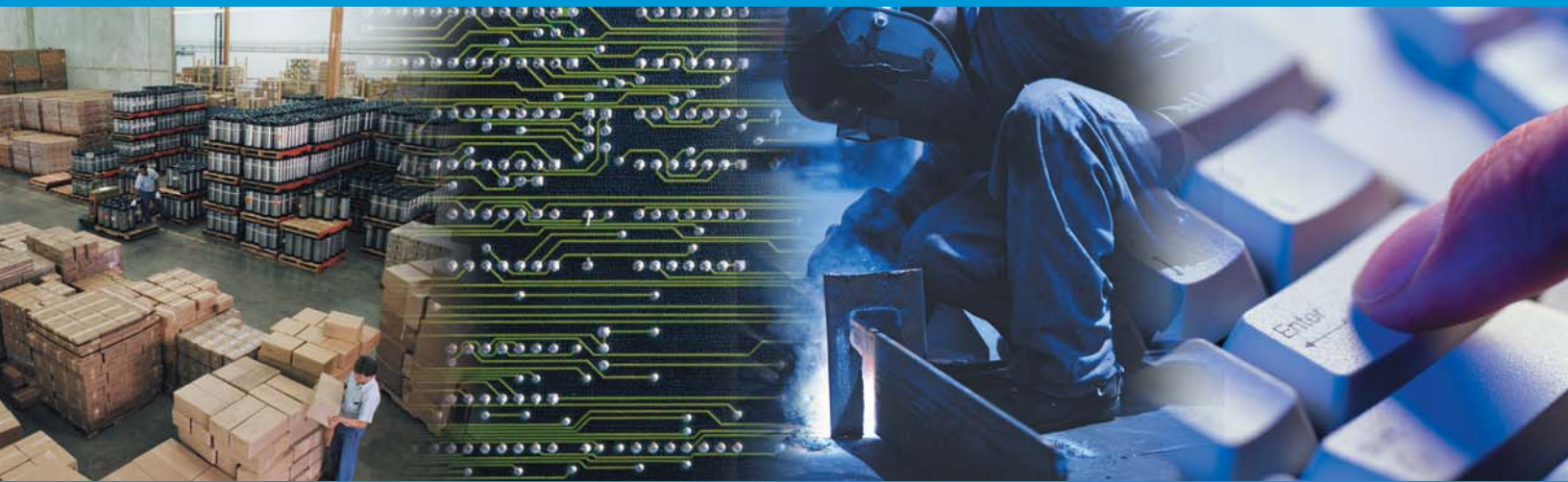




**Canadian
Manufacturers &
Exporters**

British Columbia Division

BC Opportunities Profile Manufacturing



Produced by BC Stats



**BRITISH
COLUMBIA**

Ministry of Management
Services



Western Economic
Diversification Canada

Diversification de l'économie
de l'Ouest Canada



**BRITISH
COLUMBIA**

Ministry of Small Business and
Economic Development



**Canadian
Manufacturers &
Exporters**

British Columbia Division

British Columbia's Manufacturing Sector

January 2004

Produced by BC Stats



**BRITISH
COLUMBIA**

Ministry of Management
Services

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Introduction

This publication provides background information on the manufacturing sector, which can be used by members of the public or by analysts with an interest in the sector, its structure, and the contribution it makes to the economy. This is the first edition of this report, and it is hoped that it will be produced on an annual basis in the future.

The manufacturing sector defined

The manufacturing sector includes all establishments that are primarily engaged in the physical or chemical transformation of raw materials or substances into new products. These products may be either finished (ready for final consumption) or semi-finished (used for further processing). Related activities such as assembly, blending, or finishing are also treated as manufacturing activities.

Sectors versus Industries

Throughout this document, the term **sector** is used to describe groupings of industries, such as those in the manufacturing, goods, services, high technology, tourism and forest products sectors.

There are 21 component industries in the **manufacturing sector**, including wood and paper manufacturing, food processing, fabricated metal and machinery manufacturing, and a number of other industries.

The **goods sector** includes all industries that produce tangible products rather than services. These industries (or industry groups) are: agriculture, fishing, logging, mining, oil & gas extraction, construction, utilities and manufacturing. Industries in the **service sector** include: retail and wholesale trade, financial & real estate services, transportation & warehousing, health care, education, and various other services provided to individuals and businesses. The term **business sector** is sometimes used to describe all industries that operate on a for-profit basis.

Manufacturing processes vary considerably among industries and over time. Some (e.g., fish processing or garment manufacturing) are labour intensive, and involve making only limited changes to materials used in production. In other cases (e.g., pharmaceuticals), the process is highly complex, requiring extensive research and development to bring the product from its initial conception to its final form. This may require substantial investment in both new and existing capital equipment. A more detailed definition of the manufacturing sector and its many component industries is available in Appendix 1.

Note to Readers

This profile of the manufacturing sector summarizes the latest information on GDP, employment, revenues and other economic indicators available at the time of publication for each of the variables covered.

Statistics Canada is the main source of the data in this report. BC Stats is the source of estimates for special sectors such as high technology, tourism, and primary and secondary manufacturing. The information is current as of November 2003, when the report was prepared.

GDP data quoted in the text and charts are based on information published in April 2003. Statistics Canada has released updated estimates in November 2003, but it was not possible to fully incorporate those figures into the report, since a substantial amount of work is required to update data for related industry groupings such as the high technology sector. To ensure consistency when comparisons are made, the text of this document is based on the information in the April release.

Wherever possible, data has been provided back to 1990. However, it should be noted that, because some industries are relatively small, or are dominated by a few large firms, detailed information may be confidential, or is releasable only for selected years.

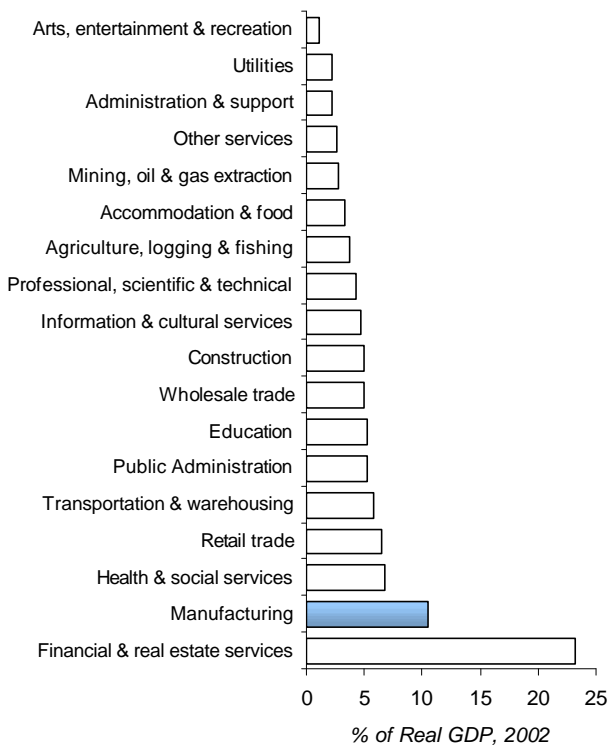
An Overview of the Manufacturing Sector

A key player in British Columbia's economy

British Columbia's manufacturing sector is diverse and broadly based. It includes 21 industry groups, which encompass a wide variety of activities, ranging from the manufacture of clothing, plastics, computers, and aerospace products, to more traditional activities such as food processing or pulp, paper and lumber production.

Manufacturing activities play a key role in British Columbia's economy, generating just over ten per cent of the province's total gross domestic product (GDP) and providing employment for one in every ten workers in the province.

Manufacturing is the second biggest industrial sector in the province



Sources: Statistics Canada and BC Stats
Figure 1

In terms of its contribution to total GDP,¹ manufacturing is second only to the finance, insurance and real estate service industry, which produced 23 per cent² of the province's GDP in 2002. By comparison, the tourism sector accounts for about four per cent of GDP, while the high technology sector, which includes a substantial manufacturing component, contributes about three per cent of British Columbia's GDP.³

Manufactured products dominate the province's international commodity exports, making up about three-quarters of the total value of goods exported from the province to other countries. They comprise a similar share of BC's inter-provincial trade in goods and services.

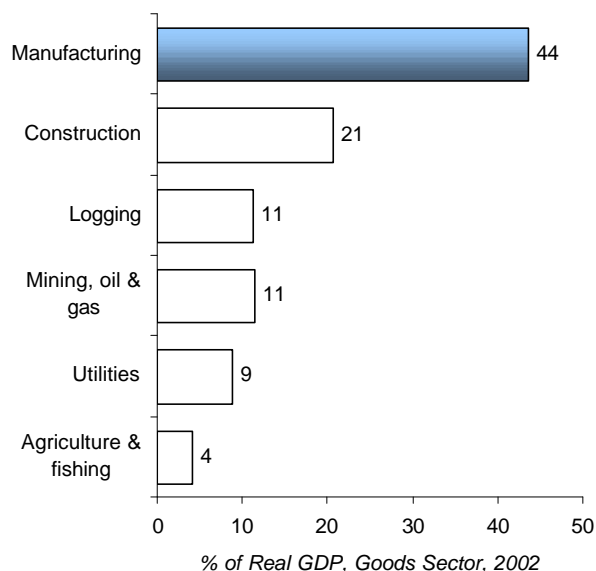
Within the goods sector, manufacturing accounts for a bigger share of total GDP (44 per cent) and employment (49 per cent) than any other industry. Although the relative size of goods-producing industries in the British Columbia economy has diminished over time (three-quarters of the province's total GDP and eight out of every nine jobs now originate in services), manufacturing continues to be one of the most important economic drivers in the province.

¹ Unless otherwise noted, all GDP figures quoted in this document are in constant (1997) dollars. Other data is reported using current dollars.

² About half of this is an imputed estimate of the rental value of owner-occupied housing.

³ The manufacturing and high technology sectors overlap, since the latter is a special aggregation of various industries that produce high technology products. About a third of the high technology sector's GDP originates in manufacturing activities. These activities are included in the totals for manufacturing throughout this document.

Forty-four per cent of GDP in the goods sector originates in manufacturing



Sources: Statistics Canada and BC Stats
Figure 2

Strong ties to other industries...

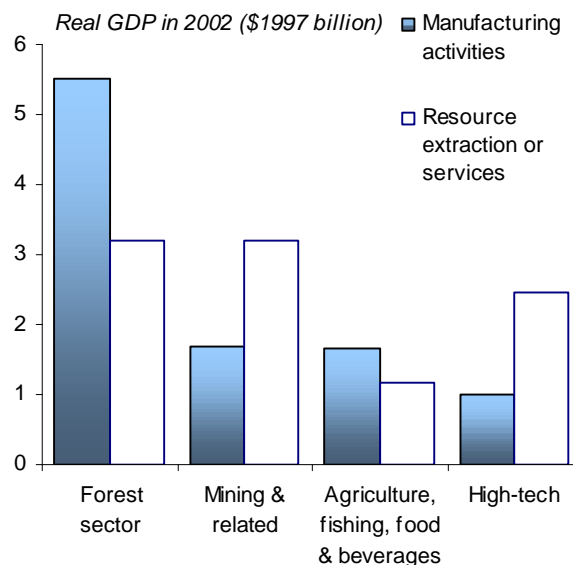
Many industries within the manufacturing sector have strong ties to other goods-producing industries, which provide raw materials for processing. Because of this, manufacturing activities are frequently included in special groupings such as the *forest sector* (logging, wood and paper); *mining and related* (mining, oil & gas extraction, metal fabricating, primary metals, non-metallic minerals and petroleum & coal products) and *agriculture, fisheries and food* (agriculture, fishing and food & beverage manufacturing).

While these groupings are useful for analytical purposes, they can mask the actual scope of the province's manufacturing sector, which contributes a substantial share of total output in each of these sectors.

For example, nearly two-thirds of total GDP in the forest sector originates in wood and paper manufacturing, and processing activities make up a slightly smaller share of GDP in agriculture, fisheries and food. Just under a third of

the GDP in the mining and related sector is attributable to manufacturing activities. Thirty per cent of the high technology sector's GDP originates from manufacturing high technology products such as computers, pharmaceuticals and electronics.

Forestry, high technology and other important sectors have a substantial manufacturing component



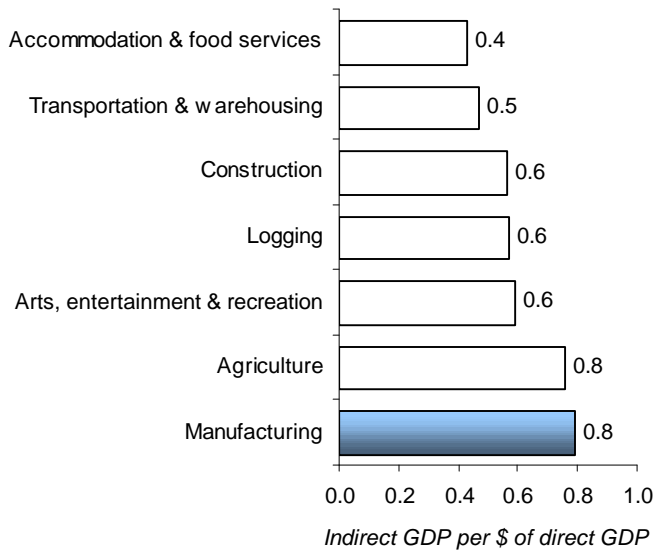
Sources: Statistics Canada and BC Stats
Figure 3

...with significant multiplier effects

The extent of these linkages between manufacturing and industries such as logging or agriculture can be quantified using economic multipliers, which are calculated using an input-output⁴ model to trace the relationships between suppliers and producers. Economic multipliers indicate the extent to which a change in industry output stimulates activities in supplier industries within the province. Effects on industries outside the province are not included in the multipliers.

⁴ A document explaining the concept of economic multipliers, and providing additional details for specific industries is available from BC Stats' web store online at www.bcstats.gov.bc.ca.

**For every dollar of GDP in manufacturing,
another 80 cents is generated
in supplier industries**



Source: BC Stats, 1999 Input-Output Model
Figure 4

The input-output analysis suggests that the manufacturing sector supports nearly as many jobs and generates almost as much indirect GDP in supplier industries as it does directly. For the sector as a whole, every dollar of direct GDP is estimated to generate an additional 80 cents of GDP in supplier industries, more than for any other industry group. In terms of employment, every (full-time equivalent) job in manufacturing indirectly supports nine-tenths of a job in industries that supply goods and services used in production. Logging (1.1 indirect jobs) and mining, oil & gas (1.1 indirect jobs) are the only industries with higher employment multipliers.

Labour-intensive industries such as accommodation & food services or professional, scientific & technical services tend to have lower multipliers because purchased goods and services represent a proportionally smaller share of total costs, so the potential stimulus to other industries is correspondingly smaller. However, these industries typically provide more person-years of work for every million dollars of output than is the case in manufac-

turing, where a million dollars of output supports an average of four person-years of employment.

Employment Multipliers, Selected Industries

Industry	Indirect employment per direct job	Person-years of direct employment per \$million of output
Logging	1.1	3
Mining, oil & gas	1.1	3
Manufacturing	0.9	4
Agriculture	0.6	11
Transportation & warehousing	0.5	9
Construction	0.5	8
Arts, entertainment & recreation	0.4	16
Wholesale trade	0.4	9
Professional, scientific & technical services	0.3	14
Fishing, hunting & trapping	0.3	9
Retail trade	0.2	21
Accommodation & food services	0.2	20
Health & social services	0.2	18
Education	0.1	34

Source: BC Stats, 1999 Input-Output Model

Multiplier effects vary considerably within the manufacturing sector. They are greatest in resource-based industries such as primary metals, paper, wood, food and non-metallic minerals where raw materials or services purchased from other domestic industries represent a substantial share of the inputs used in production. Industries such as clothing, textiles, metal fabricating and transportation equipment have smaller multiplier effects. Some of these industries are labour-intensive; others purchase inputs from firms within their industry group, or import them from outside the province. In the latter case, the industries

that benefit from increased activity are outside British Columbia, so the effect is not included in the multipliers, which measure domestic activity only.

A wide range of products

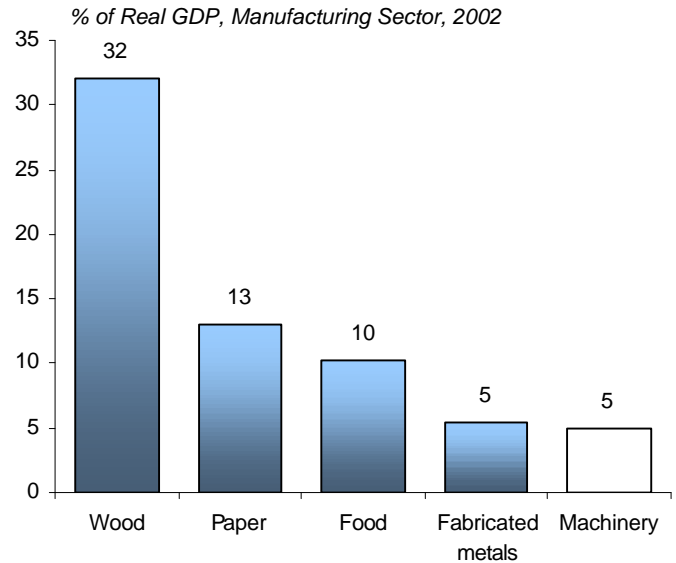
An abundance of natural resources⁵ gives British Columbia a comparative advantage in producing natural resource-based manufactured outputs such as wood and paper products from trees harvested in the province's coastal and interior forests. Wood, paper and food production are the biggest industries in the sector. Together, these three industries accounted for just over half of the sector's total GDP in 2002. Metal fabricating is also an important activity as are the machinery and computer & electronics industries, each of which account for about five per cent of the sector's GDP. Manufacturers of transportation equipment and chemicals also account for significant shares of total manufacturing output, especially when the dominance of forest products and food processing are taken into consideration.

More than a quarter of the manufacturing sector's GDP in 2002 originated in industries with no direct links to the resource sector. Many of these industries have exhibited stronger-than-average growth during the last decade. In particular, manufacturers of computers & electronics have seen phenomenal growth, expanding by a factor of more than five. The machinery industry has more than doubled its GDP since 1990. Producers of rubber & plastics, furniture, chemicals and electrical equipment

⁵ Resource-based manufacturing industries have traditionally been defined as those that rely to a great extent on the processing of primary (agriculture, fishing, forestry or mining) products. Within the manufacturing sector, these industries include: food, beverages, wood, paper, petroleum & coal products, non-metallic minerals, primary metal and fabricated metal manufacturing. It could be argued that metal fabricating should not be included in this list; however, its inclusion is consistent with the definition used in other BC Stats reports.

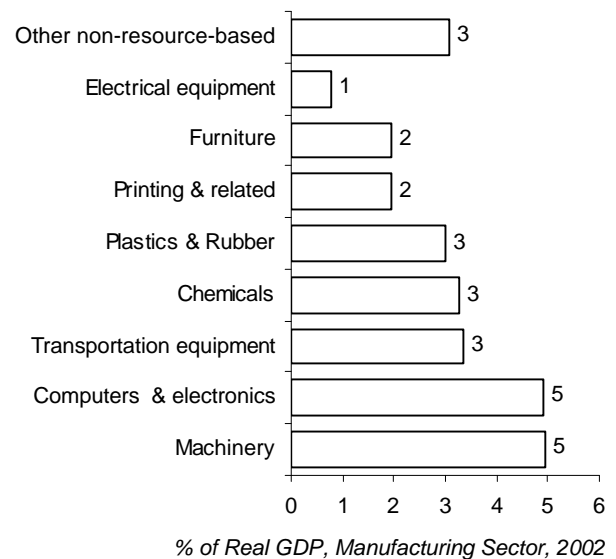
have all expanded their value added more than twenty per cent since 1990, substantially more than the 13 per cent average for all manufacturing industries in the province.

Four of the five biggest industries in the manufacturing sector are resource-based...



Sources: Statistics Canada and BC Stats
Figure 5

...but more than a quarter of the sector's GDP originates in non-resource industries



Sources: Statistics Canada and BC Stats
Figure 6

Primary and secondary processing both important

Manufacturing industries in the province engage in both primary and secondary processing activities. Primary manufacturing,⁶ which involves only limited transformation of raw materials into finished products, generate 53 per cent of the manufacturing sector's real GDP. The forest products, food & beverage and mineral-based manufacturing industries are heavily oriented towards primary processing. However, they are also engaged in secondary manufacturing, producing goods, such as doors and windows or bakery products that have been substantially transformed from their original state. Overall, secondary manufacturing activities account for just under half (47 per cent) of the sector's GDP.

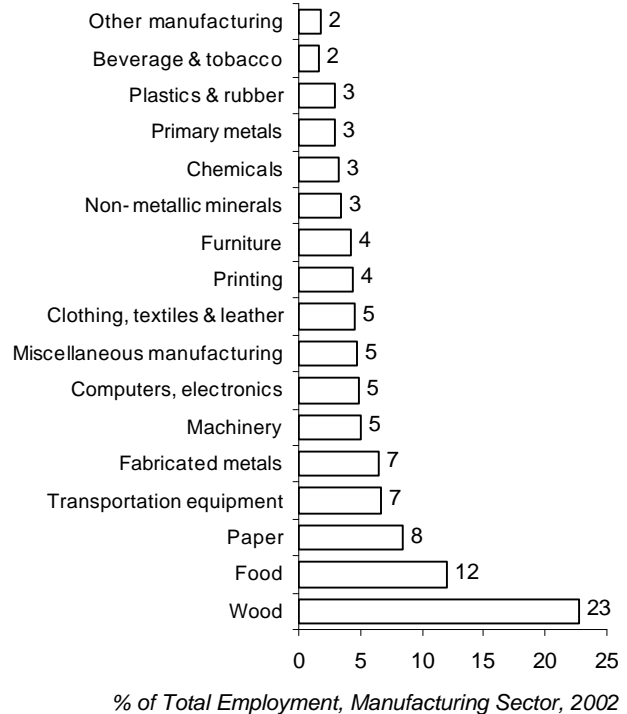
Manufacturing employs ten per cent of the work force

Manufacturing is a major source of employment, providing one out of every ten jobs in the province. Retail trade (12 per cent) and health & social services (11 per cent) are the only industries that employ more British Columbians. By comparison, the tourism (seven per cent) and high technology (three per cent) sectors account for substantially smaller shares of total employment.⁷

Within manufacturing, the largest employer is the wood industry, providing 23 per cent of the jobs in 2002. The food industry is the second largest employer, accounting for 12 per cent of all manufacturing jobs, while nine per cent of the workers are in the paper industry. Other major employers include the transportation

equipment (seven per cent) and fabricated metals (seven per cent) industries.

Nearly a quarter of the manufacturing workforce is employed in the wood industry



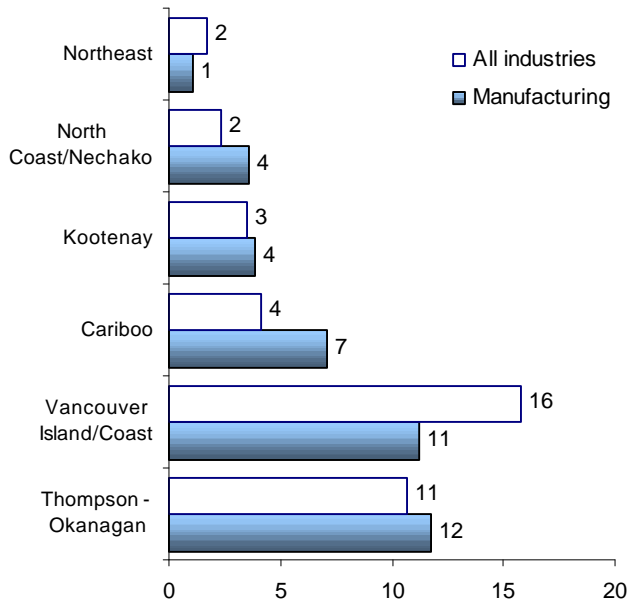
Sources: Statistics Canada and BC Stats
Figure 7

Although primary production continues to dominate output in the manufacturing sector, secondary manufacturing employs the largest number of people. Two-thirds of the jobs in the sector are in secondary manufacturing industries.

⁶ A more detailed definition of primary and secondary manufacturing activities can be found in Appendix 2.

⁷ Tourism and high tech are special industry aggregations, and include components of other industries such as retail trade or manufacturing. Employment data for these sectors are based on information from a survey of manufacturers, whereas other employment figures quoted in this report come from the Labour Force Survey.

Manufacturing a key employer in regions such as Cariboo, Kootenay and North Coast/Nechako



Regional Employment as a % of Total Employment, 2002

Sources: Statistics Canada and BC Stats
Figure 8

Most manufacturing jobs located in the Lower Mainland

Manufacturing is the main source of jobs in many British Columbia communities, and this is reflected in the regional distribution of the workforce. Thompson-Okanagan, Cariboo, Kootenay and North Coast/Nechako all account for a larger share of manufacturing jobs than their share of total employment in the province.

Six out of every ten manufacturing jobs are located in the Lower Mainland/Southwest region of the province, the same percentage as the region's share of total employment. Vancouver Island/Coast has a sizeable manufacturing workforce, but, due to the importance of public administration, represents a substantially smaller share of manufacturing employment than its share of total employment in the province.

Manufacturing as a Per Cent of Total Employment, 2002

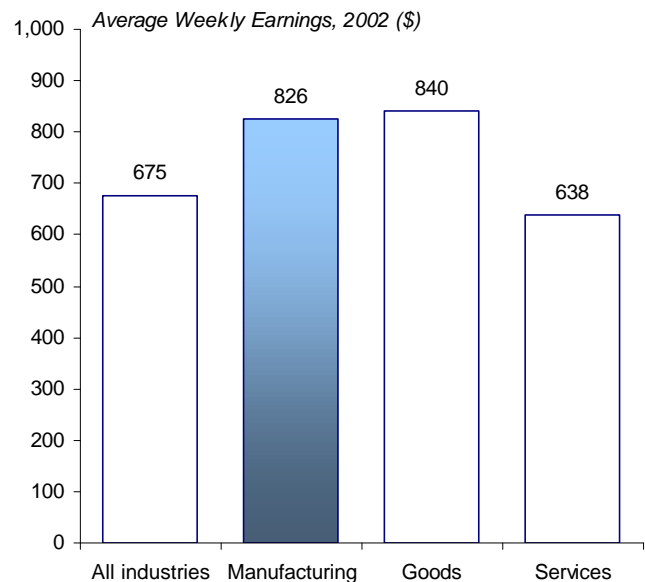
Cariboo	17
North Coast/Nechako	15
Kootenay	11
Thompson-Okanagan	11
British Columbia	10
Lower Mainland/SW	10
Vancouver Island/Coast	7
Northeast	7

Sources: Statistics Canada and BC Stats

Cariboo and Nechako regions most dependent on manufacturing

Cariboo, where 17 per cent the workforce is employed in manufacturing, and North Coast/Nechako (15 per cent) are the regions where the economy is most dependent on manufacturing activities. By comparison, only seven per cent of workers in Vancouver Island/Coast are employed in manufacturing.

Manufacturing wages higher than average



Sources: Statistics Canada and BC Stats
Figure 9

Average weekly earnings in the manufacturing sector are about a fifth higher than the all-

industry average, and substantially higher than in the service sector.

British Columbia in the Canadian context

Relative to the size of its economy, British Columbia's manufacturing sector is about the same as Alberta's, accounting for 10 per cent of GDP and a similar share of total employment. Alberta's manufacturing sector, which generates 9 per cent of that province's GDP, has grown rapidly in recent years, and is now nearly as big as British Columbia's. The economies of Ontario and Quebec, where manufacturing (especially secondary processing) is well established and more diversified, are much more dependent on manufacturing activities. About a fifth of Ontario's GDP, and a slightly smaller share of employment, originates in manufacturing. Manufacturing plays a similarly important role in the Quebec economy.

Canadian manufacturing dominated by Ontario and Quebec

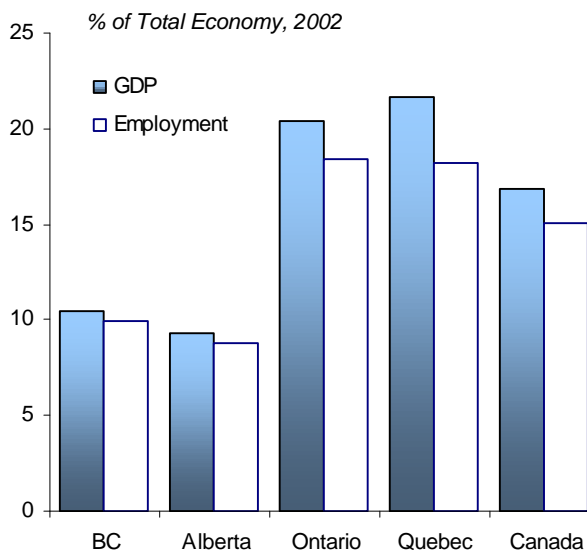
Seventeen per cent of Canada's GDP originates in the manufacturing sector. This reflects the dominance of the Ontario and Quebec manufacturing sectors in the Canadian economy. Eighty percent of total value added in the Canadian manufacturing sector originates in these two provinces. British Columbia, with 7 per cent of the total, is ranked a distant third, followed by Alberta.

