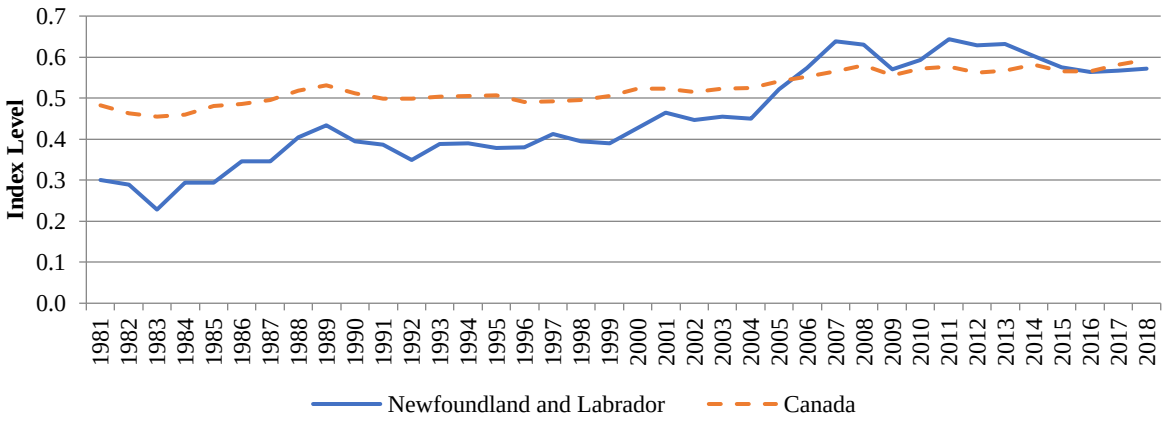
Many additional adjustments to our measures of real (inflation-adjusted) household disposable income are needed and details of such adjustments for Newfoundland and Labrador are to be found in the paper,

In terms of economic well-being, when defined from a consumption perspective, then as shown in **Chart 2**, this well-being has increased from about 60% relative to Canada's to being about 10% above Canada's index in our best years. At the present time our economic well-being is just slightly below that of the Canadian average.

An interesting observation is that our trend lines **Charts 1** and **2** seem to go in opposite directions around 2017 and 2018. Why is this the case when both lines have to relate to consumption? The answer is that **Chart 2** includes various governments expenditures on final expenditures consumed by households such as education and health care. The conclusion must be that as household expenditures on consumption went down that decrease was offset by the expenditures of governments on household consumption.

Chart 2

Index of Economic Well-Being in Canada and Newfoundland and Labrador



Source: CSLS Database, Table 9, Page 1

Tables 1 and **2** below provide the latest data available. Although these data start in 1981, we can be fairly certain that we were much better off in 1981 than in 1949 both in terms of the goods and services that we bought for members of our households and the goods and services that were provided to us by all levels of government and by not-for-profit organizations.

Table 1: Overall IEWB in Canada and in Newfoundland and Labrador, 1981 and 2019

Overall Index of Economic Well-Being

	IEWB Canada	IEWB Newfoundland and Labrador	Newfoundland's Proportion compared to Canada
1981	0.483	0.301	62.3
2019	0.591	0.582	98.4

Source: CSLS database 2019

Table 2: Components of IEWB in Canada and in Newfoundland and Labrador, 1981 and 2019, (Proportion of Newfoundland and Labrador compared to Canada)

	Canada				Newfoundland and Labrador			
	Components of IEWB							
	Consumption Flows	Stocks of Wealth	Equality	Security	Consumption Flows	Stocks of Wealth	Equality	Security
1981	0.252	0.433	0.621	0.625	0.083	0.366	0.378	0.375
2019	0.740	0.484	0.579	0.562	0.641	0.608	0.539	0.540

Source: CSLS database 2019

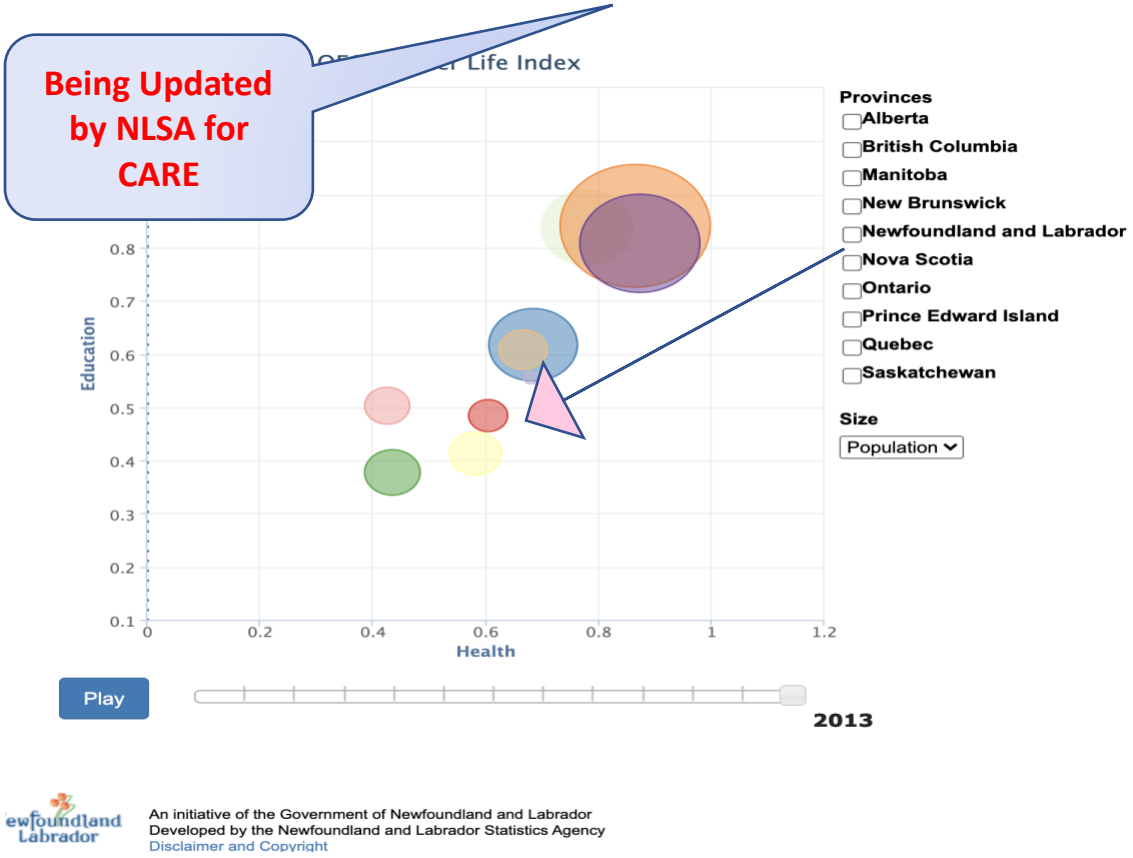
Proportion of Newfoundland compared to Canada			
Consumption Flows	Stocks of Wealth	Equality	Security
33.0	84.5	60.8	60.1
86.7	125.6	93.1	96.1

From the ideal social accounting perspective our measures of well-being go well beyond the usual accounting conventions but are still deficient. Ideally, with respect to public expenditures and their associated policies and programs, we should ultimate focus on well-being. This focus was clearly identified for our province in its Strategic Social Plan of 1998 but the well-being concept is also imbedded in Section 36.1 of the Canadian Constitution. As a historic point, the phrase "peace, welfare, and good government" had been used in Act of Union in 1840 which created the Province of Canada. The phrase was intended to be used in the British North America Act of 1867 but was changed at the last moment by the British. The use of the term welfare is consistent with well-being. Currently, the use of the concept of trying to maximize the well-being of society is gaining some traction with organizations such as the OECD, the EU and the United Nations. In this paper, we focus on maximizing well-being based on its present use in the Constitution but primarily because its use forces us to consider "outcomes" associated with government activities rather than inputs such as the number of teachers or the value of outputs, such as dollars spent. To drive the point home during this pandemic, the value to society is not the amount spent of a vaccine and its distribution but the value of lives saved and the decrease in suffering. Unfortunately, our current fiscal problems have to do with dollars and cents but

ultimately, we are concerned with getting the best value in terms of well-being for the money (resources) being spent.

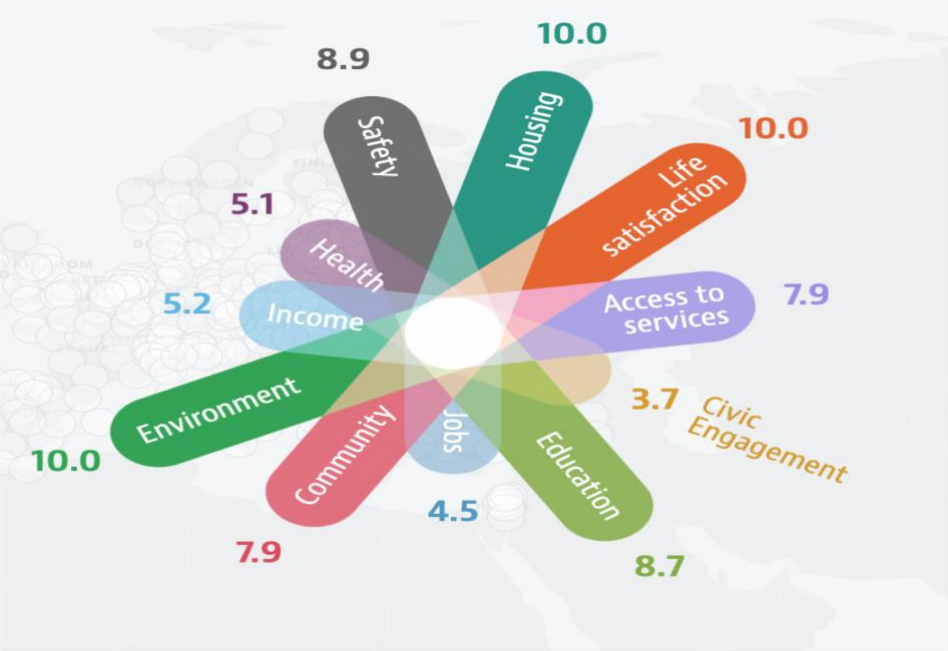
Well-being indicators for most amalgamated communities in Newfoundland and Labrador are available on the Province's Community Accounts website (www.nl.communityaccounts.ca). The diagram below using outcome measures illustrate Newfoundland and Labrador's (red circle) position relative to other provinces using a "Motion Chart." The message from Chart 3 seems to be that the more education you have then the higher your self-reported health status will be. Naturally, fairly advanced statistical techniques would be needed to quantify statistically significant relationships between these two variables based on individual survey observations from Statistics Canada's Canadian Community Health Survey (CCHS).

Chart 3



The next chart is for Newfoundland and Labrador from the OECD. We do very well in terms of life satisfaction but the primary message is that for each domain related to public service there are indicators that can be found that represent well-being outcome indicators, both objective and subjective.

Chart 4



Source: OECD Regional Better Life Index

The first paradigm shift is to report on outcome indicators noting the possible linkages and relating these indicators to the collective vision which our society has about what represents the good life. From some research done by the OECD such areas as health, relationships, the environment and inclusiveness all relate to life satisfaction. What about income? Well, it does too but only up to a point. The OECD tries to remind all of this in its effort, "Beyond GDP".

The bottom line and the answer to the question posed at the beginning of this section is that the mission was accomplished. The belief by those outport mothers that confederation with Canada would eventually result in a standard of living and an access to health care and education comparable to the quality and levels enjoyed by other Canadians was achieved. What should be noted is that while the absolute standards had been steadily advancing over 50 years, the relative position had remained the same. All that began to change at the start of the 21st Century. In 10 short remarkable years, relative parity had been achieved. All this was due to the oil economy and its impact on society.

The questions which began to exist were "Is our economic well-being sustainable?" and more lately "Is our dependency on oil desirable?".

As we will read in the next section, at that time in our history that we believe success is ours, our economic pan begins to show cracks with the distinct possibility of falling away from the main field and our long-sought aspirations?

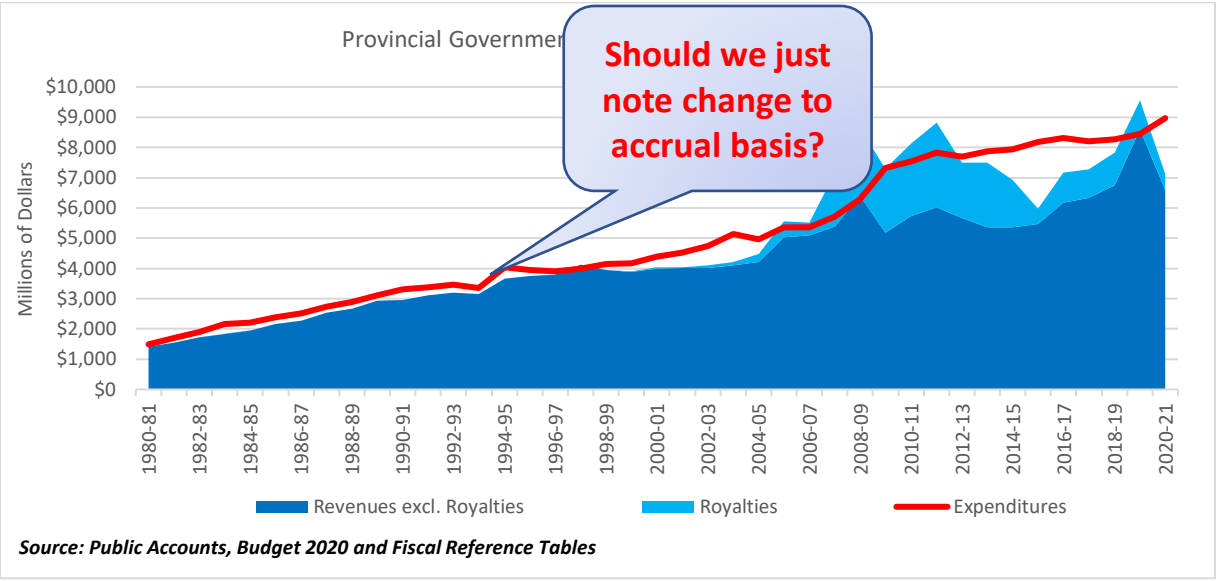
The Gathering Provincial Fiscal Storm: 2011-12 Onwards

Chart 5 below generally outlines the current fiscal challenge for the provincial government. The space below the red line and a top blue line is the deficit. This chart clearly illustrates that over the past 40 years deficits have been the norm.

The problem is the recent volatility of the deficits and their severity. These phenomena have occurred as oil royalties became a significant source of government of provincial revenues. The volatility in oil royalties was primarily due to the volatility of oil prices which in turn were determined by geopolitical forces in non-competitive oil markets. Oil prices have fallen and while Hebron has come into production and the federal government has provided extra funding in a variety of forms for this fiscal year (2020-21) the deficit is set to reach an all-time high.

The other aspect of the deficit issue is the expenditures. These expenditures arose very rapidly during the boom years, about 46% between fiscal year 20006-07 to 2011-12, that is during our seven years of abundance. During this period both wages and salaries increased as well as the number of paid employees. In the fiscal years since 2011-12 expenditures have been rising.

