



# The Daily

Statistics Canada

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British Columbia's economy has rebounded sharply from the doldrums of the 1990s, according to a new study published today in *Canadian Economic Observer*. But the boom in this province is quickly creating shortages, notably for labour.

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## Releases

### Study: The West Coast boom

2005

British Columbia's economy has rebounded sharply from the doldrums of the 1990s, according to a new study published today in *Canadian Economic Observer*.

While several factors have fuelled widespread growth in the province since 2001, the boom is quickly creating shortages, notably for labour. The stronger economy has already driven the unemployment rate in British Columbia to a record low.

To prevent these shortages from curtailing potential growth, the province has only a handful of solutions: attract more people, encourage more people to enter the labour force, or use its workers more efficiently by increasing productivity.

Attracting workers to remote areas of British Columbia will also be a challenge, especially with Alberta growing so rapidly next door.

The study concludes that British Columbia has rightfully earned its reputation as Canada's gateway to the booming Asian economy.

Record commodity prices have triggered a revival of British Columbia's mining industries, notably metals and coal, even as forestry has slumped.

Infrastructure projects to carry the increasing volume of trade in both directions with Asia is boosting construction in the province, while work has only just begun on projects for the 2010 Olympics.

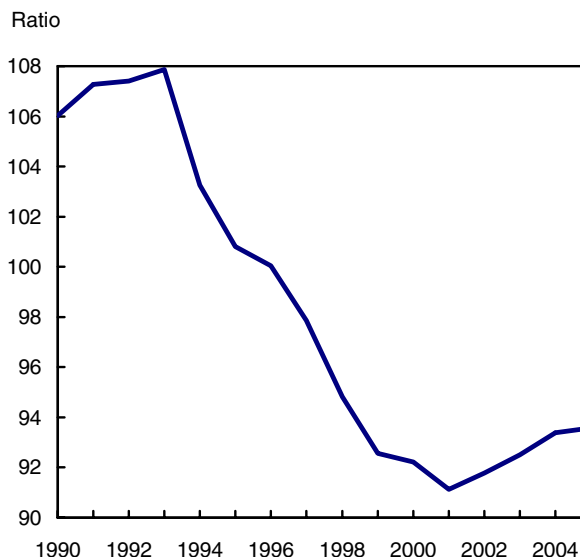
#### The 1990s: A "lost decade"

After leading Canada's economic growth from 1984 to 1990, British Columbia fell behind in the 1990s. Real gross domestic product per capita fell from 8% above the average in the rest of Canada in 1992 to 8% below by 2002, after which it began to recover.

Much of the weakness in the 1990s originated in a prolonged slump in demand for housing. Residential construction fell nearly 25%. The housing slump partly reflected a sharp slowdown in population growth after 1995, as well as a correction from sky-high housing prices. The price of residential construction fell 10% between 1994 and 2000.

As well, business investment was little changed in the years following the Asian crisis in 1997. By 2002, it had increased by less than \$1 billion, or under 10%.

Ratio of real gross domestic product per capita in British Columbia to the rest of Canada



#### Growth rebounds following 2001

In 2001, economic growth in British Columbia hit a low of 0.6%. Since then, however, real gross domestic product has averaged 3.4% a year, surpassing the national average.

The rebound was initially led by housing, which grew at a double-digit rate every year for a total increase of nearly 80% since 2000. This was the fastest gain in Canada, surpassing the nation-wide average that accompanied low interest rates.

Housing prices responded to the surge in demand by recovering their losses in the 1990s. The price of all residential construction has risen 20% since 2000.

Investment began to take off in 2003 when trade with China and corporate profits began to rise rapidly. Investment spending has increased by \$4 billion since 2003 to a projected \$17.8 billion this year.

