

**Indicators of Prosperity
Technical Report
2011**

The *Environmental Goals and Sustainable Prosperity Act (EGSPA)* states:

4 (1) The long-term environmental and economic objective of the Province is to fully integrate environmental sustainability and economic prosperity and to this end to

(a) demonstrate international leadership by having one of the cleanest and most sustainable environments in the world by the year 2020; and

(b) provide certainty to all sectors of the economy through the Government's economic development strategy entitled Opportunities for Sustainable Prosperity and establish clear environmental goals while improving the Province's economic performance to a level that is equal to or above the Canadian average by the year 2020.

Background: Why *Indicators*?

The government gauges progress of the Nova Scotia economy over time and how its place changes within the Canadian context. Environmental and economic progress have complex and ambiguous interdependence.

Indicators were selected for each of the domains based on the following questions:

- What do we have?
- What is it producing for us? How well are resources used?
- Is it sustainable over time?

A working group screened indicators on the basis of the following criteria:

- readily available and updated periodically
- easily compared to Canada and other provinces
- able to show long-term trends
- contain valid and reliable information
- make sense to the general public

A number of very significant challenges were encountered in identifying and selecting appropriate indicators:

- Data that meets the ideal is very limited
- Data isn't usually updated every year
- Data can be 2-5 years (or more) out-of-date
- Important information is often collected at the provincial level – difficult to locate, compile and do cross-jurisdictional comparisons
- The most valid and useful indicators may be difficult for a layperson to interpret

Indicators: Social, Economic, and Environmental

The list of indicators presented below fall within the interconnected circles of environment, economy, and society. Conventional economic indicators like GDP and consumption are important, but they tell only part of the story. Supplementing economic indicators of material prosperity with social and environmental indicators gives a fuller picture of well-being. GDP was always intended to be an important, but not singular indicator of wellbeing:

- GDP does not take into account unpaid human efforts or contributions, such as childcare or volunteer work, essential as they may be.
- It was not designed to measure any impact on asset stocks such as environmental resources.
- It does not consider whether economic activity is the direct result of negative factors such as increased pollution, debt, crime, accidents or health problems.

Data on the environment, including natural resources, is collected by a number of separate entities for very different purposes. Government will continue to develop broader indicators of environmental and social well-being.

Understanding the Indicators of Prosperity

Nova Scotia's individual progress - These indicators provide a snapshot of the Nova Scotia economy in the Canadian context. The indicators are chosen to be used together, to give context to the many economic forces at work, including the development of the social and environmental aspects of the Nova Scotia economy. Considering the close-linked nature of social, environmental, and economic sustainability

Linking results to programs and strategies (strategic planning) - Indicators of success are chosen to measure the degree to which outcomes are achieved. Headline indicators provide broad benchmark data which can be used to judge the well-being of the Nova Scotia economy, and in reference to its place in Canada.

The Province in 2011 launched a new economic growth strategy: jobs**Here**, which can make use of similar high-level indicators and benchmarks from which to measure success.

Understanding the dynamics that influence indicators - At times, it may be difficult to understand trends and underlying causes that drive the results we see. In addition to local economic conditions, external forces influence Nova Scotia's economy and environment (as well as those in other Provinces). However, the structure of Provincial economies evolves slowly in response to the complex interaction of both internal and external influences. Comparisons between Nova Scotia and other Provinces must acknowledge the varying degrees of sensitivity to global conditions and the relative speed with which economies adapt to new market realities. These indicators provide a starting point from which we can ask, "why is this happening?", or "what other factors are at work here?"

Presentation of Indicators

The three domains chosen for the purposes of reporting are based on the following principle: the health of the economy, the health of the environment and the health of the people are interconnected.

Each indicator was categorized according to four criteria:

- Level – Without comparison to the rest of Canada, would the level be considered favourable, neutral or unfavorable
- Comparison to Canadian average
- Rank out of ten provinces
- Trend over the past few years

For ease of interpretation, weather icons were assigned to each indicator:



Favorable level, high to middle Canadian ranking, overall positive trend



Favorable to neutral level, middle to low Canadian ranking, flat or positive trend



Neutral to unfavorable level, middle to low Canadian ranking, flat or negative trend



Unfavorable level, low Canadian ranking, flat or negative trend

This provides a simple at-a-glance overview of the province's performance in key areas.

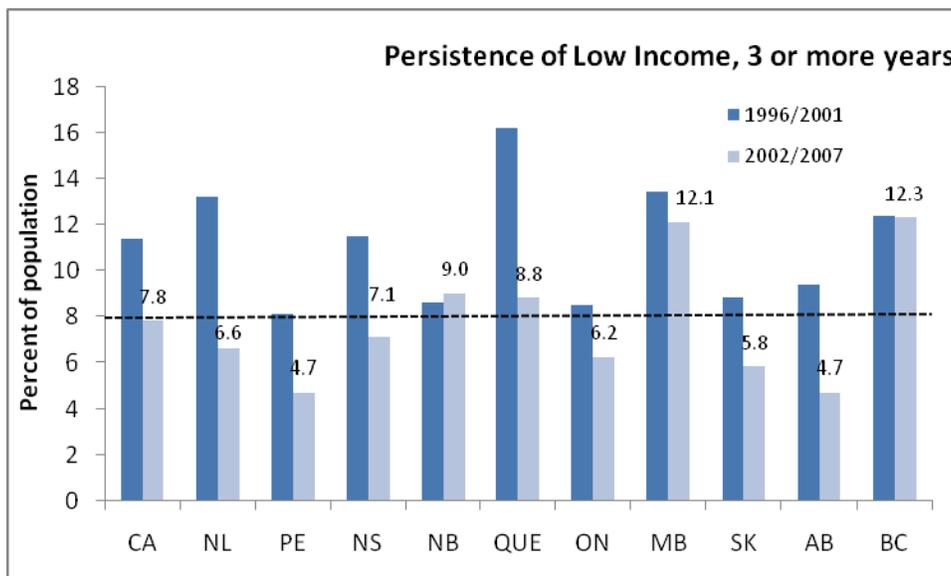
The indicators are:

- Persistence in Low Income
- Income Equality
- Sense of Belonging to the Local Community
- Post-secondary Education
- Life Expectancy (at age 65)
- Employment Rates for Visible Minorities
- Labour Productivity
- Net Investment in Capital Stock
- Personal Savings
- Consumer Spending
- Gross Domestic Product
- Government Debt
- Value of Natural Resources
- Value of Renewable Resources
- Electricity Generated from Fossil Fuels
- Energy Productivity

