

## Dinner in Honour of CSLS Chair Ian Stewart



Photo by Yousuf Karsh

Ian Stewart

On September 16, 2011, the Centre for the Study of Living Standards (CSLS) will host a dinner to honour Ian Stewart, CSLS chair since 1995, on the occasion of his 80<sup>th</sup> birthday. A distinguished public servant, Ian was at the centre of economic policy making in this country in the second half of the 1970s and early 1980s.

Speakers at the dinner will include Ed Clark, CEO and President of TD Bank, John Helliwell, Professor Emeritus of Economics at the University of British Columbia, Marc Lalonde, former Minister of Finance, Alan Nymark, former Deputy Minister of Environment Canada and HRSDC and Mike McCracken, CEO of Informetrica Inc.

All persons who knew Ian in any capacity are invited to the dinner, which will take place at the Chateau Laurier Hotel in Ottawa. The cost is \$90 per person, which includes HST and a copy of the festschrift volume. Tickets can be purchased on-line until September 14 at <http://www.csls.ca/specialpayment.asp>.

### Festschrift Volume to be Presented at Dinner

At the dinner a festschrift volume, *New Directions for Intelligent Government in Canada: Papers in Honour of Ian Stewart*, will be presented to Ian.

Edited by Fred Gorbet and Andrew Sharpe and published by the Centre for the Study of Living Standards, the volume contains articles by leading Canadian economists on specific public policy issues and the role of an intelligent government in addressing them.

The theme of the volume is that Canada needs 'more intelligent government,' that is a government that recognizes there is a legitimate role for the state in social and economic policy and focuses on how to best play that role in a way that is effective without stifling innovation, creativity and private initiative. Whether it is government programming or regulation, the role that governments play should

Continued on page 2

### CSLS welcomes two new board members

The CSLS is pleased to announce the appointment of two new members to its Board of Directors: well known economists Fred Gorbet and Chris Ragan.

Continued on page 2

---

Continued from page 1

be informed by solid analysis. In his work as a public servant Ian Stewart brought this analytical focus to the role of the state.

Contributors to the volume are Robin Boadway, Scott Clark, David Dodge, Don Drummond, Pierre Fortin, John Helliwell, Lars Osberg, Chris Ragan, John Richards, Munir Sheikh, Stan Winer, and Michael Wolfson. The table of contents of the volume is found on page 23.

Hard copies can be purchased effective September 16 online at [www.csls.ca/festschriftpurchase.asp](http://www.csls.ca/festschriftpurchase.asp) for \$20 (including HST, handling and postage). The full text of all articles is also available for free download at [www.csls.ca/stewartfestschrift.asp](http://www.csls.ca/stewartfestschrift.asp).



---

Fred Gorbet



---

Chris Ragan

---

Continued from page 1

Fred Gorbet enjoyed a distinguished career in the federal government culminating in his appointment to the position of Deputy of Minister of Finance (1988-1992). He is currently Associate Director of the Financial Services Program at the Schulich School of Business at York University as well as serving on a number of corporate boards. He is Chair of the Board of ASSURIS, Vice Chair of Covenant House Toronto, a Director of LAWPRO, and a Trustee of the North American Electric Reliability Council. He is also Vice Chair of the Government of Canada Audit Committee and is currently appointed by the Government of Ontario as Chair of the Steering Committee of the Task Force on Auto Insurance Fraud in Ontario. He was appointed to the Order of Canada in 2000.

Chris Ragan is Associate Professor of Economics at McGill University and has taught there since 1989. He also holds the David Dodge Chair in Monetary Policy at the C.D. Howe Institute. Since 1995 he has been the co-author (with Richard Lipsey) of the popular introductory economics textbook *Economics*. In 2004-05 he was Special Advisor to the Governor of the Bank of Canada and in 2009-10 he served as Clifford Clark Visiting Economist at Finance Canada. From 2009 to 2011 he was President of the Ottawa Economics Association.

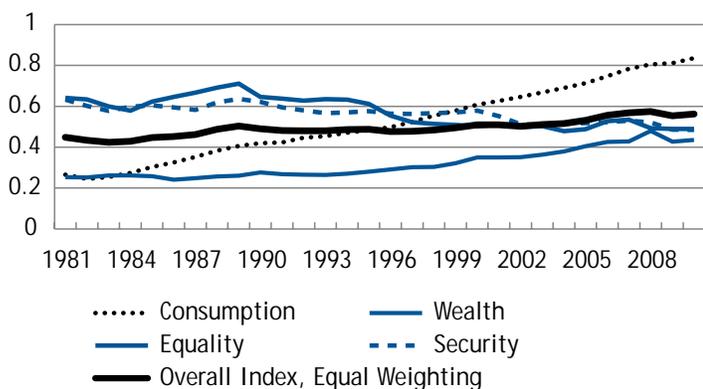
---

See [www.csls.ca/board.asp](http://www.csls.ca/board.asp) for more information on CSLS board members.

# CSLS Projects on the Measurement of Well-being

One of the four CSLS research areas is the measurement of well-being. This is an exciting field as it is now widely recognized that conventional measures of economic and social progress such as GDP must be supplanted by new broader-based metrics. In addition to its own original research, the CSLS partners with a number of other organizations in the development of new measures of well-being.

**Chart 1**  
Trends in the Components of the Index of Economic Well-being, Canada, 1981-2010



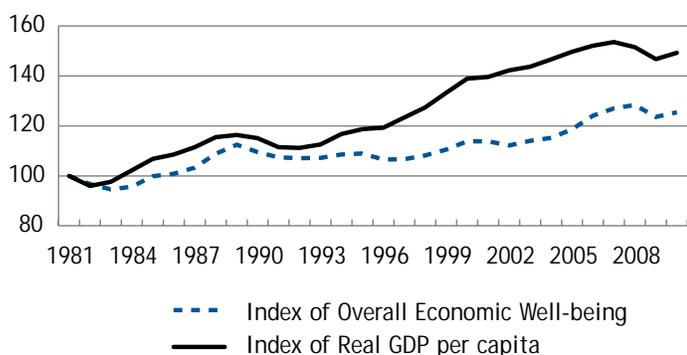
## Index of Economic Well-being

The main contribution of the CSLS to well-being measurement has been the Index of Economic Well-being. Developed by Lars Osberg and Andrew Sharpe in the late 1990s, the Index or IEWB is now well known throughout the world.

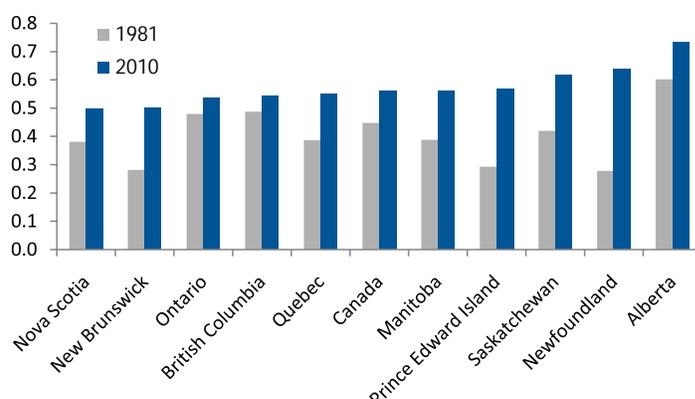
The most recent estimates for OECD countries to 2009 were released on August 26 in Dublin, Ireland at the 58th World Statistical Congress in an invited paper session on well-being measures. Updated estimates for Canada and the provinces to 2010 were released on September 1, 2011.

Continued on page 4

**Chart 2**  
Trends in the Overall Index of Economic Well-being and GDP per capita, Canada, 1981-2010 (1981=100)



**Chart 3**  
Overall Index of Economic Well-being, Equal Weighting, Canada, 1981 and 2010



Continued from page 3

## Highlights of the New Estimates

The Index of Economic Well-being (IEWB) for Canada has fallen since 2008. The overall, equally weighted index fell 3.7 per cent in 2009 due to the recession, and advanced only 1.4 per cent in 2010, indicating that the level of economic well being in 2010 was still 2.3 per cent below that of 2008 (Chart 1). Indeed, all components of the IEWB except consumption were lower in 2010 than 2008.

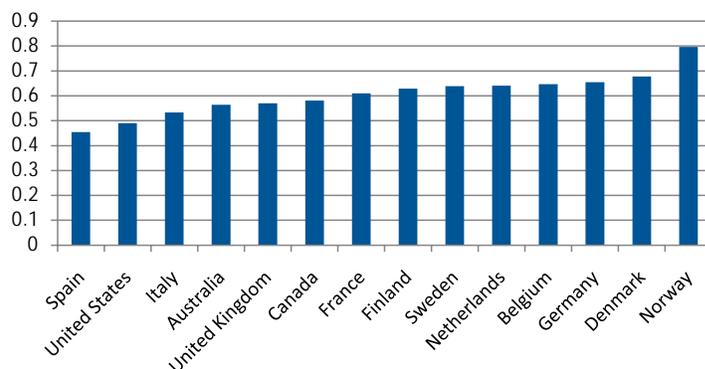
Chart 2 compares trends in the IEWB and GDP per capita. The IEWB has grown considerably slower than GDP per capita since 1981, up 25.4 per cent versus 49.3 per cent by 2010. Both measures are cyclical, declining in 2009 and rebounding slightly in 2010.

Just as in 2008, Alberta and Newfoundland had the first and second highest IEWB scores among the Canadian provinces in 2010 (Chart 3). While many provinces showed no change from their relative rank in 2008, Quebec moved up from last place in 2008 to 6<sup>th</sup> place in 2010 and Nova Scotia fell from 6<sup>th</sup> place in 2008 to last place in 2010. In addition, Prince Edward Island and Manitoba moved from below to above the national average between 2008 and 2010.