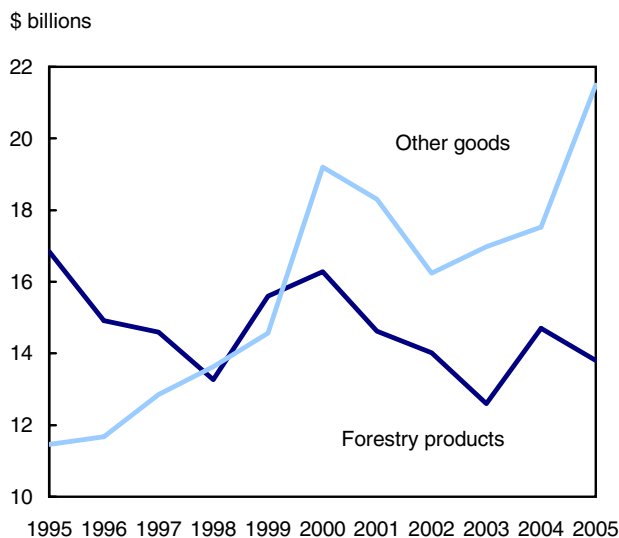
Mining, including oil and gas investment surged from \$2.4 billion to \$4.0 billion last year. While mining companies plan a drop to \$3.5 billion in investment this year, the slack will be picked up by transportation and utilities.

Fuelled by investment demand, capital goods industries have led growth in manufacturing shipments in the last two years. After rising about 5% a

year from 1999 to 2003, shipments of these goods jumped 33% between 2003 and 2005. This reflects the sudden surge in construction on the West Coast.

While British Columbia's exports have grown slowly so far this decade, their composition has changed markedly. For most of the 1990s, exports of forestry products dwarfed all others. Starting in 2000, however, exports of other goods have surpassed those of forestry products, with energy exports leading the gain.

### Exports of other goods surpass those of forestry products



The shift in the composition of British Columbia's commodity exports parallels a switch in their destination. Since 2001, the US share has fallen from 70.0% to 64.0%, while Asia has jumped from 20.5% to 24.0%. As a result, British Columbia is less dependent on the American market than the rest of Canada. Conversely, its orientation to Asia is nearly five times greater than the 5% in the rest of Canada.

### Labour markets tighten

By 2004 and 2005, all sectors of demand were rising in unison. Consumer spending posted its strongest increases in 10 years. Housing was growing at a double-digit rate. Business investment accelerated, while exports snapped out of a three-year slump with a 16% gain in earnings in 2004 and 2005.

The broadly based nature of this growth helps explain the sudden tightening of the labour market over the last two years.

Employment growth picked up after 2001, especially in the last two years. Most of the ebb and flow in job

growth occurred outside of Vancouver, which posted steady growth since 1990. Jobs in the rest of the province fell between 1996 and 2001. But since then, they have risen 10.4%, leading British Columbia's revival.

The increase in jobs was dominated by construction and real estate, a reflection of the housing boom that raised starts from 12,000 units in 2000 to 31,000 in 2005.

The heavy reliance of growth on construction and housing is important for a number of reasons. It aggravates bottlenecks by requiring skills that only a small number of people have. This is especially true of jobs in construction and real estate. And relatively few immigrants work in these areas, the one area of the labour force expanding recently.

Starting in 1997, British Columbia's population growth began to slow markedly. The reasons for this slowdown owe more to interprovincial than international movements of people.

The combination of a sudden upturn in employment and lagging population and labour force growth pushed the unemployment rate to a record low. This is most evident outside of Vancouver, where unemployment has fallen from near double-digits in 2002 to 6% last year, less than the previous lows in the early 1990s.

In Vancouver itself, unemployment stood at 5.7% last year, comparable with its low in 2000 but still a marked improvement on its 8% rates during much of the 1990s.

With population and labour force growth in British Columbia lagging behind their peak rates in the 1990s, one possible solution to labour shortages is to use labour more efficiently.

Output per hour worked in British Columbia lagged the rest of Canada in the 1990s, rising less than 1% a year. It has begun to recover recently as investment has picked up, but remains below the national average, partly because of the greater number of part-time jobs in the province. This suggests ample room exists to improve the use of labour.

The study "The West Coast boom" is now available for free online. The study is also included in the May 2006 Internet edition of *Canadian Economic Observer*, Vol. 19, no. 5 (11-010-XIB, free), which is now available. To obtain a copy, go to the *Our products and services* page online. The monthly paper version of *Canadian Economic Observer*, Vol. 19, no. 5 (11-010-XPB, \$25/\$243) will be available on May 18.