Real GDP at Basic Prices, Manufacturing, 2002

	\$1997 million	Per cent of Canadian Total
British Columbia	12,249	7
Alberta	11,204	7
Ontario	83,849	51
Quebec	45,677	28
Other provinces	11,962	7
Canada	164,941	100

Sources: Statistics Canada and BC Stats

Relative to the economy as a whole, British Columbia's manufacturing sector is about the same size as Alberta's



Sources: Statistics Canada and BC Stats
Figure 10

British Columbia an important player in some industries

British Columbia is an important player in some manufacturing industries. The province is the biggest producer of wood products in the country, accounting for more than a third (36 per cent) of total Canadian GDP in this industry, substantially more than in the other major wood-producing provinces: Quebec (29 per cent), Ontario (17 per cent) and Alberta (9 per cent). In British Columbia, the industry produces mainly sawmill and plywood products, with doors, windows and other millwork accounting for a smaller share of total output.

Pulp, paper and newsprint are the main products of British Columbia's paper industry, which is the third largest in the country. British Columbia generates 14 per cent of total Canadian GDP in this industry, while Ontario (28 per cent) and Quebec (38 per cent) together account for two-thirds of total value added.

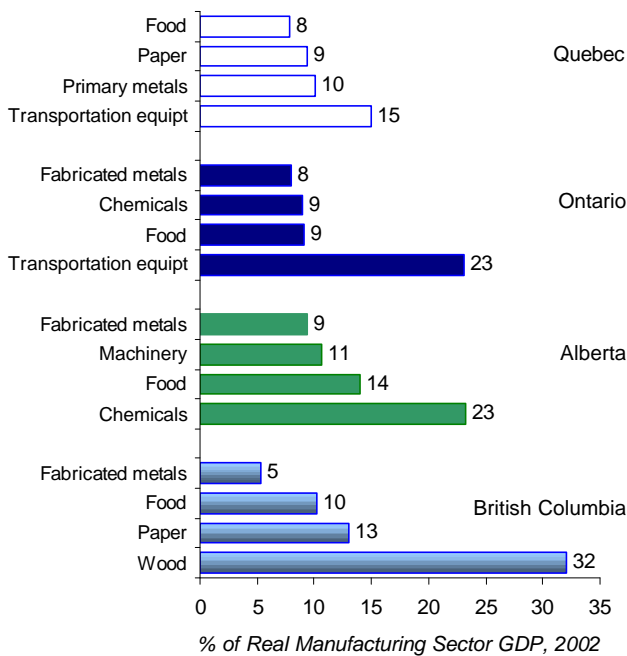
Food manufacturing plays a big role in all provinces, including British Columbia. Meat, poultry, fish and seafood processing and bak-

eries are among the largest food manufacturing industries in the province.

Structure of British Columbia's manufacturing sector compared to other provinces

Wood (32 per cent of manufacturing GDP), paper (13 per cent) and food (10 per cent) processing are British Columbia's biggest manufacturing industries. Other important manufacturing activities include metal fabricating (five per cent), computers & electronic equipment (five per cent) and machinery (five per cent) manufacturing.

British Columbia's manufacturing sector is less diversified, and more dependent on natural resources, than is the case in other provinces



Sources: Statistics Canada and BC Stats
Figure 11

Although Alberta's manufacturing sector relies to a great extent on energy products, it is more diversified than British Columbia's. Among the top industries, chemicals are ranked first (with 23 per cent of manufacturing GDP), followed by food processing (14 per cent),

machinery (11 per cent), metal fabricating (nine per cent) and wood (eight per cent).

The auto industry drives Ontario's manufacturing sector, with transportation equipment (23 per cent) being the single largest manufacturing industry in that province. Manufacturers produce motor vehicles as well as a wide range of parts for these vehicles. Food (nine per cent), chemicals (nine per cent), metal fabricating (eight per cent) and computers and electronic products (seven per cent) are other major manufacturing industries in that province.

Quebec's aerospace industry helps make transportation equipment manufacturing (15 per cent) the number one manufacturing industry in that province. Primary metals (10 per cent), paper (nine per cent), food (eight per cent) and chemicals (eight per cent) are also important industries.

Research and Development (R&D) in the manufacturing sector

Manufacturing industries play a key role in industrial R&D activities in the province. Manufacturing employs more R&D workers than any other industry. Nearly half (47 per cent) of the people engaged in private sector R&D in 2001 worked in the manufacturing sector.

Persons Engaged in R&D by Industry, British Columbia, 2001

	Number	Per cent of total	Per cent of Canadian total
Agriculture	174	2	24
Mining	90	1	2
Utilities	86	1	9
Construction	93	1	14
Manufacturing	4,233	47	8
Services	4,387	48	10
All industries	9,063	100	9

Sources: Statistics Canada and BC Stats

2002: The Year in Review

A Note about GDP Measures

GDP is a measure of value added, which is essentially the difference between the cost of the material inputs and purchased services used in production and the price at which a good or service is sold.

GDP can be reported using either current or constant dollars. Constant dollar, or real, GDP is the best measure for understanding and illustrating trends over time.

"Constant dollar" figures have been adjusted to remove the effect of price changes (i.e., inflation and deflation) over time. This means that constant dollar values can be viewed as measures of the actual value added, or net output, of an industry.

Although there are 21 major industries within the manufacturing sector, Statistics Canada's does not publish separate GDP estimates for all of them. Primary metals are aggregated with metal fabricating, and textiles and textile product mills are lumped together in the GDP figures quoted in this analysis. Additionally, data for some manufacturing industries is confidential and cannot be reported.

Manufacturing sector recovers

2002 saw a return to more bullish conditions in the manufacturing sector, with 12 of the 19 industries⁸ for which data is reported expanding, most of them rebounding after losing ground in 2001. For the sector as a whole, real GDP advanced 1.6 per cent (to \$12.2 billion) in 2002, after contracting substantially (-10.2 per cent) in the previous year.

Although British Columbia's economy grew 2.1 per cent, the goods sector contracted (-0.7 per cent), following an even bigger decline (-4.7 per cent) in 2001. Manufacturing and utilities (+1.9 per cent) were the only major industry groups in the goods sector that posted gains in 2002. Agriculture, forestry, fishing &

hunting (-1.8 per cent) declined largely due to a downturn in the logging industry.

Service sector growth (+2.9 per cent) remained solid, boosted by strong performances in retail and wholesale trade, financial & real estate services and information & cultural services industries. However, transportation & warehousing, accommodation & food services, and the professional, scientific & technical service industries saw little or no growth in 2002.

Real GDP at Basic Prices Annual Per Cent Change

	2001	2002
Non-metallic minerals	4.6	16.2
Furniture	-4.8	14.3
Wood	-11.0	7.7
Beverages & tobacco	-6.8	5.4
Machinery	-16.8	4.9
Chemicals	2.1	4.5
Transportation equipment	-19.1	3.2
Metal fabricating	-7.0	2.2
Food	5.7	2.0
Manufacturing	-10.2	1.6
Plastics & rubber	-6.7	-3.3
Paper	-11.8	-3.7
Printing	-14.4	-11.6
Clothing	-11.7	-16.0
Computers & electronics	-28.2	-23.0
Electrical equipment	-5.9	-29.6
<i>other industries not releasable</i>		
Special aggregations		
Primary manufacturing	-8.4	5.9
Secondary manufacturing	-12.1	-3.0
High technology manufacturing	-22.5	-15.6
Other secondary manufacturing	-0.8	10.2
All industries	0.9	2.1
Goods	-4.9	-0.7
Services	2.9	2.9
High technology sector	-0.3	-2.0
Tourism sector	3.5	na

Sources: Statistics Canada and BC Stats

⁸ See note above.

Primary manufacturing rebounds but high technology manufacturing remains weak

The improvement in the manufacturing sector was partly driven by primary manufacturing industries, which expanded 5.9 per cent in 2002. Secondary manufacturers did not fare as well (-3.0 per cent), due to continued weakness in high technology manufacturing (-15.6 per cent). Manufacturers of other secondary products saw real GDP rebound (+10.2 per cent) in 2002.

Producers of non-metallic minerals (+16.2 per cent), furniture (+14.3 per cent) and wood (+7.7 per cent) posted the strongest growth. Manufacturers of beverages and tobacco (+5.4 per cent), machinery (+4.9 per cent) and chemicals (+4.5 per cent) also made solid gains.

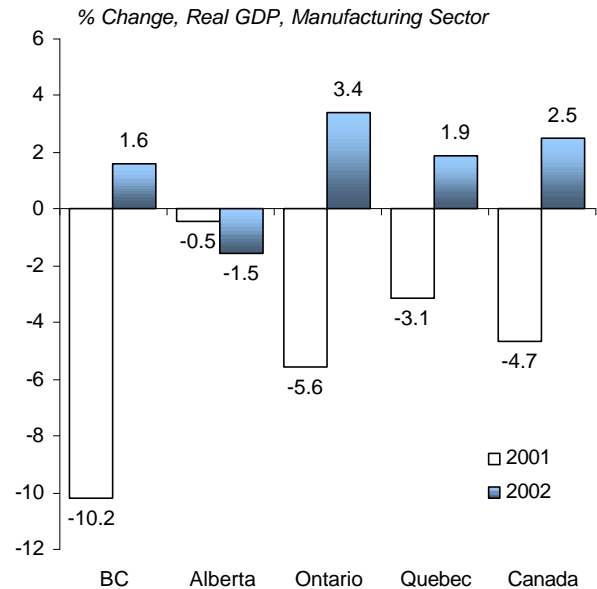
Other manufacturing industries faced challenges in 2002. The paper industry contracted (-3.7 per cent) for the second year in a row, and the computer and electronics (-23.0 per cent) industry, an important component of the high technology sector, continued to feel the effects of the dotcom collapse. Producers of electrical equipment, appliances & components (-29.6 per cent), clothing (-16.0 per cent) and printing & related support activities (-11.6 per cent) also saw double-digit declines in GDP.

Stronger growth in other parts of the country

Canada's manufacturing sector expanded 2.5 per cent in 2002, rebounding from a sharp drop in the previous year, when virtually every province saw its manufacturing sector shrink. 2002 saw a broadly based recovery in most parts of the country. Alberta (-1.5 per cent) and Newfoundland (-1.1 per cent) were the only provinces to post declines. In Alberta, this was the third manufacturing downturn in the last four years, and the first back-to-back decline since the early 1990s. Ontario's 3.4 per cent increase was partly due to growth in the auto

industry, but also reflected gains in other industries such as chemicals, rubber and plastics. Quebec saw slower growth of 1.9 per cent.

Manufacturing recovers after slumping in 2001



Sources: Statistics Canada and BC Stats
Figure 12

Revenue

Revenue is the amount of money earned from the sale of goods or services by producers in an industry. For manufacturers, it is measured using the value of shipments of goods of own manufacture. The shipment data understate total revenues since they exclude some earnings from other activities of manufacturers. The data comes from Statistics Canada's annual and monthly Surveys of Manufacturers.

Revenues edge up

The value of shipments by British Columbia manufacturers edged up 0.4 per cent in 2002 to reach \$34.2 billion after plunging (-9.7 per cent) in 2001. Performance was mixed within the manufacturing sector. Producers of primary manufactured products saw shipments recover, increasing 1.6 per cent in 2002, despite a downturn in the primary forest products in-

dustries. Producers of primary mineral products, food & beverages and other primary products posted gains.

Manufacturers of high technology products saw shipments fall 11.9 per cent, enough to offset a 0.7 per cent increase in the value of shipments of other secondary products. Shipments by manufacturers of secondary forest products were also down from 2001 levels.

British Columbia Manufacturing Shipments, 2002

	Value (\$million)	Per cent change
Manufacturing	34,106	0.4
Primary	18,966	1.6
Secondary	15,140	-1.1
High technology	2,200	-11.9
All other secondary	12,940	0.7

Sources: Statistics Canada and BC Stats

Durable goods manufacturers registered a 3.0 per cent increase in revenues, while producers of non-durable goods saw a 3.4 per cent decline. Wood (+4.8 per cent) and food (+3.4 per cent) manufacturers posted solid gains, but shipments by the paper industry fell 11.7 per cent. Most of the decline was price-related. In real terms (\$1997), paper shipments were just 2.3 per cent lower than in 2001.

Canadian shipments rose 1.9 per cent to \$518.5 billion in 2002. As was the case with GDP, increases occurred in all large provinces except Alberta (-3.4 per cent).

Capital Expenditures

Capital expenditure data in this report are based on Statistics Canada's Public and Private Sector Investment Survey. Both construction and machinery and equipment expenditures are included, but the estimates do not include business investment for capital repairs.

Capital expenditures remain weak

Capital expenditures in the manufacturing sector slumped (-16.9 per cent), dropping to \$1.0 billion (current dollars) in 2002. The latest downturn in capital expenditures started in 2001 when manufacturers began to scale back their investment plans. Since then, uncertainties around the external economic environment and geopolitical events have dampened investor confidence. The downturn can be also explained by the fact that manufacturers were operating well below full capacity, so had less incentive to invest in new plant and equipment.

Most manufacturing industries registered a decline in capital expenditures. Spending was down in the food (-5.9 per cent), wood (-11.5 per cent) and paper (-37.6 per cent) industries. These three industries together account for 45 per cent of all investment spending in the sector.

For Canada as a whole, capital expenditures also decreased substantially (-12.1 per cent) in 2002. Among the large provinces, Alberta showed the most significant decline (-23.8 per cent), as investment spending continued to subside after soaring in the late 1990s.

Employment

Employment data in this report are from Statistics Canada's Labour Force Survey (LFS). The LFS provides data on employment, unemployment, and characteristics of the workforce in a large number of industries. The data from the LFS give the average number of workers in an industry through the course of the year. If a manufacturing industry is highly seasonal, the peak number of workers is offset by those months where there are fewer workers. A full-time worker is accorded equal status with a part-time worker; no attempt is made to measure the number of "person years" or "full time equivalents." The LFS covers the civilian, non-institutionalised population 15 years of age and over.

Because the LFS is a household survey, industry classifications are not as robust as would be the case for other industry data. Therefore, LFS estimates for small industries within the manufacturing sector should be used cautiously.

Little change in employment

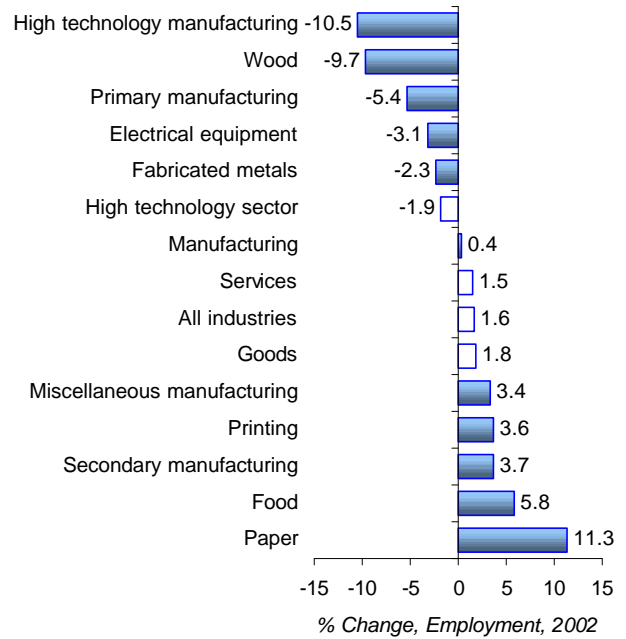
Manufacturing sector employment in British Columbia edged up marginally (+0.4 per cent) to 196,900 in 2002. Some of the larger industries in the sector, such as paper (+11.3 per cent) and food (+5.8 per cent) took on more workers. However, other big employers, including the wood industry (-9.7 per cent) pared down their workforce in 2002. Overall, job gains in durables-producing industries (+2.7 per cent) were offset by losses in non-durables manufacturing (-2.7 per cent).

Producers in the primary manufacturing industries continued to downsize (-5.4 per cent). Employment in secondary manufacturing increased 3.7 per cent, despite a big drop (-10.5 per cent) in the number of people working in high technology manufacturing.

The number of jobs in manufacturing did not increase as much as in the economy as a whole, where overall employment growth was 1.6 per cent in 2002. Both the goods (+1.8 per cent) and service (+1.5 per cent) sectors posted solid job growth. The increase in the goods sector was driven by agriculture, utilities and construction industries, all of which expanded the size of their workforce by at least five percent, and substantially more in the case of agriculture. The total number of jobs in the high technology sector fell 1.9 per cent, dropping to 44,700.

Part-time employment in manufacturing continued to rise (+9.5 per cent) in 2002, while the number of full-time jobs edged down (-0.2 per cent), falling for the second year in a row. The unemployment rate for manufacturing workers (7.2 per cent) remained below the all-industry average (8.5 per cent).

Employment growth in manufacturing was well below the all-industry average in 2003



Sources: Statistics Canada and BC Stats
Figure 13

Other provinces see stronger job growth

Employment growth in British Columbia's manufacturing sector was not as strong as in the rest of the country. Nationally, employment in the sector increased 2.3 per cent, rising to 2,326,200. Manufacturing firms in Alberta (+3.4 per cent), Ontario (+3.0 per cent) and Quebec (+2.0 per cent) all took on substantially more workers in 2002. In both Alberta and Ontario, employment growth in the manufacturing sector exceeded the all-industry average. For Canada as a whole, the number of manufacturing jobs increased at about the same rate as the total number of jobs (+2.2 per cent).

Nationally, the unemployment rate for manufacturing workers (6.2 per cent) was a full percentage point lower than in British Columbia. This difference was similar to the difference in the overall unemployment rate (7.7 per cent in Canada, compared to 8.5 per cent in British Columbia). Alberta (4.5 per cent)

and Ontario (5.2 per cent) had the lowest manufacturing unemployment rates in 2002.

Measuring labour productivity

Labour productivity is calculated as real GDP per worker-hour.

GDP growth can be the result of increased, or more efficient, use of both labour and capital inputs. Because labour productivity measures do not explicitly account for the effect of changes in capital inputs, changes in labour productivity may be due to either of these factors.

Labour productivity improves, but still low compared to other provinces

Labour productivity in the manufacturing sector, measured by output per worker-hour, increased 2.1 per cent in 2002. This strong productivity growth exceeded the national average (+0.2 per cent). Labour productivity slipped in Alberta (-3.1 per cent) and Quebec (-0.6 per cent), and was basically unchanged (+0.1 per cent) in Ontario.

Despite these significant gains, labour productivity in the province's manufacturing sector remains well below the Canadian average. Nationally, output per worker-hour is about 10 per cent higher than in British Columbia.

Labour productivity in the manufacturing sector, measured as GDP per worker-hour, is slightly lower than the all-industry average, and the average for both the goods and service sectors. Labour productivity differences among industries can be due to a number of factors, including the degree of capitalization and differences in wage rates. For example, using this measure, productivity in the utilities industry is extremely high (about three times that in manufacturing) largely because much of the industry's output is derived from the use of capital rather than labour inputs.

Average Weekly Earnings

Statistics Canada's Survey of Employment, Payrolls and Hours (SEPH) reports average weekly earnings at the enterprise level based on weekly payroll data. These data include gross pay as well as overtime and bonuses, commissions and other special payments before major deductions such as income taxes or employee contributions to social insurance plans. They exclude taxable allowances and benefits. The SEPH data excludes the self-employed, and workers in agriculture, fishing and trapping, private household services, religious organizations and military personnel or defence services.

Average weekly earnings increase

Average weekly earnings in British Columbia's manufacturing sector rose 2.4 per cent to reach \$826 in 2002, partly as a result of higher wages (average hourly earnings increased 2.2 per cent to \$19.43 per hour), and also because workers were spending more time on the job. Workers in manufacturing saw their earnings advance substantially more than in the economy as a whole, where weekly wages rose (+1.0 per cent) to \$675 weekly.

Average Weekly Earnings (\$) in British Columbia, Selected Industries

	2001	2002	Per cent change
Food	592	618	4.4
Wood	929	941	1.4
Paper	959	979	2.1
Chemicals	1085	1199	10.5
Fabricated metals	840	868	3.3
Machinery	931	984	5.6
High-technology manufacturing	720	760	5.6
Total manufacturing	807	826	2.4
All industries	668	675	1.0
Goods	830	840	1.3
Services	630	638	1.3

Sources: Statistics Canada and BC Stats

Wage growth in BC not as strong as in the rest of Canada

Manufacturing wages rose 2.7 per cent nationally, increasing to a weekly average of \$830 in 2002, just slightly higher than the \$826 weekly average in British Columbia. Manufacturing employees in Alberta (+3.1 per cent), Ontario (+2.6 per cent) and Quebec (+3.1 per cent) saw weekly earnings increase more than in British Columbia. Ontario manufacturing workers, at \$906 weekly, were paid substantially more than those in other provinces, reflecting the dominance of the high-wage auto industry in that province. Workers in Alberta's manufacturing sector earned an average \$830 per weekly, more than in any province except Ontario. Wages in Quebec were lower, at \$755 weekly.

Establishment Counts

Establishment counts are based on Statistics Canada's Business Register, which provides information on the number of establishments in each industry, and where they are located.

An establishment is the smallest accounting unit within a firm that can report certain financial data. A single company may contain a number of establishments. A branch location does not always signify the existence of an establishment; for example, bank branches are not identified as individual establishments. Furthermore, to be included in the tabulations the establishment must have paid employees; owner-operator firms with no paid employees are not included.

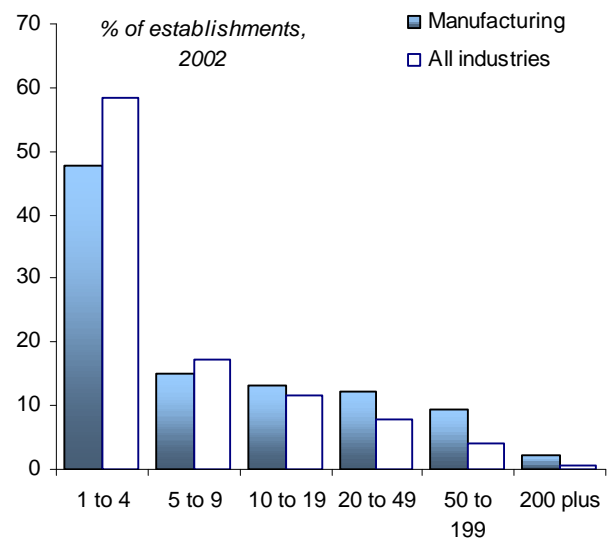
8,539 manufacturing establishments

In 2002, there were 8,539 manufacturing establishments in British Columbia, comprising about a quarter of all goods-producing establishments, and five per cent of all establishments in the province. Of this total, 1,430 were manufacturers of primary products

Establishments in the sector tend to have more employees than is the case in other industries. Twenty-four per cent of manufacturing establishments have at least 20 employees, compared to 13 per cent for the economy as a whole. Simi-

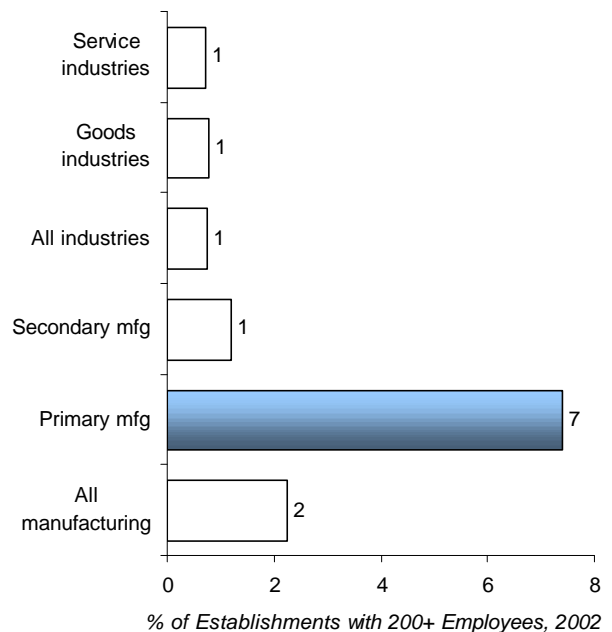
larly, two per cent of manufacturing establishments, but less than one per cent of all establishments in the province, have at least 200 employees. Primary manufacturing, in particular, has a high proportion (seven per cent) of large establishments.

Establishments larger than average...



Sources: Statistics Canada and BC Stats
Figure 14

...especially in primary manufacturing



Sources: Statistics Canada and BC Stats
Figure 15

The wood product industry accounted for more establishments (1,131 or 13 per cent of the total) than any other industry within the manufacturing sector in 2002. This industry also had the largest number of firms with 200 or more employees (63 out of a total of 191 large establishments in manufacturing). Fabricated

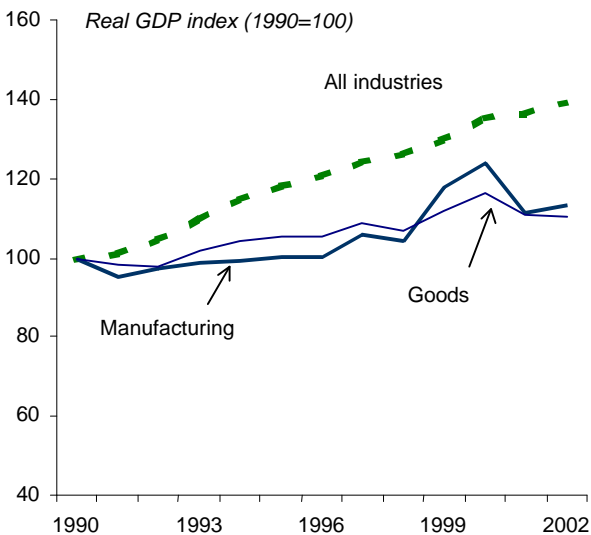
metal manufacturers had the second highest number of establishments (1,056), many (486) of which had from one to four employees. There was a relatively small number of paper manufacturing establishments, reflecting the fact that one in four locations has at least 200 employees.

The 1990s in Review

Manufacturing trailed behind the rest of the economy during the 1990s

Generally speaking, the 1990s were a challenging decade for most goods-producing industries in British Columbia, including those in the manufacturing sector. Real value added in manufacturing expanded just 13.1 per cent over the decade. This translates to an average annual⁹ growth of 1.0 per cent, considerably less than for the economy as a whole, where growth averaged 2.8 per cent annually, largely due to steady gains in the service sector (+3.5 per cent annually). Still, the manufacturing sector managed to perform marginally better than the goods sector as a whole, where real GDP registered a weak average annual gain of only 0.8 per cent. Mining, oil & gas extraction (+3.9 per cent annually) was the only goods industry to post strong growth during this period.

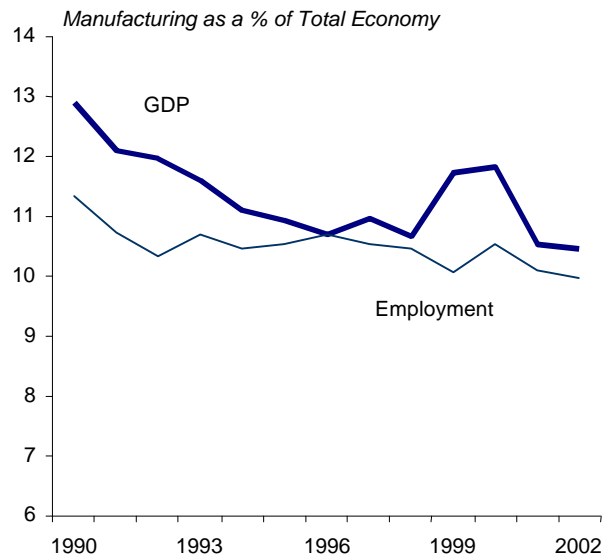
Goods producing industries in the province made only modest gains during the 1990s



Sources: Statistics Canada and BC Stats
Figure 16

⁹ All average annual increases reported in this paper are compound growth rates.

Despite slower-than-average growth during the 1990s, the manufacturing sector continues to play a key role in the British Columbia economy



Sources: Statistics Canada and BC Stats
Figure 17

Other industries in the goods sector showed little or no growth: utilities expanded at an average annual rate of just 0.2 per cent and the construction industry ended the period virtually unchanged from its 1990 level. Fishing, hunting and trapping shrank to just a third of its size in 1990 (an average annual decline of -8.5 per cent), while forestry (-0.9 per cent per year) was about ten per cent smaller than at the beginning of the period.

Most of the fast-growing industries were in the service sector. These included administration & support (with real GDP growth averaging 4.9 per cent per year), professional, scientific & technical services (+4.7 per cent), retail trade (+4.2 per cent), financial & real estate services (+4.1 per cent) and wholesale trade (+3.9 per cent).

As a result of its slower than-average growth, the manufacturing sector's contribution to real

GDP fell from 13 per cent in 1990 to just over 10 per cent in 2002. Its share of total employment declined from just over 11 per cent to 10 per cent during the same period. Despite this relative decline, manufacturing is still the second-largest industrial sector in the province.

Global economic conditions affected the manufacturing sector during the 1990s

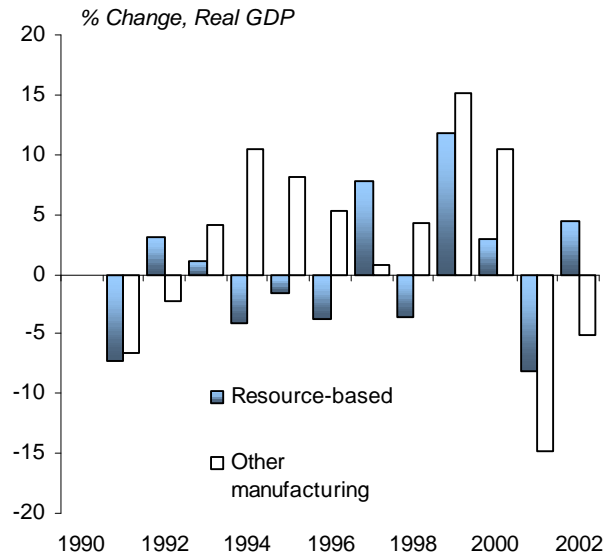
Because so much of their production is exported to international markets, British Columbia manufacturers are vulnerable to changes in global economic conditions. Fluctuations in world demand for resource-based commodities, economic conditions in the United States and Japan, changes in exchange rates, and trade disputes all affected British Columbia’s manufacturing sector, especially the resource-based industries, during the 1990s. The softwood lumber dispute between Canada and the United States continues to hamper the province’s wood industry, since much of its production is destined for use south of the border.