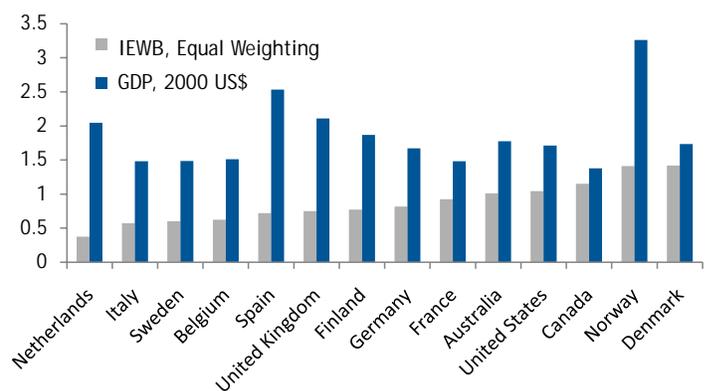
The newly updated IEWB estimates for OECD countries, which differ slightly from those for Canada and the provinces because of greater data limitations, reveal that Norway has maintained the top position in terms of economic well-being of the fourteen countries for which data are available (Chart 4). Just as in 2007, Canada sits in ninth place, while Spain and the United States have the lowest IEWB scores of the group.

In terms of trends in the IEWB over the 1980-2009 period, Canada enjoyed the third fastest growth rate among the 14 OECD countries, behind Denmark and Norway (Chart 5). The Netherlands had the poorest IEWB growth performance. In all countries, growth in the IEWB trailed that of GDP per capita.

**Chart 4**  
Index of Economic Well-being for OECD Countries, Equal Weighting, 2009



**Chart 5**  
Average Annual Growth of the Overall IEWB and GDP per capita for OECD Countries, 1980-2009 (per cent per year)



A detailed report on trends in the IEWB for Canada and the provinces for the 1981-2010 period is found at [www.csls.ca/reports/csls2011-11.pdf](http://www.csls.ca/reports/csls2011-11.pdf). A detailed report on trends in the IEWB for OECD countries for the 1980-2009 period can be found at [www.csls.ca/reports/csls2011-12.pdf](http://www.csls.ca/reports/csls2011-12.pdf).

The IEWB database for OECD countries is available at [www.csls.ca/iwb/oecd.asp](http://www.csls.ca/iwb/oecd.asp).

The IEWB database for Canada and the provinces is available at [www.csls.ca/iwb/prov.asp](http://www.csls.ca/iwb/prov.asp).

### Measuring Economic Insecurity in both Poor and Rich Countries

The economic security component of the Index of Economic Well-being, which is based on the four named risks (financial risk from unemployment, single parent poverty, poverty in old age, and illness) put forward in the 1948 United Nations Declaration of Human Rights, is the most developed aspect of the overall Index. This approach has been applied to developed countries in the current version of the IEWB for OECD countries. But it also can serve as a framework for quantifying economic security in developing countries. The CSLS is currently preparing a paper that extends the IEWB approach to economic security to poor countries. It will be presented at the IARIW-OECD Conference on Economic Security: Measurement, Trends, and Policy Implications that will be held November 22-23, 2011 at the OECD Conference Centre in Paris.

### The Weighting Issues in Composite Indicators: The Experience of the IEWB

The IEWB weights its four components equally. This weighting scheme was adopted after the IEWB was criticized for having a bias against sustainability for giving wealth stocks a weight of 0.1. In its reports on the IEWB, the CSLS conducts a sensitivity analysis of the results to alternative weighting schemes. It also encour-

### Components of the Index of Economic Well-being

The IEWB is a composite index designed to capture trends in the economic well-being of individuals by measuring their ability to command economic resources both today and in the future. The IEWB is composed of four dimensions or components: consumption, wealth, economic inequality, and economic security. The consumption component consists of private and public consumption (including unpaid work), with adjustments made for changes in household size, life expectancy, regrettables, and hours worked. The wealth dimension includes the residential and non-residential capital stock, the R&D capital stock, natural resources, human capital, net international debt and the cost of environmental degradation. Economic inequality combines a measure of income distribution (the Gini coefficient) and overall poverty intensity (the poverty rate and gap). Economic security is based on the risks related to unemployment, single-parent poverty, poverty in old age and illness.

ages users of the IEWB to test the sensitivity of the results based on their preferred weights to other weighting structures. A webtool is available on the CSLS website to conduct such a sensitivity analysis for the four components of the Index at [www.csls.ca/iwbtool.asp](http://www.csls.ca/iwbtool.asp).

The CSLS has released a technical report on the weighting issue in composite indicators based on the experience of the Index of Economic Well-being. The paper was prepared for a session on this topic that took place at the 58<sup>th</sup> World Statistical Congress in Dublin, Ireland in August. The report reviews and applies to the IEWB a range of weighting techniques for composite indicators. It concludes that in the absence of surveys of the societal values underlying the dimensions of well-being to be weighted, an

equal weighting methodology is the most appropriate. While such a weighting scheme is not optimal from the point of view of all criteria, it is by far the least objectionable and the most transparent.

---

The report is posted at [www.csls.ca/reports/csls2011-13.pdf](http://www.csls.ca/reports/csls2011-13.pdf).

## Sensitivity of the IEWB Estimates for Canada to the Choice of Poverty Measure

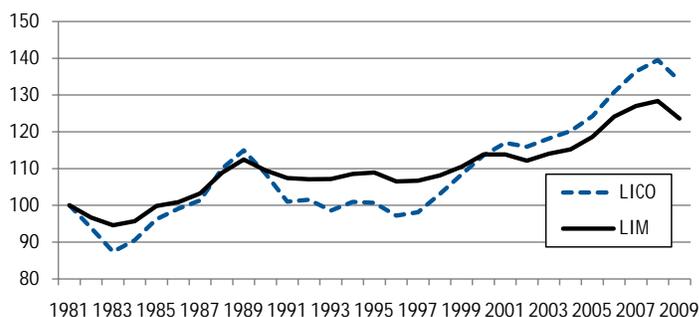
It is well known that a number of methodologies are employed to measure poverty. As poverty rates and gaps figure prominently in the economic inequality and economic security components of the Index of Economic Well-being, it is important to test the sensitivity of the results to the choice of poverty measure. The CSLS has recently released a research note on this issue.

The IEWB for Canada and the provinces uses the Low Income Measure (LIM), which is defined as the proportion of households with income below half of median family income after adjusting for household size. The other poverty measure is the Low Income Cut-Off (LICO), which is an income threshold currently based on 1992 consumption patterns. The LICO indicates the income level below which a family is likely to spend a significantly higher proportion of its income on food, shelter and clothing than the average family, resulting in little discretionary income or savings and therefore often difficult financial circumstances.

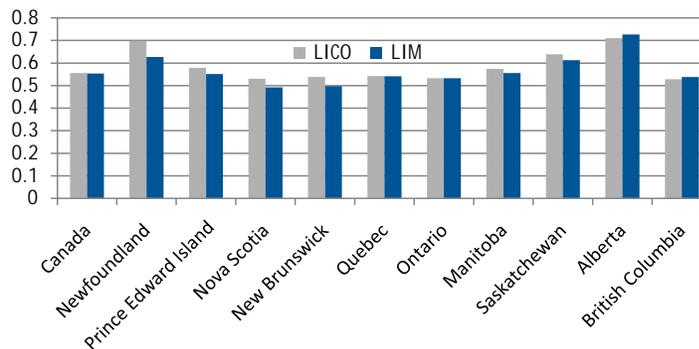
These two measures of low income, one relative (LIM) and one absolute (LICO), capture different aspects of poverty and can differ both over time and over space. In 2009, the most recent year for which estimates are available, the after-tax LICO poverty rate for all persons in Canada was 9.6 per cent, substantially lower than the 13.3 per cent for the LIM. Over the 1981-2009 period, the trends in the two poverty rates have differed significantly, with the LICO falling 17.2 per cent and the LIM increasing 10.8 per cent. Rising real income has no effect on relative poverty if there is no change in the income distribution, but it does reduce absolute poverty assuming the poor receive some benefits of this overall rise. There were also significant divergences between the LICO and the LIM in certain provinces, with the largest gap found in Nova Scotia (8 per cent versus 16.9 per cent, respectively, in 2009).

These differences have implications both for trends in the IEWB for Canada and for the rela-

**Chart 6**  
Trend in Overall Index of Economic Well-being, Sensitivity Analysis: LICO vs LIM, Canada, 1981-2009 (1981=100)



**Chart 7**  
Overall Index of Economic Well-being, Sensitivity Analysis: LICO vs LIM, Canada and the Provinces, 2009



tive provincial values of the IEWB. Chart 6 shows that switching from the LIM to the LICO poverty measure raises the increase in the IEWB in Canada over the 1981-2009 period from 24 per cent to 34 per cent (note that 2009 is used as 2010 poverty rates are projections, not actual values). The provincial rankings are also affected by employing the LICO instead of the LIM (Chart 7). For example, British Columbia's provincial IEWB ranking in 2009 based on the LIM was seventh place, but based on the LICO it is in last place in 2009.

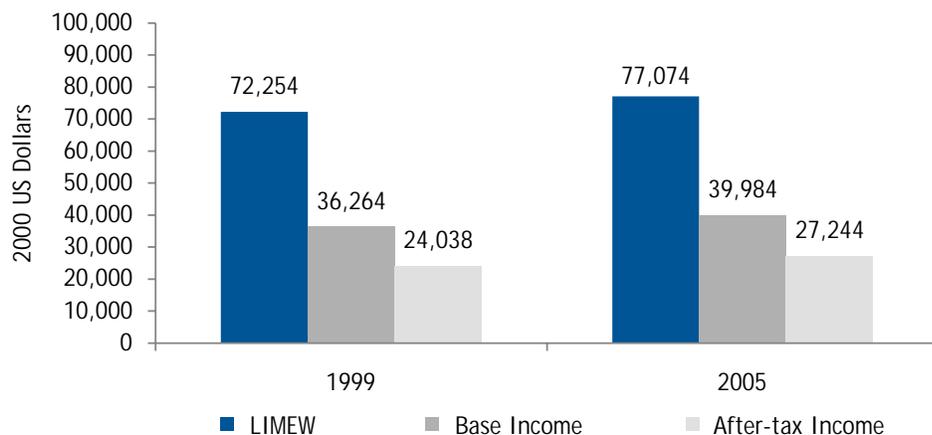
This research note is posted at [www.csls.ca/notes/Note2011-3.pdf](http://www.csls.ca/notes/Note2011-3.pdf).

## Estimates of the Levy Institute Measure of Economic Well-being for Canada (LIMEW)

The Levy Institute Measure of Economic Well-being (LIMEW) is a comprehensive household-level measure of command over resources developed at the Levy Institute of Bard College in New York state. Working with economists at the Levy Institute, the CSLS has constructed LIMEW estimates for Canada for 1999 and 2005. The results were released in a report on August 29, 2011.