5. Headline Indicators

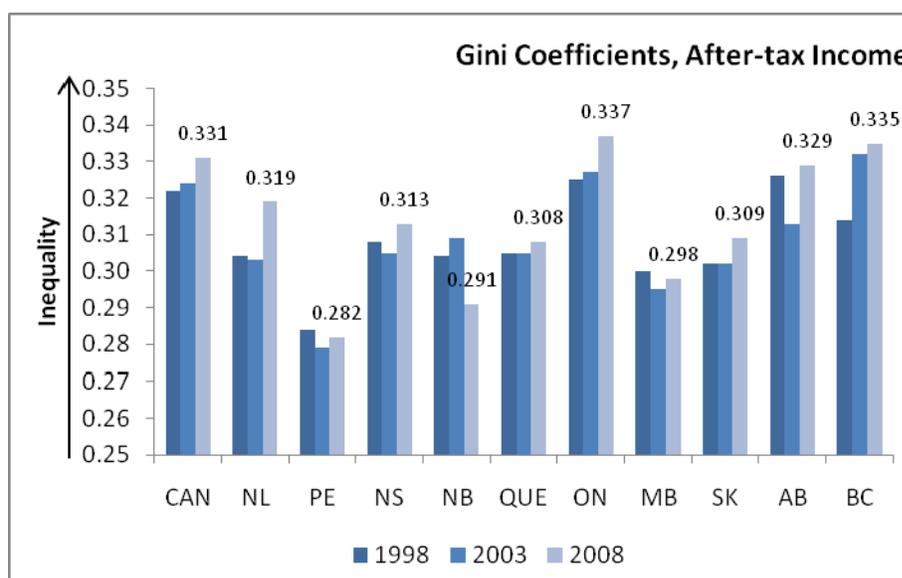
Persistence in low income

<i>Indicator</i>	Individuals reporting three or more years of low income in the previous six years.
<i>Source of Data</i>	Persistence of low income, by selected characteristics, every 3 years, Statistics Canada (2007) CANSIM Table 202-0807
<i>Description of Data</i>	Based on the Survey of Labour and Income Dynamics
<i>Most recent data</i>	2007
<i>Data availability</i>	Every three years For all provinces
<i>Rationale for selection</i>	Persistence in low income is correlated with to poor health, limited employment and life skills and lower levels of income equality.
<i>What it tells us</i>	Many people face barriers to participation even when the economy is doing well, often the result of low levels of education and inadequate social supports.
<i>Performance</i>	 <p>Level: Lower than the Canadian average Rank: 5th among provinces Trend: There was a downward trend (improvement) from 1996/2001 to 2002/2007 in Nova Scotia, as with most provinces, with the exception of New Brunswick, Manitoba, and New Brunswick, who saw slight declines or in the case of New Brunswick, a slight increase.</p>



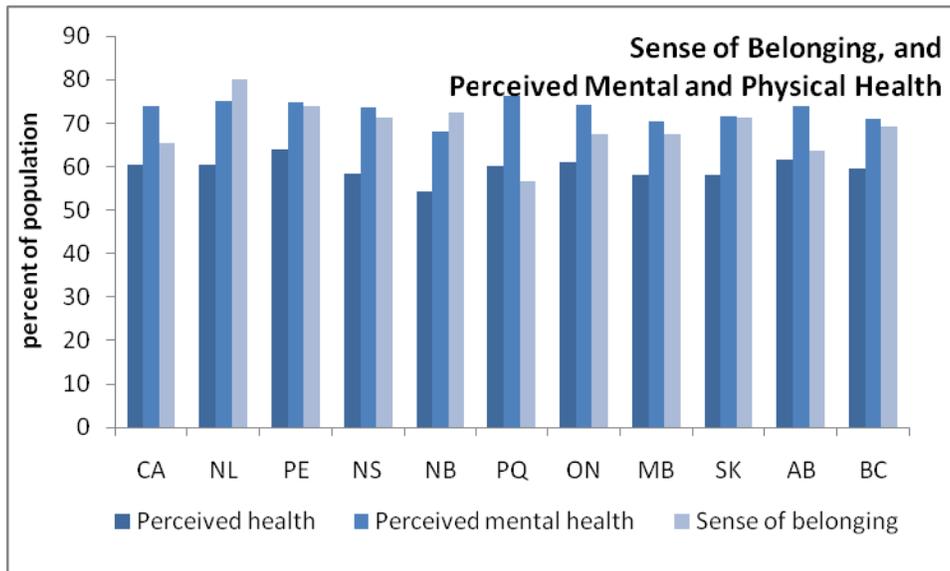
Income equality

<i>Indicator</i>	Gini coefficient
<i>Source of Data</i>	Gini coefficients of after-tax income for economic families and unattached individuals, Statistics Canada (2007) CANSIM Table 202-0705.
<i>Description of Data</i>	“The Gini coefficient is a number between zero and one that measures the relative degree of inequality in the distribution of income. The coefficient would register zero (minimum inequality) for a population in which each member received exactly the same income and it would register a coefficient of one (maximum inequality) if one member received all the income and the rest received none.” Statistics Canada
<i>Most recent data</i>	2008
<i>Data availability</i>	Annual For all provinces
<i>Rationale for selection</i>	Commonly used measures of economic growth will appear positive, even if economic growth primarily benefits only a small percentage of the population. Higher levels of income equality have been correlated with positive social and personal outcomes for all individuals, regardless of income.
<i>What it tells us</i>	Reflects the impact of changes in society and the economy on the distribution of income across the population.
<i>Performance</i>	 <p>Level: Level is better than the Canadian average. Rank: 2008 – 5th among provinces, 3rd among four Atlantic Provinces. Trend: Overall increase in inequality since mid 1990s, but with notable improvements in early 2000s. Nova Scotia’s level of income inequality in 2008 was 0.313, the 5th best ranked in Canada. Nova Scotia’s Gini Coefficient has increased since 1998 by 1.6%, also 5th among provinces in terms of overall change between 98-08.</p>