The manufacturing sector experienced three slowdowns between 1990 and 2002. The first, in 1991, was part of a generalized downturn in the Canadian and United States economies, as was the slowdown in 2001, when industries throughout the manufacturing sector saw GDP decline.

The economic crisis in Asia, together with lower prices for resource products, negatively affected many resource-based manufacturers during in the late 1990s. Overall, the manufacturing sector contracted 1.4 per cent in 1998, with both wood (-2.5 per cent) and paper (-8.1 per cent) manufacturers cutting back their output substantially. Producers of metallic and non-metallic mineral products, and other resource-based goods also saw GDP decline in 1998. However, the effect of the resource-based downturn was not as great as it might have been, as other manufacturing industries, particularly those involved in manufacturing

machinery, equipment, electronics, computers, clothing and textiles were enjoying a growth spurt.

Resource-based manufacturers faced some challenges during the 1990s



Sources: Statistics Canada and BC Stats
Figure 18

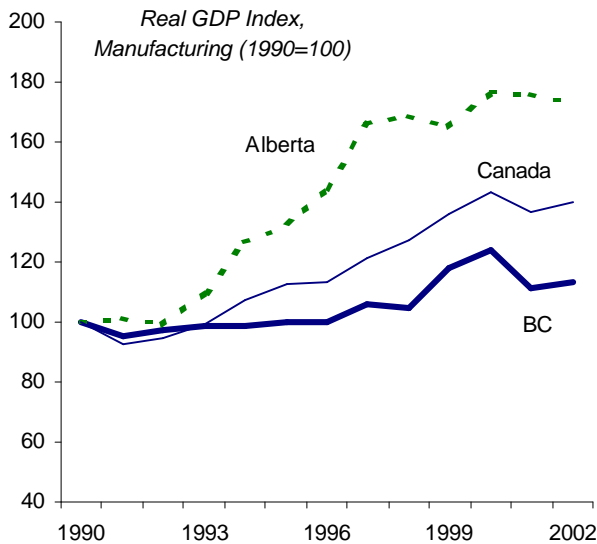
The effects of “Asian flu” were short-lived and the manufacturing sector bounced back in 1999 (+12.8 per cent) with most industries posting solid gains. Growth continued throughout 2000, but the United States recession in 2001 had adverse effects on the manufacturing sector’s GDP, which fell 10.2 per cent in that year. This was the biggest slump in manufacturing production since the beginning of the 1990s.

British Columbia manufacturers did not fare as well as those in other large provinces

Manufacturers in the province did not fare as well as their counterparts in the rest of the country during the 1990s. Manufacturing was an engine of growth in the other large provinces (in all three, the sector expanded as fast as, or faster than, the economy as a whole during the 1990s). This was not the case in British Columbia, where the economy grew at an average annual rate of 2.8 per cent, nearly three

times the 1.0 per cent average annual increase in the manufacturing sector.

Relatively slow growth in British Columbia



Sources: Statistics Canada and BC Stats
Figure 19

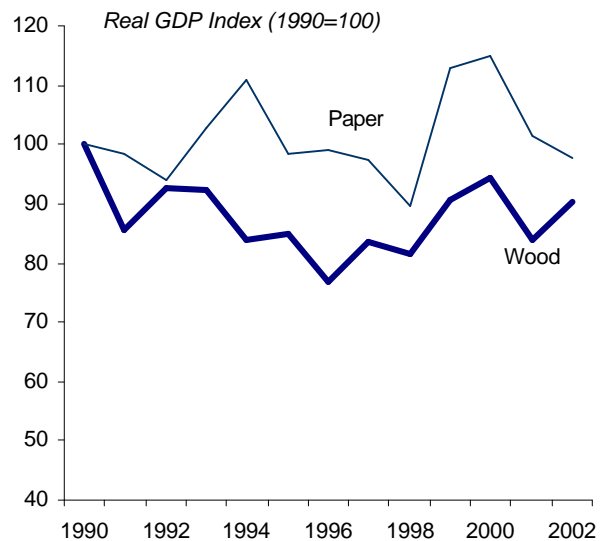
Canada's manufacturing sector expanded at an average annual rate of 2.9 per cent per year between 1990 and 2002, slightly more than the 2.7 per cent average annual increase for the economy as a whole. Alberta's manufacturing sector posted the strongest gains, increasing at an average rate of 4.7 per cent per year, well above the province's overall economic growth (+3.8 per cent per year) during this period. In Ontario, the manufacturing sector expanded at about the same rate (+3.0 per cent annually) as the economy as a whole (+2.9 per cent). Quebec's manufacturing sector grew at an average rate of 2.6 per cent per year, compared to 2.3 per cent for all industries in that province.

There are a number of reasons for the relatively weak performance of British Columbia's manufacturing sector during this period. First, the bulk (over three-quarters in 2002) of British Columbia's manufacturing shipments are resource-based, more than in any other large province. In Alberta, resource-based products account for about two-thirds of total shipments, but the dominant resource industry

(petroleum & coal products) fared relatively well during the latter half of the 1990s. Resource-based products account for just under half of all Canadian manufacturing shipments.

The 1990s were a challenging decade for manufacturers of forest products. The demand for, and prices of, products such as wood and paper fluctuated more than for other manufactured goods, dampening overall growth. The softwood lumber dispute between Canada and the United States has also had an adverse effect in British Columbia. The Asian economic crisis had a bigger effect in British Columbia than in other parts of Canada, since a larger portion of the province's exports is destined for use in Asia. Finally, the manufacturing industries that performed particularly well during the 1990s are still relatively small, so they provided less of a boost to the sector's overall performance.

The wood and paper industries have shown volatility, but both are smaller than they were in 1990



Sources: Statistics Canada and BC Stats
Figure 20

Some industries made solid gains during the 1990s

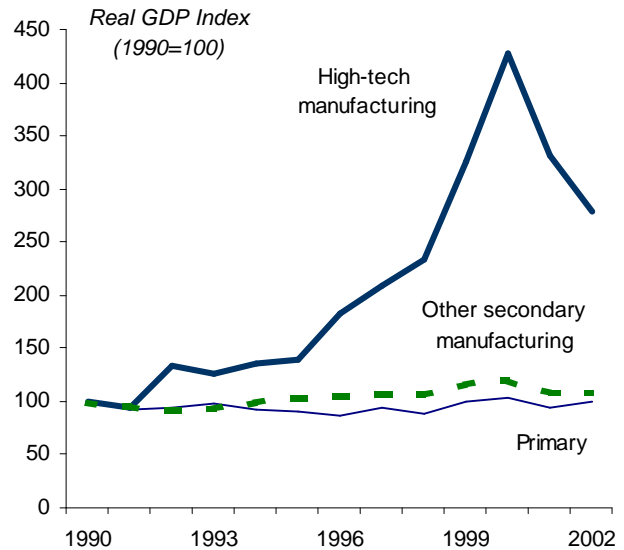
Although the manufacturing sector posted only modest growth during the 1990s, some industry groups made solid gains. Among these, high technology manufacturers fared particularly well, with real GDP increasing by a factor of four prior to the downturn in 2001. Even after two years of decline, the province's high technology manufacturing sector has still expanded more than any other manufacturing industry since 1990, with growth averaging 8.9 per cent annually.

Primary manufacturers, many of which are resource-based, have not fared as well, displaying considerably more volatility over the decade, but ending the period with GDP virtually unchanged from 1990. These manufacturers were hard hit by a downturn that lasted throughout the first half of the 1990s. Since then they have seen better times, regaining most of the ground lost early in the period.

Secondary manufacturers (excluding those in the high technology sector) fared better than producers of primary products during the 1990s, with GDP increasing by a total of 9.1 per cent (0.7 per cent per year) over the decade. As was the case in high technology manufacturing, these industries were hard hit in the slowdown of 2001, but have still made stronger-than-average gains over the longer term.

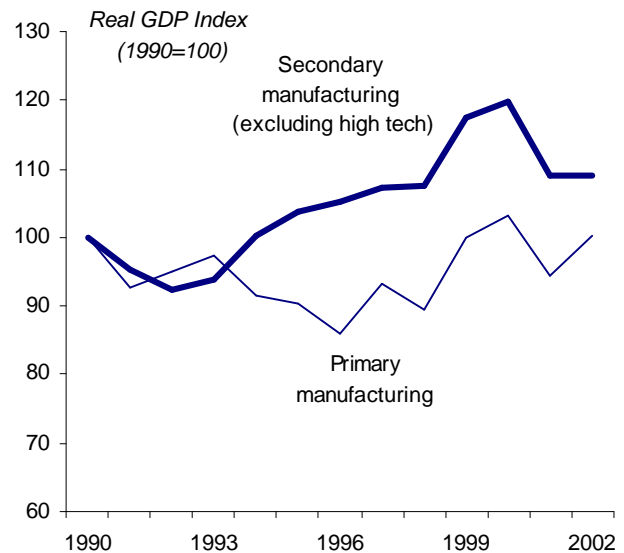
As a whole, secondary manufacturers generated 47 per cent of the manufacturing sector's GDP in 2002, up from 43 per cent in 1990. Prior to the downturn in the high technology industries, secondary manufacturing's share of total GDP had peaked at 50 per cent in 2000.

High technology manufacturing expanded rapidly during the 1990s



Sources: Statistics Canada and BC Stats
Figure 21

Secondary manufacturers made some gains, but primary manufacturing was volatile



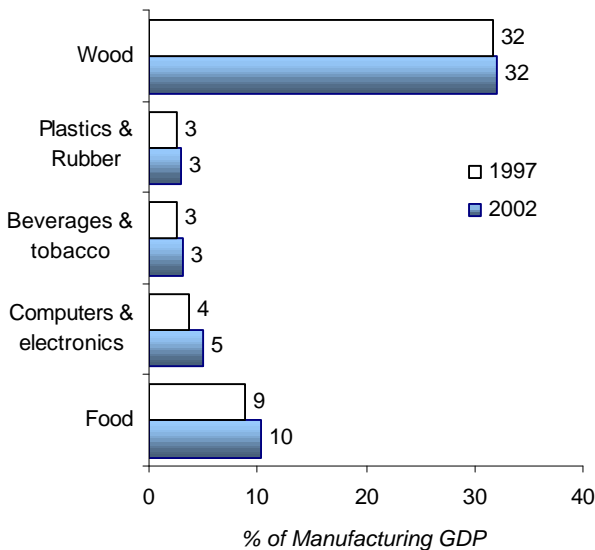
Sources: Statistics Canada and BC Stats
Figure 22

Trends since 1997

GDP figures are not available for many industries prior to 1997, but a comparison of trends during the period from 1997 to 2002 shows that there have been some shifts in the manufacturing sector during this period.

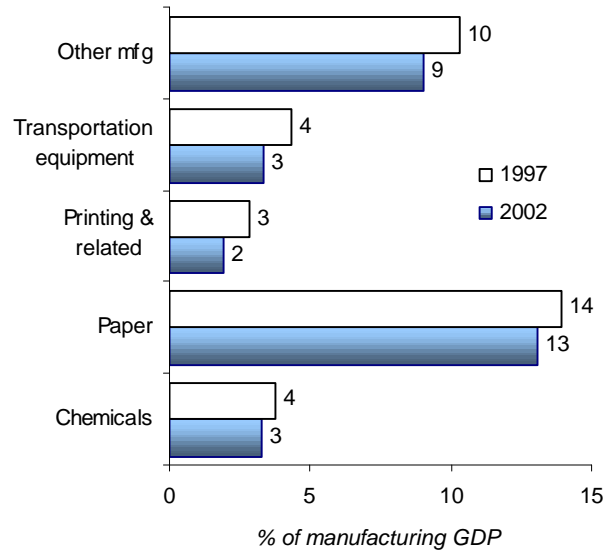
Among industries for which data is available for the entire period from 1997 on, the fastest growing were the computer and electronics (+44.7 per cent), beverage and tobacco (+34.2 per cent), plastics and rubber (+26.1 per cent), furniture (+26.1 per cent) and food (+23.9 per cent) industries. These industries all increased their share of total GDP in the manufacturing sector between 1997 and 2002, as did the wood industry, which grew 7.9 per cent between 1997 and 2002, making a partial recovery from the slowdown of the early 1990s.

Some industries grew faster than average, increasing their share of total manufacturing GDP...



Sources: Statistics Canada and BC Stats
Figure 23

...while others contracted or showed slower-than-average growth between 1997 and 2002



Sources: Statistics Canada and BC Stats
Figure 24

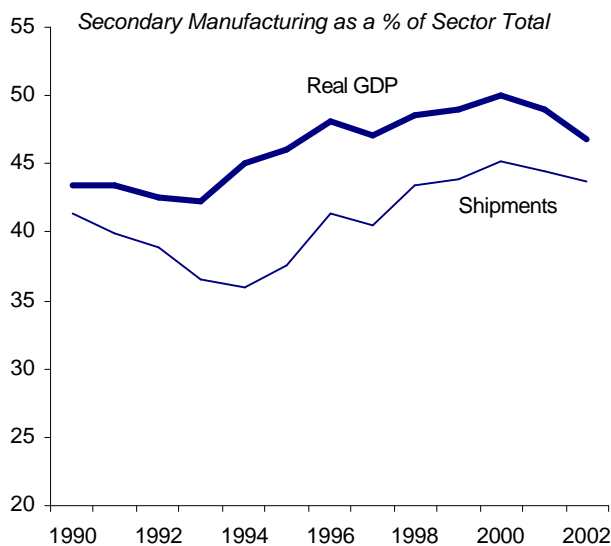
At the other end of the scale, the printing and related (-26.8 per cent) and transportation equipment (-17.6 per cent) industries are now considerably smaller than they were in 1997, partly due to the departure of some large firms during this period. Producers of chemicals (-8.1 per cent) saw real value added shrink during this period, while the paper industry was stagnant.

Is the structure of the manufacturing sector changing?

Although the province's manufacturing sector continues to be dominated by the processing of forest products, there are some indications that structural changes are occurring as manufacturers are shifting their focus away from resource-based products to higher value-added products. Between 1990 and 2002, the share of secondary manufactured products in total manufacturing GDP increased from 43 to 47 per cent, a substantial gain over a relatively short period.

This shift can be partially explained by the development of new technology-based industries as well as the adaptation of the sector in response to trade issues and changes in world demand for British Columbia's traditional manufactured products. However, the province continues to concentrate on primary manufacturing activities to a much greater extent than is the case elsewhere in Canada. Fifty-six per cent of British Columbia's manufacturing shipments, and 53 per cent of the sector's GDP,¹⁰ originates in primary manufacturing industries. Nationally, primary manufacturing accounts for about 31 per cent of total manufacturing shipments. In Ontario, the share is just 20 per cent. However Alberta, like British Columbia, is engaged more actively in primary manufacturing (60 per cent) than in producing secondary products.

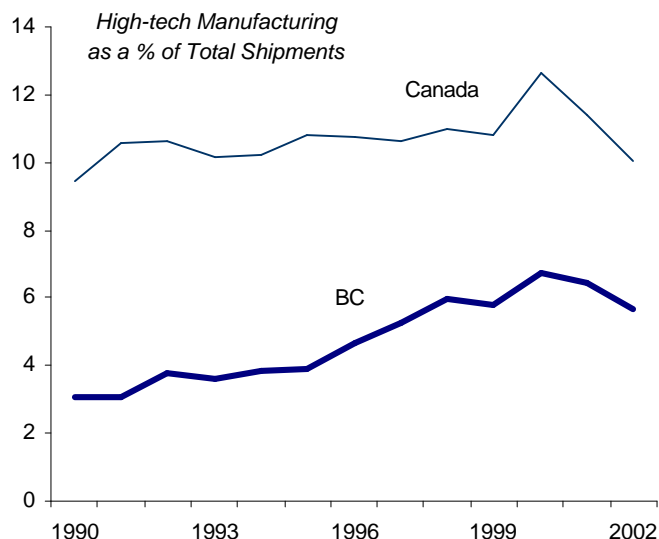
Secondary manufacturing activities are becoming more important



Source: BC Stats
Figure 25

¹⁰ GDP figures are only available for British Columbia.

High technology products are gaining ground



Source: BC Stats
Figure 26

Secondary manufacturing includes the production of both high technology and other products. British Columbia's high technology manufacturing industries are relatively small compared to those Ontario or Quebec. High technology manufacturing accounted for about six per cent of total British Columbia manufacturing shipments in 2002. The national average was 10 per cent. In Quebec, nearly a fifth (18 per cent) of manufacturing shipments are high technology products, reflecting the importance of the aerospace industry in that province.

Prices for primary manufactured products are declining

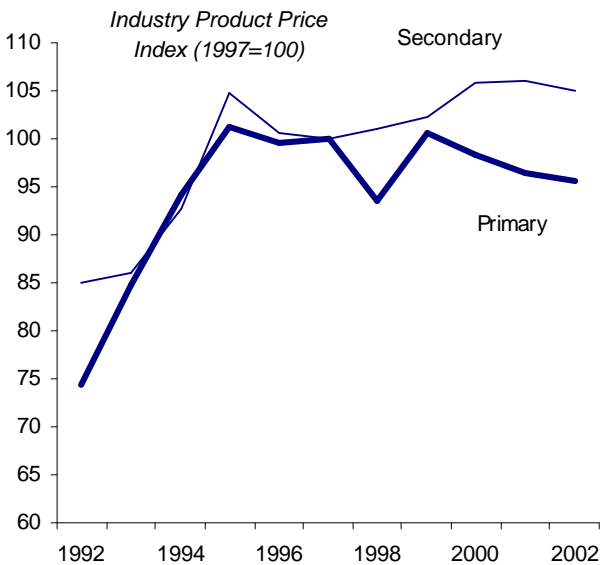
Price increases played a big role in the rising value of shipments during the early 1990s, with overall prices for primary manufactured products increasing 36 per cent between 1992 and 1995. During the same period, average prices received by producers for secondary manufactured products advanced 23 per cent. Since then, prices for primary manufactured products have been flat or declining, with the overall price level for primary manufactured

products dipping to 4.4 per cent below the 1997 level by 2002. Over the same period, the index for secondary manufactured goods advanced 5.0 per cent. Prices for all British Columbia manufactured products fell 1.4 per cent between 1997 and 2002.

Price changes over time vary considerably among industries. Product prices in the province's wood (-12.4 per cent) and primary metal (-13.7 per cent) industries have declined substantially since 1997. In the paper industry, prices in 2002 were about the same as in 1997. However, prices for fabricated metals (+4.0 per cent) and non-metallic mineral products (+13.9 per cent) have increased substantially since 1997, while producers of food products received an average of 2.8 per cent more for their goods in 2002 than in 1997.

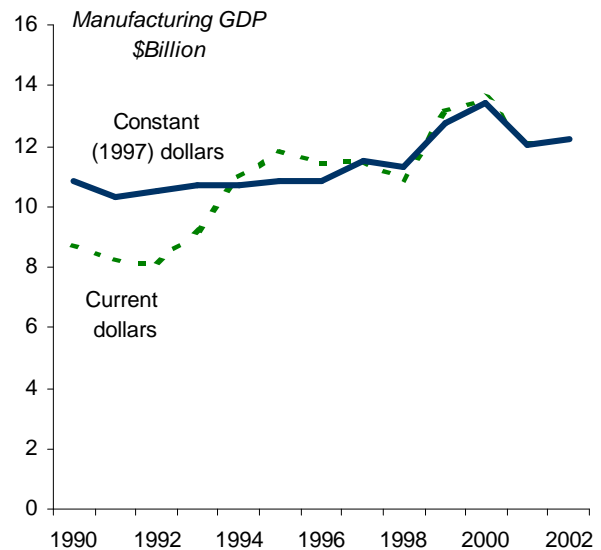
Machinery (+9.2 per cent) and transportation equipment (+18.8 per cent) prices have advanced, but producer prices for computer and electronic products produced in British Columbia were virtually unchanged (+0.5 per cent) from 1997 levels.

Prices for primary manufactured products have been declining since the mid-1990s



Source: BC Stats
Figure 27

Since 1997, current and constant dollar GDP in manufacturing have tracked quite closely



Sources: Statistics Canada and BC Stats
Figure 28

The role of price changes on current dollar GDP (and related indicators such as shipments) is substantial. For example, during the early 1990s, virtually all of the increase in current dollar GDP in the manufacturing sector was price-related. When price effects are factored out, it can be seen that the sector grew only modestly prior to 1998. Since 1997, however, there have not been as big swings in net prices (outputs less inputs) for manufactured products as a whole, and current and constant dollar GDP have tracked quite closely.

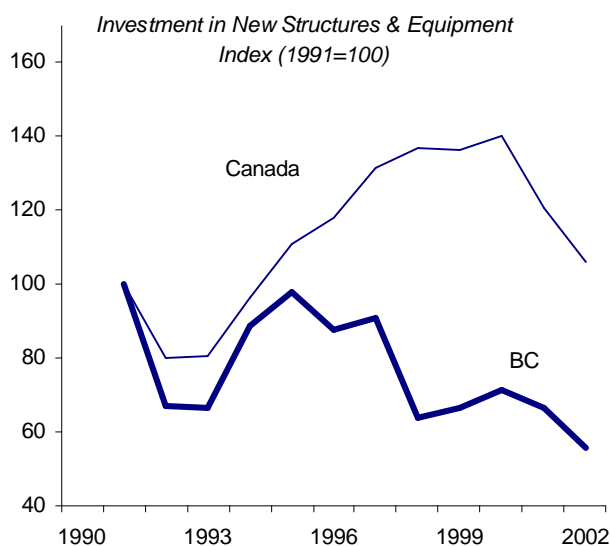
Investment in new capital weak during the 1990s

British Columbia manufacturers kept the lid on new investment spending during the 1990s, with total investment declining throughout much of the period. Uncertainty about global markets and generally flat or falling prices contributed to the downturn in investment spending, which was widespread among industries in the BC economy.

In contrast, investment by Canadian manufacturers increased throughout the 1990s, and

only began to decline in 2001. Similarly, spending on new structures and equipment advanced significantly in Alberta, Ontario and Quebec during this period, but slowed in 2001.

British Columbia manufacturers were cautious about investing in new capital



Sources: Statistics Canada and BC Stats
Figure 29

The decline in investment was particularly marked in the paper industry, where spending fell in virtually every year. In 1991, the paper industry invested \$1.2 billion in new structures and equipment; by 2002, spending in this industry totalled just \$181 million. Capital investment by the wood industry has been declining since the mid-1990s, and totalled \$193 million in 2002.

The computer and electronics industry, where spending grew from \$9.7 million in 1991 to \$92.1 million in 2002, and transportation equipment industry (from \$14.6 million to \$57.3 million) were the industries that increased their investment in new structures and equipment the most between 1991 and 2002. The rubber and plastics, beverages and machinery industries also spent considerably more on new capital in 2002 than they did in 1991.

Investment in New Structures and Equipment (\$million, unadjusted for inflation)

	1991	2002	Per cent change, 1991-2002
Wood	152	193	26.9
Paper	1,154	181	-84.3
Primary metals	123	97	-21.6
Food	67	94	40.4
Computers & electronics	10	92	849.5
Chemicals	101	71	-29.2
Transportation equipment	15	57	292.5
Non-metallic minerals	-	47	-
Beverages	15	34	121.4
Fabricated metals	48	28	-41.0
Plastics & rubber	17	27	59.5
Machinery	10	22	119.0
Printing & related	18	15	-19.3
Furniture & related	7	13	89.9
Electrical equipment	-	10	-
Miscellaneous manufacturing	5	6	15.1
Clothing	-	6	-
Textile product mills	-	3	-
Leather & allied	-	1	-
Total manufacturing	1,864	1,034	-44.5

Sources: Statistics Canada and BC Stats

Widening productivity gap between British Columbia and Canada

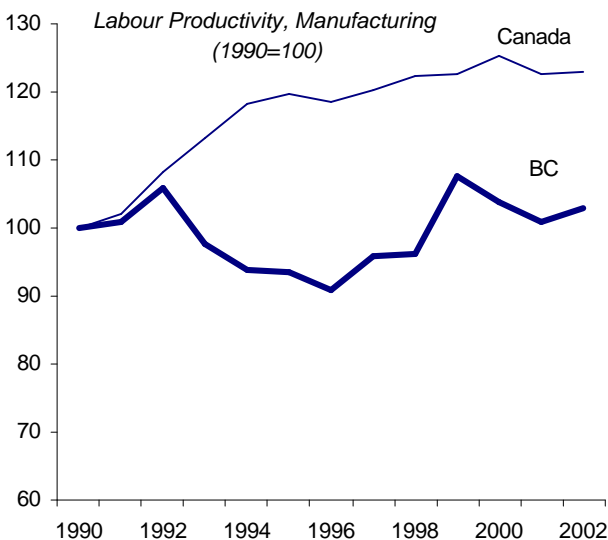
The lack of new investment in fixed capital almost certainly contributed to the slow productivity growth seen in British Columbia's manufacturing sector since 1990. Real GDP increased only marginally faster (averaging +1.0 per cent per year) than labour inputs (total worker-hours, which grew at an average annual rate of 0.8 per cent between 1990 and 2002). Productivity growth in the province's manufacturing sector (which averaged 0.3 per cent per year) was weaker than in any other industry group in the business sector. Overall, labour productivity growth in the goods in-

dustries averaged 1.0 per cent per year, while business-sector services saw productivity growth of 2.0 per cent per year. The average for all business-sector industries was 1.5 per cent per year.

Nationally, labour productivity in the manufacturing sector improved significantly during the last decade. This has led to a widening labour productivity gap between the manufacturing sectors of British Columbia and Canada. The productivity gap reflects a variety of factors, including slower growth in manufacturing output, declining investment in new capital during the decade, and structural differences between the Canadian and British Columbia manufacturing sectors.

Productivity growth in the manufacturing sectors of Ontario and Quebec was similar to the national average; in Alberta, productivity gains were stronger than average during first half of the 1990s, but since then productivity in Alberta's manufacturing sector has been declining.

The productivity gap in manufacturing has widened



Sources: Statistics Canada and BC Stats
Figure 30

Business sector productivity growth has also failed to keep pace with Canada's



Sources: Statistics Canada and BC Stats
Figure 31

Although the productivity gap in manufacturing is quite large, it is not unique to the manufacturing sector. British Columbia's overall productivity growth since 1990s has also lagged behind the Canadian average, and in absolute terms, GDP per worker-hour in the business sector is about seven per cent lower than for Canada as a whole.

Pace of job creation in manufacturing lower than in the overall economy

From 1990 to 2002, the number of jobs in the manufacturing sector increased 11.7 per cent (averaging 0.9 per cent per year), less than half the average for all industries (+26.9 per cent, or 2.0 per cent annually) in the province. The sector's share of total employment dropped from one in nine workers in 1990 to one in ten in 2002.

Despite relatively slow job growth, manufacturing was the only goods-producing industry to see substantial gains in employment between 1990 and 2002. Construction and agriculture expanded the size of their workforce marginally between 1990 and 2002, but

other industries in the goods sector cut back on employment. The logging, fishing and mining industry was hardest-hit, ending the period with one quarter fewer workers than in 1990. Employment gains in the province were largely due to job growth in the service sector, where virtually every industry expanded its workforce 20 per cent or more between 1990 and 1992.

Total Change in Employment, British Columbia, 1990-2002

	Per Cent Change
All Industries	26.9
Goods	2.2
Agriculture	3.1
Forestry, Fishing, Mining, Oil & Gas	-25.8
Utilities	-4.6
Construction	0.8
Manufacturing	11.7
Services	35.2

Sources: Statistics Canada and BC Stats

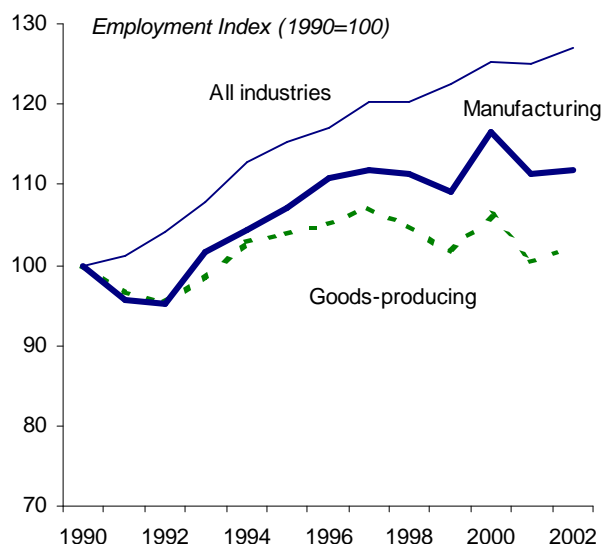
The number of high technology manufacturing jobs increased 34 per cent between 1991 (the first year for which information is available) and 2002, growing from 10,500 in the 1991 to 14,100 by 2002. Overall, employment in the high technology sector expanded 62 per cent during this period, with high technology services employing 79 per cent more workers in 2002 than in 1991.