The Levy Institute Measure of Economic Well-being (LIMEW) consists of four components. The first component, base income, is the sum of wages, salaries, self-employment income, fringe benefits and interpersonal transfers (e.g. child support). Income from property (e.g. dividends and rent received) is not included. The second component, income from wealth, captures the value generated by the primary residence and non-home assets. The third component is net government expenditure, which consists of three subcomponents: government cash transfers to households, taxes paid by households, and public consumption. Public consumption is the value of goods and services consumed by government on behalf of households. The final component, the value of household production, is evaluated using time-use data. The sum of the four components – base income, income from wealth, net government expenditure, and household production – is the total LIMEW.

Comparison of LIMEW and Other Income Measures, Canada, 1999 and 2005



Note: After-tax income = base income + government transfers - taxes

The CSLS report details the complex process of estimating the LIMEW for a representative sample of Canadian households in 1999 and 2005. It reports that mean LIMEW showed only modest growth (1.08 per cent per year) in the average Canadian household's total command over economic resources from 1999 to 2005. Median LIMEW grew even slower, at just 0.66 per cent per year. It also finds that inequality increased in Canada over this period.

Contrasting these Canadian LIMEW results with comparable estimates for the United States indicates that Americans have a slightly greater command over economic resources than their Canadian peers in both 1999 and 2005. The median LIMEW of the United States in 2000 was 9.7 per cent higher than Canada's 1999 estimate and

its 2004 estimate was 8.6 per cent higher than Canada's 2005 estimate.

In addition, this report makes it clear that conventional income measures that omit household production, public consumption and income from wealth overstate both the growth rate of economic well-being over the 1999 to 2005 period and the inequality in the distribution of households' command over resources, while also understating the level of a household's command over resources. Thus, this report clearly illustrates the usefulness of more comprehensive measures of well-being, such as the LIMEW, in accurately assessing the state of a nation's economic well-being.

The full report can be found at [www.csls.ca/reports/csls2011-09.pdf](http://www.csls.ca/reports/csls2011-09.pdf).

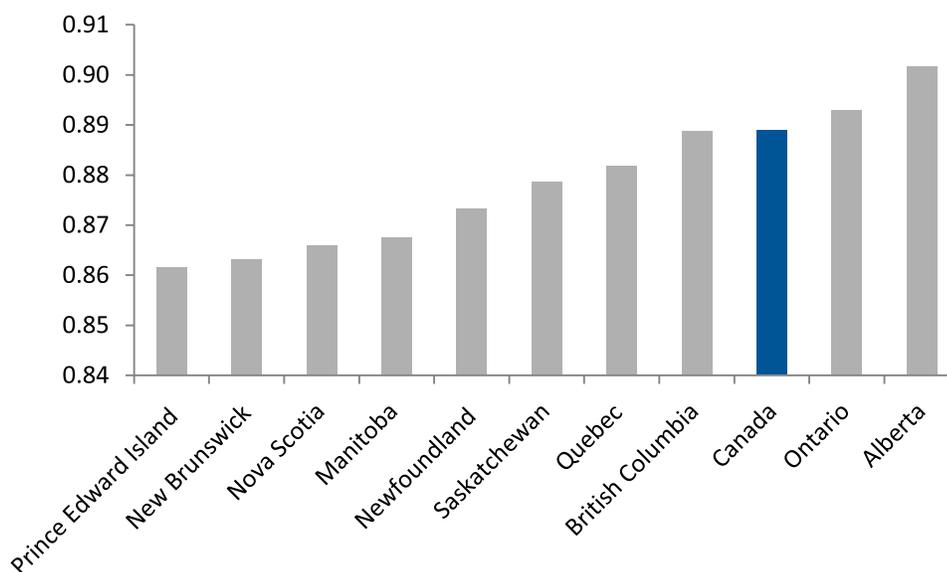
## Estimates of the Human Development Index for the Canadian Provinces

The Human Development Index (HDI) is a measure of socio-economic well-being developed by the United Nations Development program that is internationally recognized and understood. It is a composite index composed of three dimensions: life expectancy, education and income. Although the HDI is by no means a comprehensive measure of human development, nor is it as sophisticated a measure as the IEWB, it is a simple but substantial improvement over the standard income-based metrics of this concept.

Canada falls into an impressive eighth place in the international Human Development Index rankings of the 2010 Human Development Report (HDR). However, this ranking hides regional variation among the Canadian provinces. In “The Human Development Index in Canada: Estimates for the Canadian Provinces, 1990-2010” by Elspeth Hazell, internationally comparable estimates of the 2010 HDI are developed for the Canadian provinces.

The provincial HDI estimates indicate that Alberta has the highest level of human development, mainly due to its high GNI per capita, while Prince Edward Island has the lowest. In terms of growth in HDI over the 1990 to 2010 period, most provinces experienced growth of around 0.2 to 0.3 per cent

Human Development Index, Canada and the Provinces, 2010



per year, with the notable exception of Newfoundland and Labrador. Indeed, from 1990 to 2010, Newfoundland and Labrador’s HDI grew the fastest of all provinces at 0.42 per cent per year, moving it up from tenth to sixth place in the provincial HDI rankings by 2010.

Comparing the provinces’ internationally comparable HDI scores to the international rankings in the 2010 HDR indicates that despite regional variation, human development is high by international standards in all provinces. Of the 169 countries in the 2010 HDR

rankings, Canada’s provinces rank between fourth and 21st place. The top ranking provinces (Alberta and Ontario) have human development levels comparable to the United States, while lower ranking provinces (P.E.I. and New Brunswick) are on par with Spain and Hong Kong.

The full report will be available in September at [www.csls.ca/reports/csls2011-14.pdf](http://www.csls.ca/reports/csls2011-14.pdf).

### CSLS Research on Happiness

In addition to its work on objective measures of well-being, the CSLS has also a number of projects on subjective well-being, commonly called happiness.

#### Happiness in the Spotlight at Ottawa Conference

On December 1, 2010, at the Chateau Laurier Hotel in Ottawa, CSLS and the Institute for Competitiveness & Prosperity (ICP) organized a conference on happiness and its implications for public policy. The conference took place immediately following the announcement on November 25 by British Prime Minister David Cameron of the intention of the UK Government to measure happiness on a regular basis and to make happiness a goal of public policy.

The conference began with John Helliwell giving an overview of his recent research which demonstrates that across and within a large number of countries the same factors explain happiness. He argued that this is strong evidence in support of the universality of happiness and it gives policy makers a clear understanding of what factors they can focus on to improve overall well-being.

Andrew Sharpe and David Gyarmati also advocated the use of happiness in public policy, arguing that finding reliable empirical estimates is central to this process. Aileen Simkins, from the U.K. Office of National Statistics, discussed the United Kingdom's active pursuit of the inclusion of SWB in public policy, Sue Johnson discussed the need for governments

in Canada to support stable and healthy relationships, and Patrick Dion gave an overview of how mental health policy in Canada is being transformed to improve the mental health, and therefore the happiness, of Canadians.

In addition, Dan Sacks provided evidence that there is a strong link between income and happiness at all levels of analysis, and Jason Rentfrow discussed the asymmetric geographical distribution of neuroticism and its effect on regional levels of happiness.

On the other side of the debate, Don Drummond, Alan Nymark, and Mel Cappe argued for caution. They all presented arguments that happiness is not yet ready for use in public policy, highlighting the need for a more robust framework before it can play a major role.

---

A synthesis of the presentations is available at [www.csls.ca/notes/Note2011-1.pdf](http://www.csls.ca/notes/Note2011-1.pdf).

#### Determinants of Happiness in Canada

As background for the December 2010 conference on happiness and public policy, the CSLS prepared a comprehensive report entitled "Does Money Matter? Determinants of the Happiness of Canadians." The study found that the most important factors for hap-

piness were mental health, physical health, sense of community belonging, and stress. Using data from the Canadian Community Health survey for 2007-2008, the report provided estimates of the average life satisfaction of Canadians, on a scale from 1 to 5, at the national and provincial level, and for 34 Census Metropolitan Areas (CMAs) and 104 health regions. Based on the coefficients derived from the econometric analysis of the determinants of happiness at the national level, the study explained the differences in average happiness between the national average and different geographical units. The study received extensive media attention.

---

This report is available at [www.csls.ca/reports/csls2010-09.pdf](http://www.csls.ca/reports/csls2010-09.pdf).

#### Inequality of Happiness

The average level of the happiness of Canadians can be associated with different distributions of the happiness at the individual level. The population may be concentrated around the mean, or dispersed widely from the mean, as captured by the variance of the distribution. In a forthcoming research report, the CSLS provides a detailed analysis of the inequality of happiness in Canada. It finds that the variance of happiness was lower in 2009 than in 2003. These results for Canada are comparable to estimates of happiness inequality in the United States.

---

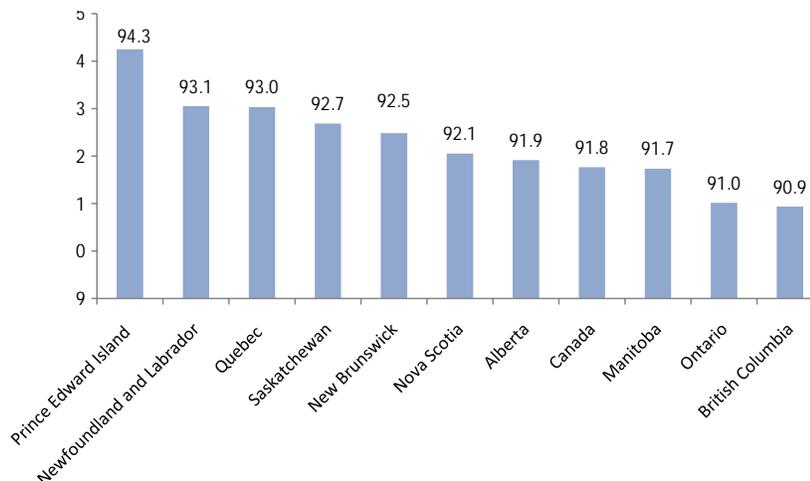
This report will be posted at [www.csls.ca/res\\_reports.asp](http://www.csls.ca/res_reports.asp) this fall.