Chart 5

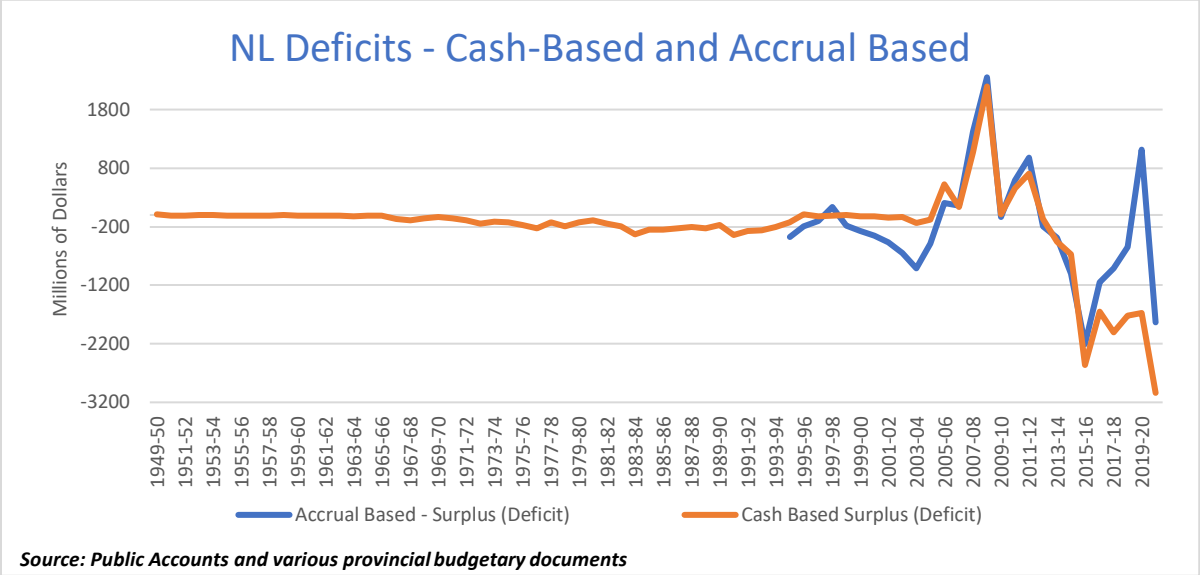


Source: Public Accounts, Budget 2020 and Fiscal Reference Tables

A couple of explanations are needed concerning the data series in the chart above. In 1994 accounting conventions were changed and revenues and expenditures changed from being reported on a cash basis to an accrual basis. On an accrual basis, revenues are reported when a legal obligation occurs. For example, you loan someone 10,000 dollars and they agree to pay you $1,000 over the next 10 years. On an accrual basis you would report that they owe you $10,000. On a cash basis, you would report that you received $1,000 in the first year. In our real-life story, the group that owes the province a lot of money in the 2019-20 fiscal year was the federal government due to the adjusted “Atlantic Accord.

The difference becomes very apparent when the deficit is examined under both accounting conventions as shown in **Chart 6**. It gets particularly worrisome from the cash position in the last two fiscal years. Suddenly, a $1,114 million accrual surplus becomes an accrual-based deficit of over $1,800 million. This deficit in the current fiscal year is slightly over $3 billion. If the cash coming in does not meet your expenditures of which some cannot be deferred to another year then you have to borrow the money. Happily, the Bank of Canada could buy our bonds on which there are historically low interest rates.

Chart 6



Source: Public Accounts and various provincial budgetary documents

Let's consider **Charts 1**, **2**, **5**, and **6** together to tell an interconnected story. **Chart 6** tells us that from fiscal 2012-13 onwards that a cash-based deficit of growing proportions has occurred. Financing this deficit has come through promissory notes and borrowing both short and long-term. **Chart 5** shows that in this period since 2012-13, expenditures have been growing with the exception of 2016-17 fiscal year. We should highlight the very rapidly increase in expenditures during the 2007-08 to the 2009-10 fiscal years. We note that when revenues rise expenditures follow! We also have observed that when provincial government revenues fall as they did in Newfoundland and Labrador's case, primarily due to a fall in oil royalties as oil prices fell expenditures did not follow. The phenomenon of downward rigid wages is well known in economics, especially when labour is unionized and contracts cover several years. The constancy of employment levels especially after 2017 is due to union agreements. The government did state that there was a policy of attrition but there is no evidence of this. Wages and salaries have remained relatively constant in current dollars terms but have decreased slowly in real terms due to inflation.

Chart 1 tells us that real adjusted (for household size) disposable income in the overall provincial economy had been growing until about 2017 when it began to fall. This fall was likely due to a fall in employment in the construction trades as some larger projects wound down or were completed. However, **Chart 2** tells us that although disposable income fell, economic well-

being perhaps did not. The explanation is that economic well-being includes the consumption of both private goods such as food and clothing and public services such as health and education. These expenditures grew slightly financed by increased debt. The public may be concerned about deficits and a growing debt but it should be recognized that they are likely beneficiaries in terms of increased services and employment. The costs can potentially be shifted to future generations. Government expenditures might be considered as investments in human capital with future benefits but more detailed analysis is needed to examine the impacts.

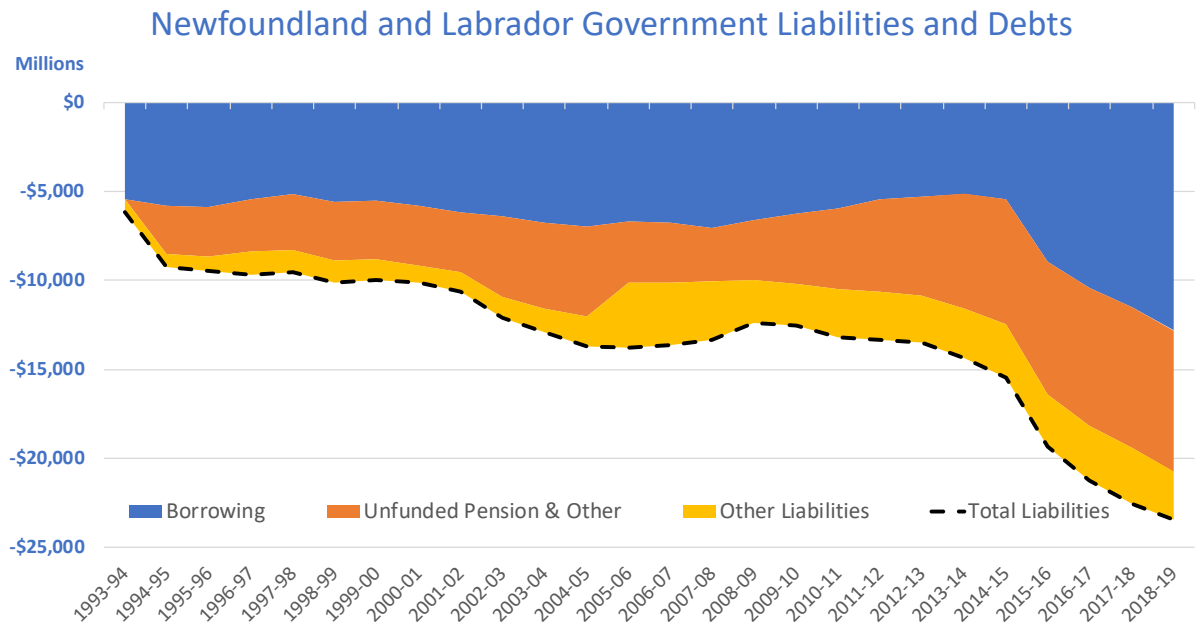
Four points can be made following the observations in the preceding paragraph. Firstly, household disposable income was no doubt higher because of the deficit. In other words, the deficit and borrowing on such ventures as Muskrat Falls has increased the economic well-being of the general population over what would have been the case. Secondly, we might expect general household economic well-being to decrease in the future as construction and oil development and production efforts wind down and the population ages. Thirdly, at some level some of the debt will have to be paid back unless the burden can be shifted to our grandchildren. Finally, the present situation could have been worse economically but there is some evidence that the federal government has over-compensated for the economic costs of the pandemic and that real disposable income is well above what might have occurred without the pandemic. Since gross income per household has likely increased but both levels of government tax this income in a variety of ways then the borrowing of the federal government raises the own tax revenue of the province. In short, the federal government's borrowing helps to finance our province but these more complex interactions may not be recognized and are not publicly acknowledged.
In some respects, our structural problems could become worse in the medium term for the reasons that our previous paper on "Transition" laid out. The population is aging and an increased proportion is retired. With retirement, households find their taxable incomes decreasing and therefore personal income taxes may also fall as may sales tax revenues. There are also indications of an increasing gap as deaths outnumber births once again decreasing revenues but increasing costs as medical costs often increase as individuals approach death. With the environmental goal of net-zero emissions, coupled with future fields being located in deep-water the likely scenario is that the demand for oil will decline in world markets. With the current stocks of oil available, the need to bring new fields online will decrease. Unfortunately, our new fields are much costlier to bring into production than extensions to existing fields especially those on land. For the short-term the above factors may imply that we have added stocks of fixed assets and therefore there will be less of a need for workers in the construction occupations. Finally, since the fiscal problem is a structural one then a policy to reduce the deficits or the debt by reducing the public sector workforce will have a downward multiplier effect on the economy. Managing the transition to a sustainable fiscal structure becomes of paramount importance.

From Deficits to Debt

Rather than net debt, we will focus on gross debt. The difference between net debt and gross debt is the value of total assets owned by the government. In the case of the asset, Muskrat Falls, which is owned by the Government of Newfoundland and Labrador's crown corporation, Nalcor Energy the value of that asset is currently based on the total value of the investment costs associated with that project. Once power is produced then valuation rests on the market value which would depend on the future stream of economic profits and these profits naturally depend on future revenues. These revenues are determined by the amount of electricity sold and the price per should probably expect that the market value of this asset will be less than the historic costs and therefore, net debt will rise in value.

Chart 7 below relating to the Government of Newfoundland and Labrador's Total Liabilities and Debt begins to portray the nature of our sustainability problem since at some time pension liabilities must be paid.

Chart 7



Data Source: Public Accounts of NL

We will try to explain this chart. The total current obligations or liabilities of the Government of Newfoundland and Labrador are given by the dashed black line. In 2018-19 this amount 23 billion and 428 million dollars (- $23,428). The actual borrowings, not including the sinking funds, was $12,991 million for the same fiscal year and is shown by the blue area. The blue area basically exists because the provincial government revenues are less than its expenses as is indicated in **Chart 5**. A more accurate picture can be seen from **Chart 6,** as the "cash" deficit increases the blue area increases. Why do we emphasize the "cash" deficit? Simply because if your current expenditures have to be paid in cash then revenues legally owing to you in the future and indicated on an accrual basis will not be able to be used for the current cash needs.

You will therefore have to borrow the money. The orange area is made up of unfunded pension liabilities and promissory notes of $4,928 million. Most ($4,275 million of the total) is comprised of promissory notes associated with the unfunded pension fund liabilities. These notes are legal obligations that the government and a union associated with a specific pension fund promise to contribute to at some time in the future. Which portion of the liability the provincial government as the "employer" will be responsible for will have to be worked out at some time in the future. To be clear, these obligations could be met by borrowing the necessary funds on the open market, by reducing pension benefits, by raising pension fund contributions or by raising taxes or by some combination of the preceding means. The orange area also includes $3,096 million of Group Health and Life Insurance Retirement benefits for retired public sector workers. Finally, the yellow area covers "Other Liabilities" such as taxes owed to the federal government or accrued salaries and employee benefits. This latter category was $968.6 million in 2018-19 fiscal year.

We know expect that for fiscal 2019-20 that provincial government liabilities will increase on a cash basis and that they are expected to increase even more in 2020-21 even though the federal government has perhaps more than compensated for the pandemic. At some point, these downward trends will likely result in Newfoundland and Labrador receiving equalization payments. These payments may be relatively small as two of the other "have" provinces, namely, Alberta and Saskatchewan have also been badly hit by falling oil prices. In short, the revenue-raising capabilities on a per capita basis have been rapidly converging since 2014-15. All the provinces are forming part of a "middle-class".

Reverting back to our discussions in Paper 2 about the pandemic "recession". In general, the very active and stimulus-driving transfers of the federal government have no doubt greatly mitigated the economic damages caused by the pandemic with the notable exception of a few important sectors such as accommodation and food and bar services as well as transportation but it has not brought world oil prices back to pre-pandemic levels.

Will oil prices recover? Yes, they will somewhat. Simultaneously, to the world recovery from the pandemic is the growing commitment to climate action and net-zero emissions policies targeted to 2050. Without a firm commitment but little specifics, these policies will dampen the demand for fossil fuels as all of the major oil companies have accepted. As noted earlier and elsewhere, Newfoundland and Labrador might be hit particularly hard in terms of future deep-water developments since existing reserves may meet future demands and these developments are relatively very costly on a per-barrel basis.

It is popular to talk about our growing debt due to Muskrat Falls. However, the growing total liabilities discussed in **Chart 7** above have almost nothing to do with Muskrat Falls hydroelectric project or the Labrador-Island Transmission Link. The guaranteed debt associated with these projects should only be a concern to the extent that the price charged for the electricity and the quantity sold do not generate enough revenue to cover the project's fixed costs, its operating costs and its debt charges. For the purposes of this paper, we will ignore the scenario that this guaranteed debt becomes a concern since without it, the fundamental structural fiscal problems remain. To be clear, the Government of Newfoundland's growing structural debt problem should be considered separately from any guaranteed debt problems. These structural debt problems are

arising primarily because our revenues are less than our expenditures and will continue to be the case due to shortfalls (if any, thanks to federal transfers) due to the COVID pandemic in the current fiscal year.

Chart 8 illustrates that borrowing is nothing new to the province but the amount of provincial direct bonds has certainly increased in the past years as the price of oil fell but the level of expenditures been slowly growing. As previously argued the gap between expenditures and revenues are only likely to increase. On the revenue side oil will not be a saviour. Although oil prices are increasing at the moment as is the value of the Canadian dollar, which tends to lower the amount we receive in U.S. dollars. As we have also tried to argue in the previous paper, one of the greatest restraints on rising world oil demand and rising oil prices will be the growing commitment to net zero emissions by 2050 and the increasing use of intermediate targets set around 2030 or 2025. We are in the middle of retirements by "boomers" and the bulge will be another ten years before it begins to significantly decline. The implication is falling revenues due to lower retirement incomes. Other downward pressures on revenues will be falling employment in the public sector and the construction sector. The one bright spot with respect to the debt is that interest rates are at historic lows. While our credit rating ranking is the lowest of any province as is shown in **Chart 9,** it is implicitly understood by lenders, politicians and the general public that the Government of Canada and the Bank of Canada will guarantee our debts. No worries.