For more information, or to enquire about the concepts, methods or data quality of this release, contact Philip Cross (613-951-9162; [ceo@statcan.ca](mailto:ceo@statcan.ca)), Current Economic Analysis Group. ■

## Study: Science and engineering employment in Canadian and US metropolitan centres

1981 to 2001

Based on the strength of their science and engineering (S&E) work forces, Canadian cities have the same innovative capacity as US cities, with Ottawa, Calgary and Toronto leading the way.

Many analysts argue the Canadian economy compares poorly to the US economy with respect to its innovative capacity, which, among other factors, depends critically on the supply of trained scientists and engineers.

Increasingly, analysts point to cities as hot beds of innovation, with Silicon Valley regarded as the quintessential innovative region. A study released today compares the innovative capacity of Canadian and US metropolitan areas using their shares of employment in S&E occupations.

In 2001, scientists and engineers represented 5.6% of all paid employment in Canada's metropolitan areas. This compares favourably to the proportion of 5.1% in the United States.

Two decades earlier, the proportions were almost the same — 2.9% in Canada and 3.0% south of the border. Employment in science and engineering in Canadian cities increased at a faster pace than in US metropolitan areas during this 20-year period.

Topping the list of 316 urban centres ranked by their share of S&E employment was San Jose, which includes Santa Clara County, the heart of the original Silicon Valley in California. There, scientists and engineers accounted for 15.7% of all paid employment in 2000, three times the national average for the United States.

Second on the list was Silicon Valley North, Ottawa–Gatineau, where scientists and engineers represented 11.6% of employment, twice the national average for Canadian cities.

In addition to Ottawa–Gatineau, 2 other Canadian cities were in the top 30 in this list. Calgary, where scientists and engineers accounted for 7.6% of employment, was in 22<sup>nd</sup> place, while Toronto was in 30<sup>th</sup> with a share of 6.7%.

The study compared 316 Canadian and American centres with populations of more than 100,000 because they all compete for science and engineering talent. It pointed out that in Canada there is evidence that gains in human capital are associated with higher levels of productivity growth, which in turn is an important contributor to long run economic growth. Science and

### Note to readers

*This release is based on a research paper available today that compares the size of science and engineering employment in Canada and the United States.*

*For the purposes of this study, the occupations of workers are used to define scientists and engineering employment.*

*This definition captures those employees that work in occupations requiring the application of scientific and engineering knowledge. Using the same approach as the US National Science Foundation, these science and engineering occupations are defined as: computer and mathematical scientists; life and related scientists; physical and related scientists; social and related scientists; and engineers.*

*Data for this study came from the 1981 and 2001 Canadian censuses and the corresponding US censuses held in 1980 and 2000. Hence, comparisons were made between Canadian and American cities using adjacent years (1980/1981 and 2000/2001).*

engineering occupations require large investments in human capital.

### Toronto ranked seventh in North America in terms of total S&E employment

In term of absolute numbers, three American urban centres had the largest scientists and engineering work forces.

They were: the New York–Northeastern New Jersey region; the Washington, D.C.–Maryland–Virginia area; and the Los Angeles–Long Beach region.

The Canadian centre with the largest contingent of S&E employment was the census metropolitan area of Toronto. It had nearly 161,600 scientists and engineers in 2001, which placed it just behind Boston and just ahead of Dallas–Forth Worth.

Montréal was 16<sup>th</sup> on the list of the 30 largest North American centres in terms of total S&E employment, with just over 91,500. Two other Canadian centres made the top 30: Ottawa–Gatineau ranked 21<sup>st</sup> and Vancouver 26<sup>th</sup>.

### Science and engineering employment concentrated in large metropolitan areas

The study found a strong positive association between city size and both the share of its work force in science and engineering occupations, and the growth of this share over time.

Big cities did better than small cities. Not only did larger cities have a significant advantage, but their advantage has been increasing. On average, larger cities experienced a greater increase in their S&E employment share between 1981 and 2001.

In 2001, on average, S&E employment represented 6.3% of paid employment in metropolitan areas with a population over 4 million. In contrast, among those with a population of between 100,000 and 249,999, the share was only 3.3%.