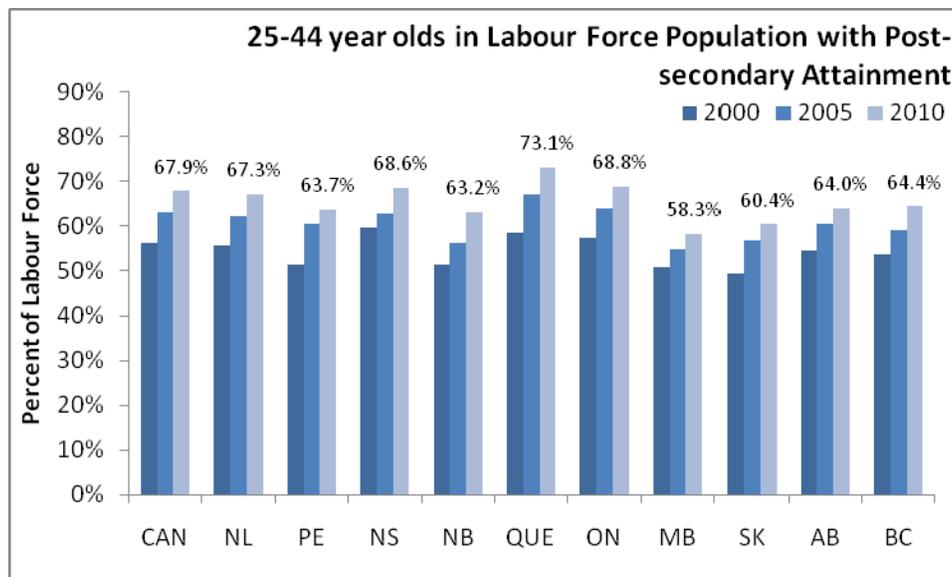
Sense of belonging to community

<i>Indicator</i>	Sense of belonging to the local community
<i>Source of Data</i>	Sense of belonging to local community, by age group and sex, household population aged 12 and over, Statistics Canada (2005) CANSIM Table 105-0390. Health indicator profile (mental health, physical health), two year period estimates, by age group and sex, Statistics Canada (2007/08) CANSIM Table 105-0502.
<i>Description of Data</i>	Percentage of respondents (age 12 and over) to Canada Community Health Survey who described their sense of belonging to the local community as strong or very strong.
<i>Most recent data</i>	2007/2008
<i>Data availability</i>	Every two years For all provinces
<i>Rationale for selection</i>	Research shows a high correlation of sense of community-belonging with physical and mental health.
<i>What it tells us</i>	A variety of informal and informal social networks form the basis of social capital. Local communities are the fundamental level of social capital. This captures, at the local community level, how inter-connected people perceive themselves to be.
<i>Performance</i>	 <p>Level: Sense of belonging is above the Canadian average. Perceived mental and physical health are below national averages.</p> <p>Rank:</p> <ul style="list-style-type: none"> - Nova Scotia is ranked 7th in the country in terms of respondents who said they perceived their physical health as “very good or excellent” (58.5%, an improvement from 56.7% previously) - Nova Scotia is ranked 6th in the country in terms of respondents who said they perceived their mental health as “very good or excellent” (73.6%) This ranking is unchanged from last time, though the percentage is increasing. - Nova Scotia is ranked 4th in terms of percentage of respondents who said they have “very strong or somewhat strong sense of belonging to local community.” This is a slight decline in percentage terms (and a one point ranking drop), though the national average has increased by more than Nova Scotia’s has decreased in percentage terms. <p>Trend: Stable or steady, while Canadian averages continue to increase.</p>



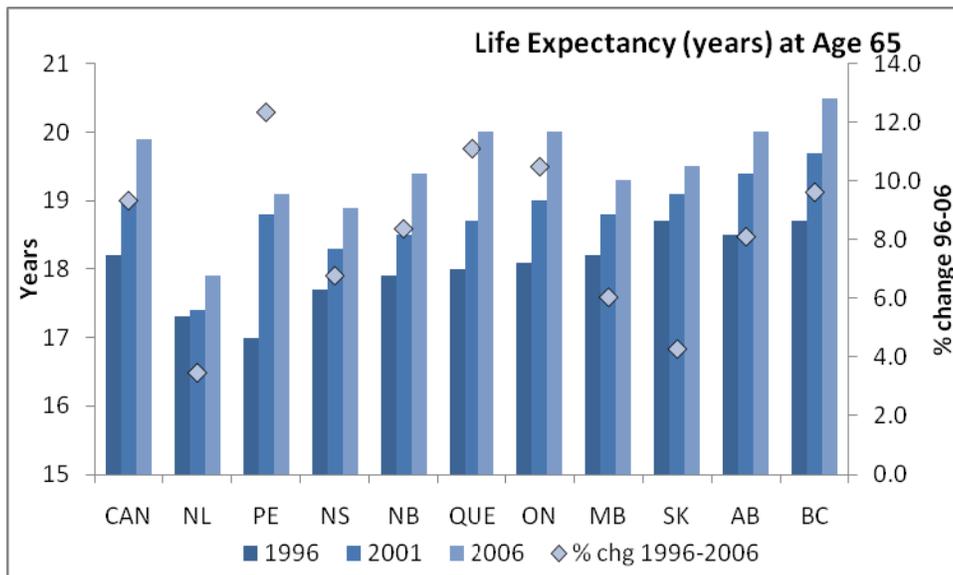
Post-secondary education

<i>Indicator</i>	Post-secondary educational attainment 25-44 year olds
<i>Source of Data</i>	Population with post-secondary education (age 24-44), Statistics Canada (2009) Labour force survey estimates , CANSIM Table 282-0004
<i>Description of Data</i>	Percentage of 25 to 44 year olds with completion of post-secondary certificate diploma or university degree
<i>Most recent data</i>	2010
<i>Data availability</i>	Annual For all provinces
<i>Rationale for selection</i>	Educational attainment is related to average earnings, labour productivity, health, and incidence of poverty. This indicator reflects trends in post-secondary choices and Nova Scotia's ability to retain highly skilled workers.
<i>What it tells us</i>	Almost two-thirds of 25 to 44 year-olds living in the province have completed a university, college, or trades apprenticeship program. Although our rates continue to increase, we have fallen below the Canadian average and other provinces are moving ahead of us in terms of a developing and attracting a highly skilled younger working age population.
<i>Performance</i>	 <p>Level: 68.6% of 24-44 year olds in the Labour Force Population have Post Secondary Education in the province Rank: Nova Scotia is ranked 3rd among provinces, and is above the Canadian average of 67.9%. Trend: From 2009 to 2010, Nova Scotia has moved above the national average. There has been a steady increase in this indicator over the last decade in Nova Scotia. In the year 2000, 59.8% of 25-44 year olds in the LF Population had PSE.</p>