Chart 8

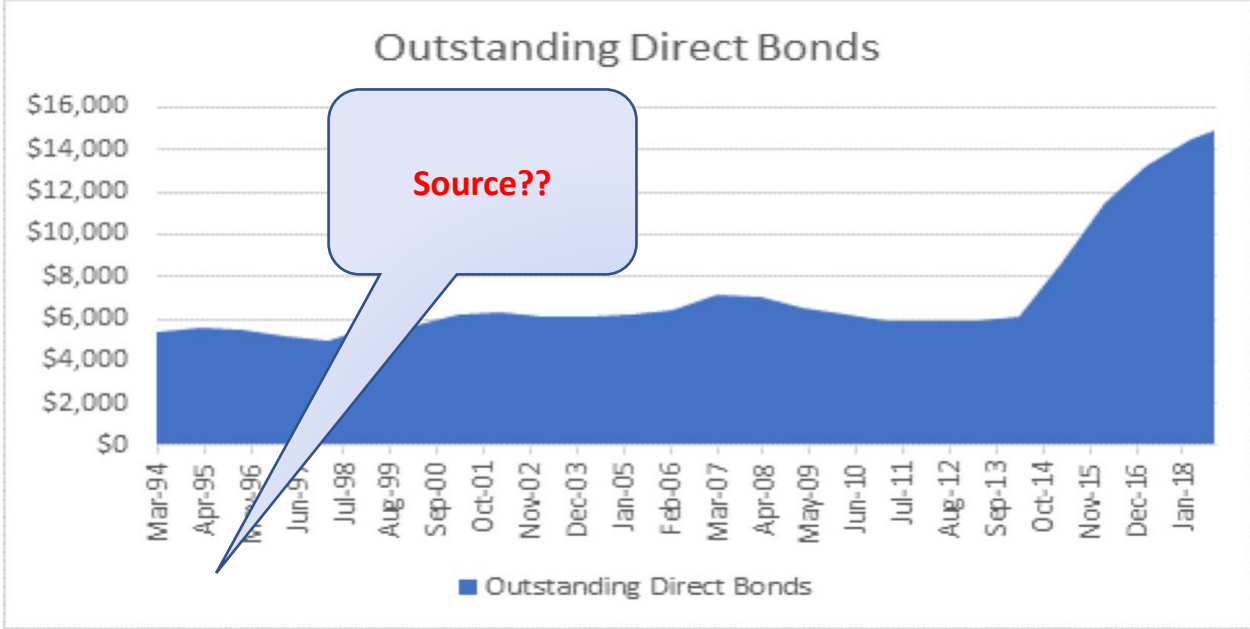
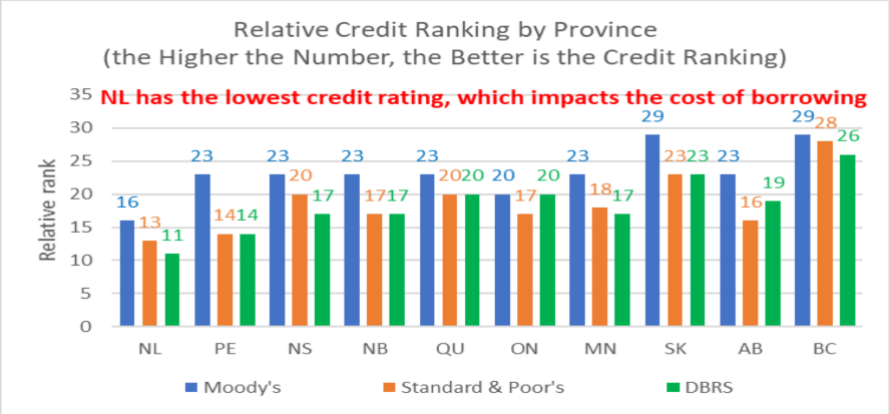


Chart 9

Credit Ratings by Province



18

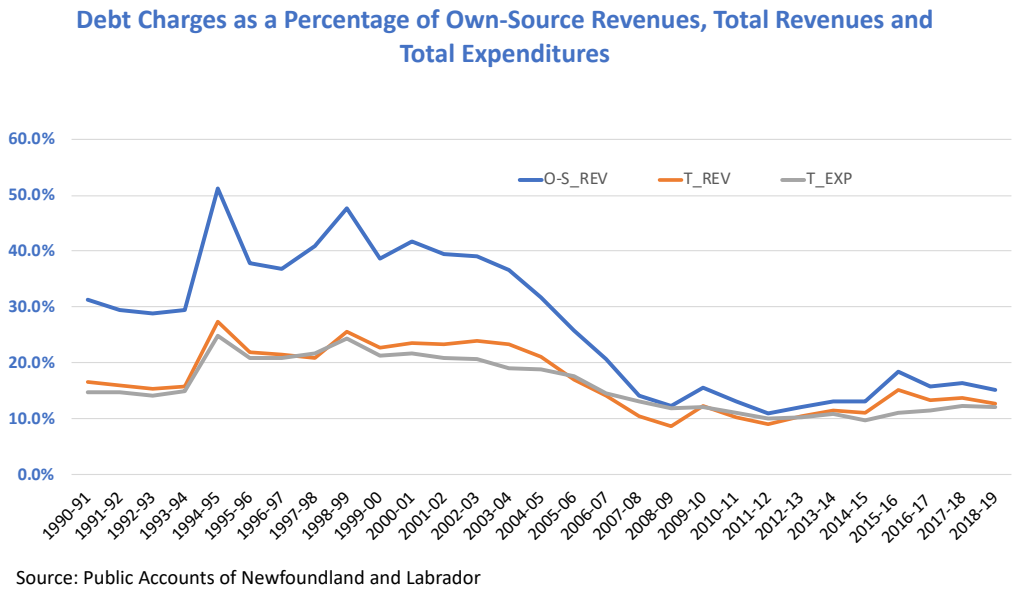
Now that we are quickly accumulating debt, we must pay the interest charges and otherwise service this debt by managing it and setting funds aside to pay off the principal as past debt becomes due. It is a common practice to examine net debt per capita or net debt as a percentage of GDP. We are focusing on total liabilities of the provincial government rather than including its guaranteed debt. This is partially because part of its guaranteed debt is in turn guaranteed by the federal government and there is a good deal of uncertainty regarding the fair market value of some of its major assets. As for using GDP as a measuring of the current capacity of the province rather than its current revenue. GDP is normally a convenient substitute for revenues in most jurisdictions. This is not in Newfoundland and Labrador's case. Here a good deal of the income associated with its GDP is due to oil royalties, whose rates are set before the project is sanctioned and is set for the life of the project.

Chart 10 below demonstrates that Newfoundland and Labrador's situation with regard to the burden of its debt servicing as a percentage of its revenues has been uneven over the years. These charges as a percentage of revenues were quite high in the early 1990's reflecting a long history of fiscal deficits. It also explains the need for emergency federal during the fishing moratoria of the 1990's. The situation continued to increase until around 2003 at which time in oil royalties were beginning to play a significant role in these own source revenues. Indeed, in the seven years of abundance and with modifications to the Atlantic Accord in in 2005, the province was able to use some of its surplus to reduce the debt on teachers' pension liabilities. Since the 2012-13 we have witnessed a slight increase in debt charges as a percentage of revenues but not to stratospheric levels of the decade staring in the early 1990's, mentioned earlier.

Chart 10 also demonstrates the longer-term effect of Ottawa permitting the province to treat the offshore oil resource as if it were on land in the 1985 Atlantic Accord and thereby capture some of the oil rents as royalties. The province also benefitted from being able to tax the corporate profits of these oil companies. Since the province has generally maintained a fiscal deficit position in which revenues are less than expenses then the red line is above the grey line. Still, with oil development and then production revenues began to increase and therefore we see a decline in debt charges percentages; there is less crowding out of these debt charges against other expenditure categories such as health and/or education.

So where does this leave us now? Well, the debt servicing costs would be about 15% of total revenues.

Chart 10



Source: Public Accounts of Newfoundland and Labrador

As for the expenditure side, we can observe from Chart 10 above that debt charges as a percentage of expenditures have fallen dramatically from the decade around 1993-94 until 2003-04 when debt charges were just over 20% of expenditures but had risen to as high as 25%. Under these circumstances, it is easy to believe that these debt charges really could crowd out the provision of essential public services such as health, education and transportation.

If "crowding out" had occurred then it would have affected the province's ability to be consistent with Section 36.2 of the Constitution. This Section states:

> *Parliament and the government of Canada are committed to the principle of making equalization payments to ensure that provincial governments have sufficient revenues to provide reasonably comparable levels of public services at reasonably comparable levels of taxation.*

The issue is that when debt charges go above a certain level when the province is charging "comparable levels of taxation" then, it cannot "provide reasonable comparable levels of public services". It can do so if the debt charges are also at comparable levels with the other provinces.

Our discussion on expenditures, debt and debt charges has ignored a very important aspect of such expenditures and the borrowing that was originally incurred to make such expenditures. The missing ingredient in our discussions is answering the questions, what were the borrowed funds used for. Generally, speaking if the funds were used to invest in capital assets which were expected to provided benefits to society over a longer period of time then and considering the time preferences of society then if the present value of the accumulated benefits are greater than the accumulated present value of the costs then the investment can be considered to increase societal well-being. Put more simply, if the expected benefits over time are greater than the expected costs then invest. Of course, applying the rule in practice becomes a bit of an art form since we are deciding now about unknown future costs and benefits. The point is that incurring debt is sometimes the sensible thing to do but not all investments turn out to be sensible, especially after the fact. Typically, those promoting the project tend to underestimate the costs and overestimate the value of the benefits.

In summary:

- The existence of deficits and debt for the province has been the norm rather than the exception.

- Deficits are debt may be justified by investments which have intergenerational benefits and which improve well-being.

- At some points in our province's history debt costs have crowded out expenditures on essential public services. In doing so, the province has probably failed to be consistent with Section 36.2 of the Constitution.

- While debt to GDP ratios are often used to express the ability of a government to sustain its debt, a more appropriate measure is the debt charges as a percentage of its total revenues now and into the future.

- More recently, our total liabilities have been growing quite rapidly. This rapid growth has not been related to our guaranteed debt associated with our Crown corporations. Debt charges have been minimized by our central bank's monetary policies and those of the U.S. Federal Reserve system which have lowered interest rates to historically low levels. As an aside, such low rates may curtail the use of future monetary policies to reduce recessions without causing inflation in some future period and therefore higher interest rates.

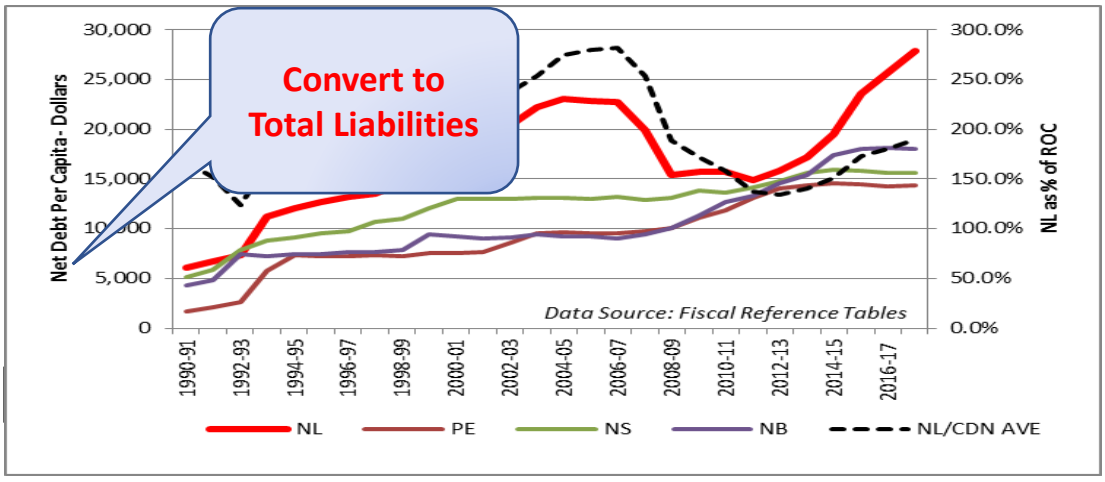
We now turn to a comparison with other provinces in terms of revenues and expenditures.

Comparisons with Other Provinces

Our approach in this section is to begin with a very general analysis with respect to debt and deficits. We then analyze revenues and expenditures on a per capita basis. A deficiency with the usual approach to fiscal sustainability is that it focuses on gross or net debt per capita, on revenue per capita or on expenditure per capita. Admittedly, these are initial steps but this approach "throws out the baby with the bathwater"; it ignores the most important aspect which are the **outcomes**, and the extent to which the well-being of the people of the province is improved or the opportunities for well-being are improved. Happily, the newly formed Health Accord for Newfoundland and Labrador clearly recognizes this deficiency when it states that "Newfoundland and Labrador has the worst health system performance in Canada" and "Canada has amongst the worst health performance in peer countries". Some supporting evidence seems to be provided by the OECD in **Chart 4**. **Chart 3** seems to go one step further by taking a social determinants of health approach noting that those provinces with more highly educated populations seem to enjoy better health outcomes.

Chart 11 below examines provincial debt (total liabilities) per capita. Clearly in the first half of the 1990's debt per capita was not that high but interest rates were and per capita tax revenues were low. Debt per capita rose steadily until around fiscal 2005-06 but it was around this time that revenues also grew. In fact, revenues grew so quickly that not only that not only could they support growing expenditures but they could also be used to pay down certain debt commitments which we observe. The point to be made here is that it is not only the amount of debt per capita that is important but also the price (interest) paid on the debt and the income of individuals. Per capita debt seemed to be growing in the other Atlantic provinces over the period. With the fall in the price of oil and with growing deficits not only did we break away from other provinces but we also broke away from the Canadian average.

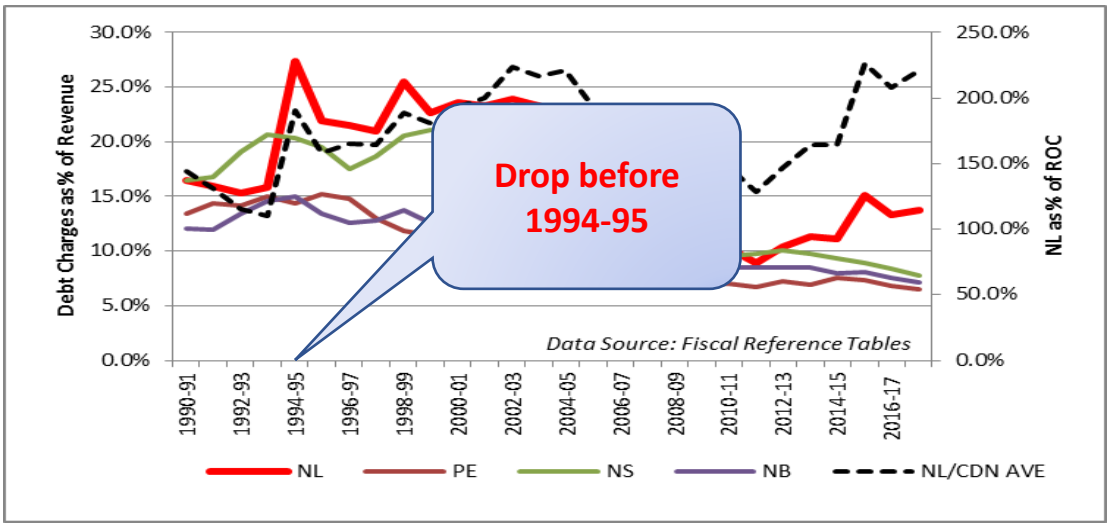
Chart 11



What is also of note is the general downward trend in the debt charge percentages by provincial governments with NL a recent exception as is shown in **Chart 12**. What is surprising to us is the

coalition of equalization receiving provinces to debt charges as a % of revenues around 5-7.5% whereas NL is around 14%. These debt costs as a percentage of revenues are almost 2 times as great as in the rest of Canada as is pointed out on the right-hand axis. The implication will be

Chart 12
Provincial Debt Costs as a Percentage of Revenues In the Atlantic Provinces

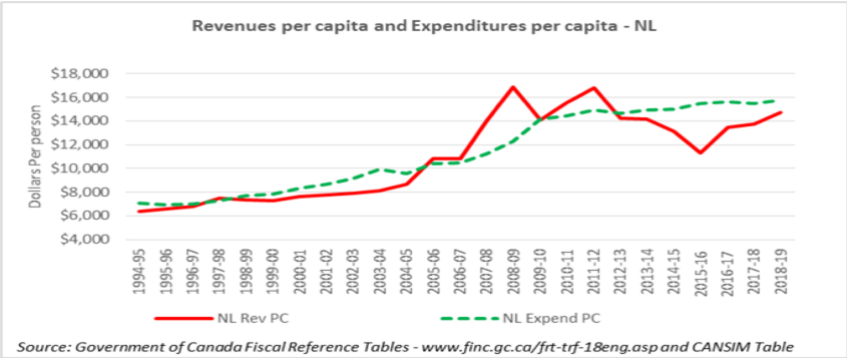


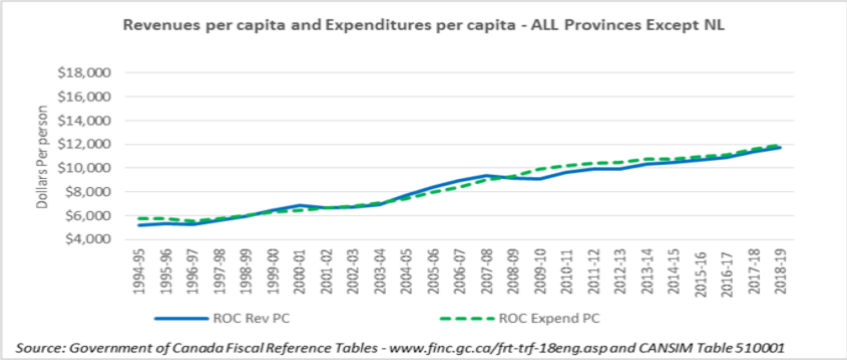
Some crowding out of essential public services may potentially occur. If revenues per capita were to fall to the all province average then a way to avoid this situation would be to borrow.