### A New Database on Estimates of the Life Satisfaction of Canadians

The CSLS recently released a new database on life satisfaction in Canada based on data from Statistics Canada's Canadian Community Health Survey. The database provides estimates for 2003, 2005, 2007, 2008, 2009, and 2010 of the proportion of Canadians 12 and over who report that they are satisfied or very satisfied with their lives at the national and provincial level, and for all CMAs and health regions.

The overall level of life satisfaction in Canada is very high, with on average 91.8 per cent of Canadians aged 12 and older reporting being satisfied or very satisfied with their life over 2003, 2005 and 2007-2010. There was some variation by prov-

**Average Level of Life Satisfaction by Province**  
(per cent of the population 12 and over who reported being satisfied and very satisfied, 2003, 2005, and 2007-2010)



ince, with Prince Edward Island having the highest average level of life satisfaction over this period (94.3 per cent) and British Columbia and Ontario the lowest (90.9 and 91.0 per cent, respectively).

The database can be accessed at [www.csls.ca/data.asp](http://www.csls.ca/data.asp).

### Other CSLS Well-being Activities

The CSLS is involved in a number of other activities related to the measurement of well-being.

#### Community Foundations of Canada Vital Signs Projects

Since 2007 CSLS has provided a research function for the annual *Vital Signs* project organized by Community Foundations of Canada. This project is an annual check-up on the quality of life and vitality of Canadian communities. The CSLS has developed an extensive database of indicators in 10 issue areas (gap between rich and poor, health, safety, getting started, learning, belonging and leadership, housing, work, arts and culture, and environment) that is used in the

preparation of community reports. The CSLS also contributes to a national report. On October 4, 2011, 22 community foundations across the country, ranging in size from large foundations in major centres such as Toronto and Montreal to small foundations in small towns such as Golden, British Columbia, will release *Vital Signs* reports on the state of their community.

Information on *Vital Signs* is available at [www.vitalsignscanada.ca/index-e.cfm](http://www.vitalsignscanada.ca/index-e.cfm). The database is posted at [www.vitalsignscanada.ca/rpt2010/](http://www.vitalsignscanada.ca/rpt2010/).

### The Canadian Index of Wellbeing

The Canadian Index of Wellbeing (CIW) is a project to construct a composite index of well-being for Canada. Originally spearheaded by the Atkinson Charitable Foundation, the CIW is now housed in the Faculty of Applied Health Sciences at the University of Waterloo. The CSLS has been for many years active in this project and has responsibility for the living standards domain. At the initial launch of the CIW in June 2009 a report prepared by the CSLS on trends in living standards in Canada to 2008 was released. A composite index based on all eight CIW domains will be released on October 24, 2011 and an updated report on living standards to 2010 will be released at that time.

---

Information on the CIW is available at [www.ciw.ca](http://www.ciw.ca). The 2009 report on Canadian living standards is posted at [www.csls.ca/reports/csls2009-4.pdf](http://www.csls.ca/reports/csls2009-4.pdf). The updated 2011 living standards report will be posted on October 24, 2011 at [www.csls.ca/res\\_reports.asp](http://www.csls.ca/res_reports.asp).

### The Good Life Time (GLT) Approach of the Measurement of Well-being

Working with Michael Wolfson from the University of Ottawa and Statistics Canada, the CSLS is developing a new approach to the measurement of well-being that focuses on three dimensions of well-being: money or income, health, and leisure. The basic idea is that progress occurs when a greater share of the population have adequate

income, good health and sufficient leisure time, that is Good Life Time (GLT). Based on the time use data from the General Social Survey, income data from SLID and health status data from the CCHS the number of persons who are in one, two or three of these states has been calculated for a number of years. In 2005, it is estimated that 45 per cent of the population aged 12 and over in Canada enjoyed GLT, that is was in all three states. There has been little change in this proportion over time. The CSLS will release a report on the GLT this fall.

### Bertelsmann Foundation Project on Sustainable Governance Indicators

An important aspect of well-being is governance. The CSLS is the Canadian representative on an international project organized by the German Bertelsmann Foundation on the construction of sustainable governance indicators for developed countries. On March 31, 2011, the Bertelsmann Foundation released its second Sustainable Governance Indicators report. The CSLS contributed to the report by preparing an assessment of the quality of the governance institutions in Canada. In terms of the Sustainable Governance Status Index, Canada fell from 6th place in 2009 to 7th place in 2011 (out of 31 countries).

---

More information on the Sustainable Governance Indicators is available at [www.sgi-network.org/index.php](http://www.sgi-network.org/index.php). The report on governance in Canada is available at [www.sgi-network.org/pdf/SGI11\\_Canada.pdf](http://www.sgi-network.org/pdf/SGI11_Canada.pdf).

### Special Issue of *Applied Research in Quality of Life* on New Measures on Well-being

CSLS Executive Director Andrew Sharpe is the guest editor of a special issue of *Applied Research in Quality of Life*, the official journal of the International Society for Quality-of-Life Studies. The topic of the issue is new measures of well-being. With contributions by economists from France, Italy, Israel as well as Canada, the articles discuss not only how progress should be measured and why GDP is not enough for this purpose, but also the alternative indicators and the consequences of using them for measuring economic well-being and progress. The table of contents of the issue is found at the end of the newsletter.

---

Information on the journal is available at [www.springer.com/social+sciences/well-being/journal/11482](http://www.springer.com/social+sciences/well-being/journal/11482)

## CSLS Projects on Productivity

The CSLS is well known for its work in the productivity area. It publishes the *International Productivity Monitor*, develops and maintains productivity databases, conducts productivity studies at the sectoral and regional level, and undertakes research on the drivers of productivity growth.

### **International Productivity Monitor**

The *International Productivity Monitor* is the flagship publication of the Centre for the Study of Living Standards and is distributed electronically and in hard copy to productivity researchers and policy analysts in Canada and throughout the world. Financial support for the publication is provided by Industry Canada. The Spring 2011 issue, released in May, contained articles on European productivity growth, productivity trends in the Canadian transportation equipment industry, provincial productivity developments in Canada, Latin America's productivity performance, and the implications of an ageing population for productivity.

In the Fall 2011 issue, to be released in November, the lead article will be by former TD Bank Chief Economist Don Drummond who will assess the failure to understand Canada's productivity performance and develop policies to improve it. Other articles in the issue will be in the link between innovation and productivity and on manufacturing productivity in Sweden. The table of contents for the Spring 2011 issues and accepted articles for the Fall 2011 issue are listed at the end of the newsletter.

---

The latest issues of the *International Productivity Monitor* can be accessed at [www.csls.ca/ipm.asp](http://www.csls.ca/ipm.asp).

### **CSLS Productivity Databases**

The CSLS has developed and currently maintains a number of productivity databases. The first is on aggregate productivity statistics for Canada and the United States. Annual estimates for both total economy and business sector labour, capital and multifactor productivity, as well as labour and capital input, are provided for the 1947-2010 periods for both countries.

The second database, much more comprehensive than the first, is on labour, capital and multifactor productivity for Canada and the ten provinces broken down by the two-digit, and in some cases the three-digit NAICS level. Current estimates, prepared by Statistics Canada for the CSLS with the financial support of the Government of Alberta, are for the 1997-2007 period. The CSLS is working with Statistics Canada to have the database updated to 2010 by the end of 2011.

The third database is on ICT investment, which provides estimates of ICT investment in real and nominal terms at the two-digit NAICS level for Canada and the United States. The Canadian data currently extend from 1987 to 2010 while the US series runs from 1987 to 2009. The US numbers for 2010 will be updated shortly.

---

The databases are posted at [www.csls.ca/data.asp](http://www.csls.ca/data.asp).

### **Evaluating Major International Productivity Data Sources**

In September, the CSLS will be releasing a report entitled "International Productivity Comparisons: An Evaluation of Data Sources," which evaluates and compares key databases for the analysis of international productivity trends. It takes an in-depth look at the University of Groningen's Groningen Growth and Development Centre (GGDC), the productivity series offered by the US Bureau of Labor Statistics, the OECD's two productivity series, as well as its structural analysis database, and finally the EU KLEMS international productivity database.

The GGDC database is the most comprehensive, covering labour productivity and total factor productivity for 123 countries and 10 major sectors of the economy. Both the OECD and the EU KLEMS databases offer the same information, as well as a more comprehensive industry breakdown, although for fewer countries.

The report also serves as an introduction to key productivity statistics, providing an outline of how they are used to assess productivity trends and make productivity level comparisons between industries and countries.

---

This report will soon be posted at [www.csls.ca/res\\_reports.asp](http://www.csls.ca/res_reports.asp).

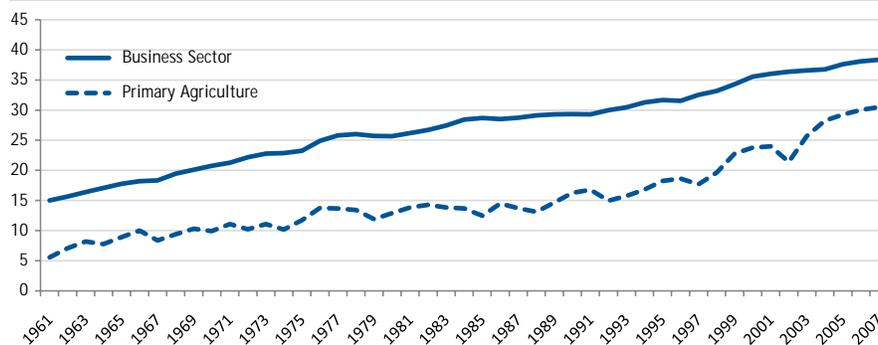
## CSLS Sectoral/Industry and Regional Productivity Studies

### Productivity Growth in Primary Agriculture

In August, 2011 the CSLS released a report that had been prepared for Agriculture Canada entitled “A Detailed Analysis of the Productivity Performance of the Canadian Primary Agriculture Sector” by CSLS economist Ricardo de Avillez. The report developed detailed estimates labour, land, intermediate input and multifactor productivity for the sector.

The key finding of this report is that regardless of whether the value added or gross output approach is used, labour productivity not only grew significantly faster in primary agriculture than in the business sector over the 1961-2007 period, but it also did not experience the dramatic slowdown observed in the business sector after 2000. In addition, when labour productivity is calculated using the value-added approach, the primary agriculture sector accounted for 19.2 per cent of aggregate labour productivity growth in the Canadian business sector during the 1961-2007 period.