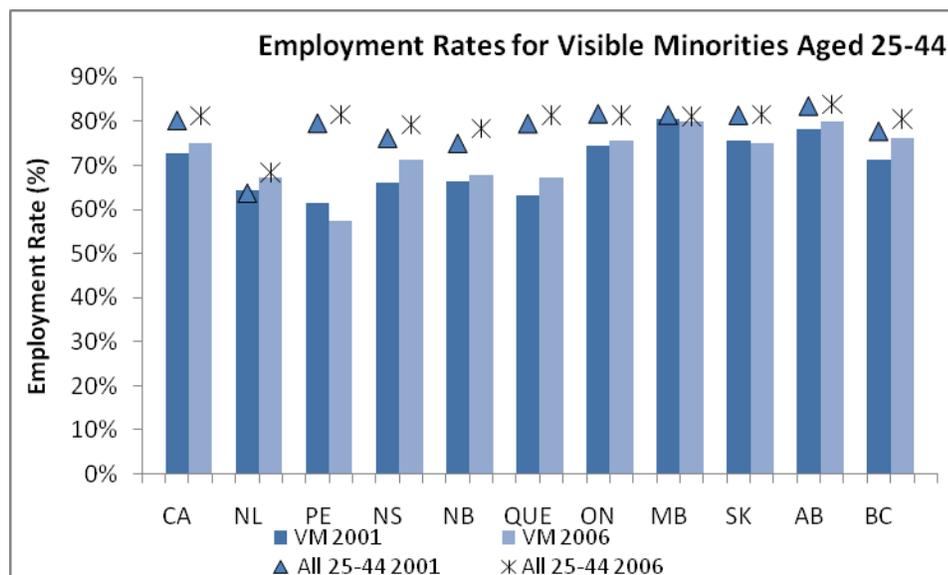
Life expectancy

<i>Indicator</i>	Life expectancy in years at age 65
<i>Source of Data</i>	Life expectancy, abridged life table, at age 65, Statistics Canada (2006) CANSIM Table 102-0511
<i>Description of Data</i>	Estimated years of life remaining at age 65.
<i>Most recent data</i>	2006
<i>Data availability</i>	Annual For all provinces
<i>Rationale for selection</i>	Life expectancy is related to overall health, levels of chronic disease, social supports, and level of education. Life expectancy, as a reflection of overall health, has implications for future health expenditures and labour market participation of older workers
<i>What it tells us</i>	Although life expectancy at 65 is increasing, the rate of increase is slower than the Canadian average
<i>Performance</i>	 <p>Level: Nova Scotia is below the national average (19.9 yrs) at 18.9 years of life expectancy at age 65. Rank: NS is ranked 9th among provinces. Trend: Improving, but not at the same rate as the rest of the provinces.</p>



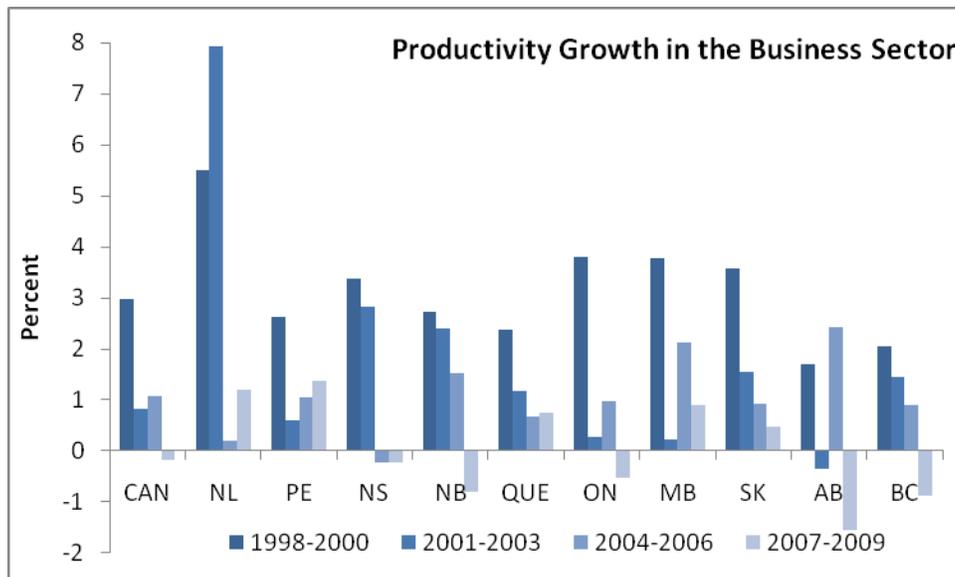
Employment rates for visible minorities

<i>Indicator</i>	Employment rates of 25-44 year-olds (visible minority diversity groups) compared with employment rate of 25-44 year-old population as a whole
<i>Source of Data</i>	Census of Canada, Statistics Canada, 2006
<i>Description of Data</i>	The visible minorities employment rate is compared to the overall employment rate for a specific age group (25-44) by province. (Does not include Aboriginal identifiers)
<i>Most recent data</i>	2006
<i>Data availability</i>	Every five years (Census) For all provinces
<i>Rationale for selection</i>	Employment participation is related to literacy, levels of education, and the effectiveness of informal and formal social supports. Barriers to full participation in the labour market have been a longstanding issue for visible minorities. As the labour force gets smaller, barriers to participation need to be addressed to create an employment climate that will be attractive to an increasingly diverse workforce.
<i>What it tells us</i>	Although below the average for the population of 25-44 year-olds as a whole, the employment rate of visible minorities has increased.
<i>Performance</i>	 <p>Level: In 2006, Visible Minorities (aged 25-44) had an employment rate of 71.2%, whereas the employment rate for the whole 25-44 year old cohort was 79.3%.</p> <p>Rank: 6th among provinces in 2006. Both employment rates are below the Canadian average.</p> <p>Trend: Some improvement from 7th ranking in 2001. NS ranks 4th among provinces in 'improvement of the differential' between 2001 and 2006.</p>