Chart 13 below compares per capita revenues and expenditures for Newfoundland and Labrador and then on average for all of the other provinces. Combining the provinces removes some of the variation that seems to occur however, the pattern seems to be quite different. Specifically, the pictures seem to be quite similar at the beginning. It does seem a bit contradictory that Newfoundland and Labrador would have slightly higher per capita revenues and expenditures than the other provinces when equalization payments applied to the "have-not" provinces. This contradiction might be explained by the fact that these data are on a per capita basis and the population of NL was falling while it was rising in the other equalization-receiving provinces. If equalization payments are based on previous year population data then what we observe would be consistent with those results.

Chart 13

Revenue Kept Track Expenditure for all other provinces but not for Newfoundland and Labrador





For the other provinces, per capita expenditures seem to follow per capita revenues. There seems be a general slow growth of these revenues and expenditures. Generally, we do not discern a downturn in revenues except for during the "Great Recession". At this point expenditures keep on growing but then wait until per capita revenues catch up. We will repeat our conjecture that not only wages but also the number of those employed are subject to downward rigidities perhaps as unions try to maintain the interests of their members. In more remote areas of the province public sector jobs are seen as a major backstop to economic development. The final observation is that there is the political constraint of not allowing reductions in spending in rural areas. The hopes and aspirations that existed in the hundreds of rural communities in 1948 in some sense still exist.

The other feature, as we have noted, is that at the start of the period revenues and expenditures on a per capita basis seem to be at roughly the same levels, whereas in the last fiscal year, for which data are available, per capita expenditures for Newfoundland and Labrador seem to be far higher than for the average of the other provinces. Per capita revenues also seem to be higher for Newfoundland and Labrador. This outcome might not be unexpected since our province is currently a "have" province for the purpose of calculating equalization payment entitlements. Another consideration accounting for level differences in revenues might be that the revenues are recorded on an accrual basis and were associated with the adjusted Atlantic Accord agreement that occurred in the 2018-19 fiscal year.

There is a tendency to consider Atlantic Canada as part of an integrated market and comparisons are made with the Maritime provinces. **Charts 14** and **15** illustrate that although there seemed to be convergence up to around 1994, Newfoundland and Labrador seemed rise above the Maritime pack beyond that point. The question is, why should this be the case? Oil production and prices would explain the rise in revenues beyond 2005-06 and indeed, there was construction activity associated with the developing oil industry before that time. Re-examining **Chart 5** shows that the provincial government revenues were relatively constant in the period from 1994-05 to 2000-01. **Chart 14** is on a per capita basis and what was not constant was the size of the population which fell quite dramatically. There is a constant call for immigration and a growing population and what we observe is that the economic adjustment which caused the population outmigration may have benefitted those families that moved and not negatively affected the sustainability of the province.

Chart 14
Provincial Government Revenue Per Capita
For the Atlantic Provinces

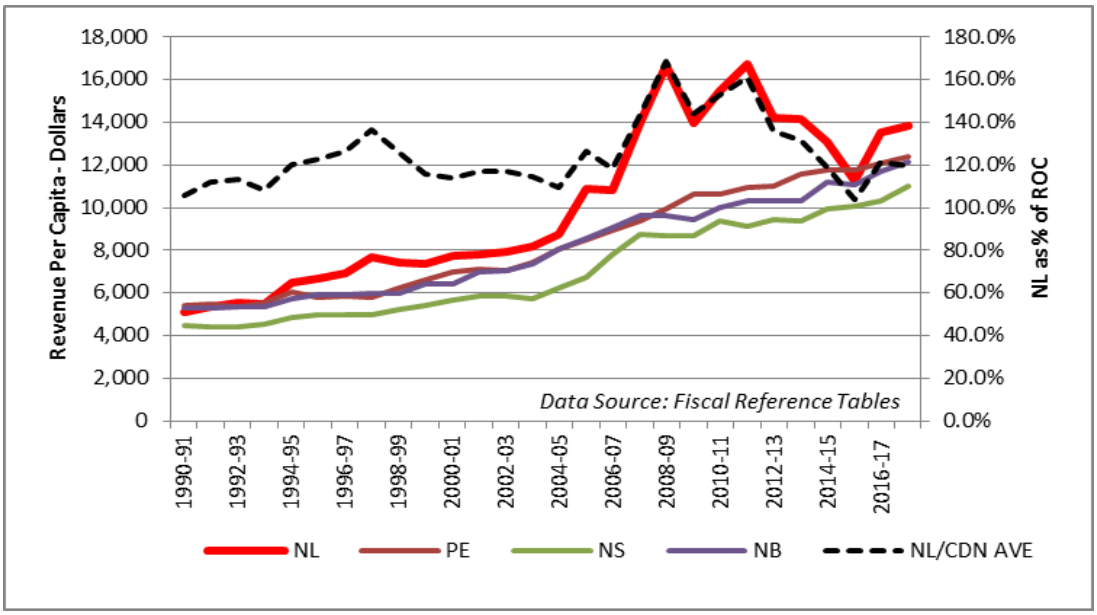


Diagram Source: Dr. Wade Locke, An Assessment of NL's Fiscal Position, April 25,

Surprisingly, during the fishing moratoria, the revenue per capita for the GNL was still above that for the other provinces in Atlantic Canada. It was during this period that oil development began to substantially occur with the building of the Hibernia GBS. In addition, Ottawa's NCARP (Northern Cod Adjustment and Recovery Program) and TAGS (The Atlantic Groundfish Strategy) effectively replaced much of the lost income that fisheries workers experienced during the fishing moratoria of the 1990's.

Chart 14 below presents the expenditure picture for the Atlantic Provinces on a per capita basis.

Chart 14
Provincial Government Expenditure Per Capita
For the Atlantic Provinces

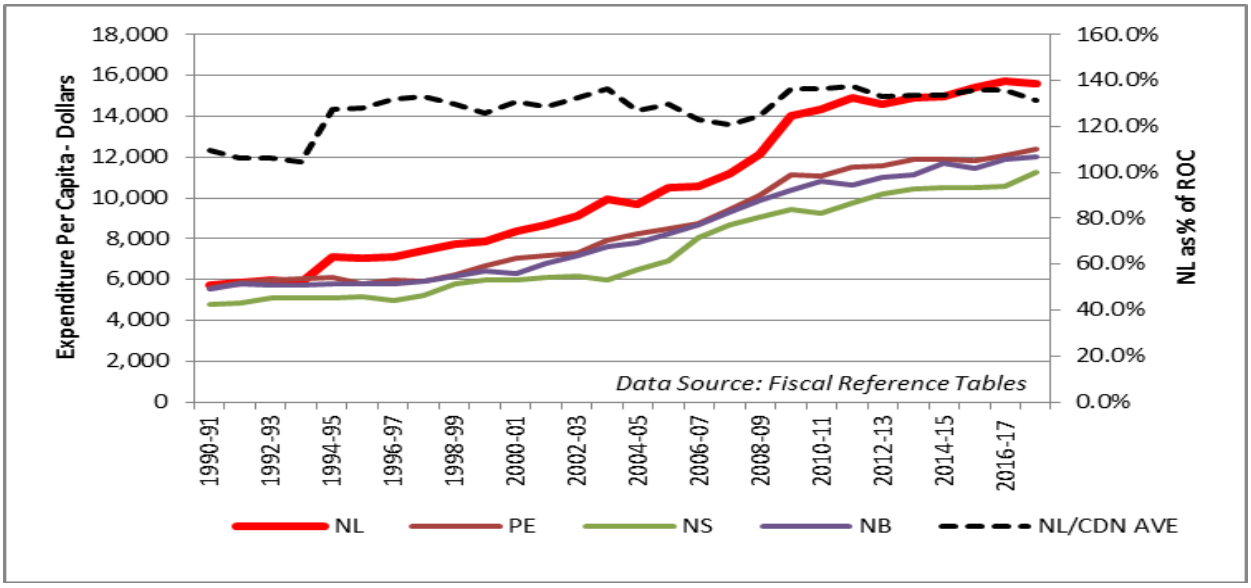


Diagram Source: Dr. Wade Locke, An Assessment of NL's Fiscal Position, April 25,

The expenditure pattern is a familiar one. When revenues increase then expenditures have increased, but when expenditures have decreased then somehow expenditures increase but at a much slower rate. The reason for this latter phenomenon is threefold. Firstly, and understandably, workers are resistant to accepting decreases in their standards of livening especially when longer-term legal commitments have been made in the form of mortgage payments, car payments or rent. Secondly, strong public sector unions must be committed to maintaining members' interests. Thirdly, voters, in smaller rural constituencies, but who wielded political power in the House of Assembly strongly resisted any suggestion of a cut-back in their services.

Of particular interest is the dramatic increase in per capita expenditures for Newfoundland and Labrador relative to the average in the other Canadian provinces in 1994-95. It is at this point that our accounting story changed and we switch from cash-based to accrual-based accounting. Going back to **Chart 7** we observe that the red and orange areas begin the emerge and continuously expand. The orange area included unfunded pension liabilities and unfunded health benefits associated with retirees. These liabilities have expanded and particularly rapidly during the "period of abundance" as both salaries and the number of workers increased. To be more specific, the pensions offered by the Government of Newfoundland and Labrador. The plans are "defined-benefit" plans, which are "back-ended" and are typical of those offered by governments. They are "back-ended" in the sense of the insurable salaries are the average of the employee's highest salaries in a five-year period of their employment period with that employer.

Because of inflation and promotions as well as step-increases associated with experience, the "best" five-years are typically the last five-years of an employee's work life and so "back-ended". With an aging work-force, the provincial government can expect that these pension fund liabilities will have to be converted into cash payments to the retired employees. These payments can either be made from current revenues, from borrowing the money, or from some combination. The implication is that the red area is likely connected to the blue area in that to contain the red area and meet governments obligations the blue area will expand.

The story above leads to another associated government practice which deserves more historical investigation. Up until around 1979-80, public sector employees' pension fund contributions, with the exception of Memorial University workers, were included in general revenues as were Canada Pension Fund contributions. The practice of "kicking-the-can-down-the-road" seems to be the standard operating procedures (SOP) of government.

It is true that the decline in oil prices led to a decline in oil royalties and associated corporate income taxes. The Province's deficits and debt grew as a result of not adjusting expenditures nor other sources of revenues. It is also true that the borrowing associated with Muskrat Falls could affect the fiscal situation of the provincial government. The story we are telling concerning the province's fiscal situation is a **structural** one affected by declining oil prices and perhaps by the pandemic. On this latter point, there is ample evidence that, in a manner similar to the fishing moratoria the federal government has over-compensated. At the present time, in general the economic recovery has occurred and in many sectors the downturn never happened. Still, the pandemic is roaring away and although vaccines are being administered the exact end is unknown.

Given that we are maintaining that the underlying fiscal issue is a structural one then paradigm shifts will be needed to correct it.

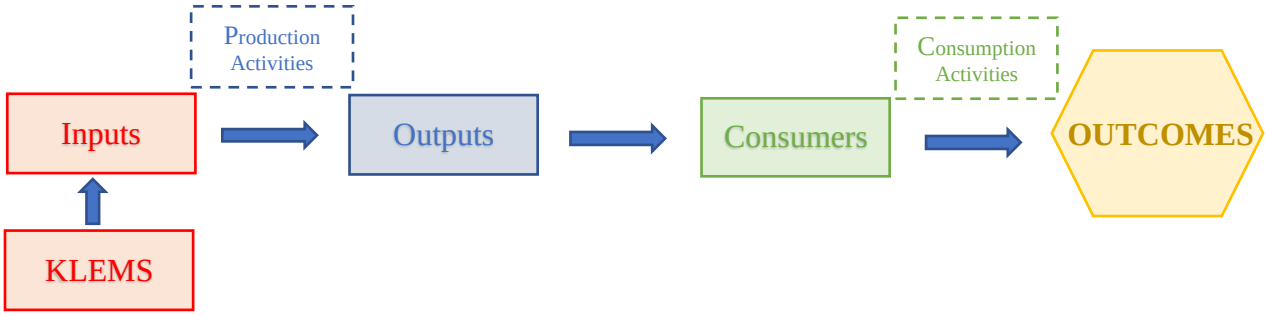
Simplistic solutions such as cutting expenditures by **X** percent over y-years is a symptomatic treatment of the problem rather than dealing with the underlying causes. In this regard, in our opinion, Health Accord NL adopts the correct management strategy by focusing on outcomes, investigating practices and determinants, and engaging the public.

Drilling Down: Public Sector Industries

Considering expenditures becomes somewhat more complex than one might expect. The text box below provides an economist's perspective on a production-delivery model.

> In our model "inputs" are used to produce "outputs". There are various stages of production. In the final stage of production, finished goods or services produce commodities or provide services that are then delivered to consumers. Intermediate goods or services are provided to other producers. At any stage of production "primary" inputs are those owned or directly employed by the producer. These primary inputs are broadly classified into the services of capital and labour. These inputs services can be thought of as quantities such as "hours worked".

Figure 1



The "flip" or "dual" side of this production process is to monetize it, that is, inputs services are costs to the producer; employees want to be paid. With respect to private goods or services that are produced they are sold in some market providing revenue to the producer. Public goods and services are generally provided freely to users. The costs of the input services are paid from revenues of the government usually from taxes but the money could be borrowed. In the case of our provincial government the money could also be transferred from the federal government.

Let's take the example of a COVID 19 vaccine. Pfizer produces a vaccine which is shipped to central Canada and then to St. John's. This input is the taken to refrigerators at the Health Sciences Centre. The refrigerator is one capital input and the building is another. Eventually, the vaccine is put into syringe and a nurse (labour) injects the vaccine into a patient who consumes it. Hopefully, the vaccine produces a reaction which makes the patient immune to the virus, thereby increasing their well-being.

In considering these health expenditures in the public sector, we tend to focus on labour costs. The annual user cost of capital charges are ignored in the public sector and since there, in Canada, no charges for the health services except in specific cases such as dental services, productivity estimates exist only for the business sector. Current account expenditures on hospitals, for example, would include labour costs and purchased inputs such as the vaccine and syringe as well as for electricity.

The emphasis in the public sector then is on paying the bills annually for expenditures. We shall call this process as being "Budget Driven". Since the annual budgets for departments do not include debt servicing costs or capital charges then the departmental budgets are focused on current account expenditure items. The result is that the typical microeconomic analysis on efficiency that is carried out for production in the business sector of our economy is not possible in our provincial public sector. It would be in the United States' health care system since it is basically a private, fee-for-service system. In this system, each service performed has a charge associated with it.

The task for government was, and is, to provide essential public services of reasonable levels and quality at reasonably comparable levels of taxation. In order to do this under **Section 36.2** of the Constitution the federal government is committed to making equalization payments to the

provinces. Naturally, a problem exists if revenues are used to finance debt charges rather than essential services. Since this is the case for Newfoundland and Labrador any recovery plan must deal with this reality.

Given, the above the binding constraint, in some longer-term sense, is covering expenses incurred on both the current and capital accounts. Also, under **Section 36.1** of the Constitution Act governments must further economic development. The immediate task is to provided permanent jobs that will afford a decent standard of living. If we assume that a certain percentage of our revenue can be spent on labour services to be used to provide essential services, then the goal will be to provide as many jobs as possible given the revenue constraint. But the labour services needed require various skill sets as reflected in occupational classifications. These occupational labour markets are regional or national in scope. Our conjecture is that the Government of Newfoundland and Labrador found that they could pay our workers less than the national rates because they were working at home. Workers preferred to work in the province and were willing to accept slightly lower wages to do so. While absolute wages were lower, relative wages were probably not. This situation existed until around the late 1990's when construction jobs and oil-related occupations came on to the labour market scene with higher wages. As oil royalties became an increasingly important source of provincial government revenues, then the financial constraints were decreased. The result was that more workers could be hired and at higher rates of pay.

As we have observed that as revenues decreased there was a downward rigidity in wages and the number of employed workers past 2012. Given this resistance on the part of a highly unionized public sector, the path forward minimizing political resistance was to kick-the-can-down-the-road by borrowing hoping that higher oil prices and new oil production would provide the much-needed revenue. When this scenario seemed less likely then the federal government would once again come to save the day. Still the aging population and declining job prospects had to be dealt with. The economic vision of an expanding knowledge-based tech economy staffed by younger educated tax-paying immigrants appears as a likely solution.