Labour Productivity (value added) in the Primary Agriculture Sector, Canada, Chained 2002 Dollars, 1961-2007



An examination of the sources of labour productivity growth in this report highlights the unique nature of this industry. In the value added approach, labour productivity growth in primary agriculture was driven primarily by multifactor productivity and capital intensity growth, while for the business sector, capital intensity and labour quality growth played the most significant roles.

Indeed, the primary agriculture sector outpaced the business sector in capital stock intensity growth as the sector became increasingly mechanized over the 1961-2007 period. Another driver is the robust growth in both private and public expenditure on research

and development related to primary agriculture in recent years, which positively affects multifactor productivity growth. Finally, since 2000, labour quality has increased more in primary agriculture than in the business sector.

The report notes, however, that the productivity growth rate achieved since 1961 may not be sustainable in the future. For example, given that many farms are heavily mechanized today, it may not be possible for further mechanization to provide productivity gains to the same degree as it did in the past.

The full report is available at [www.csls.ca/reports/csls2011-06.pdf](http://www.csls.ca/reports/csls2011-06.pdf).

### Productivity in Food Processing

Also in August 2011, the CSLS released a second report prepared for Agriculture Canada entitled “A Detailed Analysis of the Productivity Performance of the Canadian Food Manufacturing Subsector” by CSLS economist Chris Ross.

In terms of real GDP, the food manufacturing subsector has grown more slowly than the business sector since 1961. In contrast, food manufacturing labour productivity, defined as real GDP per hour worked, has grown faster than the business sector since 1961 and faster than the business sector and manufacturing industry since 2000. By 2007, the labour productivity level

in the food manufacturing subsector was \$51.81 per hour worked (in current prices), which was slightly higher than that of the manufacturing industry (\$51.14) or the average for total economy (\$48.20).

Over the entire 1961-2007 period, growth in capital services intensity and multifactor productivity growth accounted for the lion's

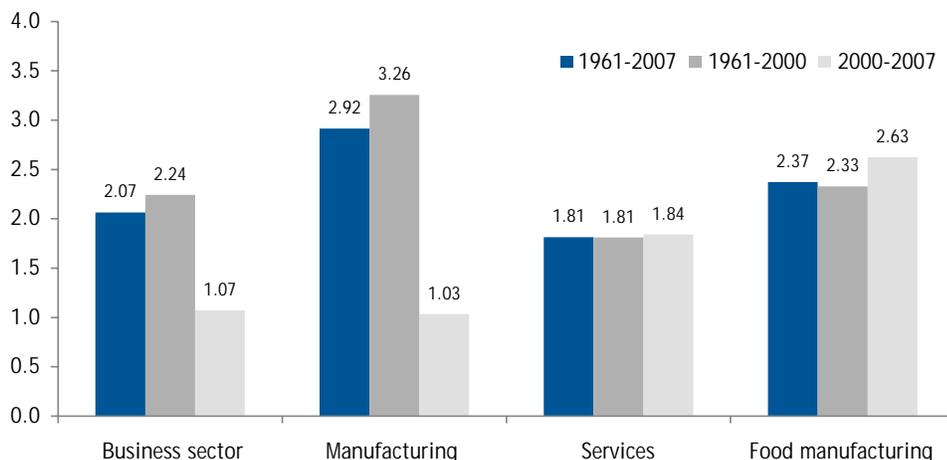
Continued on page 14

Continued from page 13

share of labour productivity growth in the food manufacturing subsector (45 and 42 per cent of growth, respectively). Changes in labour mix towards more skilled workers accounted for the remainder.

According to this report, there are several possible drivers of the impressive labour productivity growth in the food manufacturing subsector. One is research and development. As a share of value added, total business enterprise research and development in the sector increased between 1994 and 2007, while employment in food manufacturing research and development almost tripled between 1994 and 2008. Another potential driver is growth in average years of education of workers, which

**Labour Productivity in Food Manufacturing and Benchmark Industries, Compound Average Annual Growth Rates Based on Value Added, 1961-2007, 1961-2000 and 2000-2007**



increased more in the food manufacturing subsector than in the total economy or in manufacturing as a whole since 1990. A third driver is capital intensity, which increased during the 2000-2007 period at a

faster pace for food manufacturing than for the manufacturing industry or the business sector.

The full report is available at [www.csls.ca/reports/csls2011-07.pdf](http://www.csls.ca/reports/csls2011-07.pdf).

## Productivity Idling in Transportation Sector

An efficient transportation sector is crucial for achieving growth and increasing competitiveness in a resource and export intensive economy like Canada. In a CSLS report prepared for Transport Canada to be released in September entitled “The Innovation and Performance of the Canadian Transportation Sector: Machinery and Equipment and Information and Communications Technology,” CSLS economist Erik Johnson finds that the Canadian transportation and warehousing sector has experienced disappointing labour productivity growth in recent years.

Between 1987 and 2009, labour productivity growth has been slow for the transportation and ware-

housing sector, growing at less than half the compound annual growth rate recorded for the business sector (0.5 versus 1.2 per cent per year). Moreover, among sixteen OECD countries, the Canadian transportation and warehousing sector had the lowest average labour productivity growth from 1971 to 2005. In terms of productivity levels, this sector has also underperformed. At just \$33.8 per hour in 2009, it is well below the \$37.8 per hour observed for the business sector in the same year.

An examination of machinery and equipment (M&E) and information and communication technology (ICT) capital intensity in this report indicates that a failure to adopt productivity enhancing investment does not appear to be at the root of this sector’s poor productivity growth in Canada. The transporta-

tion and warehousing sector had a level of M&E capital intensity above the total economy average in 2010, although its ICT capital intensity was slightly below average. For both M&E and ICT, however, growth in real capital intensity exceeded that of most other business sector industries from 1987 to 2010.

But the report finds that the Canadian transportation and warehousing sector’s ICT capital per worker was less than one third of the U.S. transport sector’s level in 2009. This is a poor performance even relative to the Canadian business sector as a whole, which had an equivalent ICT capital intensity of approximately 50 per cent of the U.S. level.

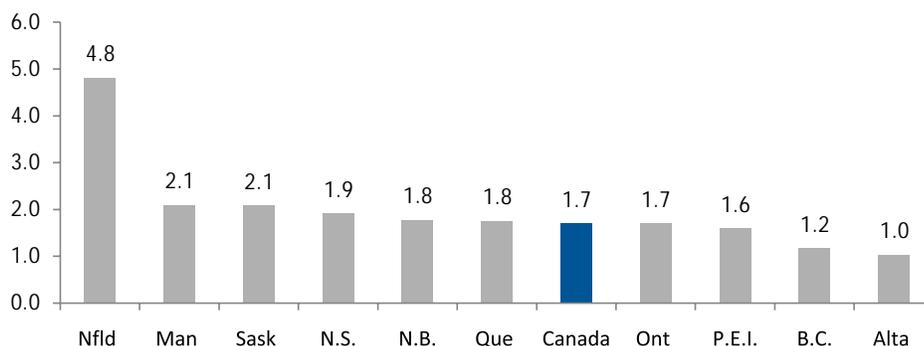
The full report will be available in early September at [www.csls.ca/reports/csls2011-15.pdf](http://www.csls.ca/reports/csls2011-15.pdf).

## Provincial Productivity Trends: Newfoundland leads, Alberta trails in labour and multifactor productivity growth

In April 2011 the CSLS released a series of ten reports prepared for Industry Canada on the productivity performance of every province for the overall market sector as well as at the two-digit NAICS industry level, from 1997 to 2007. A synthesis report was also produced. During this period, Newfoundland had the fastest growth in labour and multifactor productivity growth, while Alberta had the lowest.

These reports revealed that capital intensity growth was the main contributor to labour productivity growth both nationally and in six of the ten provinces. It contributed the most to labour productivity in Alberta and the least in Newfoundland, where multifactor productivity growth played a prominent role. Decomposing capital intensity growth into growth in capital stock and changes in capital composition revealed that capital

Labour Productivity Growth in Canada and the Provinces, Market Sector, 1997-2007 (Average Annual Growth Rates)



stock growth was a larger contributor to capital intensity growth than was capital composition growth in every province except Saskatchewan.

Changes in labour quality contributed the least to labour productivity growth nationally. The absolute contribution of labour quality growth to labour productivity growth was highest in Saskatchewan and lowest in British Columbia.

These provincial reports also revealed that provincial productivity growth is strongly affected by the industrial composition of the province, as some industries experienced high growth in almost every province (such as agriculture, forestry,

fishing and hunting), while others experienced negative growth in almost every province (such as arts, entertainment and recreation). The large variation in labour productivity growth across provinces also reflects the different production processes used within an industry. A case in point is the mining, and oil and gas extraction industry which experienced labour productivity growth in Newfoundland and Labrador, but declined in Alberta from 1997 to 2007.

The synthesis report can be found at [www.csls.ca/reports/csls2011-03.pdf](http://www.csls.ca/reports/csls2011-03.pdf). The ten provincial reports are also available at [www.csls.ca/res\\_reports.asp](http://www.csls.ca/res_reports.asp).

## Estimation of the Value Added in the Biotechnology Sector in Canada

The CSLS has been commissioned by Genome Canada to develop a methodology for estimating the contribution of the biotechnology sector to the Canadian economy and to estimate the future size of this contribution. The CSLS has developed a framework that focuses on the value added created by firms classified to the biotechnology sector.

As there is no North American Industry Classification System (NAICS) code for biotechnology, a composite biotechnology industry is derived from NAICS industries identified as producing biotechnology products and services. In addition, the value added associated with biotechnology R&D in the public sector is considered part of the contribution of biotechnology to the economy. The framework

defines the value added contribution of biotechnology narrowly and excludes the value added by industries that provide inputs to the biotech sector (backward linked industries) and those that use biotechnology products and services in a relatively minor way (forward linked industries), as well as any multiplier effect.

The report will be released in October and will be posted at [www.csls.ca/res\\_reports.asp](http://www.csls.ca/res_reports.asp).