Larger cities may have this advantage because their economies generate stronger demand for scientists and engineers. For instance, high technology industries, which employ many scientists and engineers, tend to be more prevalent in large cities.

Large cities are probably also more attractive to scientists and engineers. Such markets provide a wide variety of employment opportunities for scientists and engineers that often have very specialized sets of skills.

### **Canadian cities fared well when compared to similar sized US cities**

The study examined the relative S&E strength of Canadian metropolitan areas by comparing them to US cities of similar size. On the whole, several urban centres performed well.

Toronto's share of S&E employment ranked 3<sup>rd</sup> out of the 10 metropolitan areas with a population greater than 4 million. Montréal ranked 8<sup>th</sup> out of 15 metropolitan areas with a population between 2 and 4 million.

Ottawa-Gatineau ranked 2<sup>nd</sup> out of the 28 metropolitan areas with a population between 1 and 2 million. Calgary ranked 2<sup>nd</sup> and Quebec City 3<sup>rd</sup> out of 43 metropolitan areas with a population between 500,000 and 999,999.

Victoria, Kitchener, Halifax, Oshawa, London and Windsor placed at or above the median for metropolitan areas with a population between 250,000 and 499,999. St. John's, Guelph, Regina, Saint John, Kingston, Moncton, and Saskatoon placed above the median for metropolitan areas with a population between 100,000 and 249,999.

### **Ottawa-Gatineau doubled its share of S&E employment over two decades**

Between 1981 and 2001, the biggest gain in the proportion of S&E employment among Canadian centres occurred in Ottawa-Gatineau. Scientists and engineers accounted for 11.6% of all Ottawa-Gatineau's employment in 2001, over twice the proportion of 5.2% in 1981.

The census metropolitan area of Toronto was second, increasing its share by 3.5 percentage points from 3.2% to 6.7%. The third highest change occurred in Montréal, which increased its share from 2.6% to 5.5%.

The smallest gains were in St. Catharines-Niagara, Saguenay and Greater Sudbury.

### **Silicon Valley: North versus South**

The study pointed to several differences between the North and South versions of Silicon Valley, Ottawa-Gatineau and San Jose.

Growth in employment among scientists and engineers was stronger in Ottawa-Gatineau between 1981 and 2001. In 1981, S&E employment in Ottawa-Gatineau represented 36% of San Jose's. By 2001, Ottawa-Gatineau's had increased its proportion to 49%.

A much higher proportion of Ottawa-Gatineau's science and engineering population was in the non-business sector in 2001, reflecting its status as a national capital.

In 1981, 61% of Ottawa-Gatineau's S&E work force was in the non-business sector, while this sector accounted for only 6% of San Jose's S&E work force. By 2001, the private sector component had strengthened in Ottawa-Gatineau and two-thirds of the S&E work force was in the business sector. However, the business sector still employed a much larger share of San Jose's work force of scientists and engineers.

Overall, Ottawa-Gatineau's S&E work force was more oriented towards information technology professionals (computer and information scientists and software engineers) than San Jose's. Information technology professionals made up 71% of Ottawa-Gatineau's S&E work force in 2001, while these workers made up 60% of San Jose's work force.

### **Definitions, data sources and methods: survey number 3901.**

The research paper *The Canadian Economy in Transition: Innovation Capabilities: Comparing Science and Engineering Employment in Canadian and US Cities* (11-622-MIE2006012, free) is now available online. To obtain a copy, go to the *Our products and services* page online.

More studies related to innovation and technology use are available free of charge in the analytical series *Update on Economic Analysis* on our website (11-623-XIE).

For more information, or to enquire about the concepts, methods or data quality of this release, contact Mark Brown (613-951-7292) or Desmond Beckstead (613-951-6199) of the Micro-economic Analysis Division. ■

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## Study: Family income and the well-being of children

1994 to 1998

The well-being of children appears to be almost always associated with the household income of their family, according to a study recently published jointly by Human Resources and Social Development Canada and the Research Data Centre program.

The study found that regardless of the child's age or how household income is measured, higher income tends to be related to better physical, social/emotional, cognitive and behavioural well-being among children.