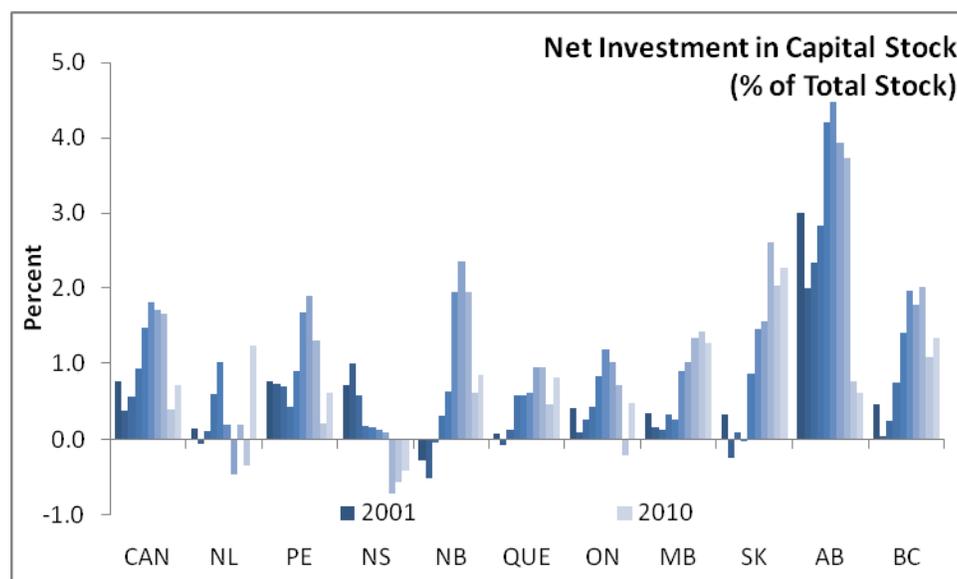
Labour productivity

<i>Indicator</i>	Labour productivity growth in the business sector
<i>Source of Data</i>	Real Labour Productivity Growth in the Business Sector, (Chained (2002) dollars per hour), Statistics Canada (2008), CANSIM Table 383-0011
<i>Description of Data</i>	Labour productivity is the ratio between real value added and hours worked.
<i>Most recent data</i>	2009
<i>Data availability</i>	Annual For all provinces
<i>Rationale for selection</i>	Effective use of human capital, matching labour force skills to business requirements, is a major factor in labour productivity growth. Labour productivity related to literacy and educational attainment in the labour force and a business culture of competitive thinking and willingness to adopt innovative practices.
<i>What it tells us</i>	The growth rate has fluctuated between positive and negative between 2004 and 2008. There has been an overall downward trend in labour productivity growth in the business sector since 1999.
<i>Performance</i>	 <p>Level: On par with Canadian average. Rank: In 2009, Nova Scotia was ranked 5th among provinces, with flat labour productivity growth for the second year in a row. This follows one year of negative labour productivity growth in 2007, and negative growth in 2004 and 2005. Trend: From 2007 to 2009, NS is ranked 6th in average labour productivity growth.</p>



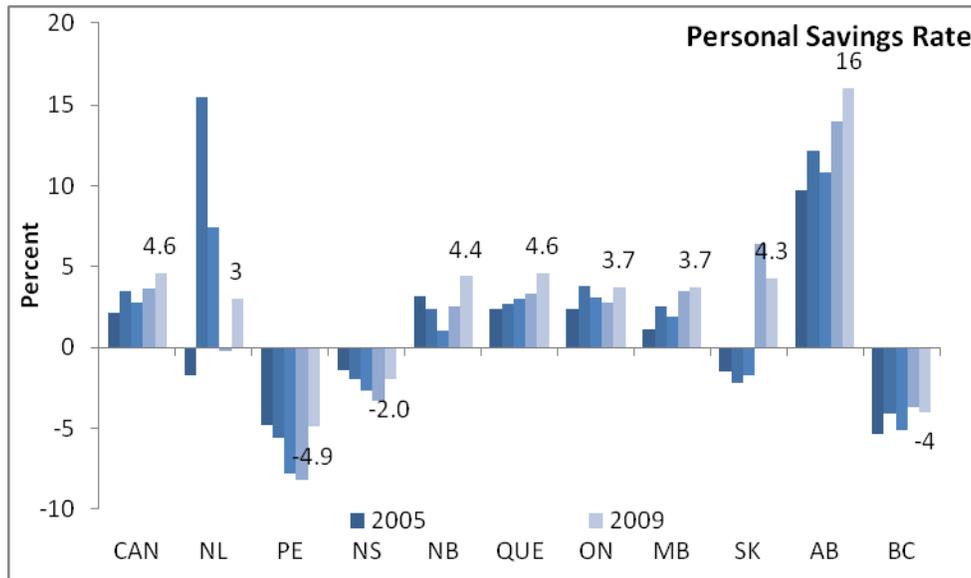
Net investment in capital stock

<i>Indicator</i>	Investment less depreciation for non-residential capital stock
<i>Source of Data</i>	Flows and stocks of fixed non-residential capital, Statistics Canada (2009), CANSIM Table 031-0002.
<i>Description of Data</i>	Annual investment in non-residential capital stock minus annual depreciation
<i>Most recent data</i>	2010
<i>Data availability</i>	Annual For all provinces
<i>Rationale for selection</i>	Built capital assets support productive economic and social activities.
<i>What it tells us</i>	Ongoing investment in capital stock is required to maintain old stock and build new stock. Levels above zero imply that new capital stock is being built to meet ongoing and emerging needs. Low investment levels imply that, not only is little new stock being built, but that maintenance is being deferred on existing stock.
<i>Performance</i>	 Level: Below Canadian average. Rank: 10 th among Canadian provinces (2009, 2010, and 2008-10 average) Trend: Slight improvements (recovery) in 2009 and 2010 from 2008 levels.