Employment: a decade in review

Employment in manufacturing fell sharply during the recession of the early 1990s. A long rebound ended when the Asian economic crisis and weakness in the forest sector kept the lid on job growth at the end of the decade. Despite a small increase in jobs in 2002 (+0.4 per cent), employment in the manufacturing sector has declined in three of the last five years and risen significantly only once during that pe-

riod, in 2000 (+6.9 per cent). Employment was less volatile than production over the 1990s since firms mixed their hiring between part-time and full-time workers and decreased average hours worked during the slowdowns.

Job creation in manufacturing was not as strong as for the economy as a whole



Sources: Statistics Canada and BC Stats

Figure 32

Job growth similar to the national average for manufacturing

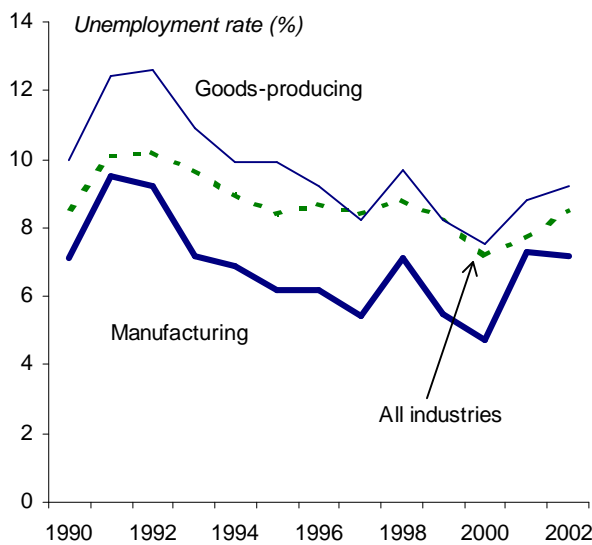
Nationally, manufacturing employment grew at an average annual rate of 1.0 per cent between 1990 and 2002, similar to the 0.9 per cent annual increase in British Columbia. Manufacturers in Ontario (+1.0 per cent) and Quebec (+0.7 per cent) hired new workers at similar paces over the period. Alberta was the exception, as employment rose at an average rate of 3.8 per cent during the same period. The number of people with jobs in Alberta's manufacturing sector fell only once (in 1991) during this period.

Unemployment rate in manufacturing still lower than the all-industry average

Despite slower-than-average employment growth in manufacturing, unemployment rates

in the sector remained below the all-industry average throughout the 1990s, and were also lower than the average for goods producing industries, where the incidence of unemployment is quite high in industries such as logging, mining, agriculture, fishing and construction. Service-sector workers were less likely to experience periods of unemployment than those who had worked in the manufacturing sector.

Manufacturing workers less likely to be unemployed



Sources: Statistics Canada and BC Stats
Figure 33

Regional differences in employment

Only three of seven British Columbia regions have experienced manufacturing employment growth since the mid-1990s. Manufacturing employment in Thompson-Okanagan rose at an average annual rate of 2.1 per cent between

1995 and 2002. Cariboo (+1.9 per cent) and Lower Mainland/Southwest (+1.3 per cent) were the only other regions to see job growth in this industry. Northeast (-4.3 per cent), North Coast/Nechako (-3.2 per cent) and Vancouver Island/Coast (-2.3 per cent) saw the size of their manufacturing workforce shrink substantially between 1995 and 2002. In Kootenay, the decline (-0.7 per cent) in jobs was more moderate.

Job growth strongest in urban areas

Job growth was strongest in urban areas of the province. Manufacturing employment in Vancouver (+2.3 per cent) and Victoria (+2.4 per cent) increased substantially more than the average for all regions of British Columbia (+1.6 per cent annually) between 1992 and 2002.

In Alberta, the number of jobs in the manufacturing sector has increased in every year since 1992, due mainly to strong job growth in Calgary (+6.7 per cent annually). The number of manufacturing jobs in Calgary increased substantially more than in the province as a whole, where employment growth averaged 4.8 per cent annually from 1992 to 2002. Edmonton (+3.8 per cent annually) recorded slower job growth over this period.

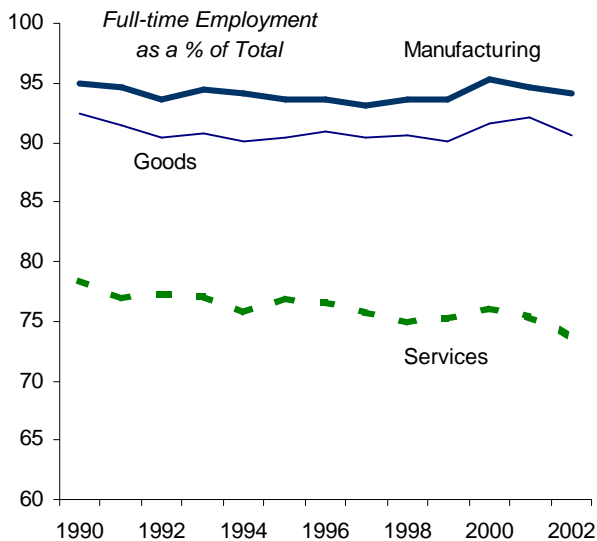
Vancouver (105,000) employed more workers in the manufacturing sector than any other metropolitan area in Western Canada, more than double the number of people working in manufacturing in Calgary (51,800) or Edmonton (54,900). Victoria had a relatively small number of manufacturing jobs (6,600).

Characteristics of the Labour Force

Full-time jobs most common

Ninety-four per cent of the people with jobs in manufacturing work full-time (at least 30 hours per week). Full-time employment is much more prevalent in manufacturing than in the economy as a whole, where 77 per cent of the workforce is employed full-time. In services, 74 per cent of the jobs are full-time.

Full-time work more common than in other industries



Sources: Statistics Canada and BC Stats
Figure 34

Although both full-time and part-time employment expanded during the 1990s, the number of part-time workers increased nearly 30 per cent (from 8,900 to 11,500 between 1990 and 2002), nearly triple the increase in full-time employment (which rose from 167,300 to 185,400) during this period. The number of part-time jobs in the manufacturing sector peaked at 13,600 in 1997.

Within manufacturing, the food (one in nine workers), clothing (one in eleven) and textile (one in seven workers) industries are most likely to employ part-time workers. In other

manufacturing industries, less than eight per cent of the jobs are part-time.

Full and Part-time Employment, British Columbia, 2002

Manufacturing Sector	Employment	Per Cent of Total
Total	196,900	100
Full Time	185,500	94
Part-time	11,500	6

Sources: Statistics Canada and BC Stats

Men much more likely than women to be employed in manufacturing

More than three-quarters of the people who are employed in manufacturing are males. This share has been relatively stable over the last 12 years, varying between 76 and 79 per cent, and is similar to the male-female split in the goods sector (80 per cent male in 2002). For the economy as a whole, 53 per cent of the jobs are held by males. However, women (54 per cent) outnumber men (46 per cent) in the service sector.

Women are making inroads in the manufacturing sector. The number of women with jobs in manufacturing increased twice as fast as (+1.5 per cent per year) the number of men working in the industry (+0.8 per cent annually) between 1990 and 2002.

Occupational structure shifting

The variety of products manufactured in British Columbia means that its workers span a broad range of occupational groups. In 2001 (the latest year for which occupational data is available), the largest numbers of manufacturing workers were employed in occupations unique to processing, manufacturing and utilities. More than a third worked as machine

operators (17 per cent), labourers (14 per cent), and assemblers (six per cent).

Top Five Manufacturing Occupations, 2001

	Employment	Per Cent of Total
Machine operators	33,075	17
Labourers	26,240	14
Assemblers	11,615	6
Clerical	11,085	6
Machinists, metal forming shaping & erecting	10,525	5
All Occupations in Manufacturing	194,365	100

Source: Census 2001

Increasingly, manufacturers are relying on sophisticated equipment such as computerized process control systems in their manufacturing plants. This means that the characteristics of workers in the sector are shifting as some jobs previously requiring human intervention can now be automated. At the same time, capital investment in computer systems and other types of equipment means that workers in manufacturing firms must have new types of skills as manufacturing activity becomes increasingly reliant on mechanized production systems. Structural changes, such as the growing importance of the high technology sector, have also played a role in this change of focus, but many industries that do not produce high technology products have seen technology-driven changes in recent years.

There is some evidence of the extent to which the nature of employment in the manufacturing sector is changing. Many of the fastest-growing occupations in manufacturing (among occupational groups with at least 2,000 workers) involve highly skilled workers, such as professionals or technical workers in the natural and applied sciences.

Fastest Growing Manufacturing Occupations, 1996-2001

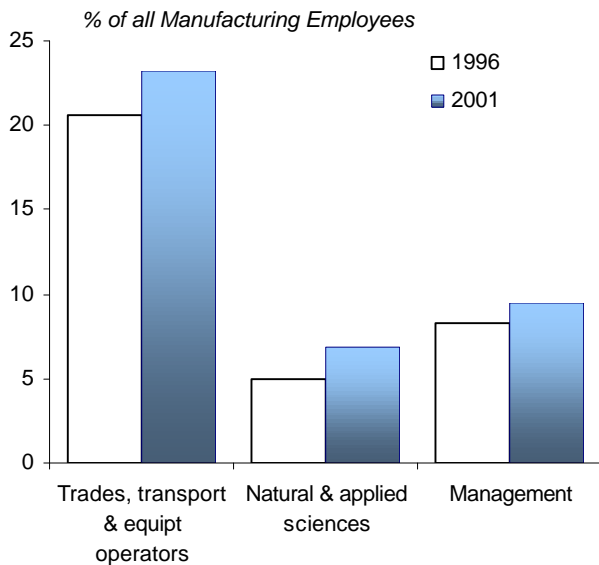
	Employment	Per Cent Change, 1996-2001
Machinists, metal forming	10,525	79.8
Professional, business & finance (e.g., accountants)	2,245	46.7
Professional, natural & applied sciences (e.g., scientists, engineers & computer programmers)	6,370	42.0
Administrative & regulatory (e.g., administrative assistants, personnel officers, etc)	2,990	35.6
Technical occupations, natural & applied sciences (e.g., engineering, forestry, biology & other technicians)	6,940	29.4
Miscellaneous trades	5,180	27.0

Source: Census 2001 and Census 1996

Between 1996 and 2001, the percentage of manufacturing workers with occupations in natural and applied sciences increased significantly. There were also proportionally more trades, transport and equipment operators working in the sector, but fewer people working in occupations specific to manufacturing.

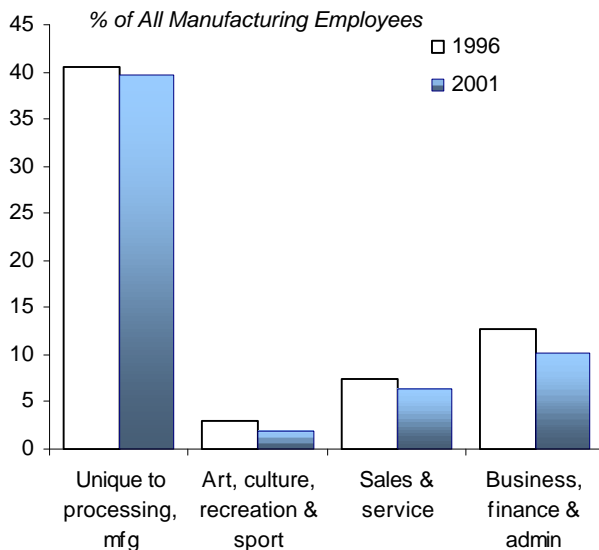
The number of machine operators (-19.1 per cent) and clerical workers (-36.2 per cent) employed in British Columbia's manufacturing sector declined substantially between 1996 and 2001. However, there were more machinists (+79.8 per cent), assemblers (+25.2 per cent) and labourers (+15.2 per cent) working in this industry.

More workers in natural and applied sciences



Sources: Statistics Canada and BC Stats
Figure 35

Proportionally fewer people in occupations specific to manufacturing



Sources: Statistics Canada and BC Stats
Figure 36

Self-employment increasing

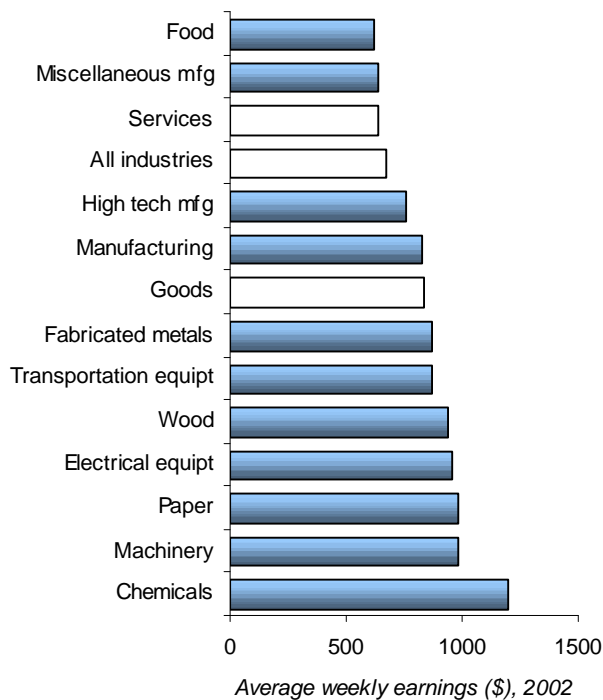
Although a growing number of British Columbians are choosing the independence and flexibility offered by self-employment (one in five workers in the province is self-employed), this type of work arrangement is not common in manufacturing. Only seven per cent of the people working in the sector are self-employed. However, self-employment is more prevalent in British Columbia than in other provinces such as Ontario and Quebec, where the self-employment rate in manufacturing is about four per cent. In Alberta, about five per cent of workers in the manufacturing sector are self-employed, but the ratio was much higher (reaching 11 per cent) in the mid-1990s.

Weekly wages higher than average

Manufacturing workers typically earn more than workers in most other industries. Weekly wages in manufacturing industries (\$826) were about 22 per cent higher than the average for all industries (\$675) in 2002, and 30 per cent higher than the average for the service sector (\$638).

Wages for the goods sector as a whole were slightly higher, averaging \$840 per week. This reflects the effect of higher wages in industries such as mining, where workers are paid a premium to compensate them for the risks they face on the job.

Wages in most manufacturing industries are relatively high



Sources: Statistics Canada and BC Stats
Figure 37

Within the sector, the most highly paid workers¹¹ are those in the chemical industry, who received \$1,199 weekly in 2002. Workers in the machinery (\$984), paper (\$979), electrical equipment (\$955) and wood (\$941) industries all earned substantially more than the average for the manufacturing sector and for the economy as a whole. Wages in industries such as food processing (\$618) were substantially lower. In high technology manufacturing, earnings averaged \$760 weekly, substantially less than the average for all high technology industries (\$960 per week).

¹¹ Data is not available for all industries within manufacturing. Estimates for primary and secondary manufacturing are also not available.

International Trade in Manufactured Goods

International trade is of critical importance to British Columbia, with international commodity exports valued at about 25 per cent of the province's gross domestic product. There is increasing pressure to liberalise trade through international bodies such as the World Trade Organization (WTO), as well as separate trade agreements like the European Union or the North American Free Trade Agreement (NAFTA).

While the efforts of the WTO have faltered recently, Canada already has several free trade agreements in place and is working toward others. In addition to NAFTA, the trade agreement between Canada, the United States and Mexico, Canada also has separate bilateral agreements with Chile, Israel and Costa Rica. Canada is currently involved in negotiations for the Free Trade Area of the Americas, which would encompass all of the Western Hemisphere except for Cuba, as well as a separate agreement with Singapore. These trade agreements would likely make international trade an even more important element of the British Columbia economy in years to come.

Manufactured goods dominate exports

Generally, just over three-quarters of British Columbia's commodity trade is comprised of manufactured goods, which is similar to the proportion for Canada as a whole. This ratio changes from year to year, rising as high as 83 per cent in 1995 and falling as low as 70 per cent in 2001, but on average, about 77 per cent of all commodity exports originating in British Columbia are manufactured goods.

About three-quarters of British Columbia's commodity exports are manufactured goods

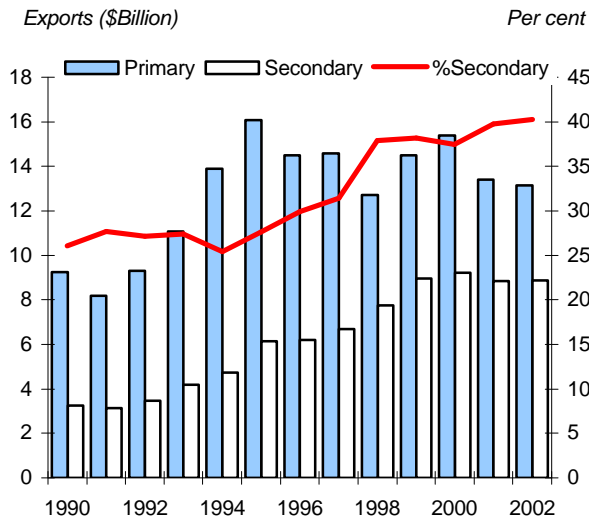


Sources: Statistics Canada and BC Stats
Figure 38

Level of processing mostly primary in British Columbia

Historically, British Columbia has exported mainly unprocessed or semi-processed natural resource goods. This dependence on natural resource exports has exposed the province to the cyclical boom-bust nature of a resource-based economy. However, the degree to which goods are processed before they are shipped out of the province has been increasing. The proportion of manufactured commodity exports that have undergone secondary processing has risen from 25 per cent in 1990 to 40 per cent in 2002.

Value added products account for a growing share of British Columbia's total manufactured exports

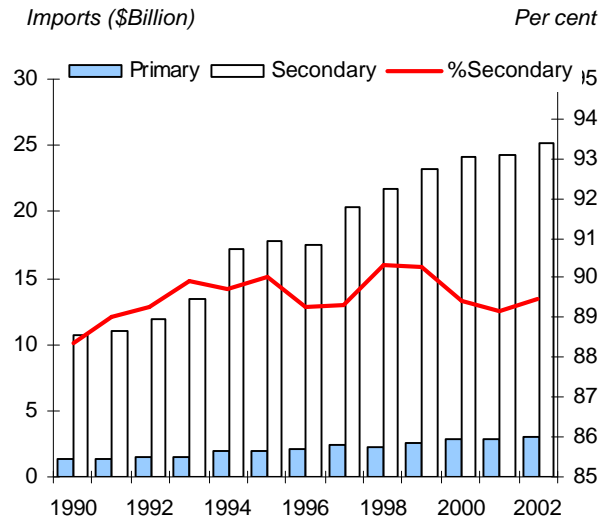


Sources: Statistics Canada and BC Stats
Figure 39

Compared to Canada as a whole, exports of secondary manufactured products remain quite low. Seventy-eight per cent of Canadian manufacturing exports were secondary manufactured products in 2002, nearly double the 40 per cent figure for British Columbia. This is mostly due to the significant secondary manufacturing sectors in Ontario and Quebec, particularly the automobile manufacturing industry in Ontario. Eighty-nine per cent of Ontario's manufacturing exports were classified as secondary products in 2002. Apart from the Atlantic Provinces (with the exception of Nova Scotia), British Columbia had the lowest percentage of secondary manufactured exports.

The story is much different for imports of manufactured goods into British Columbia. For imports, the percentage of secondary manufactured goods has remained steady over the last 15 years at about 90 per cent. This is true for the country as a whole as well.

Both primary and secondary manufactured imports into British Columbia have increased



Sources: Statistics Canada and BC Stats
Figure 40

Forest products still dominate

Although much has been said about the importance of high technology to the economic future of British Columbia, natural resources, especially forest products, are still the source of most of the province's commodity exports. In fact, of the top 10 British Columbia international shipments of manufactured commodities, eight are forest products, representing approximately half of total manufactured exports. Of these, only two are considered to be in the category of secondary manufactured goods.

With \$6.3 billion worth of international shipments in 2002, softwood lumber was the top manufactured export (29 per cent). Chemical wood pulp ranked second with \$2.2 billion exported from the province (10 per cent). By comparison, total high technology commodity exports together amounted to only \$685 million in 2002.

Top manufactured domestic exports from British Columbia, 2002

Commodity	\$Million
Softwood lumber	6,342.9
Chemical wood pulp	2,236.7
All high technology commodities	684.6
Newsprint	678.2

Sources: Statistics Canada and BC Stats

Most manufactured exports shipped to the United States

The United States is by far the most significant destination for British Columbia manufactured exports. In 2002, 69 per cent of domestic exports of manufactured goods from British Columbia were destined for the United States. The second ranked destination is Japan, with 12 per cent of British Columbia origin manufactured exports shipped to that country in 2002.

Top destinations for British Columbia domestic exports of manufactured goods, 2002

Destination	\$Million	Per Cent
United States	15,276.9	69
Japan	2,533.0	12
China	741.1	3
South Korea	452.4	2
Italy	381.3	2
All destinations	22,007.1	100

Sources: Statistics Canada and BC Stats

Primary and secondary manufactured exports

Manufactured exports to the United States are almost evenly split between primary (52 per cent) and secondary (48 per cent) processed goods. However, for other top destinations the bias is definitely in favour of goods that have

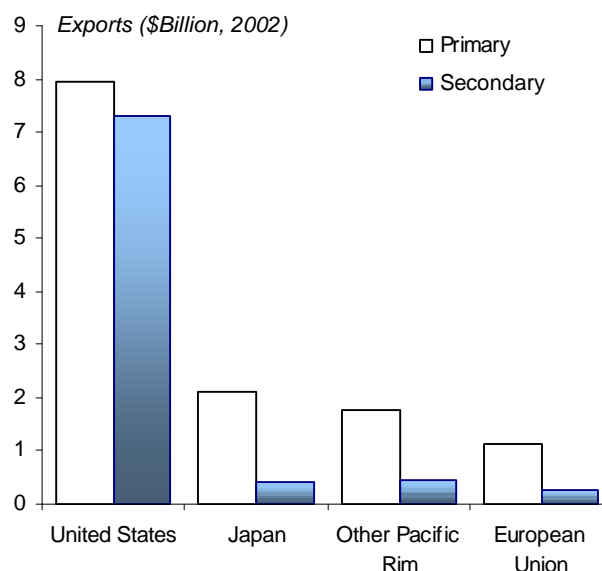
undergone only preliminary processing. For example, 83 per cent of manufactured goods shipped from British Columbia to Japan are primary manufactured commodities. China (89 per cent), South Korea (88 per cent) and Italy (96 per cent) have similar inclinations toward importing primary processed goods from British Columbia.

Top destinations for British Columbia domestic exports of primary manufactured goods, 2002

Destination	\$Million	Per Cent
United States	7,958.4	61
Japan	2,102.5	16
China	660.7	5
South Korea	397.8	3
Italy	367.4	3
All destinations	13,140.0	100

Sources: Statistics Canada and BC Stats

Most primary and secondary manufactured products are destined for sale in the United States



Sources: Statistics Canada and BC Stats
Figure 41

Ten years ago, almost two-thirds of shipments of manufactured goods to the United States

were primary manufactured commodities. The influence of free trade may be one reason why value added goods have increased their share to the point where they almost equal semi-processed goods. With the US-Canada Free Trade Agreement and the subsequent NAFTA, manufacturing companies in Canada have gained better access to the United States' market free of the constraint of tariffs, although trade disputes with the United States have resulted in restricted access for some commodities such as softwood lumber. Similarly, trade with Mexico has shifted away from exports of primary manufactured goods toward those commodities with more value added. However, the shift was much more pronounced with Mexico. In 1992, 94 per cent of British Columbia manufactured exports to Mexico were semi-processed goods, whereas by 2002, primary manufactured goods were only 22 per cent of total manufactured exports. Most of this change has occurred only in the last few years, which could be due to the gradual phase-out of tariffs.

Top destinations for British Columbia domestic exports of secondary manufactured goods, 2002

Destination	\$Million	Per Cent
United States	7,318.5	83
Japan	430.4	5
Taiwan	82.1	1
China	80.4	1
United Kingdom	72.0	1
All destinations	8,867.1	100

Sources: Statistics Canada and BC Stats

Top origins of manufactured imports into British Columbia, 2002

Destination	\$Million	Per Cent
United States	17,186.4	61
China	1,747.5	6
Japan	1,503.6	5
Mexico	1,086.9	4
Germany	782.2	3
All origins	28,215.6	100

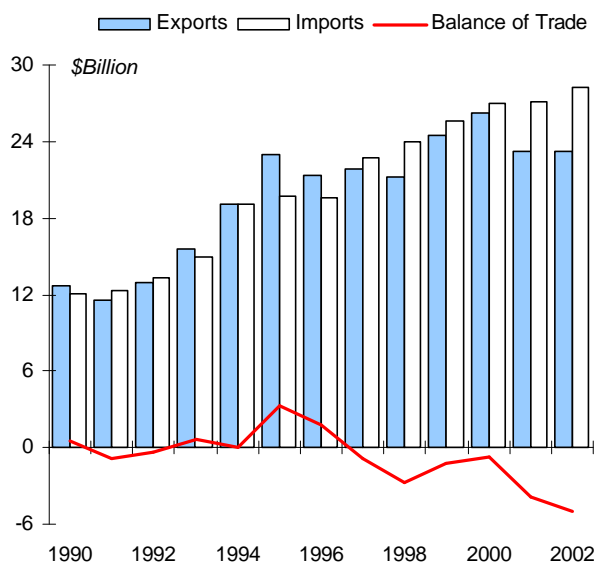
Sources: Statistics Canada and BC Stats

United States the top origin of manufactured imports

As with exports, the United States is British Columbia's top trading partner when it comes to imported goods. In 2002, approximately 61 per cent of all manufactured imports into British Columbia originated in the United States. China (6 per cent) was the second-most important source of manufactured goods imported into the province.

Imports of manufactured merchandise into British Columbia have been increasing at a faster rate than exports, such that the province's manufactured goods trade surplus that existed in the mid-1990s has disappeared and British Columbia now has a trade deficit with respect to these commodities.

British Columbia's trade surplus in manufactured goods in the mid-1990s has turned into a trade deficit



Sources: Statistics Canada and BC Stats
Figure 42

British Columbia does have a manufactured commodity trade surplus with some countries, such as Japan (\$1,064.0 million) and Hong Kong (\$100.7 million). However, the province has considerable trade deficits with many of its major trading partners, including the United States (-\$937.6 million), Mexico (-\$1,036.3 million) and China (-\$989.2 million).

Mode of transport of British Columbia domestic exports of manufactured goods, 2002 (per cent)

Mode of Transport	Primary	Secondary	Total
Road	21	68	40
Rail	36	8	25
Water	42	16	31
Air	1	8	4
Other	0	0	0
Total	100	100	100

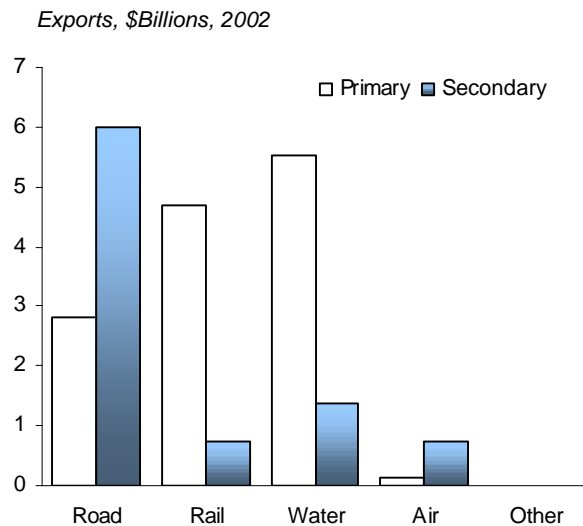
Sources: Statistics Canada and BC Stats

Most manufactured goods travel by land

With the majority of British Columbia manufactured exports being shipped to the United States, it is not surprising that most goods are transported over either road or rail. In 2002, almost two-thirds (65 per cent) of manufactured goods shipped from British Columbia travelled over road or rail. Another 31 per cent was sent over water and four per cent by air.

The method of shipment was not only determined by the destination of the goods, but also by the type of good being shipped. For example, primary manufactured commodities were far more likely to be moved by either rail (36 per cent) or water (42 per cent), while over two-thirds of secondary manufactured goods were transported over road (68 per cent).

Primary manufactured goods are shipped most often over water, while secondary manufactured goods travel mostly over road



Sources: Statistics Canada and BC Stats
Figure 43

Manufactured goods shipped overseas were transported mainly by boat, although secondary manufactured goods were often sent by plane, particularly if their destination was a country in the European Union (61 per cent).

Merchandise exported to the United States was mainly shipped over land (57 per cent road and 35 per cent rail).

British Columbia exports to US concentrated in West

Over half (51 per cent) of all British Columbia manufactured exports to the United States are destined for just four states: Washington, California, Oregon and Texas.