The bottom line for provincial government politicians is that if they wish to provide year-round relatively good paying jobs that are geographically directed then front-line workers have fulfilled this task in the past and still do. The perceived duty of provincial politicians is to provide as many local services at comparable levels and quality as possible and to provide as many local constituents as possible to fulfill these positions. The constraint has generally been the amount of provincial government revenue available for this purpose. The economic process is "**Budget Cash Driven**" as was explained in the text box above. The other aspect of this process is to spend all of you allocated budget before the end of the year. If you don't spend everything you are allocated then you will probably face a reduced budget in future years.

Below we will deal with three general industries groups which for the province comprise a major part of the services provided by the provincial government.

Public Administration

Public Administration Workers

Public Administration workers deliver a very wide variety of services and do so by department or branch. The ones that we are most familiar with would include for instance, Finance, Justice, Transportation and the Executive Council. Two departments, Health and Community Services and Education oversee the boards and agencies that directly supply services to the public. The question then becomes: to what extent do the activities of the Department of Education indirectly affect the final outputs delivered to the public? Two general questions come to mind. Firstly, since the Department of Education does not directly deliver services could it be geographically located anywhere? Secondly, are there economies of scale or scope associated with their activities? In terms of the math curriculum for example does it make much of a difference to the Department of Education if there are 1,000 Grade 11 students or 100,000 students. If not then what we might observe is that the number of workers in the Department of Education in Newfoundland and Labrador per 10,000 students is greater than in Ontario or BC. If this is true then a cost conscience government might ask another larger province with the best outcomes to design your math curricula. In the same vein, if you can design curricula then maybe those who design math curricula can also design those in the sciences to enjoy economies of scope and lower administrative costs. The very idea of provinces speaks against these economies in a political sense. The question becomes has the existence of such economies been changed over the past 150 years. Business and the market economies believe so and therefore stores such as Walmart have national headquarters but most the major management decisions are made in the United States and its U.S. executives are rewarded accordingly.

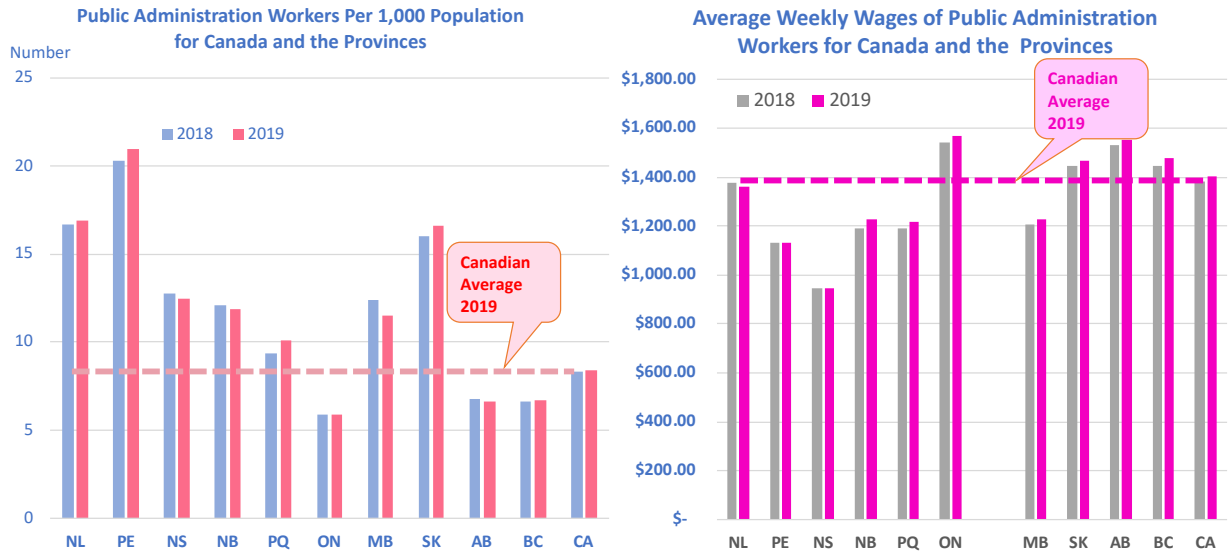
We now know that most of the expenditures associated with providing the outputs of civil services are labour expenses. We will initially start with workers in the provincial governments' public administration industries (NAICS 912). One of the challenges facing us is that the number of these workers for the provinces varies somewhat depending what division of Statistics Canada one is dealing with and which department or division within a provincial department provides the information. In addition, NAICS detailed activity breakdown at the 4-6 digit levels does not exist for the provinces' public administration. Greater detail is available for some of the federal public sectors. As the mantra used by the federal government stated, "If you can't measure it, you can't manage it."

Chart 15 below uses data from the Centre for Labour Market Statistics at Statistics Canada. In terms of the number of workers per thousand population Newfoundland and Labrador is behind PEI and around the same as Saskatchewan which has more than twice the population. In comparison with New Brunswick which has a population about 25 percent larger than NL's but in 2019 employed 11.9 public administrators per 1,000 population compared to NL's 16.9 per 1,000 a difference of 42 percent. Do economies of scale exist or are there differences in the levels of output? If the former case exists then could some services be combined within the "Atlantic Loop" or carried out by a national agency such as Statistics Canada? The answer is probably "yes" that services could be combined but strong geographic preferences exist when it often comes to public services but not private ones. Increasingly, the delivery of services to us do

not have to be near us. We download "apps" for our computers from somewhere in the world. Our banking services could be delivered to us from somewhere. Interestingly our perspective on which public services should be delivered locally or provincially was shaped by communications possibilities and the world in 1867. The world has changed remarkably since then should our perspectives shift? In the world of education, we deliver online lectures to, and exams for students who live in countries spread around the world. These lectures can be delivered by academics who live anywhere in the world. The buildings on campus are mostly disserted. Is this the new post-pandemic normal?

We noted the possibility of economies of scale and perhaps of scope in the delivery of public services. **Section 36.2** of our Constitution implicitly assumes that economies of scale do not exist since it assumes that comparable rates of taxation which may result in comparable tax revenue capabilities on a per capita basis is not affected in the ability to deliver comparable levels of service on a per capita basis.

Chart 15



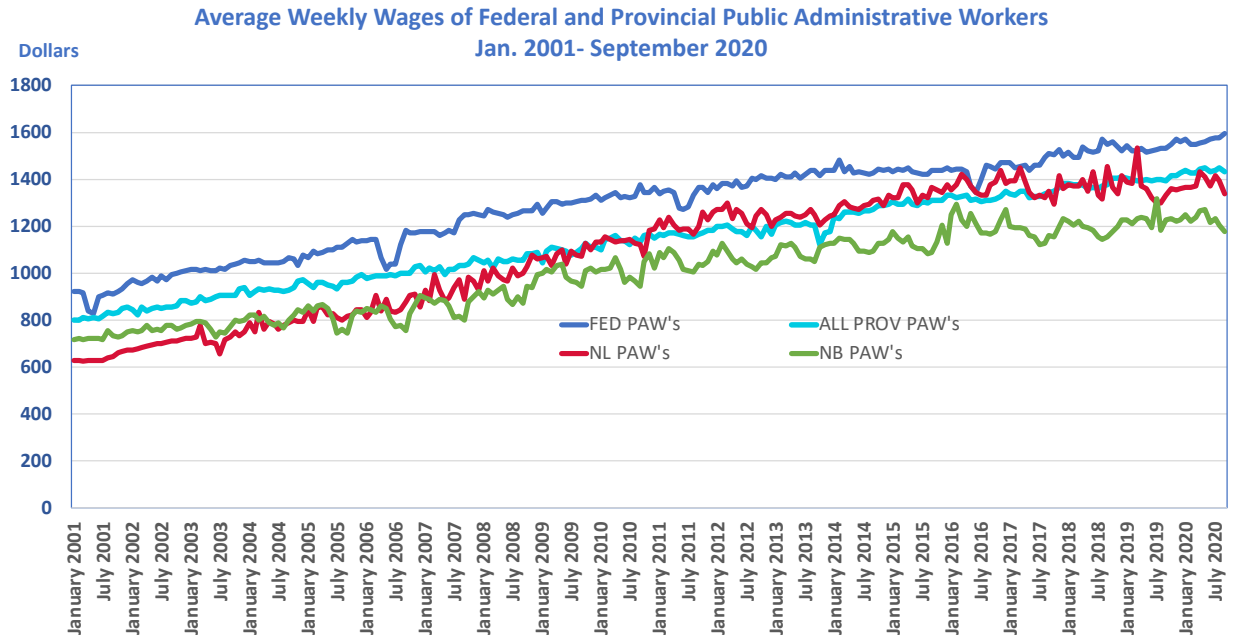
Sources: Statistics Canada Table: 14-10-0201-01 and Table: 14-10-0203-01 using administrative data provided by the provinces.

Another picture which we can obtain comes from Statistics Canada's Productivity Accounts. Now we focus only public sector workers by level of government only in Newfoundland and Labrador but over a period of time

On the right-hand side of **Chart 15** we present the average weekly wages. These wages are well-above those in the Maritime Provinces **but** on a par with the Canadian average. There is currently little to suggest that the labour markets for Newfoundland and Labrador are Atlantic ones rather than Canadian ones. The provincial government may make comparisons with the Maritime provinces in order to improve it bargaining position with its unions with respect to

wages and to hire more workers/constituents. Consistent with our conjecture is the habit of the provincial government in reporting the number of workers to be hired on major projects.

Chart 16



Source: Statistics Canada 14-10-0203-01

Chart 16 demonstrates that the Newfoundland and Labrador's Public Administration Workers probably had the lowest wages for public administration workers amongst all of the provinces up until mid-2004. By 2010, the province's public administration workers had reached parity with the Canadian average but at wage rates below federal public administration workers in the province. The evidence here is consistent with our hypothesis that the strategy of the provincial government is to provide as many year-round jobs as possible given the revenue constraints affected by equalization transfers. At the same time, there is evidence to support the hypothesis that wage rates viewed as being appropriate are those consistent with others in the same industry and occupation. In Newfoundland and Labrador, absolute and relative wages were impacted by national labour markets particularly in the construction trades. Here, workers were often interprovincial ones with wages being determined in the Alberta labour markets.

With respect to the number of provincial public administration workers per 1000 population, the situation becomes somewhat more interesting because of the likelihood of scale economies not

considered by our Constitution Act. Ideally, this model should be investigated in a microeconomic production framework. In this framework, detailed inputs and outputs would be measured with associated costs. Departments would constitute their own sub-industries using a KLEMS approach for inputs. This approach divides inputs into capital asset service flows (K) including computers and office space, labour service flows (L) by occupation using the National Occupation Codes, purchased energy(E), purchased materials (M) such as pens and paper, and purchased services (S) such as telephone and insurance services.

Other data sets that would help us to understand the impact of any administrative changes would include an understanding of where the workers lived and worked, what their occupations are, how old they are, how much experience they have and what their wages and total compensations costs are.

A conceptual dilemma exists using these data. The data we have cited in this section uses the NAICS (North American Industry Classification System) to allocate workers. For NAICS 912, the workers are typically allocated to various departments such as health, education, or labour. On the other hand, NAICS 62 is the general classification for health workers. These workers for the most part deal directly with the public. For example, NAICS 622 are hospital workers. The conceptual issue arises as to what extent do workers in the Department of Health affect health outcomes?

Zero-based budgeting was introduced by the Minister of Finance in 2016 and ended in 2017. The concept might appear to promote efficiency within government. There are several problems with the approach which may explain its sporadic use. Four conditions with respect to public sector data should be present. Firstly, the data should be consistent with input/output data both in quantity and dollar value terms to the extent possible. Secondly, the data should cover all production processes from initial service or production until final consumption and then outcomes. Efficiency, both in the technical and economic sense are important as are outcomes. Thirdly, there is a need for data consistency across production units. Productivity levels must be comparable across provinces and countries both in terms of levels and change. Finally, the data must be publicly accessible to researchers who can develop the appropriate methodologies. The caveat, is that there should be independent social audits.

To be clear, the data shortcomings that prevent a thorough analysis of efficiency in the public sector are not unique to Newfoundland and Labrador. To our knowledge, there is no way given the data presently available to estimate the impacts of policy changes on outcomes related to social well-being unless artificial data are presented as a problem in the back of some cost benefit analysis text used in a university course.

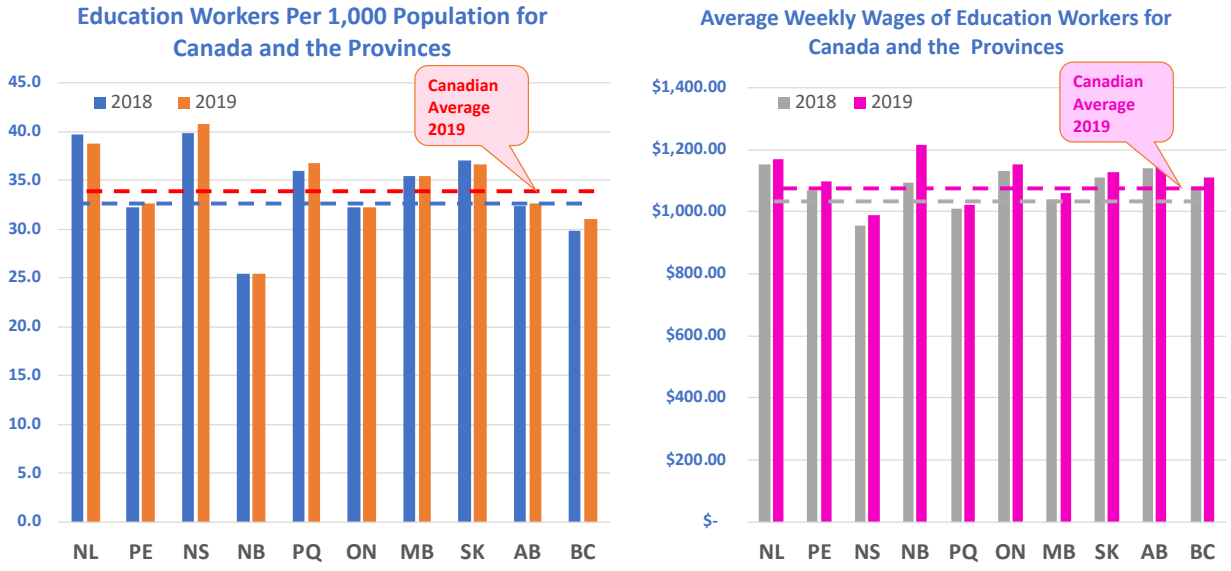
Education

Education Workers

Chart 17 provides comparable data to **Chart 15** for education workers. The workers include the workers in the K-12 system, as well as those at Memorial University and the College of the North Atlantic and private colleges. The number of education workers per thousand population is probably misleading since we have relatively fewer young people in our K-12 system than other provinces do. The number of workers in the NL education sector since 2001 has remained, we believe, relatively constant. It should be noted that alternative sources at Statistics Canada using varying administrative sources provide similar but different estimates of the number of workers in any given year.