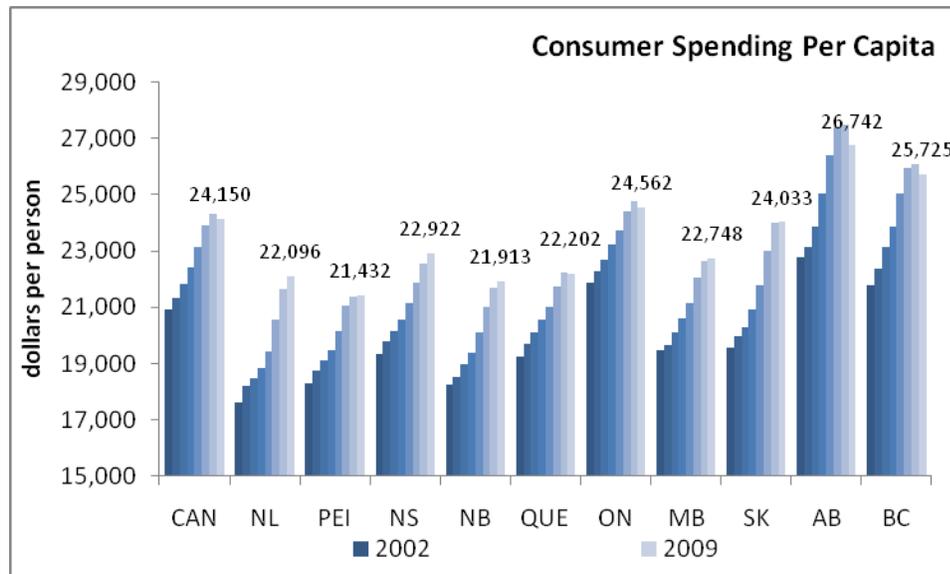
Personal savings

<i>Indicator</i>	Rate of personal savings
<i>Source of Data</i>	Selected economic indicators, provincial economic accounts, Statistics Canada (2008), CANSIM Table 384-0013
<i>Description of Data</i>	Income minus expenditures
<i>Most recent data</i>	2009
<i>Data availability</i>	Annual For all provinces
<i>Rationale for selection</i>	Savings rates are used as a proxy for personal debt
<i>What it tells us</i>	This indicator measures the combined impact of debt-based personal expenditures and an increasing percentage of retirees in the population, who are spending investment income. These both potentially have an impact on personal funds available for investment.
<i>Performance</i>	 Level: Personal savings rate is -2.0% (2009) Rank: 8 th among provinces, well below the Canadian average of 4.6% Trend: Improving since 2008, and better than the 5-year average of -2.3%



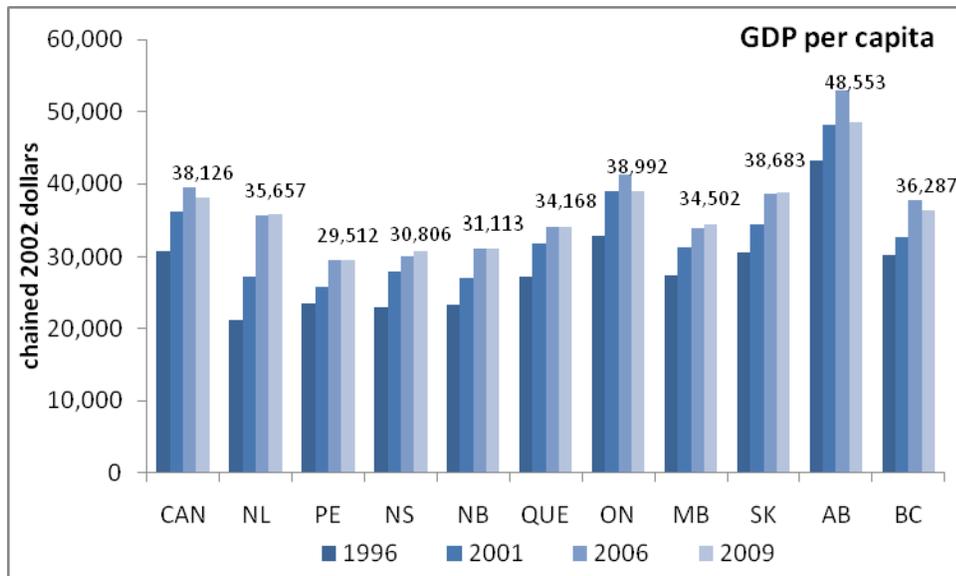
Consumer Spending

<i>Indicator</i>	Consumer Spending per capita
<i>Source of Data</i>	Provincial Economic Accounts, Expenditure Based GDP (Chained \$2002) CANSIM Table 384-0013 Estimates of population, annual, Statistics Canada (2010), CANSIM Table 051-0001.
<i>Description of Data</i>	Consumer spending is one part of the composition of provincial Gross Domestic Product. Data is collected and reported on an annual basis from all Provinces.
<i>Most recent data</i>	2009
<i>Data availability</i>	Annual For all provinces
<i>Rationale for selection</i>	As a comparator to the Personal Savings Rate indicator, consumer spending trends indicate how quickly personal expenditures rebound from recessions and grow provincial GDP. It also indicates the relationship between provincial GDP per capita and its flow through to consumer spending.
<i>What it tells us</i>	Nova Scotia's fifth ranked in terms of consumer spending per capita, behind Alberta, BC, Ontario and Saskatchewan, and while the Canadian figure dipped overall in 2009, NS had the second-highest increase behind NL.
<i>Performance</i>	 <p>Level: Consumer spending per capita is \$22,922, below the Canadian average of \$24,150. Rank: 5th in the country. Trend: Increasing. 2008-09 growth was 2nd highest in the country at 1.7%</p>