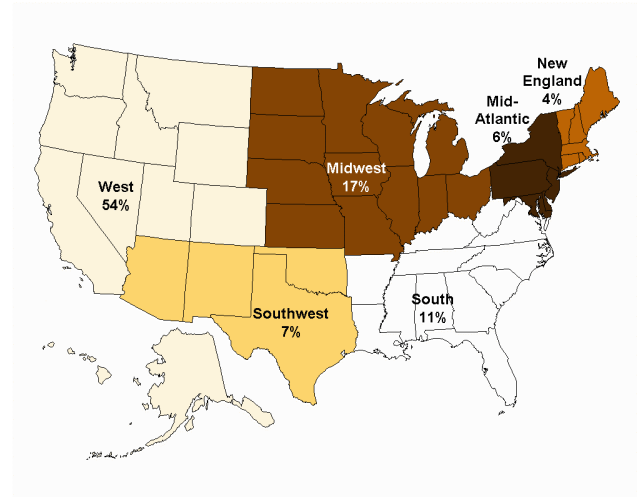
By region, the states in the West received 54 per cent of the manufactured goods exported from British Columbia to the United States in 2002. The proximity of the western states to British Columbia is the main reason for the concentration. The Midwest, at 17 per cent, was the second most significant destination, followed by the South with 11 per cent and the Southwest with seven per cent. The states on the Eastern seaboard, in the Mid-Atlantic and New England Regions, combined accounted for 10 per cent of British Columbia's exports to the United States.

Top American states of destination for British Columbia domestic exports of manufactured goods, 2002

Destination	\$Millions	Per Cent
Washington	4,294.4	26
California	2,119.7	13
Oregon	1,118.0	7
Texas	757.3	5
United States Total	16,248.8	100

Sources: Statistics Canada and BC Stats

British Columbia domestic exports of manufactured goods by United States region of destination, 2002



Sources: Statistics Canada and BC Stats
Figure 44

Lumber and articles of wood were the top export to every region in the United States. Machinery and mechanical appliances were in the top five exports to all regions as well and wood pulp was one of the top exports to all but the West, where paper products supplanted it, ranking second behind wood.

Origin of imports mainly Midwest and Southern states

In terms of imports, the distribution by state of origin is more diverse than that of exports and is less dependent on proximity than on the type of good being imported. For example, first-ranked Michigan, a state containing the largest manufacturers of automobiles, ships mainly vehicles and vehicle parts to British Columbia and automobiles are the principal manufactured import into the province.

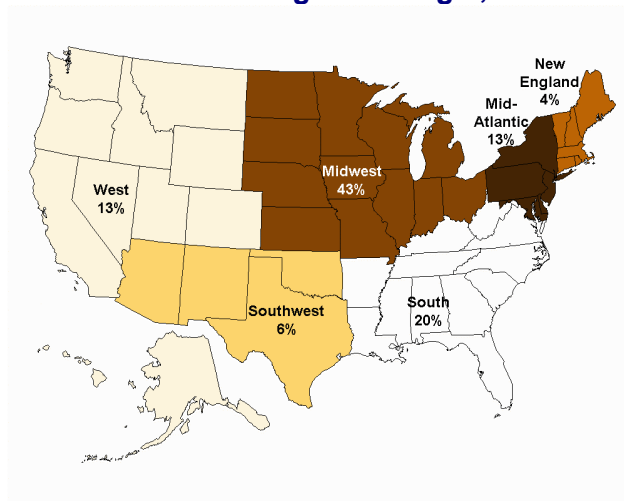
By region, the Midwest, which contains Michigan, was by far the most important source of manufactured imports into British Columbia, with 43 per cent of imports from the United States. That was more than twice the value of imports from the second-ranked South (20 per cent). The Mid-Atlantic and the West were each the source of about 13 per cent of United States imports of manufactured goods into British Columbia. The Southwest (six per cent) and New England (four per cent) trailed well behind the other regions.

Top American states of origin for British Columbia imports of manufactured goods, 2002

Destination	\$Millions	Per Cent
Michigan	1,813.7	11
Ohio	1,628.9	9
California	1,101.4	6
Illinois	1,085.6	6
United States Total	17,186.4	100

Sources: Statistics Canada and BC Stats

British Columbia imports of manufactured goods by United States region of origin, 2002



Sources: Statistics Canada and BC Stats

Figure 45

While vehicles and vehicle parts were the main import from the Midwest and also the South, electrical machinery and equipment and other machinery and mechanical appliances were the top imports from all other regions. Goods made of plastic were a top import from all regions except the West. In the West, aircraft and aircraft parts were a significant import, with most of these originating in Washington State, likely at the Boeing facility.

Inter-provincial Trade in Manufactured Goods

British Columbia imports more manufactured goods from other provinces than it exports to them

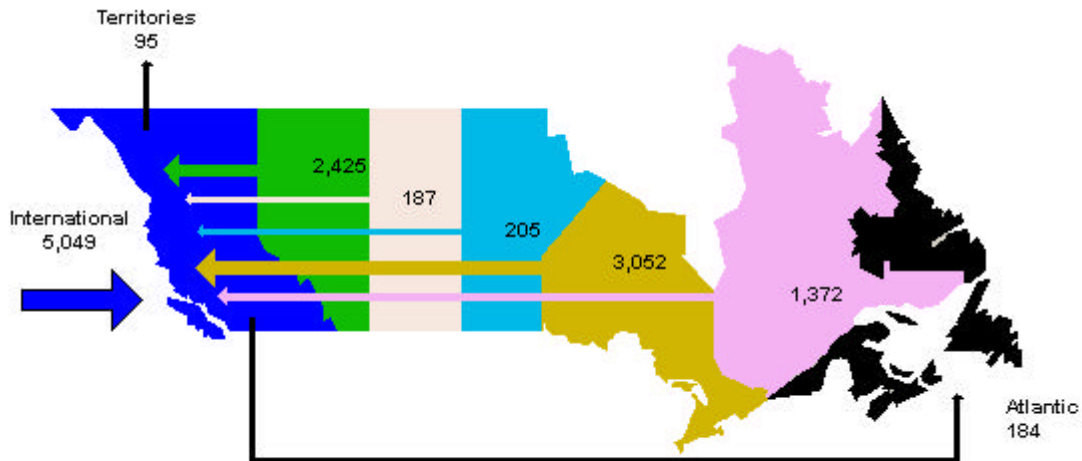
Trade flows between British Columbia and other countries receive most of the attention; however, trade with other provinces also has a big effect on the economy. As is the case for international trade, British Columbia has a deficit in trade of manufactured goods with the rest of the country as a whole, and with

most regions except Atlantic Canada and the Territories.

Resource-based goods such as pulp and paper, lumber and agricultural products are the most important British Columbia exports to other parts of the country. Alberta is the primary destination for British Columbia's inter-provincial exports of manufactured goods, accounting for nearly half of the total.

British Columbia imports more manufactured goods from other provinces than it exports to them

Net Trade in Manufactured Goods, 2000



Sources: Statistics Canada and BC Stats

Figure 46

The most significant interprovincial imports into British Columbia from other provinces are petroleum and coal, agricultural products, chemicals and pharmaceuticals and motor vehicles and parts. Since British Columbia specialises in producing natural resource-based products, it is not surprising that these goods are imported in smaller quantities (with the exception of petroleum) compared to

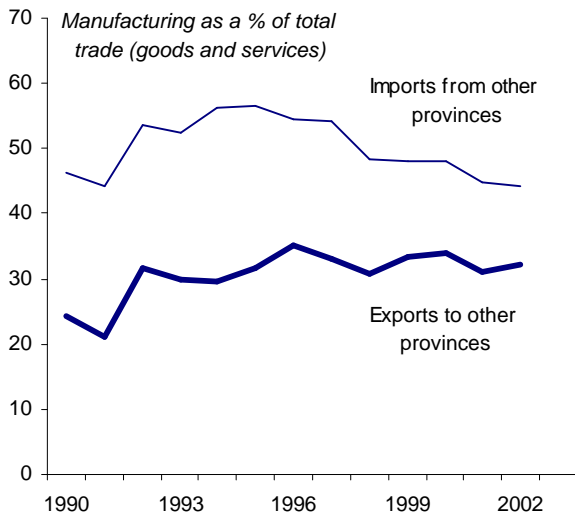
commodities that have undergone more processing.

About a third of BC's total inter-provincial exports are manufactured goods

Manufactured goods account for nearly a third of the total value of exports (goods and services) to other provinces, and about three-

quarters of the province's commodity exports to the rest of Canada. British Columbia's inter-provincial exports are heavily weighted towards services such as transportation and warehousing or wholesaling, as the province is key point of entry and exit for goods travelling between Canada and countries in the Pacific Rim.

British Columbia's trade with other provinces is heavily weighted toward manufactured goods



Sources: Statistics Canada and BC Stats
Figure 47

Similarly, just over half of British Columbia's inter-provincial imports are services, but manufactured goods make up the bulk (over 90 per cent) of the province's total commodity imports from the rest of Canada

Appendix 1: Defining the Manufacturing Sector

Defining the manufacturing sector

The North American Industry Classification System (NAICS), developed in 1997, was used to define the manufacturing sector. This sector comprises activities that require physical or chemical transformation of materials or substances into new products. These products may be finished, in the sense that they are ready to be used or consumed, or semi-finished, to be used as an input by another manufacturer or industry. Related activities, such as the assembly of the component parts of manufactured goods, the blending of materials, and the finishing of manufactured products by dyeing, heat-treating, plating and similar operations are also treated as manufacturing activities.

Individual establishments are classified to a particular industry based on what they primarily produce. If an establishment is involved in different types of activities, it is included in the industry from which it derives most of its revenues. Thus, an establishment that extracts ores from a mine and then processes those ores into ingots, which it then sells, would be considered a manufacturer, rather than part of the mining, oil & gas sector.

The 1997 NAICS identifies 21 industries within the manufacturing sector. These industries have been used as the basis for the analysis in this paper. More details about specific NAICS definitions are available on-line at Statistics Canada's website (www.statcan.ca).

Industries in the Manufacturing Sector

NAICS	Industry
311	Food
312	Beverages & tobacco
313	Textile mills
314	Textile product mills
315	Clothing
316	Leather & allied
321	Wood
322	Paper
323	Printing & related
324	Petroleum & coal
325	Chemicals
326	Plastics & rubber
327	Non-metallic minerals
331	Primary metals
332	Fabricated metals
333	Machinery
334	Computer & electronic products
335	Electrical equipment, appliances & components
336	Transportation equipment
337	Furniture & related
339	Miscellaneous manufacturing

Appendix 2: Primary & Secondary Manufacturing

Primary manufacturing includes all manufacturing activities in which materials used to produce an industry's output have not been processed or changed by another manufacturer or where the final product cannot be used without further processing.

Wood manufacturers, for example, can produce either squared logs, or windows, doors and other millwork products. The former involves relatively little processing of raw materials, while the latter requires substantial labour and other inputs to transform raw materials into a finished product. Two-by-fours would be considered a primary manufactured product, while window frames would be classified as secondary. Because more effort is involved in transforming the raw materials into finished products, the GDP associated with secondary manufactured products is usually greater than is the case for primary manufacturing.

The following industries (at the four-digit NAICS level) are considered to be primary manufacturing industries. A list of secondary manufacturing industries follows.

Primary Manufacturing Industries

31111 Animal Food
31121 Flour Milling & Malt
31122 Starch & Vegetable Fat & Oil
31131 Sugar
31132 Chocolate & Confectionery from Cacao Beans
31141 Frozen Food
31142 Fruit & Vegetable Canning, Pickling & Drying
31151 Dairy Product (except Frozen)
31161 Animal Slaughtering & Processing
31171 Seafood Product Preparation & Packaging
31192 Coffee & Tea
31212 Breweries
31213 Wineries
31214 Distilleries
31221 Tobacco Stemming & Redrying
32111 Sawmills & Wood Preservation
32121 Veneer, Plywood & Engineered Wood Product
32211 Pulp Mills
32411 Petroleum Refineries
32511 Petrochemicals
32512 Industrial Gas
32513 Synthetic Dye & Pigment
32518 Other Basic Inorganic Chemical
32519 Other Basic Organic Chemical
32521 Resin & Synthetic Rubber
32712 Clay Building Material & Refractory
32721 Glass & Glass Product
32731 Cement
32741 Lime
32742 Gypsum Product
33111 Iron & Steel Mills & Ferro-Alloy
33131 Alumina & Aluminum Production & Processing
33141 Non-Ferrous Metal (except Aluminum) Smelting and Refining

Secondary Manufacturing Industries

31123 Breakfast Cereal

31133 Confectionery from Purchased Chocolate

31134 Non-Chocolate Confectionery

31152 Ice Cream & Frozen Dessert

31181 Bread & Bakery Product

31182 Cookie, Cracker & Pasta

31183 Tortilla

31191 Snack Food

31193 Flavouring Syrup & Concentrate

31194 Seasoning & Dressing

31199 All Other Food

31211 Soft Drink & Ice

31222 Tobacco Product

31311 Fibre, Yarn & Thread Mills

31321 Broad-Woven Fabric Mills

31322 Narrow Fabric Mills & Machine Embroidery

31323 Nonwoven Fabric Mills

31324 Knit Fabric Mills

31331 Textile & Fabric Finishing

31332 Fabric Coating

31411 Carpet & Rug Mills

31412 Curtain & Linen Mills

31491 Textile Bag & Canvas Mills

31499 All Other Textile Product Mills

31511 Hosiery & Sock Mills

31519 Other Clothing Knitting Mills

31521 Cut & Sew Clothing Contracting

31522 Men's & Boys' Cut & Sew Clothing

31523 Women's & Girls' Cut & Sew Clothing

31529 Other Cut & Sew Clothing

31599 Clothing Accessories & Other Clothing

31611 Leather & Hide Tanning & Finishing

31621 Footwear

31699 Other Leather & Allied Product

32191 Millwork

32192 Wood Container & Pallet

32199 All Other Wood Product

32212 Paper Mills

32213 Paperboard Mills

32221 Paperboard Container

32222 Paper Bag & Coated & Treated Paper

32223 Stationery Product

32229 Other Converted Paper Product

32311 Printing

32312 Support Activities for Printing

32412 Asphalt Paving, Roofing & Saturated Materials

32419 Other Petroleum & Coal Products

32522 Artificial & Synthetic Fibres & Filaments

32531 Fertilizer

32532 Pesticide & Other Agricultural Chemical

32541 Pharmaceutical & Medicine

32551 Paint & Coating

32552 Adhesive

32561 Soap & Cleaning Compound

32562 Toilet Preparation

32591 Printing Ink

32592 Explosives

32599 All Other Chemical Product

32611 Unsupported Plastic Film, Sheet & Bag

32612 Plastic Pipe, Pipe Fitting & Unsupported Profile

32613 Laminated Plastic Plate, Sheet & Shape

32614 Polystyrene Foam Product

32615 Urethane & Other Foam (except Polystyrene)

32616 Plastic Bottle

32619 Other Plastic Product

32621 Tire

32622 Rubber & Plastic Hose & Belting

32629 Other Rubber Product

32711 Pottery, Ceramics & Plumbing Fixtures

32732 Ready-Mix Concrete

32733 Concrete Pipe, Brick & Block

32739 Other Concrete Product

32791 Abrasive Product

32799 All Other Non-Metallic Mineral Product

33121 Iron & Steel Pipes & Tubes from Purchased Steel

33122 Rolling & Drawing of Purchased Steel

33142 Copper Rolling, Drawing, Extruding & Alloying
33149 Non-Ferrous Metal (except Copper & Aluminum)
Rolling, Drawing, Extruding & Alloying
33151 Ferrous Metal Foundries
33152 Non-Ferrous Metal Foundries
33211 Forging & Stamping
33221 Cutlery & Hand Tool
33231 Plate Work & Fabricated Structural Product
33232 Ornamental & Architectural Metal Products
33241 Power Boiler & Heat Exchanger
33242 Metal Tank (Heavy Gauge)
33243 Metal Can, Box & Other Metal Container (Light)
33251 Hardware
33261 Spring & Wire Product
33271 Machine Shops
33272 Turned Product & Screw, Nut & Bolt
33281 Coating, Engraving, Heat Treating & Allied
33291 Metal Valve
33299 All Other Fabricated Metal Products
33311 Agricultural Implements
33312 Construction Machinery
33313 Mining & Oil & Gas Field Machinery
33321 Sawmill & Woodworking Machinery
33322 Rubber & Plastics Industry Machinery
33329 Other Industrial Machinery
33331 Commercial & Service Industry Machinery
33341 Ventilation, Heating, Air-Conditioning &
Commercial Refrigeration Equipment
33351 Metalworking Machinery
33361 Engine, Turbine & Power Transmission Equip
33391 Pump & Compressor
33392 Material Handling Equipment
33399 All Other General-Purpose Machinery
33411 Computer & Peripheral Equipment
33421 Telephone Apparatus
33422 Radio & Television Broadcasting & Wireless
Communications Equipment
33429 Other Communications Equipment
33431 Audio & Video Equipment
33441 Semiconductor & Other Electronic Component

33451 Navigational, Measuring, Medical & Control Inst.
33461 Mfg & Reproducing Magnetic & Optical Media
33511 Electric Lamp Bulb & Parts
33512 Lighting Fixture
33521 Small Electrical Appliance
33522 Major Appliance
33531 Electrical Equipment
33591 Battery
33592 Communication & Energy Wire & Cable
33593 Wiring Device
33599 All Other Electrical Equipment & Component
33611 Automobile & Light-Duty Motor Vehicle
33612 Heavy-Duty Truck
33621 Motor Vehicle Body & Trailer
33631 Motor Vehicle Gasoline Engine & Engine Parts
33632 Motor Vehicle Electrical & Electronic Equipment
33633 Motor Vehicle Steering & Suspension Compo-
nents (except Spring)
33634 Motor Vehicle Brake System
33635 Motor Vehicle Transmission & Power Train Parts
33636 Motor Vehicle Seating & Interior Trim
33637 Motor Vehicle Metal Stamping
33639 Other Motor Vehicle Parts
33641 Aerospace Product & Parts
33651 Railroad Rolling Stock
33661 Ship & Boat Building
33699 Other Transportation Equipment
33711 Wood Kitchen Cabinet & Counter Top
33712 Household & Institutional Furniture
33721 Office Furniture (including Fixtures)
33791 Mattress
33792 Blind & Shade
33911 Medical Equipment & Supplies
33991 Jewellery & Silverware
33992 Sporting & Athletic Goods
33993 Doll, Toy & Game
33994 Office Supplies (except Paper)
33995 Sign
33999 All Other Miscellaneous

Appendix 3: Glossary of Terms

Definitions of variables used in this report, and information about the data sources, are included in the topic boxes in *2002: The Year in Review*. However, some special industry groupings used in the text are defined in this section.

Goods sector

The goods sector includes the following industries, which produce goods that are either consumed by individuals or used as inputs by other industries:

Agriculture, forestry, fishing & hunting

Crop & animal production

Forestry

Fishing, hunting & trapping

Support activities for agriculture and forestry

Mining & oil & gas extraction

Mining

Oil & gas extraction

Support activities

Construction

Utilities (gas & electricity distribution)

Manufacturing

Service sector

The service sector includes the following industries:

Wholesale trade

Retail trade

Transportation & warehousing

Information & cultural services

Finance, insurance, real estate & leasing

Professional, scientific & technical services

Administration & support, waste mgmt

Education

Health care & social assistance

Arts, entertainment & recreation

Accommodation & food services

Other services

Public administration

High Technology Sector

The high technology sector includes the following goods and service industries that produce high technology products:

Manufacturing Industries

- 325189 Other Inorganic Chemicals
- 325410 Pharmaceutical and Medicine
- 333310 Commercial and Service Industry
- 334110 Computer and Peripheral
- 334210 Telephone Apparatus
- 334220 Radio, Television Broadcasting & Wireless Communications Equipment
- 334290 Other Communications Equipment
- 334310 Audio and Video Equipment
- 334410 Semiconductor and Other Electronic Components
- 334511 Navigational and Guidance Instruments
- 334512 Measuring, Medical and Controlling Devices
- 334610 Manufacturing and Reproducing Magnetic and Optical Media
- 335315 Switchgear and Switchboard, and Relay and Industrial Control Apparatus
- 335910 Battery
- 335920 Communication and Energy Wire and Cable
- 335990 All Other Electrical Equipment and Component
- 336410 Aerospace Products and Parts
- 339110 Medical Equipment and Supplies

Services

- 511210 Software Publishers
- 514210 Data Processing
- 541330 Engineering
- 541510 Computer Systems Design and Related

More information on the high technology sector and its definition is available at www.bcstats.gov.bc.ca.

Tourism Sector

The tourism sector is another special industry grouping. It is the aggregate of the tourism-related components of the following industries:

- Accommodation & food services
- Retail
- Transportation & warehousing
- Other
 - Information & cultural
 - Finance, Insurance & Real Estate
 - Administrative services
 - Arts, entertainment & recreation
 - Other services
 - Public sector

Only the tourism-related component of these industries is included in GDP and employment estimates. Tourism proportions vary considerably among industries and over time.

Appendix 4: Statistical Tables

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Table 1.1: GDP at Basic Prices, by Province
Constant (\$ 1997 million)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Manufacturing													
British Columbia	10,834	10,303	10,523	10,697	10,725	10,846	10,854	11,479	11,323	12,773	13,431	12,058	12,249
Alberta	6,477	6,563	6,445	7,105	8,212	8,557	9,386	10,772	10,944	10,719	11,431	11,379	11,204
Ontario	58,602	53,752	55,141	58,205	63,172	67,962	68,472	71,648	76,860	82,374	85,881	81,098	83,849
Quebec	33,374	30,646	30,687	32,833	35,014	35,171	35,069	37,780	39,250	42,716	46,278	44,826	45,677
Rest of Canada	8,270	8,013	8,125	8,153	8,685	9,579	9,779	10,596	11,010	11,577	11,808	11,578	11,962
Canada	117,557	109,277	110,920	116,993	125,808	132,114	133,559	142,275	149,386	160,158	168,829	160,939	164,941

% of Canadian total

British Columbia	9	9	9	9	9	8	8	8	8	8	8	7	7
Alberta	6	6	6	6	7	6	7	8	7	7	7	7	7
Ontario	50	49	50	50	50	51	51	50	51	51	51	50	51
Quebec	28	28	28	28	28	27	26	27	26	27	27	28	28
Rest of Canada	7	7	7	7	7	7	7	7	7	7	7	7	7
Canada	100	100	100	100	100	100	100	100	100	100	100	100	100

All Industries

British Columbia	83,920	85,094	87,833	92,110	96,548	99,129	101,306	104,554	106,151	108,851	113,550	114,539	116,888
Alberta	76,753	77,824	78,809	83,776	89,860	92,063	94,343	101,936	106,676	108,373	114,714	118,054	120,046
Ontario	290,526	283,416	285,261	288,661	302,123	313,812	317,539	331,339	347,432	373,766	391,653	396,471	411,581
Quebec	161,170	157,056	158,153	161,949	167,552	169,239	169,881	175,118	180,684	190,743	200,213	202,628	210,622
Rest of Canada	95,218	94,069	93,348	94,125	96,961	98,517	100,650	103,856	108,439	112,249	115,721	116,801	119,874
Canada	707,587	697,459	703,404	720,620	753,044	772,760	783,719	816,803	849,381	893,982	935,851	948,493	979,010

Manufacturing % of total GDP

British Columbia	13	12	12	12	11	11	11	11	11	12	12	11	10
Alberta	8	8	8	8	9	9	10	11	10	10	10	10	9
Ontario	20	19	19	20	21	22	22	22	22	22	22	20	20
Quebec	21	20	19	20	21	21	21	22	22	22	23	22	22
Rest of Canada	9	9	9	9	9	10	10	10	10	10	10	10	10
Canada	17	16	16	16	17	17	17	17	18	18	18	17	17

GDP at Basic Prices, by Province
% change from previous year

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Manufacturing												
British Columbia	-4.9	2.1	1.7	0.3	1.1	0.1	5.8	-1.4	12.8	5.2	-10.2	1.6
Alberta	1.3	-1.8	10.2	15.6	4.2	9.7	14.8	1.6	-2.1	6.6	-0.5	-1.5
Ontario	-8.3	2.6	5.6	8.5	7.6	0.8	4.6	7.3	7.2	4.3	-5.6	3.4
Quebec	-8.2	0.1	7.0	6.6	0.4	-0.3	7.7	3.9	8.8	8.3	-3.1	1.9
Rest of Canada	-3.1	1.4	0.3	6.5	10.3	2.1	8.4	3.9	5.1	2.0	-1.9	3.3
Canada	-7.0	1.5	5.5	7.5	5.0	1.1	6.5	5.0	7.2	5.4	-4.7	2.5

All Industries

British Columbia	1.4	3.2	4.9	4.8	2.7	2.2	3.2	1.5	2.5	4.3	0.9	2.1
Alberta	1.4	1.3	6.3	7.3	2.5	2.5	8.0	4.6	1.6	5.9	2.9	1.7
Ontario	-2.4	0.7	1.2	4.7	3.9	1.2	4.3	4.9	7.6	4.8	1.2	3.8
Quebec	-2.6	0.7	2.4	3.5	1.0	0.4	3.1	3.2	5.6	5.0	1.2	3.9
Rest of Canada	-1.2	-0.8	0.8	3.0	1.6	2.2	3.2	4.4	3.5	3.1	0.9	2.6
Canada	-1.4	0.9	2.4	4.5	2.6	1.4	4.2	4.0	5.3	4.7	1.4	3.2

Source: Statistics Canada and BC Stats

Table 1.2 (a): GDP at Basic Prices, British Columbia
Constant dollars (\$ 1997 million)

NAICS INDUSTRY	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food	-	-	-	-	-	-	-	1,016	1,016	1,143	1,169	1,235	1,259
Beverages & tobacco	-	-	-	-	-	-	-	289	295	391	395	368	388
Textile and Textile Product Mills	-	-	-	-	-	-	-	-	-	-	-	-	-
Textile mills	-	-	-	-	-	-	-	-	-	-	-	-	-
Textile product mills	-	-	-	-	-	-	-	40	42	64	67	59	61
Clothing	139	118	127	121	124	136	122	-	160	157	154	136	114
Leather & allied	5	3	-	3	3	3	5	-	4	-	-	-	-
Wood	4,346	3,717	4,024	4,015	3,643	3,683	3,335	3,634	3,543	3,939	4,093	3,643	3,923
Paper	-	-	-	-	-	-	-	1,599	1,469	1,854	1,885	1,663	1,601
Printing & related	-	349	326	311	300	-	360	327	303	301	316	271	239
Petroleum & coal	-	-	-	-	-	-	149	145	142	-	-	-	-
Chemicals	-	-	-	-	-	-	-	435	356	365	375	383	400
Plastics & rubber	-	-	-	-	-	-	-	290	319	373	405	378	366
Non-metallic minerals	-	-	-	-	-	-	-	430	407	380	378	395	459
Primary Metal & Fabricated Metal Product Manufacturing	959	1,125	1,013	967	957	1,044	1,058	1,195	-	-	-	-	-
Primary metals	-	-	-	-	-	-	-	585	-	-	-	-	-
Fabricated metals	-	-	-	-	-	-	-	610	596	618	689	640	655
Machinery	595	491	434	498	618	638	634	567	636	653	695	578	606
Computer & electronic products	-	-	-	-	-	-	-	415	490	769	1,087	781	601
Electrical equipment, appliances & components	-	-	-	-	-	-	-	-	126	139	164	154	109
Transportation equipment	-	-	-	-	-	-	-	498	476	561	492	398	411
Furniture & related manufacturing	172	151	157	175	198	182	177	188	202	208	218	208	237
Total Manufacturing	10,834	10,303	10,523	10,697	10,725	10,846	10,854	11,479	11,323	12,773	13,431	12,058	12,249
Primary	6,513	6,026	6,188	6,336	5,964	5,877	5,598	6,080	5,824	6,517	6,719	6,156	6,521
Secondary	4,698	4,471	4,482	4,521	4,832	5,004	5,220	5,400	5,499	6,255	6,712	5,903	5,728
High Tech	354	333	470	444	479	495	645	743	825	1,152	1,511	1,171	988
Others	4,344	4,138	4,012	4,077	4,353	4,509	4,575	4,657	4,674	5,103	5,201	4,732	4,740
All Industries	83,920	85,094	87,833	92,110	96,548	99,129	101,306	104,554	106,151	108,851	113,550	114,539	116,888
Goods	25,579	24,937	25,043	26,033	26,530	26,855	26,882	27,806	27,329	28,558	29,780	28,321	28,130
Services	50,472	52,352	54,744	57,502	60,643	62,556	64,359	76,748	78,822	80,294	83,770	86,217	88,758
Tourism Sector	4,192	3,833	3,980	4,158	4,380	4,608	4,693	4,739	4,757	4,778	5,030	5,042	-