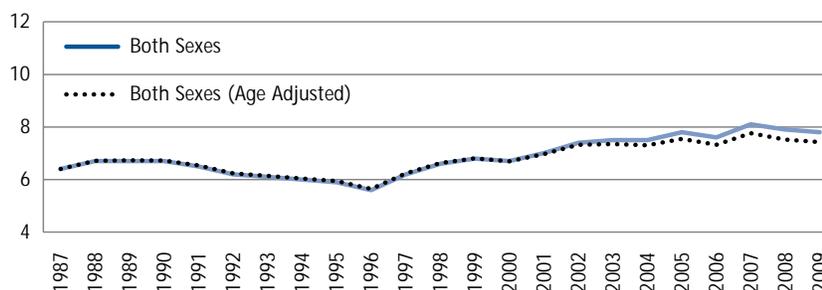
## Productivity Studies on Productivity Drivers

### Health and Productivity

Absenteeism due to illness or disability increased in Canada between 1987 and 2008, rising from 6.4 to 7.9 days lost per worker. A recent CSLS report found that if this 1.5 day per worker increase in absenteeism had not occurred, output per worker would have been 0.6 per cent higher, assuming the average worker works 250 days a year. Prepared for the Public Health Agency of Canada, this report by CSLS economist Alexander Murray is entitled “State of the Evidence on Health as a Determinant of Productivity.”

The report states that “the impact of rising absenteeism on aggregate productivity is small but not negligible,” pointing out that real GDP per worker in 2008 would have been \$463 higher (in 2002 dollars) without this increase in absenteeism. This would have led to only a small increase in the

Average Number of Work Days Lost due to Own Illness or Disability per Full-time Employee Aged 15 or Older, Canada, Days, 1987-2009



Source: CANSIM series v2801634.

Note: Age adjustments were carried out by applying the share of full time employed workers that are 55 years of age or older in 1987 to the average days lost each year.

growth rate of output per worker between 1987 and 2008 (1.076 instead of 1.048 per cent per year). Thus, increases in absenteeism cannot explain Canada’s abysmal productivity performance since 2000.

Although it is not a conventional productivity issue, this report also notes that the level of absenteeism imposes significant losses in terms of foregone output. Indeed, the report states that “if zero days had been lost to illness or disabil-

ity, real per-worker GDP in 2008 (in 2002 dollars) would have been \$79,594 – \$2,438 higher than its true value of \$77,156.” Thus, the report concludes that reducing absenteeism is an important societal goal, even if it will not substantially address Canada’s productivity woes.

The full report can be found at [www.csls.ca/reports/csls2011-04.pdf](http://www.csls.ca/reports/csls2011-04.pdf).

### ICT Investment and Productivity

It is widely recognized that information and communications technology (ICT) investment is a key driver of labour productivity growth and that ICT investment per worker in this country considerably lags that in the United States. The CSLS has developed and maintains an ICT investment database and monitors ICT investment in Canada and the United States closely. It prepares reports on these developments for the Information

Technology Association of Canada. The latest report entitled “Overview of Developments in ICT Investment in Canada, 2010: Rebounding from the Recession,” was released in July.

After a decline in 2009 due to the recession, ICT investment made a comeback in Canada in 2010 in both nominal and real terms across all three component categories (computer equipment, communication equipment and software investment). Real ICT investment rose 8.4 per cent in real terms, following a 7.7 per cent decline in 2009. This augurs well for future

productivity growth as ICT is a key determinant of labour productivity.

Nominal ICT investment only advanced 1.6 per cent, as ICT prices resumed their downward trend, falling 6.3 per cent in 2010. This price decrease largely reflected an appreciation in the value of the Canadian dollar relative to the US dollar in 2010.

The research note is available at [www.csls.ca/notes/Note2011-2.pdf](http://www.csls.ca/notes/Note2011-2.pdf).

Continued on page 17

## University-business Research Collaboration in Canada

Innovation is of course a key determinant of productivity growth and knowledge transfers from the university to the business sector are an important source of innovative ideas and techniques. A high degree of collaboration between the university and business sectors can facilitate this knowledge transfer. Consequently, it is important to know the state of university-business research collaboration in Canada. Policies to improve a poor performance in this again may booster productivity growth.

In February 2011, the CSLS released a comprehensive report by CSLS Research Associate Ian Currie research entitled “Government Policies to Encourage University-Business Research Collaboration in Canada: Lessons from the US, the UK and Australia.” The report concluded that Canada is neither a world leader nor an international laggard in university-business (U-B)

Indeed, the World Economic Forum’s survey of business opinion revealed that Canada rose from 15<sup>th</sup> place in 2007 to 7<sup>th</sup> place in 2010 among countries with extensive U-B research collaboration. However, Canada ranked 6<sup>th</sup> in this survey in 2001.

After examining the public policy measures undertaken by the United Kingdom, United States, and Australian governments to encourage U-B research collaboration, this report makes five main recommendations for improving how the Canadian government advocates, funds and regulates U-B research collaboration in Canada:

1. The federal government should continue to provide direct funding (at least at current levels) to encourage U-B collaboration. Enriching the Scientific Research and Experiment Development tax credit alone is not enough.
2. Lead responsibility for many existing funding programs for U-B research collaboration should be transferred to a single organization that operates at an arm’s

length from the government. Such an organization should have both university and business participation and support.

3. The role and effectiveness of intermediary organizations (between universities and business) should be reviewed by the federal government, as they are increasingly important conduits of federal funding of U-B research collaboration.
4. The federal government needs to lead a structured national discussion on improving the negotiation and management of intellectual property rights in the university setting.
5. Although the federal government should resist taking a leadership role in establishing a new forum for discussion, it should clearly state its objectives and expectations regarding the future of U-B research collaboration in Canada.

The full report is available at [www.csls.ca/reports/csls2011-02.pdf](http://www.csls.ca/reports/csls2011-02.pdf).

## Forthcoming CSLS Productivity Studies

The CSLS has a number of productivity studies in various stages of completion for future release. Summaries will appear in the next issue of *CSLS News*. These studies include the following:

- a study on the productivity performance of Atlantic Canada done for the Atlantic Canada Opportunities Agency (ACOA) that will be released this fall;
- a review of the literature on productivity measurement in the public sector, done for the Treasury Board Secretariat;
- a study of retail sector productivity in Canada;
- a study currently being undertaken on productivity developments and drivers in Nova Scotia for the Nova Scotia office of ACOA and the Nova Scotia Department of Labour and Advanced Education; and
- a study for Natural Resources Canada on innovation in Canadian natural resource industries.

## CSLS Projects on Labour Market Issues

The CSLS undertakes a number of projects in the labour market area, particularly on labour market information.

### Electronic Labour Exchanges in Canada

Compared to the major private sector electronic labour exchanges (ELEs), such as Monster.ca or Workopolis.com, Service Canada's Job Bank have more postings for jobs that require little formal education or training and fewer results for jobs that require specialized training. "The State of Private Sector Electronic Labour Exchange Services in Canada," a CSLS research report by CSLS economist Alexander Murray prepared for HRSDC and released in February 2011 suggests that this is an important function of this public sector ELE.

Indeed, Job Bank makes up for the lack of lower-skill job postings on the private sector ELEs. This may be because firms are unwilling to pay the large fees required by many private sector ELEs to post ads for their low-skill jobs vacancies, or that many of the low-skill job opportunities are with small and medium-sized employers (SMEs) that are unable to pay the large up-front cost of advertising a job on a major private sector ELE. This suggests that the Job Bank has two important functions: providing service for low-skill workers who are underserved by the private sector ELEs, and free service for SMEs that cannot afford to advertise on the major private ELEs.

Instead of trying to make the Job Bank more similar to private sector competitors by posting more high skill jobs, the CSLS report concludes that the proper role for the public sector, and Service Canada's Job Bank in particular, is to identify important services that private sector ELEs do not provide and aim to provide those services.

The full report is available at [www.csls.ca/reports/csls2011-01.pdf](http://www.csls.ca/reports/csls2011-01.pdf).

### Human Capital in British Columbia

On August 30, 2011 the CSLS released a report commissioned by the BC Progress board entitled "Human Capital Challenges Facing British Columbia." The report finds that although British Columbia performs very well in human capital measures relative to the rest of Canada and OECD countries, challenges remain. This report identifies four ways to further improve B.C.'s human capital performance.

The first requires improving the educational achievement of Aboriginal people. The educational performance of the Aboriginal population in British Columbia is dismal, particularly for North American Indians on reserves. As Aboriginals represent a growing proportion of new entrants to the workforce, given their higher birth rate, this issue is important to address as soon as possible.

The second involves addressing the needs of recent immigrants, who have higher than average human capital but below average utilization. Immigrants face many barriers, including lack of language skills, foreign credential recognition and Canadian experience. There are currently a wide range of programs to address these issues, but much more needs to be done.

Recent research has found that countries close to the world technological frontier such as Canada may benefit more from investment in higher forms of education than lower forms. Canada's investment in graduate students, especially at the PhD level, however, trails most other OECD countries, and the proportion of graduate students in British Columbia lags behind the national average. Thus, a third way to improve both economic performance and human capital in B.C. is to boost graduate education through increased funding of programs and students.

Finally, raising the minimum school leaving age to 18 (from 16) and investing in research into the demographic, family, school and school district factors that affect high school non-completion will certainly help inform efforts to reduce high school non-completion and improve human capital in the future.

The report is available at [www.csls.ca/reports/csls2011-10.pdf](http://www.csls.ca/reports/csls2011-10.pdf).

## Labour Market Performance of Recent Immigrants to Canada

It is well known that the relative labour market performance of recent immigrants to Canada has deteriorated in recent years. Since 2006 the Labour Force Survey has coded respondents for immigration status so there is now a five year time series (2006-2010). These data are extremely useful for tracking the labour market performance of recent immigrants since 2006, the most recent year for which detailed information on the economic situation of immigrants is available from the census. The CSLS has obtained these time series, which in the case of wages is unpublished, from Statistics Canada and produced an analytical report, which is being released in September, 2011.

The key findings of the report are highlighted below.

- More than half of very recent immigrants (five years or less in Canada) hold a university degree, compared to only 22 per cent of domestic-born employees.
- In 2010 the unemployment rate of recent immigrants was more than double that of Canadian-born individuals: 15.8 per cent versus 7.5 per cent. For university educated recent immigrants the rate was nearly four times higher: 14.5 per cent versus 3.7 per cent.
- Between 2006 and 2010 the labour market performance of all recent immigrants deteriorated in absolute terms. The unemployment rate rose 3.4 points from 12.4 per cent to 15.8 per cent. The employ-

ment rate fell 0.5 points from 57.2 per cent to 56.7 per cent.