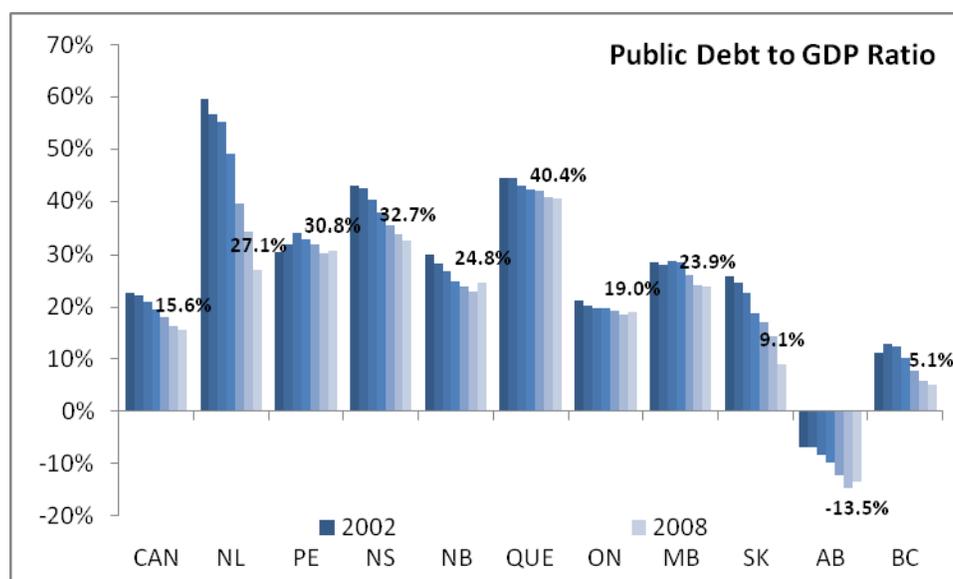
Gross Domestic Product

<i>Indicator</i>	GDP per capita
<i>Source of Data</i>	Annual Gross domestic product (GDP) (chained), expenditure-based, provincial economic accounts, Statistics Canada (2008), CANSIM Table 384-0002. Estimates of population, annual, Statistics Canada (2009) CANSIM Table 051-0001.
<i>Description of Data</i>	Represents the rate of growth entire annual economic output of the province
<i>Most recent data</i>	2009
<i>Data availability</i>	Annual For all provinces
<i>Rationale for selection</i>	A well-known measure of economic output
<i>What it tells us</i>	The cumulative and interconnected inputs from the five capitals support economic output, which in a sustainable economy, are reinvested to maintain and enhance the five capitals. Economic growth also provides increased tax revenue to pay down public debt.
<i>Performance</i>	 Nova Scotia has maintained GDP growth during the global economic downturn Level: \$30,806, below Canadian average of \$38,126 Rank: 9 th among provinces. Trend: Generally improving. Nova Scotia had the best growth in GDP/capita from 2008-09.



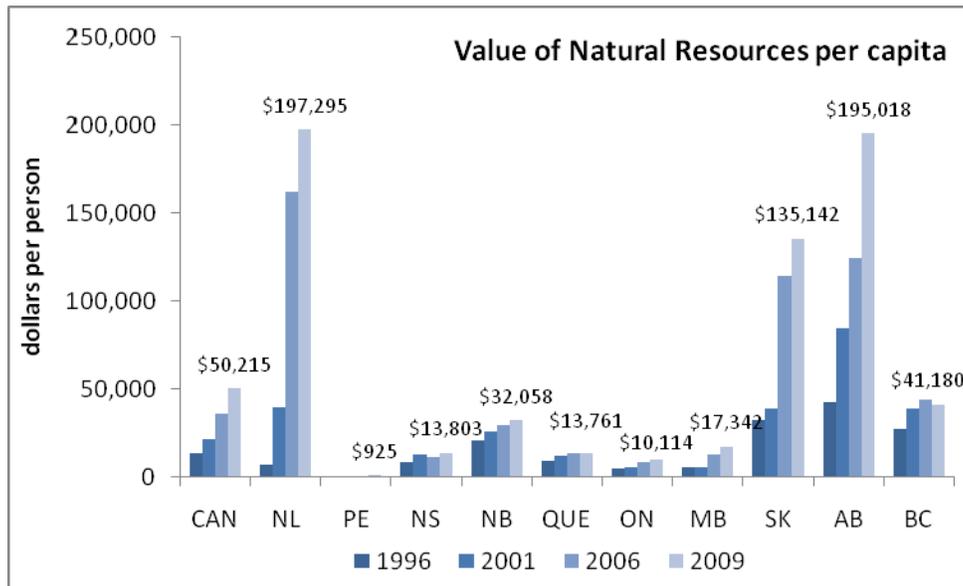
Government debt

<i>Indicator</i>	Public debt per unit of GDP
<i>Source of Data</i>	Net financial debt, Balance sheet of federal, provincial and territorial general and local governments, annual, Statistics Canada (2008) CANSIM Table 385-0014. Gross domestic product (GDP), expenditure-based, provincial economic accounts, Statistics Canada (2008), CANSIM Table 384-0002.
<i>Description of Data</i>	Net financial debt divided by GDP
<i>Most recent data</i>	2008 (Data source will be discontinued and recast in 2012 to be standardized as by the IMF)
<i>Data availability</i>	Annual For all provinces
<i>Rationale for selection</i>	High levels of debt reduce government funds available for investment in the capitals and may lead to in reduced programs and services, increased taxes and higher borrowing costs for the province.
<i>What it tells us</i>	Nova Scotia's level of public debt remains problematic, especially in light of an aging population and increasing health care costs.
<i>Performance</i>	 Level: More than double the Canadian average Rank: Second last in the country, ahead of Quebec Trend: Improving, though moderately.



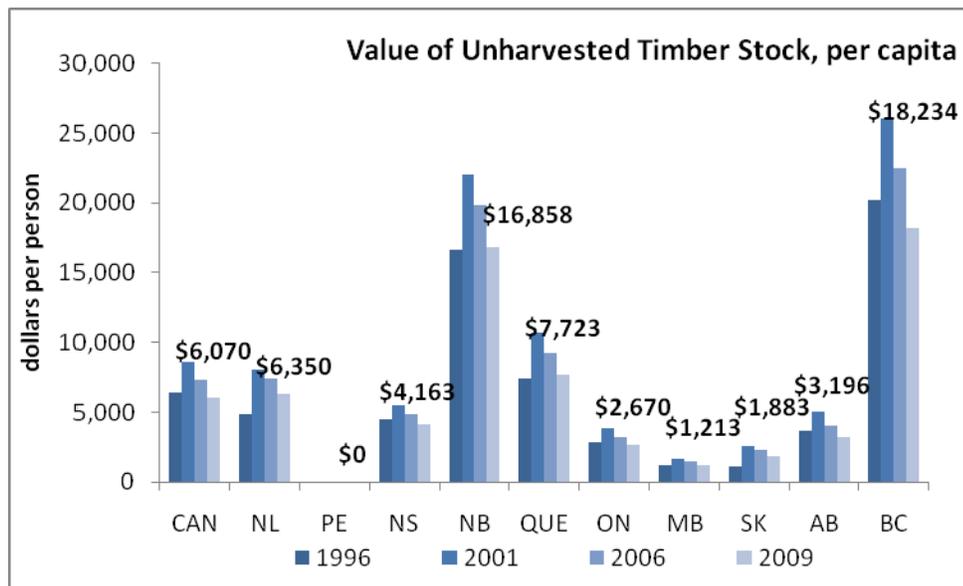
Value of natural resources

<i>Indicator</i>	Value per capital of unharvested stock (timber, oil, gas and minerals)
<i>Source of Data</i>	Value of Natural Resources per Capita (2008) Statistics Canada, compiled by Canadian Centre for the Study of Living Standards, Canadian Index of Economic Well-being, 2009.
<i>Description of Data</i>	Compiled dollar value of timber stocks, known oil and gas reserves and unmined minerals
<i>Most recent data</i>	2009
<i>Data availability</i>	Annual For all provinces
<i>Rationale for selection</i>	Natural resources are a major input into GDP growth in Canada. When comparing economic performance, it is important to consider the value of the province's natural resources.
<i>What it tells us</i>	Nova Scotia has relatively low levels of natural resource wealth (in timber, oil and gas and minerals) compared to Canada as a whole.
<i>Performance</i>	 Level: \$13,803 per person, below the Canadian average of \$50,215/person Rank: 7 th among provinces, ahead of populous provinces Quebec and Ontario, and last place PEI. Trend: Generally increasing, though ten-year growth is 6 th ranked among provinces.