Source: Statistics Canada and BC Stats
"-": Confidential or not available

Table 1.2 (b): GDP at Basic Prices, British Columbia
% change from previous year

NAICS INDUSTRY	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food	-	-	-	-	-	-	-	0.0	12.5	2.2	5.7	2.0
Beverages & tobacco	-	-	-	-	-	-	-	2.0	32.6	1.0	-6.8	5.4
Textile and Textile Product Mills	-	-	-	-	-	-	-	-	-	-	-	-
Textile mills	-	-	-	-	-	-	-	-	-	-	-	-
Textile product mills	-	-	-	-	-	-	-	3.5	53.1	4.2	-11.1	2.9
Clothing	-14.8	7.0	-4.5	2.8	9.5	-10.7	-	-	-1.8	-1.8	-11.7	-16.0
Leather & allied	-31.3	-	-	-12.1	-10.3	100.0	-	-	-	-	-	-
Wood	-14.5	8.3	-0.2	-9.3	1.1	-9.4	9.0	-2.5	11.2	3.9	-11.0	7.7
Paper	-	-	-	-	-	-	-	-8.1	26.2	1.7	-11.8	-3.7
Printing & related	-	-6.6	-4.5	-3.7	-	-	-9.3	-7.1	-0.9	5.2	-14.4	-11.6
Petroleum & coal	-	-	-	-	-	-	-2.7	-1.5	-	-	-	-
Chemicals	-	-	-	-	-	-	-	-18.2	2.4	2.8	2.1	4.5
Plastics & rubber	-	-	-	-	-	-	-	9.9	16.9	8.7	-6.7	-3.3
Non-metallic minerals	-	-	-	-	-	-	-	-5.3	-6.7	-0.5	4.6	16.2
Primary Metal & Fabricated Metal Product Manufacturing	17.3	-10.0	-4.5	-1.1	9.1	1.4	12.9	-	-	-	-	-
Primary metals	-	-	-	-	-	-	-	-	-	-	-	-
Fabricated metals	-	-	-	-	-	-	-	-2.2	3.7	11.4	-7.0	2.2
Machinery	-17.5	-11.7	14.8	24.0	3.3	-0.6	-10.6	12.1	2.7	6.5	-16.8	4.9
Computer & electronic products	-	-	-	-	-	-	-	18.1	56.9	41.3	-28.2	-23.0
Electrical equipment, appliances & components	-	-	-	-	-	-	-	-	10.2	17.9	-5.9	-29.6
Transportation equipment	-	-	-	-	-	-	-	-4.5	17.9	-12.3	-19.1	3.2
Furniture & related manufacturing	-12.3	4.1	11.7	13.0	-8.1	-2.8	6.5	7.6	2.7	4.9	-4.8	14.3
Total Manufacturing	-4.9	2.1	1.7	0.3	1.1	0.1	5.8	-1.4	12.8	5.2	-10.2	1.6
Primary	-7.5	2.7	2.4	-5.9	-1.4	-4.8	8.6	-4.2	11.9	3.1	-8.4	5.9
Secondary	-4.8	0.3	0.9	6.9	3.5	4.3	3.5	1.8	13.8	7.3	-12.1	-3.0
High Tech	-5.9	41.1	-5.5	7.9	3.3	30.3	15.2	11.0	39.6	31.2	-22.5	-15.6
Others	-4.7	-3.0	1.6	6.8	3.6	1.5	1.8	0.4	9.2	1.9	-9.0	0.2
All Industries	1.4	3.2	4.9	4.8	2.7	2.2	3.2	1.5	2.5	4.3	0.9	2.1
Goods	-2.5	0.4	4.0	1.9	1.2	0.1	3.4	-1.7	4.5	4.3	-4.9	-0.7
Services	3.7	4.6	5.0	5.5	3.2	2.9	19.3	2.7	1.9	4.3	2.9	2.9
Tourism Sector	-8.6	3.8	4.5	5.3	5.2	1.8	1.0	0.4	0.4	5.3	0.2	-

Source: Statistics Canada and BC Stats
"-": Confidential or not available

Table 2.1: GDP at Basic Prices, by Province
Current (\$ million)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000*	2001*	2002*
Manufacturing													
British Columbia	8,739	8,262	8,034	9,272	10,961	11,856	11,440	11,479	10,890	13,139	13,574	12,098	12,262
Alberta	5,633	5,989	5,418	5,959	7,719	9,842	9,829	10,772	10,510	10,780	-	-	-
Ontario	53,718	49,697	50,848	53,845	60,502	68,379	68,867	71,648	77,648	88,013	93,122	89,690	93,929
Quebec	27,323	25,273	24,680	26,927	31,065	33,939	35,161	37,780	39,594	45,712	50,911	50,054	51,093
Rest of Canada	7,678	7,336	7,126	7,371	8,276	9,829	9,890	10,596	11,444	11,669	-	-	-
Canada	103,090	96,557	96,105	103,374	118,523	133,846	135,187	142,275	150,086	169,313	181,977	176,405	182,043
% of Canadian total													
British Columbia	8	9	8	9	9	9	8	8	7	8	7	7	7
Alberta	5	6	6	6	7	7	7	8	7	6	-	-	-
Ontario	52	51	53	52	51	51	51	50	52	52	51	51	52
Quebec	27	26	26	26	26	25	26	27	26	27	28	28	28
Rest of Canada	7	8	7	7	7	7	7	7	8	7	-	-	-
Canada	100	100	100	100	100	100	100	100	100	100	100	100	100

GDP at Basic Prices, by Province
% change from previous year

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Manufacturing												
British Columbia	-5.5	-2.8	15.4	18.2	8.2	-3.5	0.3	-5.1	20.6	3.3	-10.9	1.4
Alberta	6.3	-9.5	10.0	29.5	27.5	-0.1	9.6	-2.4	2.6	-	-	-
Ontario	-7.5	2.3	5.9	12.4	13.0	0.7	4.0	8.4	13.3	5.8	-3.7	4.7
Quebec	-7.5	-2.3	9.1	15.4	9.3	3.6	7.4	4.8	15.5	11.4	-1.7	2.1
Rest of Canada	-4.5	-2.9	3.4	12.3	18.8	0.6	7.1	8.0	2.0	-	-	-
Canada	-6.3	-0.5	7.6	14.7	12.9	1.0	5.2	5.5	12.8	7.5	-3.1	3.2

Source: Statistics Canada and BC Stats

* current GDP data for 2000-2002 are BC Stats estimates

"-": Confidential or not available

Table 2.2 (a): GDP at Basic Prices, British Columbia
Current dollars (\$ million)

NAICS INDUSTRY	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food	-	-	-	-	-	-	-	1,016	1,101	1,277	1,311	1,414	1,449
Beverages & tobacco	-	-	-	-	-	-	-	289	329	423	442	425	462
Textile and Textile Product Mills	-	-	-	-	-	-	-	-	-	-	-	-	-
Textile mills	-	-	-	-	-	-	-	-	-	-	-	-	-
Textile product mills	-	-	-	-	-	-	40	42	73	-	-	-	-
Clothing	139	118	122	118	120	131	113	-	162	170	167	148	125
Leather & allied	6	3	-	4	3	2	6	-	4	-	-	-	-
Wood	2,026	1,658	2,212	3,280	3,948	3,352	3,250	3,634	3,189	4,458	4,086	3,551	3,787
Paper	-	-	-	-	-	-	-	1,599	1,374	1,725	2,083	1,718	1,499
Printing & related	-	250	249	252	254	-	344	327	315	329	357	313	282
Petroleum & coal	-	-	-	-	-	-	62	145	94	-	-	-	-
Chemicals	-	-	-	-	-	-	-	435	334	360	385	404	419
Plastics & rubber	-	-	-	-	-	-	-	290	317	350	395	381	369
Non-metallic minerals	-	-	-	-	-	-	-	430	423	374	386	417	497
Primary Metal & Fabricated Metal Product Manufacturing	-	-	-	-	-	-	-	-	-	-	-	-	-
Primary metals	-	-	-	-	-	-	-	585	-	-	-	-	-
Fabricated metals	-	-	-	-	-	-	-	610	595	664	-	-	-
Machinery	448	373	383	433	531	585	624	567	691	644	698	588	621
Computer & electronic products	-	-	-	-	-	-	-	415	420	554	776	545	428
Electrical equipment, appliances & components	-	-	-	-	-	-	-	-	125	125	151	144	102
Transportation equipment	-	-	-	-	-	-	-	498	523	810	652	511	578
Furniture & related manufacturing	205	170	176	195	229	208	202	188	207	217	232	226	260
Total Manufacturing	8,739	8,262	8,034	9,272	10,961	11,856	11,440	11,479	10,890	13,139	13,574	12,098	12,262
Primary	4,405	4,306	4,112	5,269	6,333	6,322	5,796	6,080	5,412	6,831	6,762	6,098	6,360
Secondary	4,334	3,961	3,923	4,005	4,629	5,535	5,644	5,400	5,478	6,309	6,812	6,000	5,902
High Tech	342	311	438	462	491	637	771	743	742	914	1,142	918	850
Others	3,992	3,650	3,485	3,543	4,138	4,898	4,873	4,657	4,736	5,395	5,670	5,082	5,052
All Industries	74,133	77,389	81,452	87,648	94,701	98,987	101,769	104,554	105,909	110,441	118,397	120,085	122,800
Goods	21,573	21,020	21,466	23,735	26,564	27,905	27,500	27,806	26,623	29,192	32,179	30,568	29,731
Services	45,546	49,000	52,475	55,899	59,452	62,007	65,219	76,748	79,286	81,249	86,218	89,517	93,069
Tourism Sector	3,264	3,375	3,497	3,737	3,993	4,329	4,544	4,739	4,892	5,047	5,400	5,587	-

Source: Statistics Canada and BC Stats (current GDP data for 2000-2002 are BC Stats estimates)
"-": Confidential or not available

Table 2.2 (b): GDP at Basic Prices, British Columbia
% change from previous year

NAICS INDUSTRY	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food	-	-	-	-	-	-	-	8.4	15.9	2.7	7.8	2.5
Beverages & tobacco	-	-	-	-	-	-	-	13.7	28.8	4.5	-4.0	8.7
Textile and Textile Product Mills	-	-	-	-	-	-	-	-	-	-	-	-
Textile mills	-	-	-	-	-	-	-	-	-	-	-	-
Textile product mills	-	-	-	-	-	-	-	3.7	74.0	-	-	-
Clothing	-15.1	3.9	-4.0	2.2	9.0	-13.8	-	-	4.5	-1.3	-11.4	-15.5
Leather & allied	-38.2	-	-	-10.5	-32.4	160.9	-	-	-	-	-	-
Wood	-18.1	33.4	48.3	20.4	-15.1	-3.0	11.8	-12.3	39.8	-8.3	-13.1	6.7
Paper	-	-	-	-	-	-	-	-14.0	25.5	20.8	-17.5	-12.7
Printing & related	-	-0.5	1.1	0.6	-	-	-5.1	-3.7	4.5	8.6	-12.3	-9.9
Petroleum & coal	-	-	-	-	-	-	132.9	-35.2	-	-	-	-
Chemicals	-	-	-	-	-	-	-	-23.3	7.8	7.2	4.8	3.7
Plastics & rubber	-	-	-	-	-	-	-	9.2	10.5	12.9	-3.6	-3.0
Non-metallic minerals	-	-	-	-	-	-	-	-1.5	-11.6	3.3	8.0	19.2
Primary Metal & Fabricated Metal Product Manufacturing	-	-	-	-	-	-	-	-	-	-	-	-
Primary metals	-	-	-	-	-	-	-	-	-	-	-	-
Fabricated metals	-	-	-	-	-	-	-	-2.5	11.7	-	-	-
Machinery	-16.6	2.6	12.9	22.7	10.3	6.7	-9.2	21.9	-6.9	8.5	-15.8	5.7
Computer & electronic products	-	-	-	-	-	-	-	1.2	31.8	40.0	-29.8	-21.4
Electrical equipment, appliances & components	-	-	-	-	-	-	-	-	0.3	20.2	-4.6	-29.1
Transportation equipment	-	-	-	-	-	-	-	5.0	54.8	-19.5	-21.7	13.2
Furniture & related manufacturing	-17.0	3.8	10.4	17.5	-9.0	-3.0	-7.0	10.0	4.8	7.1	-2.8	15.1
Total Manufacturing	-5.5	-2.8	15.4	18.2	8.2	-3.5	0.3	-5.1	20.6	3.3	-10.9	1.4
Primary	-2.2	-4.5	28.1	20.2	-0.2	-8.3	4.9	-11.0	26.2	-1.0	-9.8	4.3
Secondary	-8.6	-0.9	2.1	15.6	19.6	2.0	-4.3	1.4	15.2	8.0	-11.9	-1.6
High Tech	-9.1	40.8	5.5	6.3	29.7	21.0	-3.6	-0.1	23.2	24.9	-19.6	-7.4
Others	-8.6	-4.5	1.6	16.8	18.4	-0.5	-4.4	1.7	13.9	5.1	-10.4	-0.6
All Industries	4.4	5.3	7.6	8.0	4.5	2.8	2.7	1.3	4.3	7.2	1.4	2.3
Goods	-2.6	2.1	10.6	11.9	5.1	-1.5	1.1	-4.3	9.6	10.2	-5.0	-2.7
Services	7.6	7.1	6.5	6.4	4.3	5.2	17.7	3.3	2.5	6.1	3.8	4.0
Tourism Sector	3.4	3.6	6.9	6.9	8.4	5.0	4.3	3.2	3.2	7.0	3.5	-

Source: Statistics Canada and BC Stats
"-": Confidential or not available

Table 3.1 (a): Manufacturing Shipments, by Province

Value (\$ millions)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
British Columbia													
Total Manufacturing	24,896	22,757	24,398	26,583	30,333	34,207	32,932	33,496	31,757	35,616	37,768	34,106	34,236
Primary	14,592	13,668	14,910	16,878	19,414	21,373	19,326	19,916	17,953	19,986	20,693	18,966	19,263
Secondary	10,304	9,089	9,488	9,706	10,919	12,836	13,607	13,579	13,803	15,630	17,074	15,140	14,974
High Tech	758	694	919	963	1,165	1,325	1,542	1,765	1,889	2,052	2,542	2,200	1,938
Others	9,546	8,395	8,569	8,743	9,754	11,511	12,065	11,814	11,914	13,578	14,532	12,940	13,036
Non-durables	12,148	11,454	11,509	11,457	12,775	15,500	13,578	13,492	12,540	13,634	15,267	14,154	13,679
Durables	12,748	11,303	12,888	15,126	17,557	18,707	19,355	20,004	19,216	21,982	22,501	19,952	20,557
Alberta													
Total Manufacturing	19,596	19,120	18,881	20,595	24,885	28,491	30,677	34,185	32,842	36,014	42,583	42,394	40,966
Primary	12,563	11,989	11,808	12,250	15,393	17,611	18,286	19,750	17,987	20,641	24,962	24,581	24,460
Secondary	7,033	7,131	7,074	8,344	9,491	10,880	12,391	14,435	14,854	15,372	17,621	17,814	16,507
High Tech	902	957	1,030	1,077	1,315	1,769	2,497	2,775	3,034	3,228	3,557	2,953	2,385
Others	6,131	6,174	6,044	7,267	8,176	9,111	9,894	11,660	11,820	12,144	14,064	14,861	14,122
Non-durables	13,643	-	13,053	13,839	16,622	19,522	20,165	21,604	20,044	22,584	28,016	27,459	26,914
Durables	5,953	-	5,828	6,756	8,263	8,969	10,512	12,580	12,797	13,429	14,567	14,936	14,052
Ontario													
Total Manufacturing	153,292	142,675	147,792	160,717	182,297	205,313	210,015	225,002	238,277	270,050	286,809	268,495	277,581
Primary	37,297	33,792	34,927	36,504	39,836	42,400	43,783	46,193	46,405	50,283	55,337	54,702	55,701
Secondary	115,995	108,883	112,865	124,213	142,461	162,913	166,232	178,808	191,872	219,768	231,472	213,793	221,880
High Tech	15,848	15,712	15,668	15,812	18,453	22,755	21,400	21,890	22,845	23,654	29,938	26,009	23,438
Others	100,147	93,171	97,197	108,401	124,008	140,158	144,832	156,918	169,027	196,114	201,534	187,784	198,442
Non-durables	60,145	56,615	57,737	59,457	64,669	70,317	72,278	74,528	75,338	81,676	89,449	91,144	93,057
Durables	93,147	86,060	90,056	101,260	117,628	134,996	137,737	150,473	162,939	188,375	197,360	177,351	184,523
Quebec													
Total Manufacturing	72,513	68,480	67,445	72,758	83,409	92,389	95,759	101,009	104,480	112,429	127,650	120,949	122,059
Primary	22,958	21,691	20,789	20,913	23,116	25,873	27,342	29,369	28,471	30,340	35,241	34,395	36,431
Secondary	49,556	46,789	46,656	51,845	60,293	66,516	68,416	71,640	76,009	82,089	92,409	86,554	85,628
High Tech	8,672	10,155	10,520	11,333	12,868	14,577	15,726	16,771	18,373	21,436	28,767	23,979	21,947
Others	40,884	36,634	36,136	40,512	47,425	51,939	52,690	54,869	57,636	60,653	63,642	62,575	63,681
Non-durables	36,420	34,767	34,191	35,176	38,115	43,300	44,712	46,280	46,013	48,388	54,543	55,381	56,425
Durables	36,093	33,713	33,255	37,583	45,294	49,090	51,047	54,729	58,467	64,041	73,107	65,568	65,634
Canada													
Total Manufacturing	293,348	274,979	280,518	303,942	346,941	389,779	400,085	426,521	441,153	491,869	537,005	508,804	518,505
Primary	98,929	92,632	94,216	100,151	113,076	123,101	125,697	133,660	129,694	142,811	160,682	157,473	161,373
Secondary	194,419	182,347	186,302	203,791	233,865	266,678	274,388	292,861	311,459	348,667	375,902	350,819	356,614
High Tech	27,753	29,038	29,845	30,853	35,394	42,112	43,088	45,354	48,591	53,030	67,853	57,885	52,098
Others	166,666	153,309	156,457	172,938	198,471	224,566	231,300	247,507	262,868	295,637	308,049	292,934	304,516
Non-durables	136,827	129,996	130,650	134,896	148,431	167,586	169,912	176,276	174,169	189,089	214,324	216,355	218,631
Durables	156,521	144,983	149,868	169,047	198,509	222,194	230,173	250,243	266,984	302,779	322,682	292,448	299,874

Source: Statistics Canada and BC Stats
Survey of Manufacturing

Table 3.1 (b): Manufacturing Shipments, by Province
% change from previous year

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
British Columbia												
Total Manufacturing	-8.6	7.2	9.0	14.1	12.8	-3.7	1.7	-5.2	12.2	6.0	-9.7	0.4
Primary	-6.3	9.1	13.2	15.0	10.1	-9.6	3.1	-9.9	11.3	3.5	-8.3	1.6
Secondary	-11.8	4.4	2.3	12.5	17.5	6.0	-0.2	1.7	13.2	9.2	-11.3	-1.1
High Tech	-8.4	32.4	4.8	21.0	13.7	16.4	14.5	7.0	8.6	23.9	-13.5	-11.9
Others	-12.1	2.1	2.0	11.6	18.0	4.8	-2.1	0.8	14.0	7.0	-11.0	0.7
Non-durables	-5.7	0.5	-0.5	11.5	21.3	-12.4	-0.6	-7.1	8.7	12.0	-7.3	-3.4
Durables	-11.3	14.0	17.4	16.1	6.5	3.5	3.4	-3.9	14.4	2.4	-11.3	3.0
Alberta												
Total Manufacturing	-2.4	-1.2	9.1	20.8	14.5	7.7	11.4	-3.9	9.7	18.2	-0.4	-3.4
Primary	-4.6	-1.5	3.7	25.7	14.4	3.8	8.0	-8.9	14.8	20.9	-1.5	-0.5
Secondary	1.4	-0.8	18.0	13.7	14.6	13.9	16.5	2.9	3.5	14.6	1.1	-7.3
High Tech	6.1	7.6	4.6	22.1	34.5	41.2	11.1	9.3	6.4	10.2	-17.0	-19.2
Others	0.7	-2.1	20.2	12.5	11.4	8.6	17.9	1.4	2.7	15.8	5.7	-5.0
Non-durables	-	-	6.0	20.1	17.5	3.3	7.1	-7.2	12.7	24.0	-2.0	-2.0
Durables	-	-	15.9	22.3	8.5	17.2	19.7	1.7	4.9	8.5	2.5	-5.9
Ontario												
Total Manufacturing	-6.9	3.6	8.7	13.4	12.6	2.3	7.1	5.9	13.3	6.2	-6.4	3.4
Primary	-9.4	3.4	4.5	9.1	6.4	3.3	5.5	0.5	8.4	10.1	-1.1	1.8
Secondary	-6.1	3.7	10.1	14.7	14.4	2.0	7.6	7.3	14.5	5.3	-7.6	3.8
High Tech	-0.9	-0.3	0.9	16.7	23.3	-6.0	2.3	4.4	3.5	26.6	-13.1	-9.9
Others	-7.0	4.3	11.5	14.4	13.0	3.3	8.3	7.7	16.0	2.8	-6.8	5.7
Non-durables	-5.9	2.0	3.0	8.8	8.7	2.8	3.1	1.1	8.4	9.5	1.9	2.1
Durables	-7.6	4.6	12.4	16.2	14.8	2.0	9.2	8.3	15.6	4.8	-10.1	4.0
Quebec												
Total Manufacturing	-5.6	-1.5	7.9	14.6	10.8	3.6	5.5	3.4	7.6	13.5	-5.2	0.9
Primary	-5.5	-4.2	0.6	10.5	11.9	5.7	7.4	-3.1	6.6	16.2	-2.4	5.9
Secondary	-5.6	-0.3	11.1	16.3	10.3	2.9	4.7	6.1	8.0	12.6	-6.3	-1.1
High Tech	17.1	3.6	7.7	13.5	13.3	7.9	6.6	9.6	16.7	34.2	-16.6	-8.5
Others	-10.4	-1.4	12.1	17.1	9.5	1.4	4.1	5.0	5.2	4.9	-1.7	1.8
Non-durables	-4.5	-1.7	2.9	8.4	13.6	3.3	3.5	-0.6	5.2	12.7	1.5	1.9
Durables	-6.6	-1.4	13.0	20.5	8.4	4.0	7.2	6.8	9.5	14.2	-10.3	0.1
Canada												
Total Manufacturing	-6.3	2.0	8.4	14.1	12.3	2.6	6.6	3.4	11.5	9.2	-5.3	1.9
Primary	-6.4	1.7	6.3	12.9	8.9	2.1	6.3	-3.0	10.1	12.5	-2.0	2.5
Secondary	-6.2	2.2	9.4	14.8	14.0	2.9	6.7	6.4	11.9	7.8	-6.7	1.7
High Tech	4.6	2.8	3.4	14.7	19.0	2.3	5.3	7.1	9.1	28.0	-14.7	-10.0
Others	-8.0	2.1	10.5	14.8	13.1	3.0	7.0	6.2	12.5	4.2	-4.9	4.0
Non-durables	-5.0	0.5	3.3	10.0	12.9	1.4	3.7	-1.2	8.6	13.3	0.9	1.1
Durables	-7.4	3.4	12.8	17.4	11.9	3.6	8.7	6.7	13.4	6.6	-9.4	2.5

Source: Statistics Canada and BC Stats
Survey of Manufacturing

Table 3.2 (a): Manufacturing Shipments, British Columbia
Value (\$ million)

NAICS INDUSTRY	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food	3,295	3,176	3,295	3,424	3,548	3,691	3,735	3,708	3,577	3,718	3,805	4,130	4,270
Beverages & Tobacco	494	537	810	686	-	-	667	776	875	1,006	1,011	908	990
Textile mills	-	-	25	-	-	27	-	-	-	-	-	-	-
Textile product mills	-	-	108	-	-	97	98	101	105	148	160	147	153
Clothing	254	-	-	-	269	281	263	-	317	351	353	313	263
Leather & allied	-	16	-	-	9	9	-	-	10	14	15	15	18
Wood	6,646	5,937	7,287	9,539	10,989	11,138	11,175	11,417	10,192	11,807	11,566	10,330	10,830
Paper	4,886	3,996	3,837	3,897	5,173	7,474	5,862	5,582	4,913	5,428	6,730	5,422	4,790
Printing & related	521	531	526	530	504	638	664	665	675	711	771	681	608
Petroleum & coal	-	-	-	1,471	1,289	-	-	949	729	756	768	792	754
Chemicals	696	699	691	807	917	967	915	991	885	888	926	1,004	1,076
Plastics & rubber	-	-	-	-	-	-	-	692	747	945	1,062	1,039	1,008
Non-metallic minerals	791	739	760	801	864	890	924	995	1,021	1,075	1,075	1,160	1,357
Primary metals	-	-	-	890	1,064	1,208	-	1,294	-	-	-	-	-
Fabricated metals	1,074	1,078	1,009	963	1,063	1,210	1,321	1,435	1,419	1,496	1,701	1,575	1,609
Machinery	901	674	752	846	1,010	1,161	1,233	1,266	1,421	1,621	1,773	1,467	1,594
Computer & electronic products	263	-	331	400	502	620	818	1,016	1,112	1,163	1,473	1,068	879
Electrical equipment, appliances & components	-	-	-	-	264	301	307	-	357	465	576	515	345
Transportation equipment	-	724	681	-	877	1,242	1,205	1,273	1,366	1,826	1,603	1,349	1,283
Furniture & related	380	347	385	378	396	389	399	418	459	440	469	459	525
manufacturing	228	214	254	247	259	268	323	328	335	432	495	527	606
Total Manufacturing	24,896	22,757	24,398	26,583	30,333	34,207	32,932	33,496	31,757	35,616	37,768	34,106	34,236
Primary	14,592	13,668	14,910	16,878	19,414	21,373	19,326	19,916	17,953	19,986	20,693	18,966	19,263
Secondary	10,304	9,089	9,488	9,706	10,919	12,836	13,607	13,579	13,803	15,630	17,074	15,140	14,974
High Tech	758	694	919	963	1,165	1,325	1,542	1,765	1,889	2,052	2,542	2,200	1,938
Others	9,546	8,395	8,569	8,743	9,754	11,511	12,065	11,814	11,914	13,578	14,532	12,940	13,036
Non-durables	12,148	11,454	11,509	11,457	12,775	15,500	13,578	13,492	12,540	13,634	15,267	14,154	13,679
Durables	12,748	11,303	12,888	15,126	17,557	18,707	19,355	20,004	19,216	21,982	22,501	19,952	20,557

Source: Statistics Canada and BC Stats
Survey of Manufacturing

Table 3.2 (b): Manufacturing Shipments, British Columbia
% change from previous year

NAICS INDUSTRY	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food	-3.6	3.8	3.9	3.6	4.0	1.2	-0.7	-3.5	4.0	2.3	8.5	3.4
Beverages & Tobacco	8.8	50.7	-15.3	-	-	-	16.5	12.7	15.0	0.4	-10.2	9.1
Textile mills	-	-	-	-	-	-	-	-	-	-	-	-
Textile product mills	-	-	-	-	-	0.4	3.4	3.9	41.0	8.1	-8.1	4.0
Clothing	-	-	-	-	4.4	-6.5	-	-	10.6	0.6	-11.4	-15.8
Leather & allied	-	-	-	-	-8.3	-	-	-	41.9	5.4	0.1	18.4
Wood	-10.7	22.7	30.9	15.2	1.4	0.3	2.2	-10.7	15.8	-2.0	-10.7	4.8
Paper	-18.2	-4.0	1.6	32.7	44.5	-21.6	-4.8	-12.0	10.5	24.0	-19.4	-11.7
Printing & related	1.8	-1.0	0.8	-4.9	26.5	4.1	0.1	1.5	5.4	8.5	-11.7	-10.7
Petroleum & coal	-	-	-	-12.4	-	-	-	-23.1	3.7	1.6	3.2	-4.8
Chemicals	0.3	-1.1	16.8	13.7	5.5	-5.4	8.2	-10.7	0.4	4.2	8.5	7.1
Plastics & rubber	-	-	-	-	-	-	-	8.0	26.4	12.4	-2.1	-3.1
Non-metallic minerals	-6.6	2.8	5.5	7.9	3.0	3.8	7.7	2.6	5.3	0.0	8.0	17.0
Primary metals	-	-	-	19.5	13.6	-	-	-	-	-	-	-
Fabricated metals	0.4	-6.5	-4.5	10.4	13.8	9.2	8.6	-1.1	5.5	13.7	-7.4	2.2
Machinery	-25.2	11.6	12.5	19.3	15.0	6.2	2.7	12.3	14.1	9.3	-17.3	8.7
Computer & electronic products	-	-	21.0	25.5	23.4	31.9	24.2	9.5	4.6	26.6	-27.5	-17.7
Electrical equipment, appliances & components	-	-	-	-	14.1	1.9	-	-	30.3	23.7	-10.6	-32.9
Transportation equipment	-	-6.0	-	-	41.6	-3.0	5.7	7.3	33.6	-12.2	-15.8	-4.9
Furniture & related manufacturing	-8.8	10.9	-1.9	4.9	-1.9	2.6	4.9	9.7	-4.2	6.7	-2.3	14.4
Total Manufacturing	-8.6	7.2	9.0	14.1	12.8	-3.7	1.7	-5.2	12.2	6.0	-9.7	0.4
Primary	-6.3	9.1	13.2	15.0	10.1	-9.6	3.1	-9.9	11.3	3.5	-8.3	1.6
Secondary	-11.8	4.4	2.3	12.5	17.5	6.0	-0.2	1.7	13.2	9.2	-11.3	-1.1
High Tech	-8.4	32.4	4.8	21.0	13.7	16.4	14.5	7.0	8.6	23.9	-13.5	-11.9
Others	-12.1	2.1	2.0	11.6	18.0	4.8	-2.1	0.8	14.0	7.0	-11.0	0.7
Non-durables	-5.7	0.5	-0.5	11.5	21.3	-12.4	-0.6	-7.1	8.7	12.0	-7.3	-3.4
Durables	-11.3	14.0	17.4	16.1	6.5	3.5	3.4	-3.9	14.4	2.4	-11.3	3.0