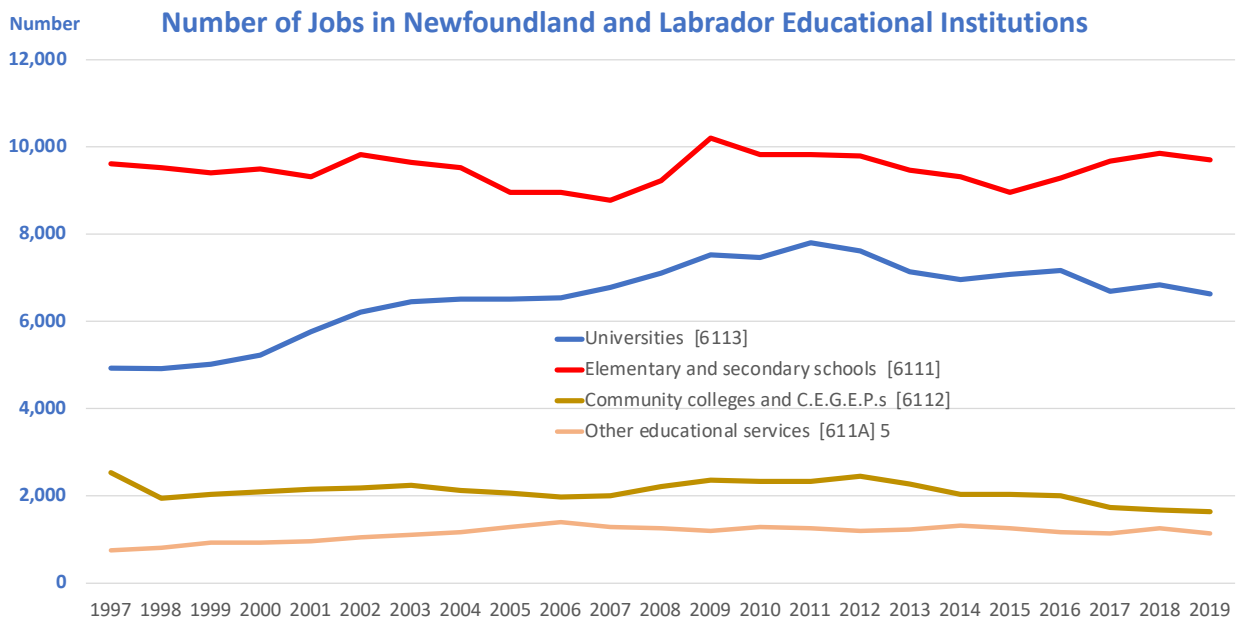
The second half of **Chart 17** illustrates that average weekly wages for educators is roughly in line with a consistent pan-provincial picture but ideally it should be disaggregated by institutional category, gender, educational level and experience. Data to do such analysis exist and are housed at Statistics Canada in Ottawa but the code to produce more generalized results has not been written.

Chart 17



Sources: Statistics Canada Table: 14-10-0201-01 and Table: 14-10-0301-01 using administrative data provided by the provinces.

Chart 18

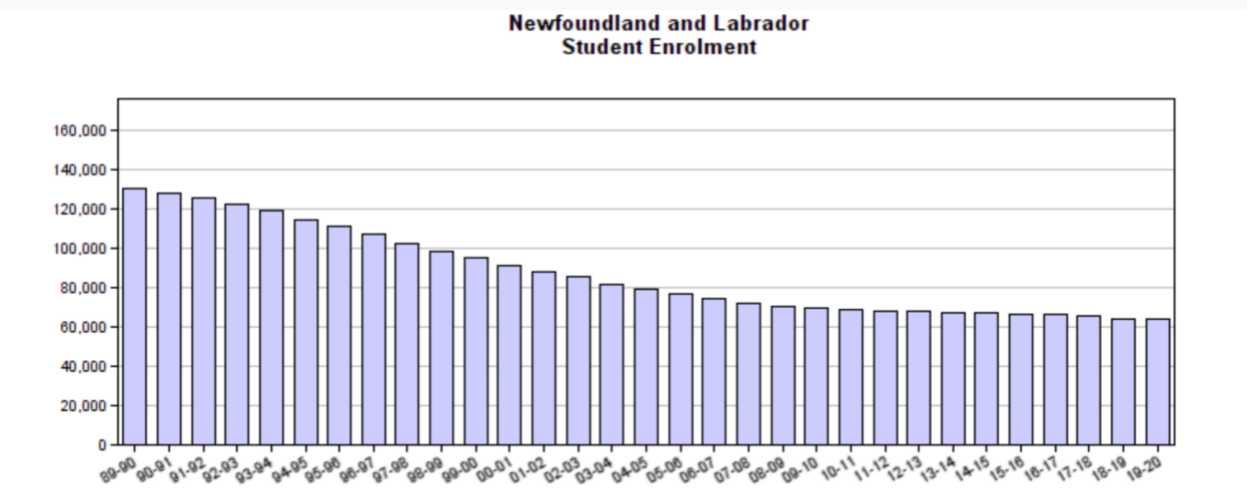


Source: Statistics Canada, Table 36-10-0489-01

Chart 18 above breaks down the number of educational workers by institutional category. The most variation in the number of jobs is in the university. There seems to be a lot of workers at Memorial especially if you compare the number of workers with Memorial's Fact Book. The administrative data we have from Statistics Canada are primarily based on tax data and therefore Includes payments made to students for work they are doing at the university. This work would include such activities such as acting as research assistants or as teaching assistants.

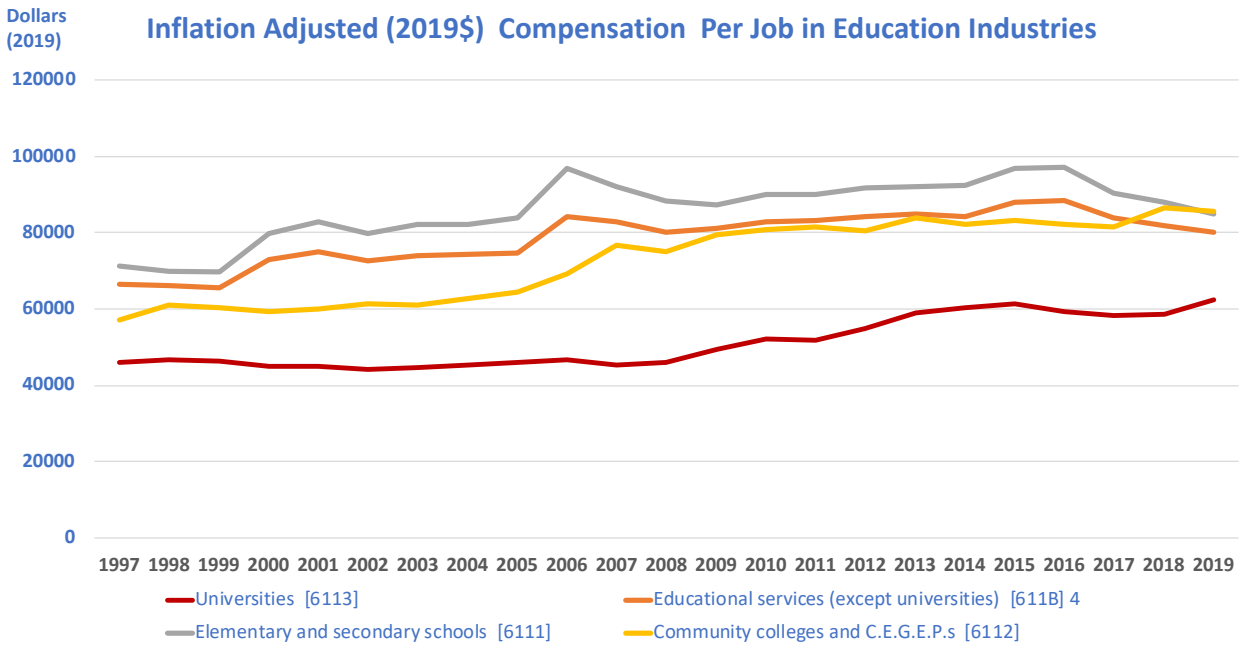
Chart 19 below demonstrates the number of students in the K-12 system has fallen. The implication is that labour productivity, primary input productivity (labour plus capital) and total factor productivity levels gave fallen. The dual picture is that the associated unit cost levels have risen. It is very important to include the implicit (hidden) costs associated with capital. In some rural areas of the province, schools remain open with only a few students. The unit costs in these circumstances would be quite high in comparison with costs in urban centres. The decision of how to respond to these cost differentials is basically a political decision. The argument made here is that in order to make a rational decision with respect to the socially optimal resource allocation decision, the costs should be known.

Chart 19



Community Accounts
data › information › knowledge

Chart 20



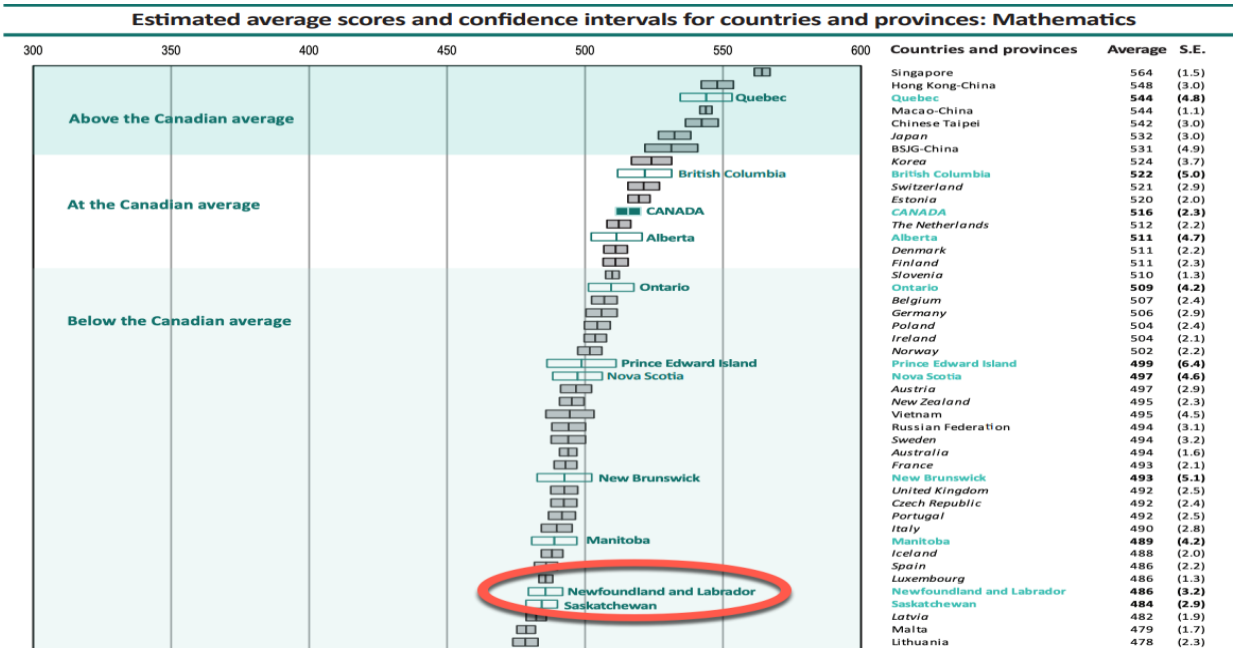
Source: Statistics Canada, Table 36-10-0489-01

Chart 20 provides a somewhat historical picture of the constant (2019$) dollar annual compensation costs per worker. The annual compensation costs are not equal to the annual value of average weekly salaries since these costs would include fringe benefits such as pension fund and health insurance contributions by employers. Typically, in the public sector wage costs would be about 65% of the annual compensation costs. In any event, with the exception of universities compensation costs have held relatively steady in real terms from 2007 onwards and have shown a slight decrease in the past couple of years perhaps due to wage freezes. Following on from **Chart 19** and using **Chart 20**, it follows that the cost of educating each student in the K-12 system has risen dramatically.

Education Outcomes

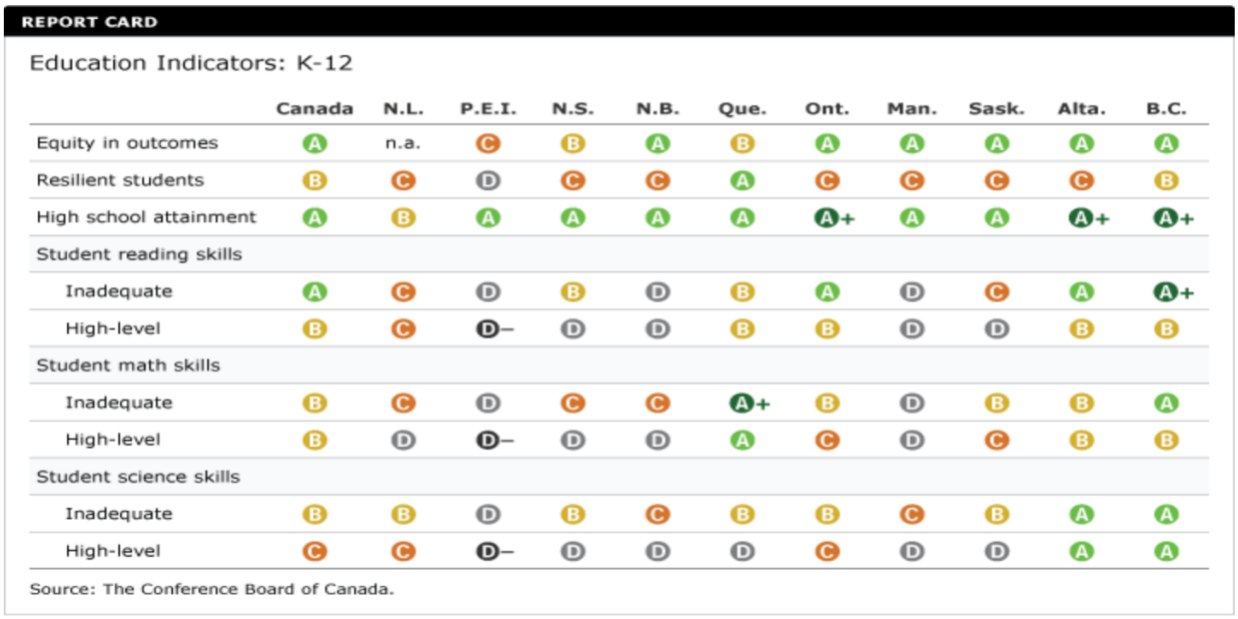
What about our education outcomes? Here we are looking for social value per dollar of expenditure. The picture in this area becomes somewhat foggy. We start with the OECD's (Organization for Economic Cooperation and Development) PISA (Programme for International Student Assessment) as applied to 15-year-olds. The study focuses on reading, math and science knowledge and the ability to apply the acquired skills. The results for the most recent tests conducted in 2018 do not paint a pretty picture for our province. We have selected the PISA results for mathematics. **Chart 19** does not paint a picture that demonstrates that our 15-year-olds have the knowledge or skills to become part of the knowledge-based economy in comparison to some of the larger provinces.

Chart 19



A recent report by the Conference Board of Canada summarized some indicators for our K-12 system in comparison with other provinces. **Chart 20** below.

Chart 20



REPORT CARD

Education Indicators: K-12

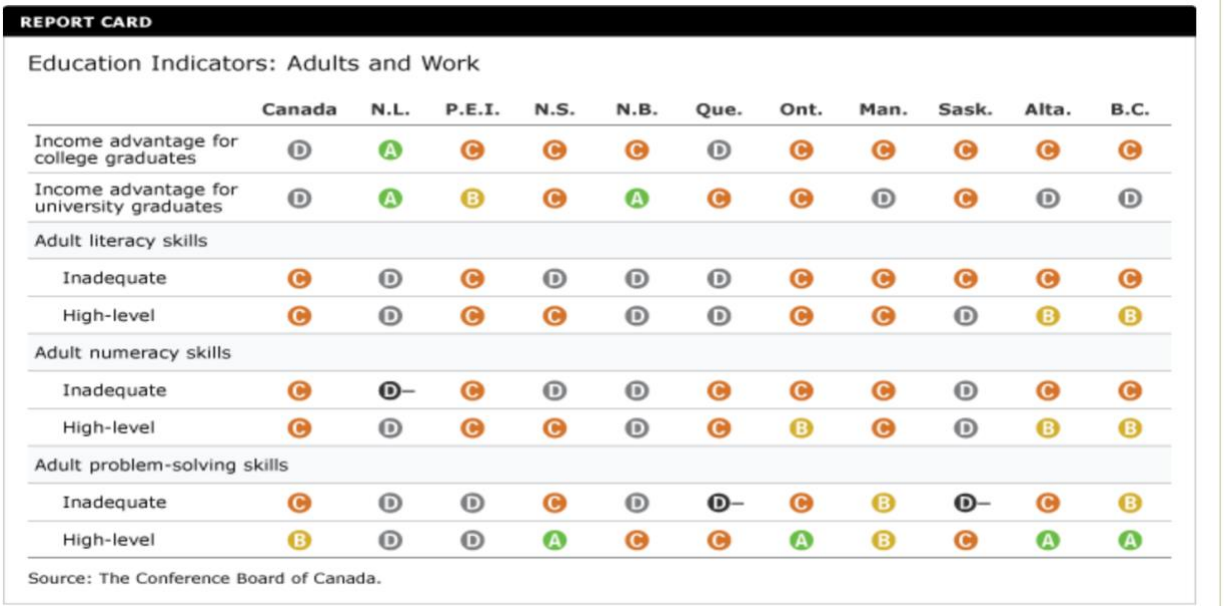
	Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
Equity in outcomes	A	n.a.	C	B	A	B	A	A	A	A	A
Resilient students	B	C	D	C	C	A	C	C	C	C	B
High school attainment	A	B	A	A	A	A	A+	A	A	A+	A+
Student reading skills											
Inadequate	A	C	D	B	D	B	A	D	C	A	A+
High-level	B	C	D–	D	D	B	B	D	D	B	B
Student math skills											
Inadequate	B	C	D	C	C	A+	B	D	B	B	A
High-level	B	D	D–	D	D	A	C	D	C	B	B
Student science skills											
Inadequate	B	B	D	B	C	B	B	C	B	A	A
High-level	C	C	D–	D	D	D	C	D	D	A	A

Source: The Conference Board of Canada.