- In 2010, the average hourly nominal wages of university-educated recent immigrants was \$20.38, 65.8 per cent of workers who were born in Canada.
- Overall the labour market performance of recent immigrants to Canada, as least as measured by the unemployment rate in absolute and relative terms and wages in relative terms, continued to deteriorate in the second half of the 2010s. This should be a major concern for Canadians.

The report will soon be available at [www.csls.ca/reports/csls2011-16.pdf](http://www.csls.ca/reports/csls2011-16.pdf).

### Trends in US Internal Migration

The United States, often touted as a paragon of nomadic spirit, has experienced a significant decline in internal migration since the 1980s. This trend, along with potential explanations for it, is discussed in the CSLS report “Internal Geographic Labour Mobility in the United States” to be released in September.

In 1980, 3.362 million people moved between the four regions of the United States, but by 2009, this number had fallen to 2.188 million. Recent years have seen a steeper decline in inter-state migration, as 2.59 per cent of the population made such a move in 2004, while by 2009 this number had dropped to 1.44 per cent.

A number of factors account for this development, including a major demographic shift towards the 45-64 toward age group, one of the least mobile age groups. The downturn in internal mobility in recent years likely is due to the economic downturn, which has decreased the availability of work and made selling one’s house difficult, reducing the incentive to move to another state or region.

The report will be posted at [www.csls.ca/res\\_reports.asp](http://www.csls.ca/res_reports.asp) in September.

### World Bank Project on the Development of a Labour Market Information System for the United Arab Emirates

The CSLS has been engaged on a contract basis to play a lead role in a World Bank project to assist the Ministry of Labour (MoL) in the United Arab Emirates (UAE) in the design and implementation of a Labour Market Information System (LMIS). Based on discussions with MoL officials during two missions to the UAE, the CSLS has produced a document to guide the strategic development of a LMIS in the UAE. The CSLS has also developed estimates for a set of key labour market indicators for the UAE that takes account of the very large proportion of foreign workers in the labour force.

## CSLS Projects on Aboriginal Issues

Aboriginal issues comprise a cross-cutting area of research which brings together elements of the three main CSLS areas of interest. CSLS has conducted research projects on Aboriginal well-being, labour market performance, and productivity.

### Remoteness, Educational Attainment and Economic Performance on First Nations Reserves

On average, reserves with higher levels of education have better performance in labour market indicators (participation rate, unemployment rate and employment rate) and better economic outcomes (average earnings and GDP per capita). In July 2011 the CSLS released a report prepared for Indian and Northern Affairs Canada entitled “The Labour Market and Economic Performance of Canada’s First Nations Reserves: The Role of Educational Attainment and Remoteness,” that illustrated this relationship using descriptive statistics, correlation analysis, standard regression analysis and instrumental variables. The report also considered the impact of remoteness and governance on the economic performance on reserves.

In terms of descriptive statistics, almost all reserves were below the Canadian average in terms of the proportion of the population with any kind of diploma, certificate or degree, and all performed poorly relative to the national average in terms of labour market indicators and economic outcomes. Given that there is a vast

literature demonstrating the positive effect of education on economic development, it is not surprising that this report found a strong positive correlation between education and economic performance. Educational attainment in terms of completed university education had significant beneficial effects on GDP per capita, average earnings, the unemployment rate and the employment rate, while the participation rate was significantly positively correlated with completion of at most high school.

Descriptive statistics also show that reserves near urban centers achieve better labour market, economic and educational outcomes than rural or remote reserves. However, the results for the regression analysis on remoteness were not strong. Indeed, when addressing the possible endogeneity of the education variable by instrumenting it with

two language variables, it was found that the only statistically significant relationship was that remote/rural reserves had higher unemployment rates relative to urban reserves. It is therefore not clear that remoteness itself has a significant negative effect on economic performance.

In addition, regression analysis of the governance index developed by the Frontier Centre for Public Policy showed that better governance has positive, statistically significant effects on all economic outcomes and labour force indicators.

The full report can be found at [www.csls.ca/reports/csls2011-05.pdf](http://www.csls.ca/reports/csls2011-05.pdf).



### GDP Estimates for First Nation Reserves

On August 22, 2011 the CSLS released the study “Economic Activity of the On-Reserve Aboriginal Identity Population in Canada: Gross Domestic Product Estimates for Indian Reserves, 2000 and 2005” by Evguenia Tsiroulnitchenko and Elspeth Hazell. The study used two approaches to develop earnings-based estimates of GDP for First Nation reserves in Canada, a “top-down” approach employing provincial level-data, and a “bottom-up” approach, using reserve-level data. The study found that while the on-reserve Aboriginal identity population accounted for approximately 1 per cent of the total Canadian population, this population accounts for only 0.30 per cent of Canada’s GDP.

According to the “top-down” approach, reserve GDP per capita in Canada was estimated to be \$13,503 in 2005, down from \$13,593 in 2000 (constant 2005 dollars), decreasing from 33.3 per cent of Canada’s GDP per capita in 2000 to 30.7 per cent in 2005. Reserve GDP per capita was less than half of overall provincial/territorial GDP per capita in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Nova Scotia, New Brunswick, Newfoundland and Labrador and the Northwest Territories in 2005.

The estimated growth rate of GDP per capita for reserves in Canada was -0.7 per cent from 2000 to 2005, driven by negative growth rates in the reserve GDP per capita of Newfoundland and

Labrador, Ontario, Manitoba, and British Columbia. Reserves in the Northwest and Yukon Territories exhibited not only the highest GDP per capita estimates in 2000 and 2005, but also the fastest growth in this indicator.

To understand these dismal results for reserve GDP, the basis of the GDP estimates, total earnings, is decomposed into its three component variables (working age population, employment rate and average earnings). It is found that:

- the on-reserve working age Aboriginal population comprised 0.80 per cent of Canada’s population aged 15 years and older in 2006
- the Aboriginal identity employment rate on reserves is just 68 per cent of the general population’s employment rate in 2005
- average earnings per worker of the on-reserve Aboriginal identity population is just over one half (56 per cent) of average earnings per worker of the general population of Canada in 2005.

Thus, all three factors are contributing to the low total earnings and GDP per capita estimates, although the low average earnings per worker result is the most significant contributor at the national level. Altogether, this paints a very bleak picture of the state of economic development prevailing in reserves across Canada in 2000, and an even worse situation in 2005.

The full report can be found at [www.csls.ca/reports/csls2011-08.pdf](http://www.csls.ca/reports/csls2011-08.pdf).

### Research for the National Aboriginal Economic Development Board

In 2008, the CSLS, in partnership with BBMD Consulting, was commissioned by the National Aboriginal Economic Development Board (NAEDB) to produce a comprehensive benchmarking report of Aboriginal economic development. The report examined not only economic development indicators, but also the available data related to education, resources, infrastructure, and social development for Aboriginal Canadians. In addition, the gaps in the data available on the Aboriginal populations in Canada are highlighted. The final benchmarking report as well as a separate document devoted to the benchmarking of Aboriginal economic development, will be released by the NAEDB this fall.

### Project on Aboriginal Labour Market Developments

The CSLS has been commissioned by the Métis National Council to produce a report on the state of the labour market for Aboriginal Canadians, broken down where possible into the First Nations, Métis, and Inuit heritage groups. The project is motivated by the current global economic turmoil, which may have implications for the Aboriginal population that differ from those for the non-Aboriginal population, given the natural resource dependency of many Aboriginal communities.

In addition to the festschrift dinner in honour of Ian Stewart described on the front page, the CSLS organizes a number of events, both on its own and with other organizations.

### Festschrift Authors' Workshop in Honour of Ian Stewart

**O**n April 20-21, 2011 the CSLS organized an authors' workshop for the festschrift volume being prepared in honour of CSLS Chair Ian Stewart on the occasion of his 80th birthday later this year. A dinner for speakers and a group of Deputy Ministers was held the evening of April 19. Paper givers at the workshop included Robin Boadway, David Dodge, John Helliwell, Lars Osberg, Chris Ragan, John Richards, Munir Sheikh and Michael Wolfson.

More information on the workshop is available at [www.csls.ca/events/april-stewartfestschriftworkshop.asp](http://www.csls.ca/events/april-stewartfestschriftworkshop.asp).

### CSLS Sessions at the Canadian Economics Association Conference

The CSLS organized four sessions at the 45<sup>th</sup> Annual Meeting of the Canadian Economics Association, held at the University of Ottawa, June 2-5, 2011. The first of these sessions presented new insights into productivity growth in Canada and the second considered explanations for the growing Canada-U.S. productivity gap. The third session featured papers from the Ian Stewart Festschrift volume *New Directions for Intelligent Government in Canada*. The final session looked at new measures of well-being for Canada.

Details on the sessions can be found at [www.csls.ca/events/cea2011.asp](http://www.csls.ca/events/cea2011.asp).

### Seminar Series on Living Standards Issues for CSLS Subscribers

The CSLS organizes a small and informal seminar series on living standards issues as a benefit for subscribers to its publication program. Seminars are held on a monthly basis in the late afternoon the Karsh Room of the Rideau Club in downtown Ottawa. Since the launch of the seminar series in April 2009, CSLS has hosted twenty seminars on a wide range of topics, ranging from social policy issues to financial market failures, all with links to living standards. Speakers so far in 2011 have included Don Drummond, Scott Clark, Stewart Elgie and David Longworth. A complete list of past speakers and topics is posted at [www.csls.ca/seminars.asp](http://www.csls.ca/seminars.asp).

The next seminar in the series will take place in September when Peggy Nash, the Official Opposition's Finance Critic in Canada's current Parliament, will discuss the NDP approach to economic policy.

Organizations interested in sending a representative to the seminar series are encouraged to join the CSLS subscription program. The annual subscription fee is \$500 plus HST.

Information on the program is posted at [www.csls.ca/subscription.asp](http://www.csls.ca/subscription.asp).

### IARIW Conferences

**I**n its role as secretariat for the International Association for Research in Income and Wealth (IARIW), the CSLS is currently organizing three international conferences:

- Statistics South Africa (SSA) and IARIW are co-organizing a conference on Measuring National Income, Wealth, Poverty, and Inequality in African Countries in Cape Town, South Africa from September 28 to October 1, 2011.
- The Organisation for Economic Co-operation and Development (OECD) and IARIW are

co-organizing a conference on Economic Security: Measurement, Trends and Policy Implications at the OECD Conference Centre in Paris, France, November 22-23, 2011.