Source: Statistics Canada and BC Stats
Survey of Manufacturing

Table 4.1 (a): Total Employment, Manufacturing, by Province
'000

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
British Columbia													
Manufacturing	176	169	168	179	184	189	195	197	196	192	205	196	197
Primary	78	76	76	83	85	85	84	85	79	78	79	73	69
Secondary	98	93	91	96	98	104	111	112	117	114	126	123	128
High Tech	-	11	10	10	9	9	9	11	12	14	16	16	14
Others	-	82	82	86	90	95	101	101	105	100	110	108	114
Non-durables	72	71	71	81	82	84	90	87	88	82	91	85	83
Durables	104	98	97	99	101	105	105	110	108	110	114	111	114
All industries	1,555	1,573	1,620	1,676	1,754	1,792	1,821	1,869	1,870	1,906	1,949	1,942	1,973
Goods	390	378	372	385	402	405	410	418	409	397	414	392	399
Services	1,165	1,195	1,248	1,291	1,352	1,387	1,411	1,451	1,461	1,510	1,535	1,550	1,574
Alberta													
Manufacturing	94	91	92	95	100	107	108	119	126	134	140	142	147
Non-durables	52	50	51	53	53	54	56	58	62	62	63	65	72
Durables	43	41	41	41	47	53	53	61	65	73	77	78	76
All industries	1,279	1,287	1,284	1,295	1,332	1,369	1,408	1,458	1,515	1,553	1,588	1,632	1,674
Goods	362	360	360	364	372	388	396	406	419	422	434	453	460
Services	916	927	924	931	960	982	1,012	1,052	1,096	1,131	1,155	1,179	1,214
Ontario													
Manufacturing	994	905	857	822	838	878	904	939	989	1,049	1,099	1,088	1,120
Non-durables	406	384	365	363	352	372	387	395	426	419	424	417	441
Durables	588	521	493	458	486	506	517	543	563	630	675	671	679
All industries	5,191	5,016	4,949	4,974	5,039	5,131	5,181	5,313	5,490	5,688	5,872	5,963	6,068
Goods	1,556	1,420	1,352	1,302	1,312	1,348	1,366	1,412	1,469	1,550	1,602	1,602	1,636
Services	3,635	3,596	3,597	3,672	3,727	3,782	3,815	3,902	4,021	4,138	4,271	4,361	4,433
Quebec													
Manufacturing	599	551	535	525	533	555	547	584	609	641	629	643	655
Non-durables	325	306	305	297	303	315	301	311	323	334	312	328	320
Durables	275	245	230	229	231	240	246	274	286	307	317	315	336
All industries	3,141	3,082	3,042	3,040	3,101	3,148	3,146	3,195	3,282	3,357	3,438	3,475	3,593
Goods	924	852	819	802	830	843	826	847	877	900	898	909	946
Services	2,217	2,230	2,222	2,238	2,271	2,305	2,320	2,349	2,405	2,457	2,540	2,565	2,647
Rest of Canada													
Manufacturing	188	176	170	166	166	177	177	184	194	202	207	206	207
Non-durables	119	111	107	103	98	104	103	106	108	117	114	116	118
Durables	69	65	63	62	67	72	74	78	85	85	93	90	89
All industries	1,918	1,893	1,865	1,873	1,886	1,917	1,906	1,939	1,983	2,026	2,063	2,065	2,104
Goods	532	512	499	487	484	493	489	504	517	517	521	506	502
Services	1,386	1,381	1,366	1,386	1,403	1,425	1,417	1,435	1,466	1,509	1,542	1,559	1,602
Canada													
Manufacturing	2,053	1,892	1,822	1,786	1,820	1,906	1,931	2,022	2,114	2,217	2,280	2,275	2,326
Non-durables	974	921	897	897	889	929	937	957	1,007	1,013	1,005	1,010	1,033
Durables	1,078	971	924	889	932	977	994	1,065	1,107	1,204	1,276	1,264	1,293
All industries	13,084	12,851	12,760	12,858	13,112	13,357	13,463	13,774	14,140	14,531	14,910	15,077	15,412
Goods	3,765	3,522	3,402	3,339	3,399	3,477	3,488	3,586	3,691	3,786	3,868	3,863	3,943
Services	9,319	9,328	9,358	9,519	9,713	9,880	9,975	10,189	10,449	10,745	11,042	11,214	11,469

Source: Statistics Canada and BC Stats
Labour Force Survey

Table 4.1 (b): Total Employment, Manufacturing, by Province
% change from previous year

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
British Columbia												
Manufacturing	-4.2	-0.7	6.9	2.5	2.7	3.4	1.0	-0.5	-1.9	6.9	-4.5	0.4
Primary	-2.4	0.7	8.5	2.8	-0.5	-0.5	0.3	-6.1	-2.1	1.8	-8.1	-5.4
Secondary	-5.6	-1.8	5.4	2.3	5.5	6.5	1.5	3.7	-1.8	10.3	-2.2	3.7
High Tech	-	-8.8	6.9	-16.6	5.1	3.7	17.3	8.2	22.0	10.0	-0.9	-10.5
Others	-	-0.9	5.3	4.5	5.6	6.8	0.0	3.2	-4.5	10.4	-2.4	5.8
Non-durables	-2.2	0.4	13.7	2.2	1.6	8.0	-3.7	0.7	-6.2	11.1	-6.8	-2.7
Durables	-5.5	-1.5	2.0	2.8	3.6	-0.3	5.0	-1.5	1.4	3.8	-2.6	2.7
All industries	1.1	3.0	3.4	4.7	2.2	1.6	2.6	0.1	1.9	2.2	-0.3	1.6
Goods	-3.3	-1.5	3.4	4.4	0.9	1.2	1.9	-2.1	-3.0	4.5	-5.4	1.8
Services	2.6	4.5	3.5	4.7	2.6	1.7	2.8	0.7	3.3	1.6	1.0	1.5
Alberta												
Manufacturing	-3.9	1.3	2.9	5.7	6.8	1.5	9.8	6.1	6.4	4.3	1.6	3.4
Non-durables	-4.6	2.0	5.5	0.0	1.1	2.8	5.0	5.5	0.0	2.3	2.7	10.8
Durables	-3.5	0.7	-0.2	13.1	13.3	0.2	14.9	6.6	12.3	6.0	0.5	-2.7
All industries	0.7	-0.2	0.8	2.8	2.8	2.9	3.5	3.9	2.5	2.2	2.8	2.6
Goods	-0.6	-0.2	1.2	2.2	4.3	2.2	2.3	3.3	0.7	2.7	4.5	1.5
Services	1.2	-0.3	0.7	3.1	2.3	3.1	4.0	4.2	3.2	2.1	2.1	3.0
Ontario												
Manufacturing	-9.0	-5.3	-4.2	2.0	4.8	2.9	3.9	5.4	6.0	4.8	-1.0	3.0
Non-durables	-5.4	-5.1	-0.4	-3.1	5.7	4.0	2.1	7.8	-1.8	1.3	-1.8	5.8
Durables	-11.4	-5.5	-7.0	6.0	4.2	2.1	5.1	3.6	11.9	7.1	-0.5	1.2
All industries	-3.4	-1.3	0.5	1.3	1.8	1.0	2.6	3.3	3.6	3.2	1.5	1.8
Goods	-8.8	-4.8	-3.7	0.8	2.7	1.3	3.4	4.1	5.5	3.3	0.0	2.1
Services	-1.1	0.0	2.1	1.5	1.5	0.9	2.3	3.0	2.9	3.2	2.1	1.7
Quebec												
Manufacturing	-8.0	-3.1	-1.7	1.5	4.1	-1.5	6.9	4.2	5.2	-1.8	2.1	2.0
Non-durables	-5.7	-0.5	-2.7	2.1	4.0	-4.4	3.3	3.9	3.4	-6.6	5.0	-2.5
Durables	-10.7	-6.3	-0.5	0.7	4.3	2.2	11.4	4.6	7.2	3.3	-0.7	6.6
All industries	-1.9	-1.3	-0.1	2.0	1.5	-0.1	1.6	2.7	2.3	2.4	1.1	3.4
Goods	-7.8	-3.8	-2.1	3.5	1.5	-1.9	2.4	3.6	2.7	-0.3	1.3	4.1
Services	0.6	-0.3	0.7	1.5	1.5	0.6	1.3	2.4	2.2	3.4	1.0	3.2
Rest of Canada												
Manufacturing	-6.7	-3.2	-2.6	0.0	6.6	0.4	3.5	5.5	4.1	2.7	-0.5	0.7
Non-durables	-7.0	-3.8	-3.1	-5.2	6.5	-1.1	2.3	2.5	7.8	-2.1	1.6	1.8
Durables	-6.0	-2.2	-1.9	8.5	7.0	2.5	5.0	9.5	-0.4	9.4	-3.1	-1.0
All industries	-1.3	-1.5	0.4	0.7	1.6	-0.6	1.7	2.3	2.2	1.8	0.1	1.9
Goods	-3.7	-2.6	-2.3	-0.8	1.9	-0.7	3.0	2.7	-0.1	0.7	-2.8	-0.7
Services	-0.4	-1.1	1.4	1.2	1.5	-0.5	1.3	2.2	2.9	2.2	1.1	2.7
Canada												
Manufacturing	-7.8	-3.7	-1.9	1.9	4.7	1.3	4.7	4.5	4.9	2.8	-0.2	2.3
Non-durables	-5.4	-2.6	0.0	-1.0	4.5	0.9	2.1	5.2	0.7	-0.9	0.5	2.3
Durables	-10.0	-4.8	-3.8	4.8	4.8	1.8	7.2	3.9	8.8	5.9	-0.9	2.3
All industries	-1.8	-0.7	0.8	2.0	1.9	0.8	2.3	2.7	2.8	2.6	1.1	2.2
Goods	-6.4	-3.4	-1.9	1.8	2.3	0.3	2.8	3.0	2.6	2.2	-0.1	2.1
Services	0.1	0.3	1.7	2.0	1.7	1.0	2.1	2.6	2.8	2.8	1.6	2.3

Source: Statistics Canada and BC Stats
Labour Force Survey

Table 4.2 (a): Total Employment, Manufacturing, British Columbia
'000

NAICS INDUSTRY	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food	16.6	16.3	18.4	19.6	25.0	19.2	21.8	22.5	22.2	18.4	19.8	22.5	23.8
Beverages & tobacco	4.8	5.7	2.4	2.6	1.8	2.9	2.6	3.0	3.6	3.3	3.9	3.7	3.2
Textile mills & Textile product mills	2.3	0.0	0.0	2.3	1.5	2.7	2.2	0.0	2.6	2.1	2.8	3.0	3.5
Clothing & Leather & Allied	5.4	6.2	5.0	6.4	6.3	6.0	6.9	4.1	6.5	7.8	8.5	9.6	5.5
Wood	46.7	41.9	45.9	49.2	49.7	43.4	43.8	44.8	43.6	42.0	46.5	49.5	44.7
Paper	19.6	20.4	20.7	21.6	21.0	23.8	22.9	22.9	22.5	22.3	17.7	15.0	16.7
Printing & related	6.8	6.3	8.5	7.9	9.3	9.0	11.5	9.5	8.3	8.7	11.3	8.4	8.7
Petroleum & coal	1.8	2.0	0.0	0.0	0.0	0.0	1.9	1.9	0.0	0.0	0.0	1.5	0.0
Chemicals	4.5	3.9	3.6	4.9	5.1	6.4	7.4	3.8	6.4	7.2	7.6	5.7	6.4
Plastics & rubber	4.6	3.2	3.3	4.7	4.8	6.6	4.5	7.4	5.4	5.0	8.1	7.0	5.6
Non-metallic minerals	5.2	7.0	6.7	5.4	3.8	5.5	7.2	5.7	5.3	5.4	6.5	5.2	6.7
Primary metals	10.3	8.6	7.2	7.5	9.2	11.8	11.5	9.2	8.8	9.3	10.5	7.9	5.8
Fabricated metals	10.0	11.2	9.8	9.2	9.0	10.1	9.2	10.7	10.5	12.3	12.6	13.2	12.9
Machinery	6.8	6.0	5.5	4.3	4.3	7.1	6.2	8.6	8.8	8.2	8.0	6.5	9.8
Computer & electronic products	6.2	4.7	3.6	5.0	6.7	7.0	6.1	6.9	8.0	7.8	7.8	7.0	9.7
Electrical equipment, appliances & components	2.3	4.2	2.5	2.1	4.0	3.0	3.8	3.6	2.9	3.6	4.0	3.2	3.1
Transportation equipment	9.6	8.9	8.0	7.0	7.8	8.9	8.9	12.7	12.8	13.1	13.3	10.4	13.0
Furniture & related	6.9	5.7	7.7	8.7	6.9	8.2	8.0	7.8	7.5	8.1	4.8	8.0	8.3
Miscellaneous manufacturing	5.9	5.3	7.8	10.3	6.1	5.9	8.6	10.7	9.0	6.8	10.5	8.9	9.2
Total	176.2	168.7	167.7	179.2	183.8	188.7	195.1	197.0	196.0	192.1	205.4	196.2	196.9
Primary	77.8	75.8	76.4	82.9	85.3	84.8	84.4	84.6	79.5	77.8	79.2	72.7	68.8
Secondary	98.4	92.9	91.3	96.3	98.5	103.9	110.7	112.4	116.5	114.3	126.2	123.5	128.1
High Tech	-	10.5	9.6	10.3	8.6	9.0	9.3	10.9	11.8	14.4	15.9	15.7	14.1
Others	-	82.4	81.7	86.0	89.9	94.9	101.4	101.4	104.7	100.0	110.3	107.7	114.0
Non-durables	72.3	70.6	71.0	80.6	82.4	83.7	90.4	87.1	87.7	82.3	91.4	85.2	82.9
Durables	103.9	98.2	96.8	98.6	101.4	105.0	104.7	109.9	108.3	109.8	114.0	111.0	114.0

Source: Statistics Canada and BC Stats
Labor Force Survey

Table 4.2 (b): Total Employment, Manufacturing, British Columbia
 % change from previous year

NAICS INDUSTRY	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food	-1.8	12.9	6.5	27.6	-23.2	13.5	3.2	-1.3	-17.1	7.6	13.6	5.8
Beverages & tobacco	18.8	-57.9	8.3	-30.8	61.1	-10.3	15.4	20.0	-8.3	18.2	-5.1	-13.5
Textile mills & Textile product mills	-	-	-	-34.8	80.0	-18.5	-	-	-19.2	33.3	7.1	16.7
Clothing & Leather & Allied	14.8	-19.4	28.0	-1.6	-4.8	15.0	-40.6	58.5	20.0	9.0	12.9	-42.7
Wood	-10.3	9.5	7.2	1.0	-12.7	0.9	2.3	-2.7	-3.7	10.7	6.5	-9.7
Paper	4.1	1.5	4.3	-2.8	13.3	-3.8	0.0	-1.7	-0.9	-20.6	-15.3	11.3
Printing & related	-7.4	34.9	-7.1	17.7	-3.2	27.8	-17.4	-12.6	4.8	29.9	-25.7	3.6
Petroleum & coal	11.1	-	-	-	-	-	0.0	-	-	-	-	-
Chemicals	-13.3	-7.7	36.1	4.1	25.5	15.6	-48.6	68.4	12.5	5.6	-25.0	12.3
Plastics & rubber	-30.4	3.1	42.4	2.1	37.5	-31.8	64.4	-27.0	-7.4	62.0	-13.6	-20.0
Non-metallic minerals	34.6	-4.3	-19.4	-29.6	44.7	30.9	-20.8	-7.0	1.9	20.4	-20.0	28.8
Primary metals	-16.5	-16.3	4.2	22.7	28.3	-2.5	-20.0	-4.3	5.7	12.9	-24.8	-26.6
Fabricated metals	12.0	-12.5	-6.1	-2.2	12.2	-8.9	16.3	-1.9	17.1	2.4	4.8	-2.3
Machinery	-11.8	-8.3	-21.8	0.0	65.1	-12.7	38.7	2.3	-6.8	-2.4	-18.8	50.8
Computer & electronic products	-24.2	-23.4	38.9	34.0	4.5	-12.9	13.1	15.9	-2.5	0.0	-10.3	38.6
Electrical equipment, appliances & components	82.6	-40.5	-16.0	90.5	-25.0	26.7	-5.3	-19.4	24.1	11.1	-20.0	-3.1
Transportation equipment	-7.3	-10.1	-12.5	11.4	14.1	0.0	42.7	0.8	2.3	1.5	-21.8	25.0
Furniture & related	-17.4	35.1	13.0	-20.7	18.8	-2.4	-2.5	-3.8	8.0	-40.7	66.7	3.8
Miscellaneous manufacturing	-10.2	47.2	32.1	-40.8	-3.3	45.8	24.4	-15.9	-24.4	54.4	-15.2	3.4
Total	-4.3	-0.6	6.9	2.6	2.7	3.4	1.0	-0.5	-2.0	6.9	-4.5	0.4
Primary	-2.5	0.8	8.5	2.8	-0.6	-0.5	0.3	-6.1	-2.2	1.8	-8.1	-5.4
Secondary	-5.7	-1.7	5.4	2.3	5.5	6.5	1.5	3.7	-1.9	10.4	-2.2	3.7
High Tech	-	-8.8	6.9	-16.6	5.1	3.7	17.3	8.2	22.0	10.0	-0.9	-10.5
Others	-	-0.9	5.3	4.5	5.6	6.8	0.0	3.2	-4.5	10.4	-2.4	5.8
Non-durables	-2.4	0.6	13.5	2.2	1.6	8.0	-3.7	0.7	-6.2	11.1	-6.8	-2.7
Durables	-5.5	-1.4	1.9	2.8	3.6	-0.3	5.0	-1.5	1.4	3.8	-2.6	2.7

Source: Statistics Canada and BC Stats
 Labor Force Survey

Table 5.1 (a): Average Weekly Earnings, by Province

\$

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
British Columbia												
Manufacturing	661	679	702	710	738	770	772	781	786	798	807	826
Primary	-	-	-	-	-	-	-	-	-	-	-	-
Secondary	-	-	-	-	-	-	-	-	-	-	-	-
High Tech	530	560	580	630	610	620	630	670	700	720	720	760
Others	-	-	-	-	-	-	-	-	-	-	-	-
Non-durables	641	650	678	683	705	710	704	693	689	701	701	718
Durables	678	705	722	733	765	816	822	849	857	868	886	909
All industries	551	568	581	598	615	628	639	643	651	663	668	675
Goods	685	701	719	735	760	790	804	810	810	824	830	840
Services	512	530	544	560	578	587	596	601	611	622	630	638
Alberta												
Manufacturing	657	699	711	719	717	732	748	766	765	791	806	831
Non-durables	643	692	712	707	700	711	732	752	754	785	794	802
Durables	671	707	709	731	737	750	761	776	774	796	815	853
All industries	547	564	573	575	574	598	619	636	645	665	684	699
Goods	747	767	785	797	795	837	859	878	886	908	922	942
Services	489	507	514	515	515	535	553	567	577	593	610	623
Ontario												
Manufacturing	683	717	739	762	771	794	821	842	852	869	883	906
Non-durables	656	682	700	715	721	743	761	772	770	789	801	824
Durables	703	741	768	795	805	829	862	889	908	923	938	962
All industries	576	599	612	628	634	649	663	672	683	699	713	726
Goods	707	736	754	775	787	808	837	850	862	881	890	905
Services	531	554	567	580	584	597	607	614	624	639	655	668
Quebec												
Manufacturing	589	618	630	637	640	655	666	688	713	721	732	755
Non-durables	552	568	577	582	588	600	607	637	659	673	683	703
Durables	635	679	700	706	701	719	734	745	769	773	787	811
All industries	546	566	573	576	580	586	595	602	606	616	628	645
Goods	633	657	667	674	677	689	694	717	731	743	750	774
Services	518	539	544	546	550	554	563	564	563	572	586	602
Canada												
Manufacturing	642	670	689	706	713	734	752	771	782	797	808	830
Non-durables	607	627	644	654	661	676	690	705	711	728	737	757
Durables	675	710	733	753	760	784	807	827	842	855	869	893
All industries	554	573	583	593	599	611	624	633	641	656	667	681
Goods	680	703	718	734	743	764	783	798	807	824	832	850
Services	514	534	544	551	557	566	576	583	590	604	618	631

Source: Statistics Canada and BC Stats
Survey of Employment, Payrolls and Hours (SEPH)

Table 5.1 (b): Average Weekly Earnings, by Province
% change from previous year

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
British Columbia											
Manufacturing	2.8	3.4	1.2	4.0	4.3	0.2	1.2	0.7	1.5	1.1	2.4
Primary	-	-	-	-	-	-	-	-	-	-	-
Secondary	-	-	-	-	-	-	-	-	-	-	-
High Tech	5.7	3.6	8.6	-3.2	1.6	1.6	6.3	4.5	2.9	0.0	5.6
Others	-	-	-	-	-	-	-	-	-	-	-
Non-durables	1.4	4.3	0.6	3.3	0.7	-0.9	-1.6	-0.5	1.7	0.1	2.4
Durables	4.0	2.4	1.5	4.5	6.6	0.8	3.2	0.9	1.3	2.2	2.6
All industries	3.1	2.4	2.8	3.0	2.1	1.7	0.7	1.2	1.8	0.8	1.0
Goods	2.4	2.5	2.2	3.5	3.9	1.8	0.8	0.0	1.6	0.7	1.3
Services	3.6	2.5	2.9	3.2	1.6	1.5	0.9	1.6	1.9	1.2	1.3
Alberta											
Manufacturing	6.5	1.6	1.1	-0.2	2.0	2.2	2.3	-0.1	3.3	1.9	3.1
Non-durables	7.6	2.9	-0.7	-1.0	1.7	2.9	2.7	0.3	4.0	1.2	1.0
Durables	5.4	0.3	3.0	0.9	1.8	1.4	2.0	-0.3	2.8	2.5	4.7
All industries	3.0	1.6	0.5	-0.2	4.2	3.5	2.7	1.4	3.0	2.9	2.2
Goods	2.7	2.4	1.5	-0.2	5.3	2.6	2.2	0.9	2.5	1.5	2.3
Services	3.5	1.5	0.1	-0.1	3.9	3.4	2.7	1.6	2.8	2.9	2.1
Ontario											
Manufacturing	4.9	3.2	3.1	1.2	3.0	3.4	2.5	1.2	2.0	1.5	2.6
Non-durables	4.0	2.6	2.1	0.9	3.1	2.4	1.4	-0.2	2.4	1.6	2.8
Durables	5.3	3.7	3.6	1.2	2.9	4.0	3.1	2.1	1.7	1.6	2.6
All industries	3.9	2.2	2.6	1.0	2.4	2.2	1.3	1.6	2.4	2.0	1.9
Goods	4.0	2.5	2.7	1.6	2.7	3.5	1.6	1.4	2.2	1.0	1.7
Services	4.4	2.3	2.3	0.8	2.2	1.6	1.2	1.7	2.4	2.6	2.0
Quebec											
Manufacturing	4.9	2.0	1.1	0.4	2.3	1.7	3.4	3.5	1.2	1.6	3.1
Non-durables	2.9	1.5	0.8	1.1	2.1	1.2	4.9	3.4	2.2	1.4	3.0
Durables	6.8	3.2	0.8	-0.7	2.6	2.0	1.6	3.2	0.4	1.8	3.1
All industries	3.8	1.1	0.5	0.7	1.0	1.5	1.3	0.6	1.7	1.8	2.7
Goods	3.8	1.6	1.0	0.5	1.7	0.7	3.4	2.0	1.5	1.1	3.1
Services	4.0	0.9	0.3	0.7	0.8	1.6	0.3	-0.2	1.6	2.4	2.7
Canada											
Manufacturing	4.4	2.8	2.4	1.0	3.0	2.5	2.5	1.5	1.8	1.4	2.7
Non-durables	3.4	2.6	1.7	1.0	2.4	2.0	2.2	0.8	2.3	1.4	2.6
Durables	5.3	3.1	2.7	0.9	3.2	2.9	2.5	1.9	1.5	1.6	2.8
All industries	3.5	1.8	1.7	1.0	2.1	2.0	1.5	1.2	2.4	1.8	2.1
Goods	3.4	2.2	2.2	1.2	2.8	2.5	1.9	1.0	2.2	1.0	2.1
Services	3.9	1.8	1.4	1.0	1.7	1.7	1.2	1.2	2.3	2.3	2.1

Source: Statistics Canada and BC Stats
Survey of Employment, Payrolls and Hours (SEPH)

Table 5.2 (a): Average Weekly Earnings, Manufacturing, British Columbia

\$

NAICS INDUSTRY	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food	553	542	592	582	585	577	572	570	544	569	592	618
Beverages & tobacco	-	-	-	-	-	-	-	-	-	-	-	-
Textile mills	-	-	-	-	-	-	-	-	-	-	-	-
Textile product mills	-	-	-	-	-	-	-	-	-	-	-	-
Clothing	-	-	-	-	-	-	-	-	-	-	-	-
Leather & allied	-	-	-	-	-	-	-	-	-	-	-	-
Wood	686	701	737	757	797	846	853	881	904	912	929	941
Paper	822	850	868	905	952	965	971	925	945	940	959	979
Printing & related	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum & coal	-	-	-	-	-	-	-	-	-	-	-	-
Chemicals	836	887	897	961	976	869	1,015	1,111	1,124	1,138	1,085	1,199
Plastics & rubber	-	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	577	597	591	648	653	665	714	765	713	685	696	-
Primary metals	-	-	-	-	-	-	-	-	-	-	-	-
Fabricated metals	636	721	698	670	711	767	779	805	786	815	840	868
Machinery	660	713	750	751	746	793	810	835	837	847	931	984
Computer & electronic products	-	-	-	-	-	-	-	-	-	-	-	-
Electrical equipment, appliances & components	707	790	809	834	773	790	855	967	1,019	1,012	918	955
Transportation equipment	756	786	765	775	768	804	813	846	824	829	842	872
Furniture & related manufacturing	-	-	-	-	-	-	-	-	-	-	-	-
	461	496	553	557	522	606	591	594	594	588	590	634
Total	661	679	702	710	738	770	772	781	786	798	807	826
Primary	-	-	-	-	-	-	-	-	-	-	-	-
Secondary	-	-	-	-	-	-	-	-	-	-	-	-
High Tech	530	560	580	630	610	620	630	670	700	720	720	760
Others	-	-	-	-	-	-	-	-	-	-	-	-
Non-durables	641	650	678	683	705	710	704	693	689	701	701	718
Durables	678	705	722	733	765	816	822	849	857	868	886	909

Source: Statistics Canada and BC Stats
Survey of Employment, Payrolls and Hours (SEPH)

Table 5.2 (b): Average Weekly Earnings, Manufacturing, British Columbia
% change from previous year

NAICS INDUSTRY	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food	-2.0	9.3	-1.8	0.6	-1.3	-0.9	-0.3	-4.6	4.6	4.1	4.4
Beverages & tobacco	-	-	-	-	-	-	-	-	-	-	-
Textile mills	-	-	-	-	-	-	-	-	-	-	-
Textile product mills	-	-	-	-	-	-	-	-	-	-	-
Clothing	-	-	-	-	-	-	-	-	-	-	-
Leather & allied	-	-	-	-	-	-	-	-	-	-	-
Wood	2.2	5.1	2.8	5.4	6.1	0.8	3.3	2.5	0.9	1.8	1.4
Paper	3.4	2.1	4.3	5.2	1.4	0.6	-4.7	2.1	-0.5	2.0	2.1
Printing & related	-	-	-	-	-	-	-	-	-	-	-
Petroleum & coal	-	-	-	-	-	-	-	-	-	-	-
Chemicals	6.0	1.2	7.1	1.6	-10.9	16.8	9.4	1.2	1.3	-4.7	10.5
Plastics & rubber	-	-	-	-	-	-	-	-	-	-	-
Non-metallic minerals	3.4	-0.9	9.7	0.7	1.8	7.4	7.2	-6.7	-4.0	1.6	-
Primary metals	-	-	-	-	-	-	-	-	-	-	-
Fabricated metals	13.3	-3.1	-4.0	6.0	8.0	1.6	3.3	-2.4	3.7	3.1	3.3
Machinery	8.0	5.2	0.1	-0.7	6.3	2.1	3.1	0.3	1.2	9.9	5.6
Computer & electronic products	-	-	-	-	-	-	-	-	-	-	-
Electrical equipment, appliances & components	11.8	2.3	3.1	-7.4	2.2	8.2	13.1	5.3	-0.6	-9.3	4.0
Transportation equipment	4.0	-2.6	1.2	-0.8	4.6	1.1	4.0	-2.6	0.6	1.6	3.7
Furniture & related manufacturing	-	-	-	-	-	-	-	-	-	-	-
Total	2.8	3.4	1.2	4.0	4.3	0.2	1.2	0.7	1.5	1.1	2.4
Primary	-	-	-	-	-	-	-	-	-	-	-
Secondary	-	-	-	-	-	-	-	-	-	-	-
High Tech	5.7	3.6	8.6	-3.2	1.6	1.6	6.3	4.5	2.9	0.0	5.6
Others	-	-	-	-	-	-	-	-	-	-	-
Non-durables	1.4	4.3	0.6	3.3	0.7	-0.9	-1.6	-0.5	1.7	0.1	2.4
Durables	4.0	2.4	1.5	4.5	6.6	0.8	3.2	0.9	1.3	2.2	2.6

Source: Statistics Canada and BC Stats
Survey of Employment, Payrolls and Hours (SEPH)