With respect to post-secondary education then once again, according to the Conference Board of Canada, our province is not doing that well. With respect to these graduates the indicators chosen are only remotely connected to human capital skills and knowledge. There are no indicators related to accurately measuring these attributes as there are with 15-year-olds. Better indicators are available they are just not applied in a general way to our graduating students. For example, all business school students who are graduating with a B. Com. or BBA could be required to write the GMAT (Graduate Management Admission Test). Even if we know the number of graduates in each discipline we do not know the percentage of these graduates that actually work in the province after 5 or 10 years. Make the extreme assumption that every graduate from Memorial moves to work in Alberta. Is this an uncompensated transfer from NL to Alberta?

Finally, in **Chart 21** we examine the Conference Board of Canada's Report Card for our adult population in comparison to similar populations in other provinces. Newfoundland and Labrador have the worst outcomes. The outcome evidence indicates that we have an outcome problem. We may also have an expenditure problem. The nature of our problem in education seems to have a ring to it very similar to the one in health as annunciated by the Health Accord for NL team. Basically, we spend more per capita than other provinces with the worst educational outcomes when looking at our adult population. Examining the first part of the above statement the solution to our fiscal problems are clear. We should reduce our spending per capita on education. How does this relate to outcomes? Is the implication that simply reducing spending will improve outcomes? Reducing the pay of teachers or their numbers should improve PISA results?

Chart 21



REPORT CARD

Education Indicators: Adults and Work

	Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
Income advantage for college graduates	D	A	C	C	C	D	C	C	C	C	C
Income advantage for university graduates	D	A	B	C	A	C	C	D	C	D	D
Adult literacy skills											
Inadequate	C	D	C	D	D	D	C	C	C	C	C
High-level	C	D	C	C	D	D	C	C	D	B	B
Adult numeracy skills											
Inadequate	C	D–	C	D	D	C	C	C	D	C	C
High-level	C	D	C	C	D	C	B	C	D	B	B
Adult problem-solving skills											
Inadequate	C	D	D	C	D	D–	C	B	D–	C	B
High-level	B	D	D	A	C	C	A	B	C	A	A

Source: The Conference Board of Canada.

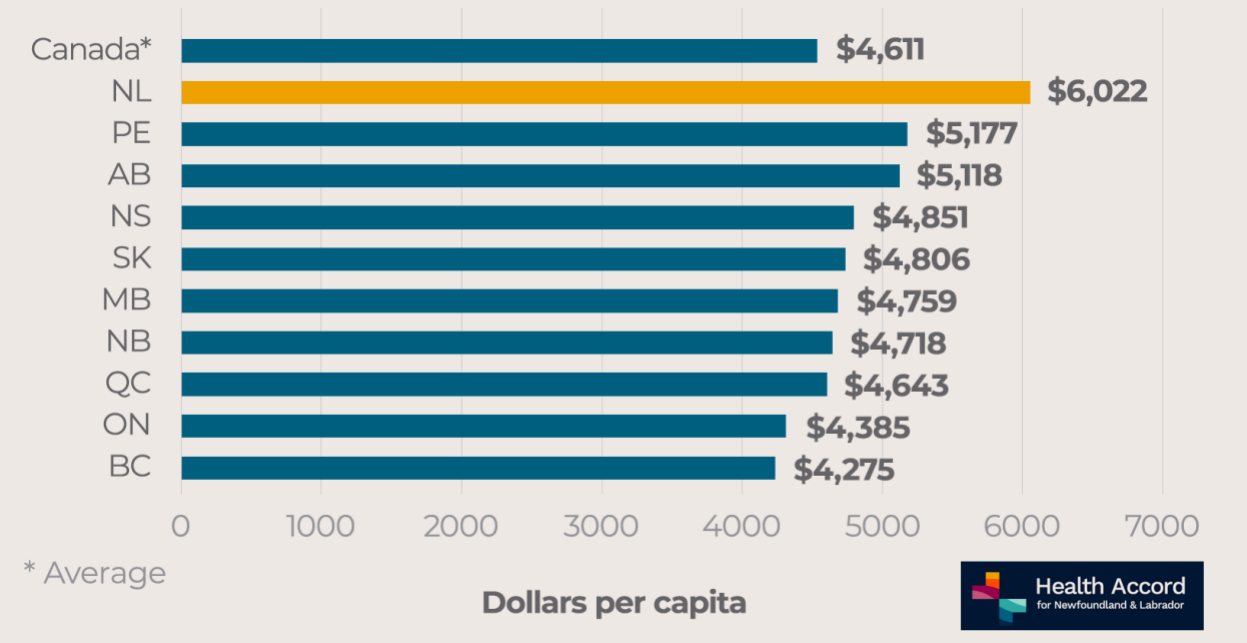
Health

If we go back and examine **Chart 4,** we see that the latest OECD Better Life domain outcome indicators, show that Health in Newfoundland and Labrador has a relative value of 5.1 out of 10. It has the lowest ranking of any of the provinces. Quebec has a ranking of 8.6 and has the highest ranking while New Brunswick has a ranking of 6.9. This ranking seems in line with that of the current discussion the group, Health Accord for Newfoundland and Labrador which provided the evidence below in **Chart 22** that we have the highest health care expenditures per capita but the worst health outcomes. We note that these health care expenditures below likely do not include the implicit user costs of capital assets such as hospitals durable machinery and equipment such as a PET scanner.

Unfortunately, the data that would permit a linkage between health inputs and any outcomes does not exist in Canada. This issue is not unique to Canada. A good review of the issues is contained in a 2007 CSLS report, “The Measurement and Productivity in the Health Care Sector in Canada: An Overview”.

Chart 22

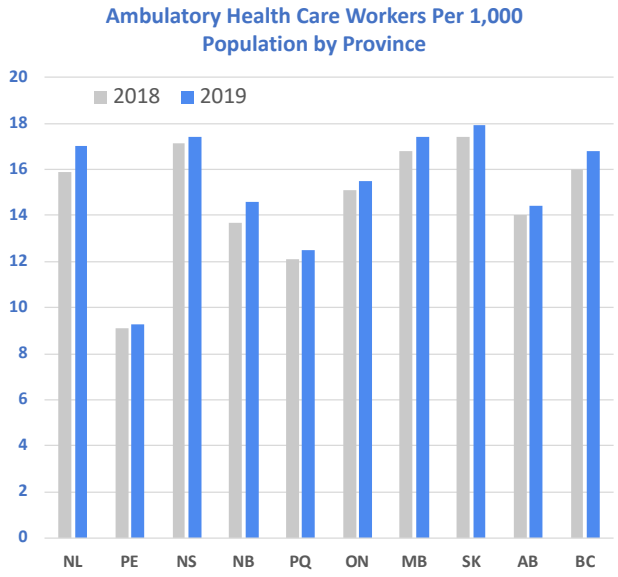
Health Care Expenditures Per Capita

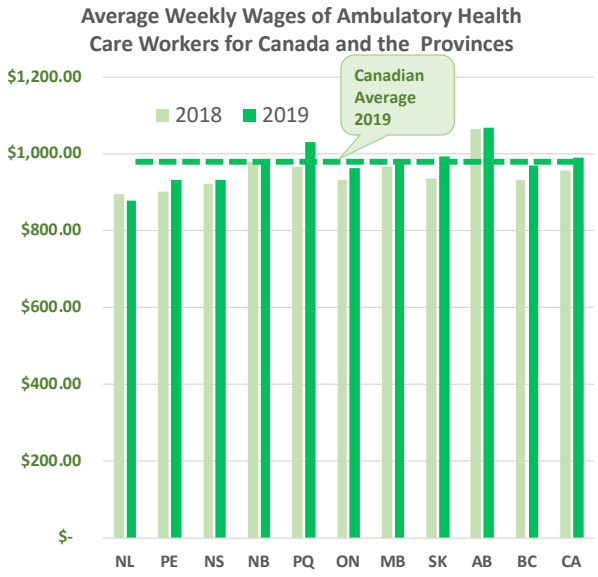


Health Care Workers

In the three charts that follow, we provide evidence concerning the number of

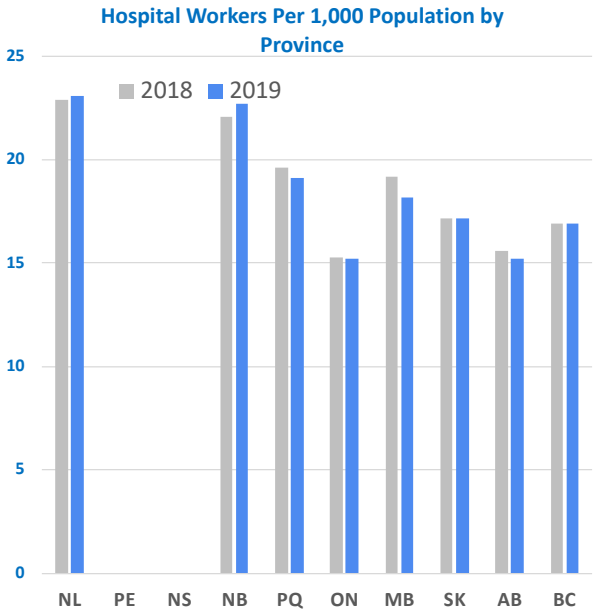
Chart 23

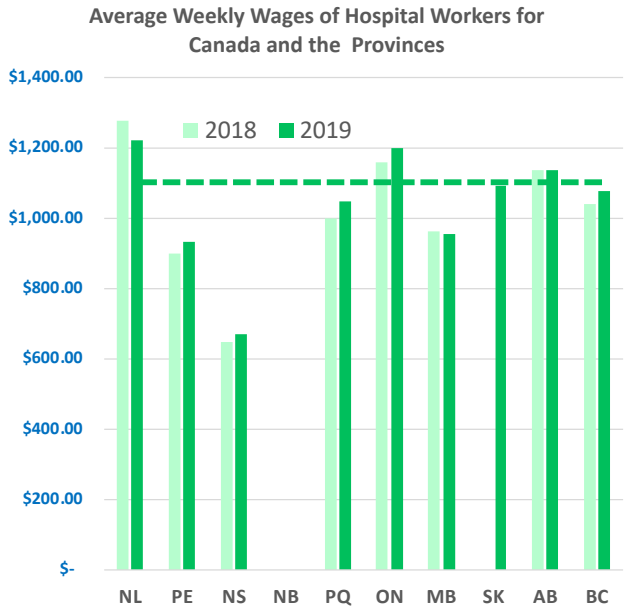




Sources: Statistics Canada Table: 14-10-0201-01 and Table: 14-10-0203-01 using administrative data provided by the provinces.

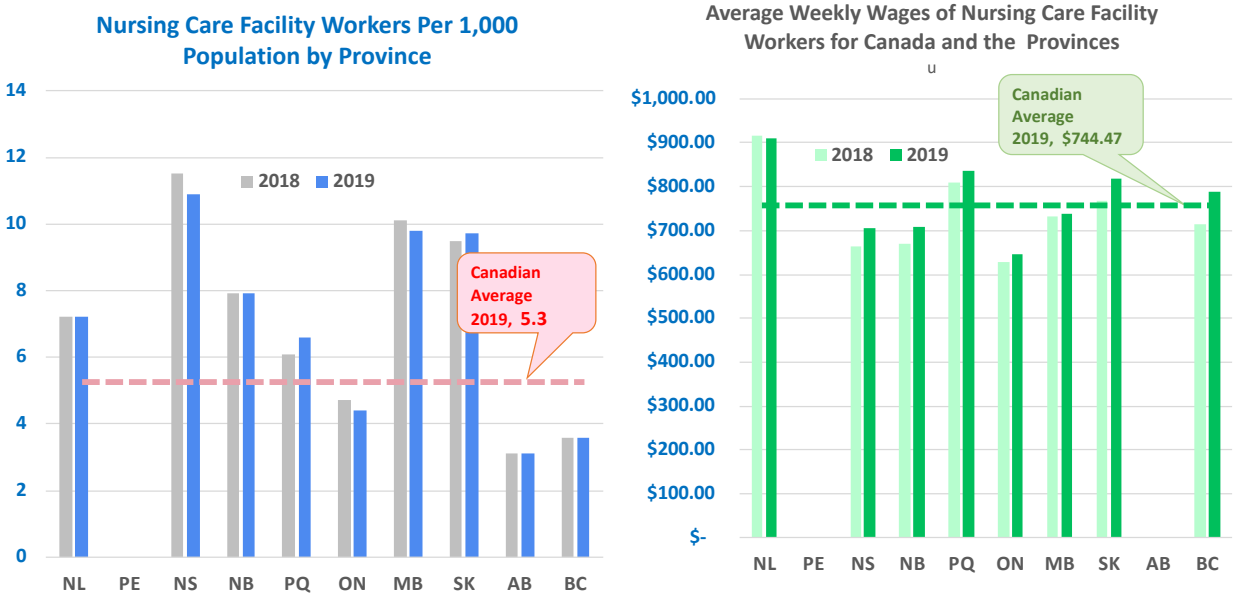
Chart 24





Sources: Statistics Canada Table: 14-10-0201-01 and Table: 14-10-0203-01 using administrative data provided by the provinces.

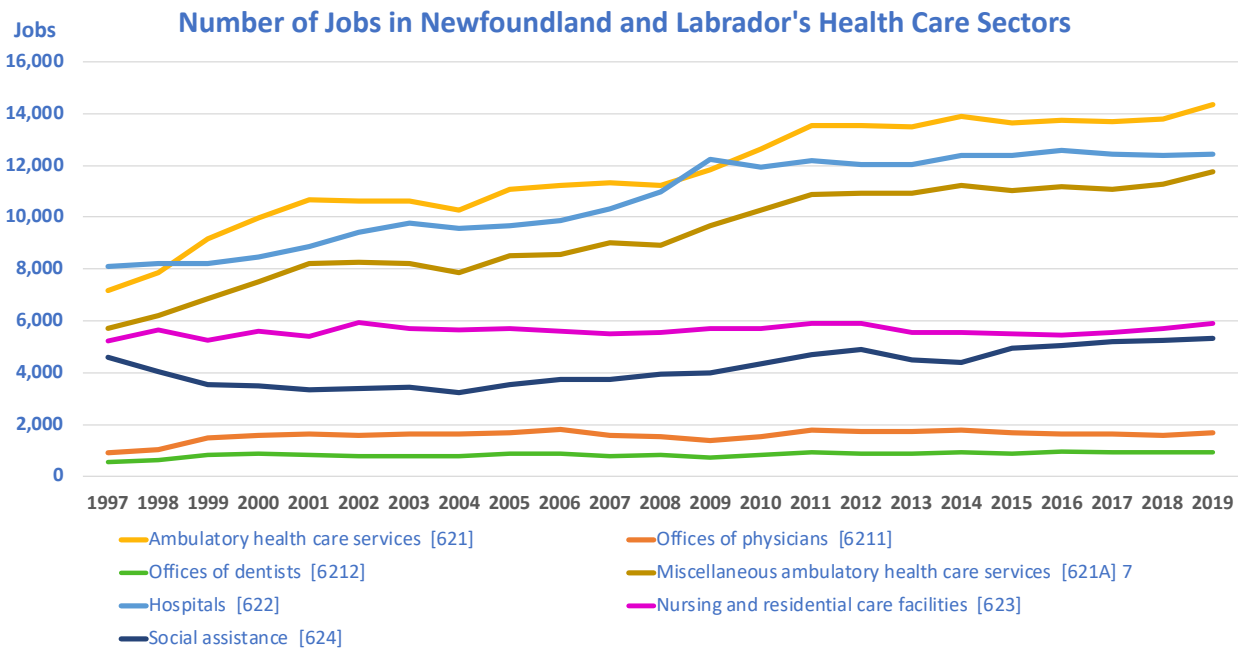
Chart 25



Sources: Statistics Canada Table: 14-10-0201-01 and Table: 14-10-0203-01 using administrative data provided by the provinces.