- The 32nd IARIW General Conference, co-organized with the NBER's Conference on Research in Income and Wealth (CRIW) and the US Bureau of Economic Analysis (BEA), will be held in Cambridge, Mass. August 5-11, 2012.

More information on these conferences can be found at [www.iariw.org/conf\\_fut.php](http://www.iariw.org/conf_fut.php).



## Festschrift Volume

### *New Directions for Intelligent Government in Canada: Papers in Honour of Ian Stewart*

- Fred Gorbet and Andrew Sharpe "Introduction to the Volume"
- Ian Stewart "Ian Stewart in his Own Words"
- Chris Ragan "The Evolution of Canadian Monetary Policy: Successful Ideas through Natural Selection"
- Scott Clark "What is 'Credible' Fiscal Policy? The Canadian Experience: 1983-2010"
- Lars Osberg "Why Did Unemployment Disappear from Official Macro-Economic Policy Discourse in Canada?"
- Robin Boadway "Rethinking Tax-Transfer Policy for 21st Century Canada"
- Stanley Winer "Reflections on the Role of Optimal Design in the Tax Policy Process"
- David Dodge "Public Policy for the Canadian Financial System: From Porter to the Present and Beyond"
- Pierre Fortin "Income Support in the Canadian Federation: International and Interprovincial Comparisons and Future Directions"
- John Richards "Idle Speculation: Prefunding the Boomers' 'Frail Elderly' Care and Legitimizing a Carbon Tax"
- Michael Wolfson "Health Care is a Knowledge Industry, and Should Be More So"
- John Helliwell "How Can Subjective Well-being Be Improved?"
- Munir Sheikh "Good Data and Intelligent Government"
- Don Drummond "Personal Reflections on the State of Public Policy Analysis in Canada"

# List of CSLS Publications

## Spring 2011 Issue of the *International Productivity Monitor*

- Marcel P. Timmer, Robert Inklaar, Mary O'Mahony, and Bart van Ark, "Productivity and Economic Growth in Europe: A Comparative Industry Perspective"
- Kelvin Chan, Jianmin Tang, and Wulong Gu, "Industry Mix, Plant Turnover and Productivity Growth: A Case Study of the Transportation Equipment Industry in Canada"
- Ricardo de Avellez and Christopher Ross, "A Portrait of the Productivity Performance of the Canadian Provinces, 1997-2007"
- Someshwar Rao, "Insights from Latin America for Canada: A Review Article on The Age of Productivity: Transforming Economies from the Bottom Up"
- Andrew Sharpe, "Is Ageing a Drag on Productivity Growth? A Review Article on Ageing, Health and Productivity: The Economics of Increased Life Expectancy"

## Accepted Papers for the Fall 2011 issue of the *International Productivity Monitor*

- Don Drummond, "Confessions of a Serial Productivity Researcher"
- Pierre Therrien and Petr Hanel, "Innovation and Productivity in Canadian Manufacturing Establishments"
- Daniel Lind, "Swedish De-industrialization: Myth and Reality"

## Special Issue of Applied Research on Quality of Life Studies on New Measures of Well-being

- Andrew Sharpe, "New Indicators of Well-being and Wealth: An Overview"
- Dominique Méda, "What Kind of Progress Should be Measured?"
- Géraldine Thiry and Isabelle Cassiers, "Alternative Indicators of GDP: Values Behind Numbers"

- Lars Osberg and Andrew Sharpe, "New Estimates of the Index of Economic Well-being for OECD Countries"
- Florence Jany-Catrice, "Genesis and Legitimacy of New Indicators of Wealth: French Experiments"
- Anat Itay, "A Multi-Layered Model for Measuring Progress and Quality of Life: Israel's Progress Index"
- Alberto Brugnoli, Giuseppe Folloni, and Francesca Modena, "Beyond GDP: Measuring Multidimensional Economic Well-being for Lombardy"
- Georges Menahem, "How Can the Income Security Ratio Assess Social Protection Systems"

## CSLS Research Reports

- Sharpe, Andrew, Ali Ghanghro, Erik Johnson and Anam Kidwai (2010) "Does Money Matter? Determining the Happiness of Canadians," CSLS Research Report No.2010-09. <http://www.csls.ca/reports/csls2010-09.pdf>.
- Sharpe, Andrew and Alexander Murray (2011) "The State of Private Sector Electronic Labour Exchange Services in Canada," CSLS Research Report No.2011-01. <http://www.csls.ca/reports/Csls2011-01.pdf>.
- Currie, Ian (2011) "Government Policies to Encourage University-Business Research Collaboration in Canada: Lessons from the US, the UK and Australia," CSLS Research Report No.2011-02. <http://www.csls.ca/reports/csls2011-02.pdf>.
- de Avellez, Ricardo and Chris Ross (2011) "A Synthesis of the CSLS Provincial Productivity Reports, 1997-2007," CSLS Research Report No.2011-03. <http://www.csls.ca/reports/csls2011-03.pdf>.
- Reports are available for all ten provinces at [www.csls.ca/res\\_reports.asp](http://www.csls.ca/res_reports.asp)
- Sharpe, Andrew and Alexander Murray (2011) "State of the Evidence on Health as a Determinant of Productivity" CSLS Research Report No.2011-04. <http://www.csls.ca/reports/csls2011-04.pdf>.

Continued on page 24

Sharpe, Andrew and Simon Lapointe (2011) "The Labour Market and Economic Performance of Canada's First Nations Reserves: The Role of Educational Attainment and Remoteness," CSLS Research Report No.2011-05. <http://www.csls.ca/reports/csls2011-05.pdf>.

de Avillez, Ricardo (2011) "A Detailed Analysis of the Productivity Performance of the Canadian Primary Agriculture Sector," CSLS Research Report No.2011-06. <http://www.csls.ca/reports/csls2011-06.pdf>.

Ross, Chris (2011) "A Detailed Analysis of the Productivity Performance of Canadian Food Manufacturing," CSLS Research Report No.2011-07. <http://www.csls.ca/reports/csls2011-07.pdf>.

Tsirounitchenko, Evguenia and Elspeth Hazell (2011) "Economic Activity of the On-Reserve Aboriginal Identity Population in Canada: Gross Domestic Product Estimates for Indian Reserves, 2000 and 2005," CSLS Research Report No.2011-08. <http://www.csls.ca/reports/csls2011-08.pdf>.

Sharpe, Andrew, Alexander Murray, Benjamin Evans and Elspeth Hazell (2011) "The Levy Institute Measure of Economic Well-Being: Estimates for Canada, 1999 and 2005," CSLS Research Report No.2011-09. <http://www.csls.ca/reports/csls2011-09.pdf>.

Sharpe, Andrew and Alexander Murray (2011) "Human Capital and Productivity in British Columbia," CSLS Research Report No. 2011-10. <http://www.csls.ca/reports/csls2011-10.pdf>.

Osberg, Lars and Andrew Sharpe (2011) "Beyond GDP: Measuring Economic Well-being in Canada and the Provinces, 1981-2010," CSLS Research Report No.2011-11. <http://www.csls.ca/reports/csls2011-11.pdf>.

Osberg, Lars and Andrew Sharpe (2011) "Moving from a GDP-Based to a Well-being Based Metric of Economic Performance and Social Progress: Results from the Index of Economic Well-Being for OECD Countries, 1980-2009," CSLS Research Report No.2011-12. <http://www.csls.ca/reports/csls2011-12.pdf>.

Sharpe, Andrew and Brendon Andrews (2011) "An Assessment of Weighting Methodologies for Composite Indicators: The Case of the Index of Economic Well-being," CSLS Research Report No.2011-13. <http://www.csls.ca/reports/csls2011-13.pdf>.

Hazell, Elspeth (2011) "The Human Development Index in Canada: Estimates for the Canadian Provinces, 1990-2010," CSLS Research Report No.2011-14. <http://www.csls.ca/reports/csls2011-14.pdf>.

Johnson, Erik (2011) "The Innovation and Performance of the Canadian Transportation Sector: Machinery and Equipment and Information and Communications Technology," CSLS Research Report No. 2011-15. <http://www.csls.ca/reports/csls2011-15.pdf>.

Johnson, Erik (2011) "Labour Market Performance of Recent Immigrants to Canada," CSLS Research Report No.2011-16. <http://www.csls.ca/reports/csls2011-16.pdf>.

## CSLS Research Notes

CSLS (2011) "Happiness as a Goal for Public Policy: Ready for Primetime? A Synthesis of the CSLS-ICP Conference on Happiness and Public Policy," CSLS Research Note No. 2011-01. <http://www.csls.ca/notes/Note2011-1.pdf>

Sharpe, Andrew and Dylan Moeller (2011) "Overview of Developments in ICT Investment in Canada, 2010: Rebounding from the Recession," CSLS Research Note No. 2011-02. <http://www.csls.ca/notes/Note2011-2.pdf>

Brendon Andrews (2011) "Sensitivity of the IEWB to Different Measures of Poverty: LICO vs LIM," CSLS Research Note No. 2011-03. <http://www.csls.ca/notes/Note2011-3.pdf>

## Forthcoming

Andrew Sharpe and Dylan Moeller, "International Productivity Comparisons: An Evaluation of Data Sources"

Andrew Sharpe and Dylan Moeller, "Internal Geographic Labour Mobility in the United States"

Erik Johnson, "Canadian Happiness and Life Satisfaction Inequality"

Andrew Sharpe, Ricardo de Avillez and Crystal St. Denis, "Measuring the Contribution of Modern Biotechnology to the Canadian Economy"

Peter Harrison and Andrew Sharpe, "The Productivity Performance of Atlantic Canada"

Andrew Sharpe and Chris Ross "Living Standards Domain of the Canadian Index of Well-being, 1981-2010"

BBMD Consulting and CSLS, "Aboriginal Economic Development Benchmarking Report"



The Centre for the Study of Living Standards is a non-profit, national, independent, research organization contributing to a better understanding of productivity, living standards and economic and social well-being.

CSLS News is available in hard copy and on-line at [www.csls.ca](http://www.csls.ca).

Contact us at:  
151 Slater Street, Suite 710  
Ottawa, Ontario, K1P 5H3  
Phone (613) 233-8891  
Fax (613) 233-8250  
Email: [info@csls.ca](mailto:info@csls.ca)  
[www.csls.ca](http://www.csls.ca)