Using data from the National Longitudinal Survey of Children and Youth, the study examined the relationships between various measures of household income and a broad range of physical, social/emotional, cognitive and behavioural characteristics of a child's well-being.

The study divided a group of children aged 4 to 15 into three groups (the pre-school/school entry phase, the early school years, and the early teen years) to reflect different stages of child development.

Although the extent of the association varied depending on the characteristics of well-being used, children from lower income families were found to have worse outcomes than children from higher income households. This held for all three age groups.

The study found that increases in household income continue to remain associated with better well-being, even once children are out of low income. In fact, the results did not find a point at which high household income stops being associated with better child well-being.

However, the analysis was unable to determine the extent to which the relationship between family income and child well-being is causal. It may be that income serves as a proxy for other family characteristics that have an effect on child outcomes.

Longer-term income averaged over time consistently has the largest associations with child outcomes compared to using current income. This is true across almost all kinds of outcomes and all ages of children as well as for children living in married-couple or lone-mother families.

From an analytical perspective, the study also found that the pattern of the relationship between income and child outcomes can differ across outcomes for younger children. Sometimes, outcomes improve very quickly, other times more slowly as income increases.

**Note:** Data for this study came from Cycles 1-3 of the National Longitudinal Survey of Children and Youth. The analysis was conducted at the Atlantic Research Data Centre at Dalhousie University. The Research Data Centre program is part of an initiative by Statistics Canada, the Social Sciences and Humanities Research Council and university consortia to strengthen Canada's social research capacity. There are 16 centres currently operating at various universities.

**Definitions, data sources and methods: survey number 4450.**

The research paper *Income and the Outcomes of Children* (11F0019MIE2006281, free) is now available. To obtain a copy, go to the *Our products and services* page online.

Related studies from the Business and Labour Market Analysis Division can be found at *Update on Analytical Studies* (11-015-XIE, free) on our website.

For more information, or to enquire about the concepts, methods or data quality of these articles, contact Shelley Phipps (902-494-6987) or Lynn Lethbridge (902-494-1636), Department of Economics, Dalhousie University.

For more information about the Research Data Centre program, contact Gustave Goldmann (613-951-1472), Research Data Centre program. ■

## Commercial Software Price Index

March 2006

The Commercial Software Price Index (CSPI) is a monthly series measuring the change in the purchase price of pre-packaged software typically bought by businesses and governments.

The CSPI (2001=100) for March was 69.0, an increase of 0.4% from February.

This index is available at the Canada level only.

**Available on CANSIM: table 331-0003.**

**Definitions, data sources and methods: survey number 5068.**

For more information on these indexes, contact Client Services (1-866-230-2248; 613-951-9606; [infounit@statcan.ca](mailto:infounit@statcan.ca)). To enquire about the concepts, methods or data quality of this release, contact Fred Barzyk (613-951-2493; [fred.barzyk@statcan.ca](mailto:fred.barzyk@statcan.ca)), Prices Division. ■

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## **Interim list of changes to municipal boundaries, status and name**

January 2, 2005 to January 1, 2006

The report *Interim List of Changes to Municipal Boundaries, Status, and Names*, available today, summarizes the changes to municipal boundaries, status and names that occurred from January 2, 2005 to January 1, 2006. These changes have been processed

by Geography Division, and are based on information received from the provinces and territories.

The report *Interim List of Changes to Municipal Boundaries, Status, and Names* (92F0009XIB, free), released annually, is now available. To obtain a copy, go to the *Our products and services* page of our website.

For more information, contact GEO-Help (613-951-3889; [geohelp@statcan.ca](mailto:geohelp@statcan.ca)), Geography Division. ■

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## New products

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**Analytical Studies Branch Research Paper Series:**  
**Income and the Outcomes of Children**, no. 281  
**Catalogue number 11F0019MIE2006281**  
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**Canadian Economic Observer**, May 2006, Vol. 19,  
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
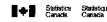

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Thursday, June 3, 1997 For release at 9:30 a.m.	
<b>MAJOR RELEASES</b>	
• <b>Urban transit, 1996</b> Despite the emphasis on taking urban transit, Canadians are using it less and less. In 1996, each Canadian took an average of about six trips on some form of urban transit, the lowest level in the past 25 years.	2
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