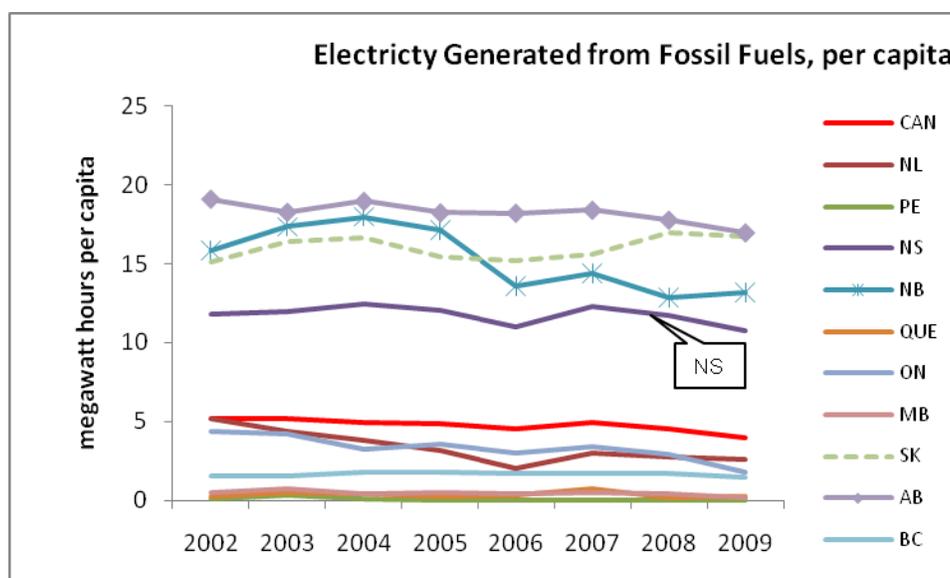
Value of Renewable resources

<i>Indicator</i>	Value of Unharvested timber stock, per capita
<i>Source of Data</i>	Value of Natural Resources per Capita (2008) Statistics Canada, compiled by Canadian Centre for the Study of Living Standards, Canadian Index of Economic Well-being, 2009. Population, Statistics Canada CANSIM Table 051-0004
<i>Description of Data</i>	Compiled dollar value of timber stocks per capita
<i>Most recent data</i>	2009
<i>Data availability</i>	Annual For all provinces
<i>Rationale for selection</i>	Value of Renewable resources adds some context as to the renewable content in the previous slide: Value of Unharvested Resources, which includes minerals and oil and gas. Value of unharvested renewables per capita gives an indication of the health of the renewables (in this case, only timber) sector over time.
<i>What it tells us</i>	From 1995-2009, all provinces have been on the decline. Nova Scotia's rate of decline is 3 rd best (at -20.5%) out of nine provinces. Alberta's has declined 35.7%. Level indicator is "sunny" due to slower rate of decline than most of the country.
<i>Performance</i>	 Level: Nova Scotia's level is \$4,163 per person, currently below the national average (\$6,070) Rank: Nova Scotia is ranked 5 th out of nine provinces (PEI excluded), ahead of AB (#6), ON, SK, and MB (#9) Trend: Nova Scotia has seen an upward trend since 1995 to a peak of \$5,745 per person in 2004 and has been declining since then, to a level comparable to between 1995 – 1996.



Electricity generated from fossil fuels

<i>Indicator</i>	Electricity generated from fossil fuels per capita
<i>Source of Data</i>	Electricity generated from fossil fuels, annual (gigawatt hours), Statistics Canada (2008), CANSIM Table 128-0014. Estimates of population, annual, Statistics Canada (2009), CANSIM Table 051-0001.
<i>Description of Data</i>	Based on Electric Power Thermal Generating Station Fuel Consumption divided by population
<i>Most recent data</i>	2009
<i>Data availability</i>	Annual All provinces
<i>Rationale for selection</i>	Electricity generation represents an unusually high portion of total per capital fossil fuel usage in Nova Scotia compared to most other provinces. Monitoring this indicator will capture the impact of efforts to develop renewable sources of energy for electrical generation and improve efficiency of energy use. Reduced use of fossil fuel will help protect electricity consumers from oil price shocks and contribute to reduced air pollution and greenhouse gas reduction.
<i>What it tells us</i>	Electricity generation in Nova Scotia dipped in 2006 as a result of the temporary Stora closure in Port Hawkesbury. Overall usage declined between 2007 and 2008.
<i>Performance</i>	 Level: More than twice the Canadian average. Rank: Nova Scotia is 4 th highest in the country, better than New Brunswick (#3), Saskatchewan (#2), and Alberta (#1). Trend: Heavy reliance on fossil fuels to date has limited Nova Scotia to only modest improvements.



Energy Productivity

<i>Indicator</i>	Energy Productivity
<i>Source of Data</i>	Total primary and secondary demand (in terajoules), Statistics Canada CANSIM Table 128-0009 Gross Domestic Product, expenditure based -- CANSIM Table 384-0002 (Prices in chained 2002 dollars)
<i>Description of Data</i>	The summation of the usage in mining and oil and gas extraction, manufacturing, forestry, construction, transportation, agriculture, residential, public administration and commercial and other institutional.
<i>Most recent data</i>	2009
<i>Data availability</i>	Annual All provinces
<i>Rationale for selection</i>	Energy productivity measures the degree to which the economy is reliant on energy, or the relative energy efficiency of the economy (in terms of total demanded energy, primary and secondary, in all sectors). Higher GDP/terajoule figures indicate higher energy productivity. 2005 is the baseline year for Federal Climate Change reduction goals, for which energy productivity will be a key driver.
<i>What it tells us</i>	Nova Scotia is middle of the road compared with other provinces in energy efficiency, and appears to be on an improving trend.
<i>Performance</i>	 Level: \$180,000 per terajoule, four per cent higher than the Canadian average. Rank: 5 th among provinces Trend: Improving. Growth rate (05-09) leads the country and is above the Canadian average.