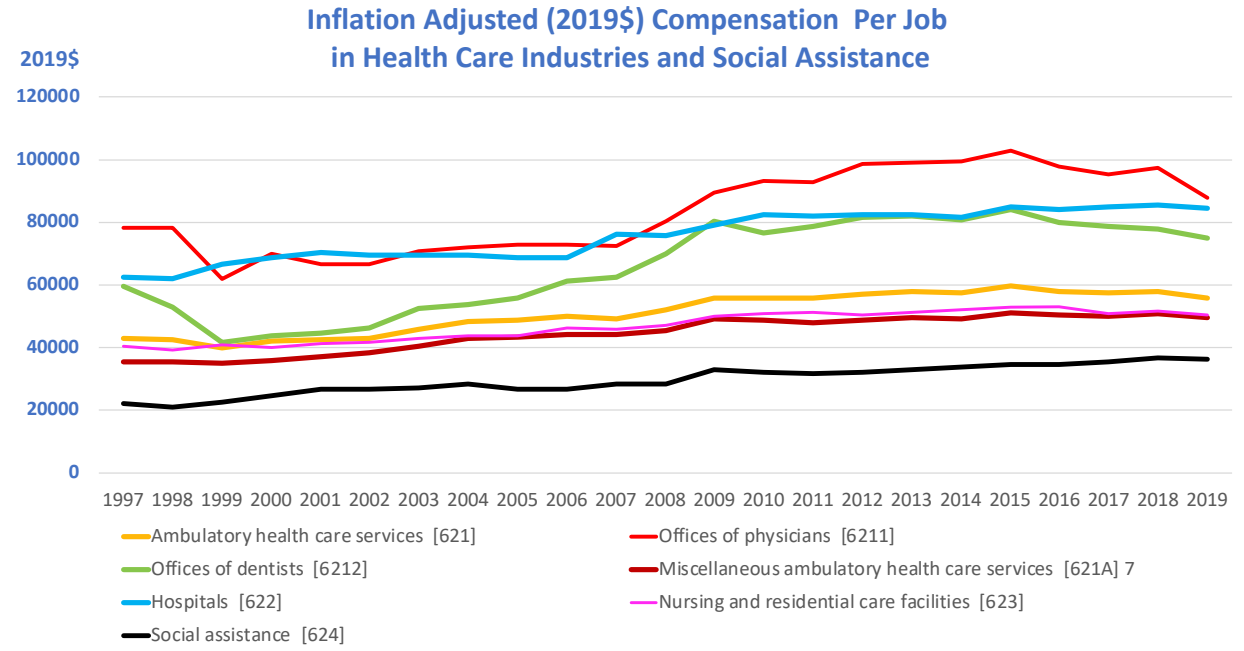
workers per 1,000 population and their average weekly wages. It seems that the number of workers may be somewhat higher as do

Chart 26



Source: Statistics Canada, Table 36-10-0489-01

Chart 27



Source: Statistics Canada, Table 36-10-0489-01

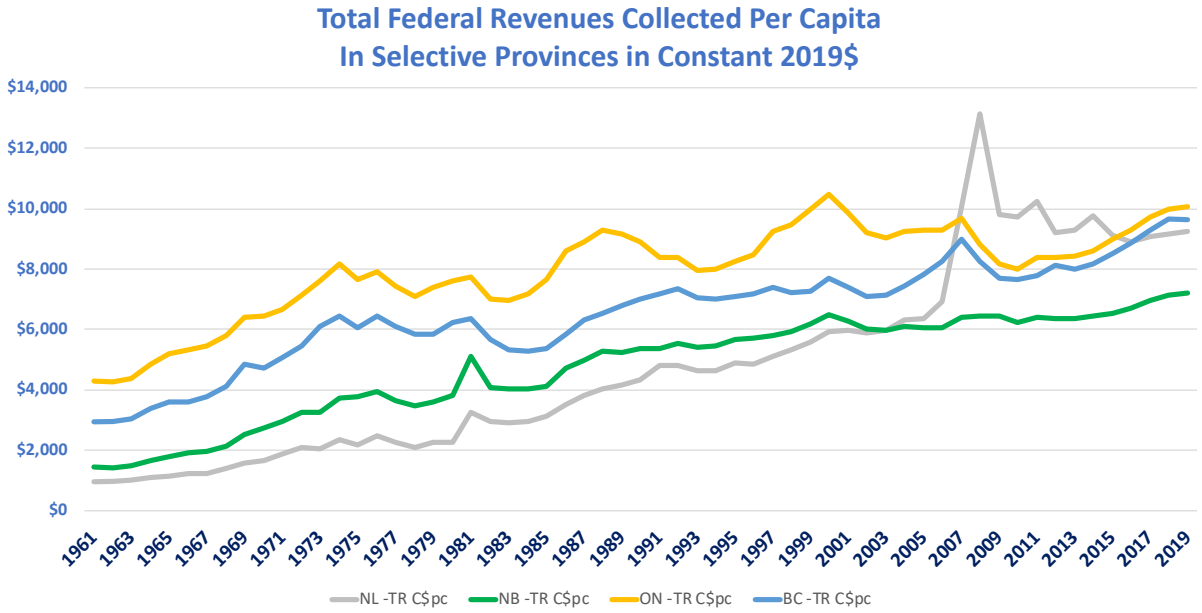
Other Expenditures

Our GNL Expenditures Summary

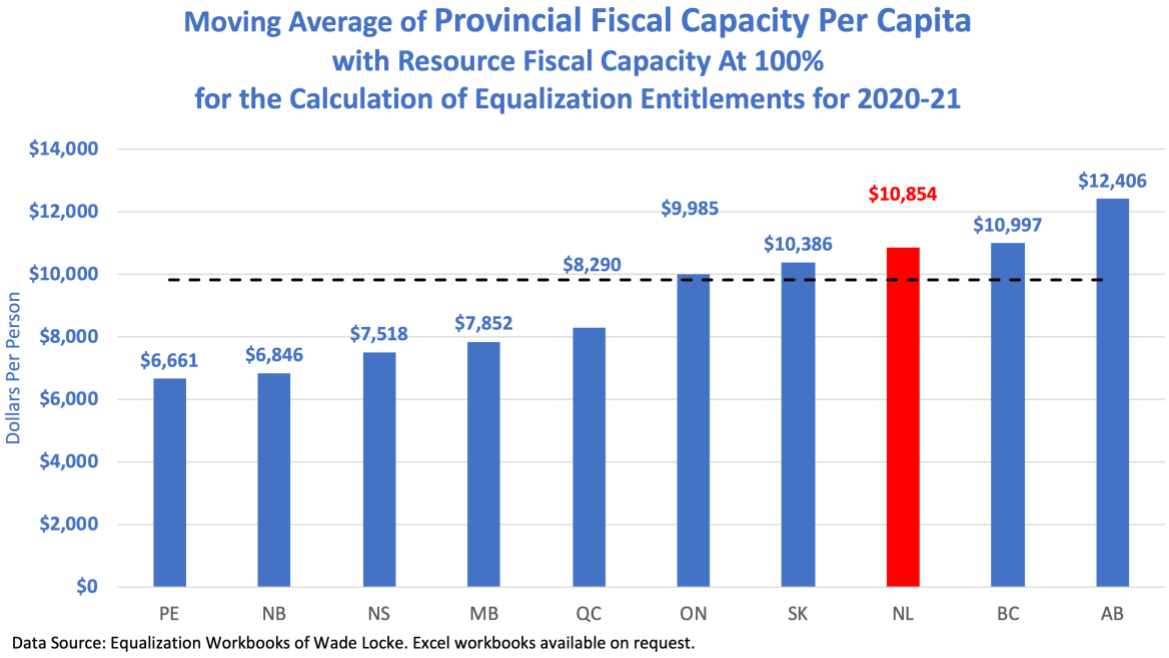
Drilling down, as we have done, provides some answers but it raises more questions. More details are needed as to what is occurring. For the economist, too often the detailed social benefit and cost data over time are not available. The accounting framework employed seems to be one of making payroll and the associated expenses. The movement from accrual accounting from cash accounting in 2004-05 has been helpful certainly on the expenditure side but perhaps obfuscate the situation on the revenue side. Much more information is needed to understand the nature of the services being required and delivered as well as the productivity levels and economic unit costs. When considering outputs and outcomes the simplistic notion of dealing with the fiscal problem by simply reducing expenditures to some pan-provincial average seems particularly worrisome when the quality of the outcomes is well below the national average and/or the social deficiencies are well above. The simple conclusion that we have an expenditure problem without major paradigm shifts in how we deliver services could prove socially disastrous.

Drilling Down: GNL Revenues

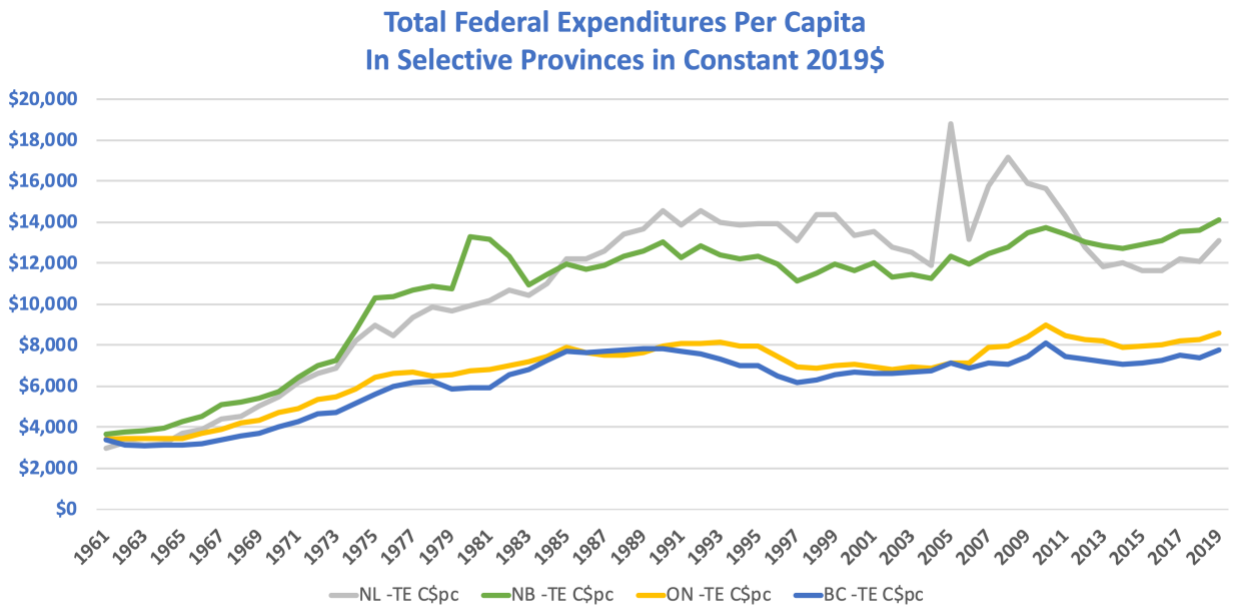
Ottawa: Saviour or Enabler?



Sources: Statistics Canada Tables:36-10-0332, 36-10-0314, 36-10-0450, 18-10-005, 17-10-005



Data Source: Equalization Workbooks of Wade Locke. Excel workbooks available on request.



Sources: Statistics Canada Tables:36-10-0332, 36-10-0314, 36-10-0450, 18-10-005, 17-10-005

The Necessity of Paradigm Shifts

-Recognizing the Public Sector Economy as the Cornerstone
-Outcomes are Important
-Social Economic Accounting
-Microeconomic production and efficiency analysis
-Fed-pan provincial perspective: federal leadership and coordination
-Relating to People in Communities
-SSP perspectives: well-being< vision<goals< people in communities

Summary Thoughts

For Newfoundland and Labrador (NL) running a deficit in any fiscal year is almost the norm. The outstanding exception are the seven years of abundance in around the period fiscal 2005-06 to 2012-13. We also observe an attempt in 2016-17 to close the gap on the tax side through increased taxes but then a reduced effort in 2017-18 even though a gap still exists. The deficit is clearly structural in nature. There are a couple of reasons that might lead us to believe that the structural gap will widen. Firstly, the modal age of the population is just around retirement age and one can expect declining tax revenues but not expenditures, primarily health expenditures

associated with this dynamic will probably rise. Secondly, the high degree of uncertainty associated with future oil prices associated with the relatively high unit costs, both operating and exploration, capital construction and field development is resulting in the postponement of field extensions and new field developments. Oil production off NL's east coast is "risky business". Finally, many high paying construction jobs within the province will disappear as "big-bang" construction projects dry up in the medium term. Inter-provincial work will also become harder to get as "our-workers-first" perspective is adopted by host-economies such as Alberta. A weakness of the Canadian confederation is that it is every province for itself enabled by a central government.

The picture that we have tried to present is in some ways complex and in some senses, contradictory. At the time of Confederation, Newfoundland found itself in a very difficult situation as the old economy based on the salt fish trade and the massive expenditure injections from American and Canadian military expenditures were in decline. Confederation brought with it increased openness and transfers of funds. The transition process has not always been smooth and technological progress in the fisheries has left its winners and losers including the cod stocks. The transition has not only been an economic one but also cultural and demographic. Through it all, the economic well-being of the population has increased. This increase in the standard of living was particularly remarkable from the period around 1996 until 2017 when adjusted real-disposable incomes of Newfoundlanders and Labradorians were higher than elsewhere and some living costs such as housing were lower. Through all of this economic inequality did not increase and a larger percentage of the population found itself in the middle class than was the case with most Canadians. In terms of measures of subjective well-being residents were second to none.

Oil discovery, development and production enveloped in the Atlantic Accord oversaw this economic development and provided the Government with the opportunity for economic independence in the sense that it was free from a dependency on equalization payments. The irony is that this freedom has occurred but our reliance on Ottawa for fiscal salvation is not. Our fiscal track record of 1934 and 1992 seems to have repeated itself. We also argue that our fiscal future does not look bright.

But changes have occurred which paint quite a different picture for the government. Our revenues are above the average of other provinces. We are not a "have-not" province. Our position is that using the governance framework in our Constitution and the social principles that our government has pioneered and previously championed possible solutions lie before us. In the section that follows we outline the principles and vision that should guide us along with some potential fiscal measures. These measures are not the only ones possible; they may not be the most desirable ones. They should foster discussion and alternatives for further discussion.

- **With respect to government expenditures, the "road to hell is paved with good intentions".**

- **Politics *uber alles*. Politics rules the day and rural constituencies rule in provinces since proportional representation does not exist; urban centres are under-represented.**
- **The economic data needed to permit a thorough analysis of program efficiency does NOT exist. There is no connection from inputs to outputs and outcomes. This fact has major implication for management. In fact, NAICS 2017 5 or 6 digit NAICS codes for 912 do not exist. Implication: The Department of Health has no effect on health outcomes. Atkinson Report(2005)**
- **The entire data structure linked to provincial government activities must be examined.**
- **Economies of scale and scope may exist in the design, co-ordination and delivery of government services. This takes us from deputy ministers to front-line workers.**
- **Newton's third law of motion does not apply with respect to public sector labour markets: "What goes up may not come down quickly."**
- **It is generally believed that lower levels of governments cannot be allowed to default on financial obligations since it reflects badly on the upper levels. More so if there are guarantees.**
- **Ottawa seems to have disproportionately provided financial transfers to NL.**
- **Does NL see itself as a self-governing dominion determining its own destiny with parental blessing and financial support?**