Table 6.1: Capital Expenditures, Manufacturing, by Province
Value (\$ million)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Manufacturing												
British Columbia	1,863.8	1,245.8	1,241.3	1,649.8	1,828.9	1,634.1	1,694.5	1,187.1	1,236.7	1,335.3	1,244.4	1,033.9
Alberta	1,153.8	1,498.0	1,521.0	1,179.3	1,361.3	1,303.8	1,617.6	2,445.5	2,346.1	2,561.5	1,743.4	1,329.0
Ontario	6,248.9	5,090.3	6,117.0	7,697.9	8,719.7	9,435.2	10,227.6	10,735.4	9,623.7	8,956.3	8,782.3	7,921.4
Quebec	4,393.1	3,330.7	2,751.6	3,529.4	3,883.5	4,242.5	4,533.3	4,932.5	5,749.8	6,375.1	5,021.9	4,104.5
Rest of Canada	1,926.7	1,338.8	969.6	933.7	1,464.5	1,753.6	2,460.3	2,068.2	2,277.5	2,607.3	2,026.9	2,156.6
Canada	15,586.3	12,503.6	12,600.5	14,990.1	17,257.9	18,369.2	20,533.3	21,368.7	21,233.8	21,835.5	18,818.9	16,545.4
% of Canadian total												
British Columbia	12	10	10	11	11	9	8	6	6	6	7	6
Alberta	7	12	12	8	8	7	8	11	11	12	9	8
Ontario	40	41	49	51	51	51	50	50	45	41	47	48
Quebec	28	27	22	24	23	23	22	23	27	29	27	25
Rest of Canada	12	11	8	6	8	10	12	10	11	12	11	13
Canada	100	100	100	100	100	100	100	100	100	100	100	100

Capital Expenditures, Manufacturing, by Province
% change from previous year

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Manufacturing												
British Columbia		-33.2	-0.4	32.9	10.9	-10.7	3.7	-29.9	4.2	8.0	-6.8	-16.9
Alberta		29.8	1.5	-22.5	15.4	-4.2	24.1	51.2	-4.1	9.2	-31.9	-23.8
Ontario		-18.5	20.2	25.8	13.3	8.2	8.4	5.0	-10.4	-6.9	-1.9	-9.8
Quebec		-24.2	-17.4	28.3	10.0	9.2	6.9	8.8	16.6	10.9	-21.2	-18.3
Rest of Canada		-30.5	-27.6	-3.7	56.8	19.7	40.3	-15.9	10.1	14.5	-22.3	6.4
Canada		-19.8	0.8	19.0	15.1	6.4	11.8	4.1	-0.6	2.8	-13.8	-12.1

Source: Statistics Canada
Private and Public Investment

Table 6.2 (a): Capital Expenditures, Manufacturing, British Columbia
Value (\$ million)

NAICS INDUSTRY	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food	67.0	69.4	63.5	98.3	83.8	95.3	119.9	104.0	119.1	97.6	100.0	94.1
Beverages	15.4	31.4	24.1	31.6	78.6	31.9	46.5	18.8	19.5	19.5	-	34.1
Tobacco	-	-	-	-	-	-	-	-	-	-	-	-
Textile mills	-	-	-	-	-	-	-	5.0	-	0.6	3.9	-
Textile product mills	-	-	-	-	-	-	17.7	-	1.7	-	3.6	3.0
Clothing	-	-	-	-	-	-	4.9	4.9	9.9	5.5	4.8	6.0
Leather & allied	-	-	-	-	-	-	0.2	0.9	1.4	1.0	0.2	0.6
Wood	152.2	155.0	268.6	506.3	539.5	414.8	347.2	242.7	209.6	232.5	218.1	193.1
Paper	1,154.2	739.4	600.5	566.6	661.3	555.4	458.2	224.8	265.7	342.9	290.0	180.9
Printing & related	18.1	12.2	21.2	43.4	14.3	34.4	20.9	18.5	31.9	28.8	23.8	14.6
Petroleum & coal	-	-	-	-	-	-	-	-	-	-	-	-
Chemicals	100.6	29.3	34.9	56.2	40.4	44.2	69.9	50.8	26.5	56.0	80.1	71.2
Plastics & rubber	16.8	9.2	10.5	19.0	16.4	25.0	47.2	34.2	39.8	37.5	44.2	26.8
Non-metallic minerals	-	-	-	-	-	-	33.7	62.5	57.5	65.3	36.7	47.0
Primary metals	123.4	56.3	29.6	37.9	115.5	181.0	305.2	104.3	97.8	101.6	124.3	96.7
Fabricated metals	48.0	33.7	29.7	34.4	53.2	52.0	37.6	56.2	68.2	33.1	37.8	28.3
Machinery	10.0	4.8	21.3	30.2	14.4	18.7	14.5	41.7	42.3	32.6	30.2	21.9
Computer & electronic products	9.7	10.7	10.8	42.4	41.7	44.5	72.4	73.7	102.5	139.3	80.3	92.1
Electrical equipment, appliances & components	-	-	-	-	-	-	7.3	17.5	19.3	23.4	17.9	10.4
Transportation equipment	14.6	32.9	33.8	80.6	41.3	41.0	45.8	70.3	79.6	70.8	50.3	57.3
Furniture & related	6.9	5.6	10.0	9.5	16.4	14.5	7.8	13.5	7.4	9.8	8.1	13.1
Miscellaneous manufacturing	5.3	3.2	4.8	6.9	6.8	11.7	12.7	8.7	17.3	19.7	12.8	6.1
Total	1,863.8	1,245.8	1,241.3	1,649.8	1,828.9	1,634.1	1,694.5	1,187.1	1,236.7	1,335.3	1,244.4	1,033.9

Source: Statistics Canada
Private and Public Investment

Table 6.2 (b): Capital Expenditures, Manufacturing, British Columbia
% change from previous year

NAICS INDUSTRY	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Food	3.6	-8.5	54.8	-14.8	13.7	25.8	-13.3	14.5	-18.1	2.5	-5.9
Beverages	103.9	-23.2	31.1	148.7	-59.4	45.8	-59.6	3.7	0.0	-	-
Tobacco	-	-	-	-	-	-	-	-	-	-	-
Textile mills	-	-	-	-	-	-	-	-	-	550.0	-
Textile product mills	-	-	-	-	-	-	-	-	-	-	-16.7
Clothing	-	-	-	-	-	-	0.0	102.0	-44.4	-12.7	25.0
Leather & allied	-	-	-	-	-	-	350.0	55.6	-28.6	-80.0	200.0
Wood	1.8	73.3	88.5	6.6	-23.1	-16.3	-30.1	-13.6	10.9	-6.2	-11.5
Paper	-35.9	-18.8	-5.6	16.7	-16.0	-17.5	-50.9	18.2	29.1	-15.4	-37.6
Printing & related	-32.6	73.8	104.7	-67.1	140.6	-39.2	-11.5	72.4	-9.7	-17.4	-38.7
Petroleum & coal	-	-	-	-	-	-	-	-	-	-	-
Chemicals	-70.9	19.1	61.0	-28.1	9.4	58.1	-27.3	-47.8	111.3	43.0	-11.1
Plastics & rubber	-45.2	14.1	81.0	-13.7	52.4	88.8	-27.5	16.4	-5.8	17.9	-39.4
Non-metallic minerals	-	-	-	-	-	-	85.5	-8.0	13.6	-43.8	28.1
Primary metals	-54.4	-47.4	28.0	204.7	56.7	68.6	-65.8	-6.2	3.9	22.3	-22.2
Fabricated metals	-29.8	-11.9	15.8	54.7	-2.3	-27.7	49.5	21.4	-51.5	14.2	-25.1
Machinery	-52.0	343.8	41.8	-52.3	29.9	-22.5	187.6	1.4	-22.9	-7.4	-27.5
Computer & electronic products	10.3	0.9	292.6	-1.7	6.7	62.7	1.8	39.1	35.9	-42.4	14.7
Electrical equipment, appliances & components	-	-	-	-	-	-	139.7	10.3	21.2	-23.5	-41.9
Transportation equipment	125.3	2.7	138.5	-48.8	-0.7	11.7	53.5	13.2	-11.1	-29.0	13.9
Furniture & related	-18.8	78.6	-5.0	72.6	-11.6	-46.2	73.1	-45.2	32.4	-17.3	61.7
Miscellaneous manufacturing	-39.6	50.0	43.8	-1.4	72.1	8.5	-31.5	98.9	13.9	-35.0	-52.3
Total	-33.2	-0.4	32.9	10.9	-10.7	3.7	-29.9	4.2	8.0	-6.8	-16.9

Source: Statistics Canada
Private and Public Investment

Table 7.1: British Columbia Domestic Exports of Manufactured Goods by Destination
(\$ Million)

Destination Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
United States	6,137.9	5,676.2	6,829.3	8,757.4	10,639.2	11,844.5	12,158.3	12,783.6	13,671.1	16,030.4	15,724.5	15,191.5	15,276.9
Mexico	29.3	35.2	33.8	23.8	34.6	21.4	17.9	21.6	27.8	15.7	24.5	31.8	48.0
Cent. America & Carrib. (exc. Mexico)	36.7	30.6	22.2	31.3	27.4	43.9	23.6	25.2	28.6	34.5	48.8	59.1	55.4
South America	92.0	90.4	81.9	109.4	167.3	246.0	157.0	172.8	138.5	139.0	178.6	200.4	145.0
Japan	2,335.9	2,086.8	2,406.0	3,239.8	3,917.6	4,794.2	4,289.2	4,030.8	2,926.4	3,138.9	3,423.0	2,785.5	2,533.0
China	170.5	205.2	223.7	228.6	282.0	398.4	423.5	358.3	401.3	552.9	581.4	624.8	741.1
Hong Kong	78.3	77.7	100.6	112.5	140.2	198.5	204.3	275.0	201.4	200.9	239.3	182.5	177.8
Taiwan	174.2	206.6	222.7	286.0	304.8	395.2	275.9	363.5	324.9	306.9	344.3	247.9	277.6
South Korea	294.8	299.8	310.3	331.1	514.2	640.0	504.6	535.6	315.4	480.3	654.5	486.6	452.4
India	49.3	40.7	51.2	37.6	50.8	59.9	35.3	56.7	63.7	80.2	72.1	88.2	82.3
South East Asia	215.2	214.6	267.9	270.2	283.2	445.8	464.0	407.8	295.7	386.7	550.0	295.1	360.6
Western Europe	2,345.0	1,943.9	1,846.8	1,457.8	1,836.7	2,615.2	1,692.9	1,734.9	1,658.6	1,647.6	2,313.0	1,700.7	1,458.5
Eastern Europe	33.9	18.8	20.3	23.6	19.4	14.7	34.2	28.9	14.3	15.8	15.7	25.7	38.7
Africa (exc. Egypt and Middle East)	86.3	66.4	32.5	47.9	36.6	58.2	44.8	54.1	36.1	37.2	30.3	24.3	31.6
Middle East	58.8	67.9	72.9	61.2	65.4	113.5	71.7	109.7	97.8	77.1	101.0	77.5	88.3
Total	12,482.1	11,322.0	12,777.8	15,281.2	18,617.5	22,234.4	20,700.8	21,274.4	20,469.6	23,433.4	24,599.1	22,236.3	22,007.1

Note: Domestic exports exclude re-exports

Source: Statistics Canada

Prepared by BC Stats

Table 7.2: British Columbia Imports of Manufactured Goods by Origin
(\$ Million)

Destination Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
United States	7,806.9	7,954.0	8,777.9	10,094.8	12,982.7	13,303.3	13,491.9	15,437.5	16,188.8	17,051.3	17,481.7	17,022.8	17,186.4
Mexico	109.1	193.8	195.9	276.4	378.8	488.1	543.9	576.4	610.8	744.2	953.3	1,055.7	1,086.9
Cent. America & Carrib. (exc. Mexico)	20.6	28.0	26.4	21.5	39.3	40.7	38.2	36.6	48.4	53.1	85.6	84.5	78.8
South America	135.1	109.0	100.0	115.9	153.1	166.9	158.0	183.0	141.5	165.5	198.0	227.4	288.5
Japan	1,005.8	1,056.9	1,116.8	1,067.4	1,155.4	1,132.6	935.3	1,194.1	1,265.9	1,351.3	1,401.1	1,373.7	1,503.6
China	174.6	234.9	314.4	399.8	521.0	586.5	599.8	776.9	888.3	1,025.3	1,195.9	1,388.0	1,747.5
Hong Kong	131.7	125.3	139.8	155.5	158.6	155.0	138.0	149.4	141.3	142.1	142.6	129.1	108.4
Taiwan	263.2	272.4	299.9	308.0	337.2	302.7	289.3	369.9	414.3	432.0	426.8	419.2	399.3
South Korea	249.7	231.9	218.6	231.7	284.3	316.0	238.0	262.3	397.9	339.3	470.9	462.6	484.9
India	27.8	28.9	34.7	43.5	58.1	65.2	69.4	78.8	87.1	92.7	108.6	111.3	129.3
South East Asia	185.6	213.0	258.9	337.2	476.6	499.6	481.9	584.1	642.8	653.2	649.5	623.1	670.8
Western Europe	1,774.8	1,649.1	1,658.7	1,644.7	2,137.0	2,285.4	2,212.4	2,636.9	2,634.6	3,007.1	3,095.0	3,426.5	3,656.1
Eastern Europe	63.4	53.0	44.7	49.6	66.9	66.1	60.3	84.2	87.4	89.8	120.4	113.0	135.3
Africa (exc. Egypt and Middle East)	11.3	18.9	19.8	18.0	30.8	35.5	28.0	41.0	45.5	45.4	54.1	48.7	50.1
Middle East	37.6	45.4	32.1	43.5	58.1	47.5	59.0	72.5	78.0	80.5	124.4	131.2	128.6
Total	12,100.8	12,332.2	13,379.5	14,985.9	19,072.9	19,718.9	19,558.0	22,722.2	23,987.0	25,643.5	27,012.8	27,175.2	28,215.6

Source: Statistics Canada
Prepared by BC Stats

Table 7.3: British Columbia Balance of Trade of Manufactured Goods by Country
(\$ Million)

Destination Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
United States	-1,542.9	-2,123.0	-1,802.1	-1,137.0	-2,110.3	-1,105.2	-907.7	-2,184.7	-1,862.6	-186.5	-381.4	-987.4	-937.6
Mexico	-79.3	-157.9	-161.4	-252.4	-344.1	-466.6	-525.8	-554.6	-582.9	-728.1	-928.3	-1,023.0	-1,036.3
Cent. America & Carrib. (exc. Mexico)	16.9	2.8	-3.8	10.0	-11.4	3.7	-13.0	-10.4	-18.4	-18.2	-36.6	-24.7	-20.4
South America	-36.9	-17.4	-16.9	-1.1	15.3	82.1	4.5	-8.6	-1.0	-24.1	-16.7	-24.8	-140.5
Japan	1,338.9	1,039.8	1,296.8	2,191.0	2,809.4	3,762.1	3,426.7	2,875.9	1,699.5	1,823.5	2,075.2	1,437.2	1,064.0
China	-2.4	-28.4	-81.4	-162.6	-230.4	-185.1	-173.1	-413.5	-483.3	-468.8	-601.0	-751.4	-989.2
Hong Kong	-51.3	-43.5	-10.9	26.1	133.7	240.0	97.8	149.6	82.6	82.2	151.0	95.6	100.7
Taiwan	-88.0	-65.1	-76.4	-20.6	-27.2	100.5	-3.5	-1.0	-79.4	-118.4	-73.6	-164.8	-115.9
South Korea	47.4	70.1	92.6	100.7	231.7	326.9	276.1	289.3	-78.2	153.0	198.0	30.8	-22.0
India	22.3	12.0	16.5	-5.8	-7.2	-4.9	-33.7	-22.1	-23.3	-12.2	-36.5	-22.2	-45.9
South East Asia	34.4	6.0	10.6	-56.2	-183.3	-48.5	-12.0	-162.8	-332.0	-254.9	-57.3	-311.6	-295.7
Western Europe	583.3	308.5	197.2	-164.4	-247.9	370.9	-474.9	-865.1	-940.4	-1,320.3	-708.3	-1,671.9	-2,151.4
Eastern Europe	-29.2	-34.0	-24.2	-25.7	-46.4	-50.1	-25.2	-54.5	-72.0	-70.8	-103.6	-85.9	-95.9
Africa (exc. Egypt and Middle East)	75.8	47.9	13.1	30.5	7.0	24.1	18.0	13.9	-8.8	-7.5	-22.8	-23.7	-16.4
Middle East	21.7	22.8	41.1	20.4	9.7	69.7	19.0	39.6	21.7	-0.9	-16.6	-49.1	-36.5
Total	555.5	-813.4	-392.6	640.8	70.7	3,242.5	1,767.8	-821.5	-2,718.6	-1,224.4	-757.0	-3,914.1	-5,049.0

Source: Statistics Canada
Prepared by BC Stats

Table 7.4: Domestic Exports of Manufactured Goods by Level of Processing, Canada and BC
(\$ Million)

Year	Canada			British Columbia		
	Primary	Secondary	% Secondary	Primary	Secondary	% Secondary
1988	31,105.3	76,730.2	71	10,127.6	3,297.5	25
1989	33,723.9	78,402.7	70	10,655.0	3,294.4	24
1990	31,252.6	79,197.5	72	9,230.7	3,251.4	26
1991	28,790.7	78,465.7	73	8,183.4	3,138.5	28
1992	31,835.0	88,225.7	73	9,314.7	3,463.1	27
1993	36,573.3	105,776.8	74	11,091.1	4,190.0	27
1994	44,874.2	127,258.0	74	13,891.4	4,726.2	25
1995	55,339.3	147,435.6	73	16,087.4	6,147.0	28
1996	54,919.6	154,850.5	74	14,503.7	6,197.1	30
1997	57,181.3	168,920.2	75	14,579.7	6,694.7	31
1998	54,389.4	190,822.3	78	12,714.9	7,754.8	38
1999	57,663.8	217,621.5	79	14,486.9	8,946.5	38
2000	65,892.9	240,133.2	78	15,381.1	9,218.0	37
2001	64,107.6	227,202.9	78	13,397.2	8,839.2	40
2002	62,542.2	227,043.2	78	13,140.0	8,867.1	40

Note: Domestic exports exclude re-exports

Table 7.5: Imports of Manufactured Goods by Level of Processing, Canada and BC
(\$ Million)

Year	Canada			British Columbia		
	Primary	Secondary	% Secondary	Primary	Secondary	% Secondary
1988	12,537.1	105,179.1	89	1,276.4	10,665.2	89
1989	13,196.1	106,414.3	89	1,359.8	10,788.4	89
1990	13,377.1	105,462.6	89	1,409.4	10,691.4	88
1991	12,643.5	106,527.6	89	1,351.5	10,980.7	89
1992	14,009.1	116,917.0	89	1,435.8	11,943.7	89
1993	16,405.9	134,747.7	89	1,507.9	13,478.0	90
1994	19,446.3	162,564.1	89	1,956.0	17,116.9	90
1995	22,114.5	180,072.8	89	1,967.9	17,751.1	90
1996	22,951.2	182,432.2	89	2,095.5	17,462.5	89
1997	26,054.5	217,187.4	89	2,424.2	20,298.0	89
1998	26,978.7	243,039.1	90	2,324.7	21,662.3	90
1999	28,317.0	263,433.9	90	2,493.3	23,150.1	90
2000	31,141.2	288,803.2	90	2,854.5	24,158.2	89
2001	32,114.5	272,348.4	89	2,937.1	24,238.1	89
2002	32,945.5	279,234.1	89	2,975.7	25,239.9	89

Source: Statistics Canada

Prepared by BC Stats

Table 7.6: Domestic Exports of Manufactured Goods by Level of Processing by Province
(\$ Million)

Year	Ontario			Quebec			Alberta			Rest of Canada (Excluding BC)		
	Primary	Secondary	% Secondary	Primary	Secondary	% Secondary	Primary	Secondary	% Secondary	Primary	Secondary	% Secondary
1988	7,730.7	53,425.5	87	6,767.5	14,413.1	68	3,241.6	961.8	23	3,237.9	4,632.3	59
1989	8,646.4	54,867.4	86	7,804.5	14,310.0	65	3,212.2	1,100.6	26	3,405.8	4,830.2	59
1990	9,243.2	54,577.8	86	6,234.1	15,643.2	72	2,907.2	1,200.9	29	3,637.4	4,524.1	55
1991	8,325.6	54,017.6	87	6,003.6	15,113.3	72	2,973.0	1,583.3	35	3,305.1	4,613.0	58
1992	9,553.6	62,859.1	87	6,729.5	15,574.0	70	3,053.1	1,435.2	32	3,184.1	4,894.2	61
1993	10,243.8	73,137.3	88	7,776.5	21,263.1	73	3,664.7	1,772.1	33	3,797.2	5,414.3	59
1994	11,747.8	88,749.3	88	10,082.6	24,889.1	71	5,188.2	2,156.3	29	3,964.2	6,737.2	63
1995	14,353.7	100,728.6	88	12,399.6	29,678.3	71	7,321.2	2,666.7	27	5,177.3	8,215.0	61
1996	14,614.0	105,307.2	88	12,118.6	31,215.5	72	7,742.4	3,679.2	32	5,940.9	8,451.4	59
1997	15,606.9	115,378.7	88	12,772.5	33,567.8	72	7,630.9	4,132.7	35	6,591.2	9,146.4	58
1998	16,067.3	129,466.3	89	12,705.2	38,217.7	75	6,120.8	4,960.9	45	6,781.2	10,422.6	61
1999	16,422.5	149,702.0	90	12,676.6	42,095.0	77	6,520.8	5,385.9	45	7,557.1	11,492.0	60
2000	18,770.7	155,977.9	89	13,461.5	52,299.0	80	9,047.0	8,466.8	48	9,232.6	14,171.4	61
2001	18,045.9	149,331.8	89	13,798.6	48,588.4	78	8,949.1	7,206.2	45	9,916.8	13,237.3	57
2002	17,921.7	151,788.8	89	13,442.0	46,216.5	77	8,146.0	6,740.7	45	9,892.5	13,430.1	58

Note: Domestic exports exclude re-exports

Table 7.7: BC Domestic Exports of Manufactured Goods by Destination and Mode of Transport, 2002
(\$ Million)

All Countries	Primary	Secondary	Total	% Distribution	% Secondary
Road	2,803.4	6,009.2	8,812.6	40	68
Rail	4,673.0	731.8	5,404.8	25	14
Water	5,538.7	1,385.0	6,923.7	31	20
Air	124.9	736.3	861.2	4	86
Other	0.0	4.8	4.8	0	100
Total	13,140.0	8,867.1	22,007.1	100	40
United States	Primary	Secondary	Total	% Distribution	% Secondary
Road	2,795.2	5,957.3	8,752.5	57	68
Rail	4,664.6	730.3	5,394.9	35	14
Water	474.5	296.0	770.5	5	38
Air	24.0	330.2	354.2	2	93
Other	0.0	4.8	4.8	0	100
Total	7,958.4	7,318.5	15,276.9	100	48
Japan	Primary	Secondary	Total	% Distribution	% Secondary
Road	0.2	6.5	6.6	0	98
Rail	0.0	0.1	0.1	0	100
Water	2,038.5	359.2	2,397.7	95	15
Air	63.8	64.7	128.5	5	50
Other	0.0	0.0	0.0	0	-
Total	2,102.5	430.4	2,533.0	100	17
Pacific Rim (Excluding Japan)	Primary	Secondary	Total	% Distribution	% Secondary
Road	3.0	12.5	15.5	1	81
Rail	0.6	0.2	0.7	0	24
Water	1,738.2	350.4	2,088.6	94	17
Air	27.9	100.7	128.6	6	78
Other	0.0	0.0	0.0	0	-
Total	1,769.6	463.8	2,233.4	100	21
European Union	Primary	Secondary	Total	% Distribution	% Secondary
Road	3.8	12.7	16.4	1	77
Rail	0.0	0.2	0.2	0	100
Water	1,135.6	94.3	1,229.9	87	8
Air	7.6	167.5	175.1	12	96
Other	0.0	0.0	0.0	0	-
Total	1,147.0	274.6	1,421.6	100	19

Notes: Domestic exports exclude re-exports

Shipments by road and rail to overseas markets represent the export of BC produced manufactured goods transhipped through US Ports

Source: Statistics Canada

Prepared by BC Stats

Table 7.8: Domestic Commodity Exports, Canada and BC
(\$ Million)

Year	Canada			British Columbia		
	Manufactured Goods	All Goods	% Manuf.	Manufactured Goods	All Goods	% Manuf.
1988	107,835.5	140,516.0	77	13,425.2	17,829.8	75
1989	112,126.6	142,551.4	79	13,949.4	18,334.3	76
1990	110,450.1	141,721.3	78	12,482.1	16,650.3	75
1991	107,256.4	138,519.2	77	11,322.0	15,300.5	74
1992	120,060.7	154,530.5	78	12,777.8	16,362.7	78
1993	142,350.2	177,621.8	80	15,281.2	19,064.2	80
1994	172,132.2	212,492.6	81	18,617.5	22,894.1	81
1995	202,774.9	246,389.9	82	22,234.4	26,893.1	83
1996	209,770.1	259,295.1	81	20,700.8	25,764.8	80
1997	226,101.4	280,033.6	81	21,274.4	26,760.7	79
1998	245,211.7	297,509.2	82	20,469.6	26,045.1	79
1999	275,285.3	331,748.3	83	23,433.4	29,113.3	80
2000	306,026.0	385,658.8	79	24,599.1	33,749.9	73
2001	291,310.4	375,116.2	78	22,236.3	31,780.0	70
2002	289,585.4	365,179.6	79	22,007.1	29,040.5	76

Note: Domestic exports exclude re-exports

Source: Statistics Canada

Prepared by BC Stats

Table 7.9 (a): British Columbia Interprovincial Trade Exports, by Manufacturing Product, by Province

	1997	1998	1999	2000	1997	1998	1999	2000	1997	1998	1999	2000	1997	1998	1999	2000
	All Provinces				to Alberta				to Ontario				to Quebec			
Meat, fish and dairy products	310	265	352	492	130	122	167	218	80	70	73	123	19	12	30	51
Fruits, vegetables and other food products, feeds	561	563	643	613	317	314	396	327	81	77	61	100	42	47	61	53
Soft drinks and alcoholic beverages	172	212	352	403	101	137	232	278	20	15	30	37	6	3	12	10
Tobacco and tobacco products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leather, rubber and plastic products	107	110	116	154	61	63	71	96	8	9	5	8	4	4	7	8
Textile products	57	64	78	107	17	21	29	43	15	17	18	20	9	11	12	23
Hosiery, clothing and accessories	49	48	55	76	18	18	21	20	22	20	21	22	2	3	3	8
Lumber and wood products	818	858	907	1,098	331	340	339	379	258	215	291	424	121	163	153	147
Furniture and fixtures	55	60	81	88	30	47	50	51	-	-	20	22	2	2	2	2
Wood pulp, paper and paper products	497	509	577	598	299	286	374	425	50	66	63	59	47	63	47	36
Printing and publishing	151	172	136	171	95	97	81	80	29	37	20	38	5	11	4	4
Primary metal products	178	197	257	207	63	66	61	44	61	86	124	112	23	25	58	36
Other metal products	380	386	342	388	159	178	183	199	89	70	48	66	64	54	38	34
Machinery and equipment	249	244	287	320	93	106	108	158	57	31	46	63	38	51	56	56
Motor vehicles, other transport equipment and parts	409	308	611	645	161	99	171	232	83	99	161	178	69	49	124	125
Electrical, electronic and communications products	146	151	190	323	31	26	23	45	62	81	136	237	29	29	13	18
Non-metallic mineral products	139	123	171	167	45	48	63	55	48	45	78	79	34	18	13	12
Petroleum and coal products	73	74	76	229	35	44	59	92	10	9	2	8	1	1	0	0
Chemicals, pharmaceuticals and chemical products	326	284	289	301	189	165	160	107	72	68	68	114	20	18	18	16
Other manufactured products	81	45	105	178	26	23	59	87	16	8	13	40	16	3	9	18
Total manufacturing	4,755	4,673	5,626	6,557	2,202	2,199	2,647	2,935	-	-	1,277	1,749	552	565	660	657
Non-durables	2,252	2,252	2,620	3,067	1,244	1,249	1,568	1,665	-	-	339	507	154	171	190	201
Durables	2,503	2,421	3,006	3,489	957	950	1,079	1,270	-	-	938	1,242	398	394	470	456
Balance Total manufacturing	-7,839	-6,182	-6,111	-6,918	-1,544	-942	-1,218	-2,425	-	-	-3,395	-3,052	-1,711	-1,334	-	-1,372

Source: Statistics Canada

Table 7.9 (b): British Columbia Interprovincial Trade Exports, by Manufacturing Product, by Province
% change from previous year

	1998	1999	2000	1998	1999	2000	1998	1999	2000	1998	1999	2000
	All Provinces			to Alberta			to Ontario			to Quebec		
Meat, fish and dairy products	-15	33	40	-6	36	31	-12	4	68	-35	148	67
Fruits, vegetables and other food products, feeds	0	14	-5	-1	26	-17	-5	-22	65	12	30	-14
Soft drinks and alcoholic beverages	23	66	14	36	69	20	-26	98	24	-45	250	-14
Tobacco and tobacco products	-	-	-	-	-	-	-	-	-	-	-	-
Leather, rubber and plastic products	3	5	33	4	13	35	6	-42	63	2	50	23
Textile products	13	21	38	23	36	48	10	7	14	12	10	97
Hosiery, clothing and accessories	-2	14	39	2	16	-4	-11	8	3	14	16	172
Lumber and wood products	5	6	21	3	0	12	-17	36	46	34	-6	-4
Furniture and fixtures	9	34	9	53	7	3	-	-	7	-18	22	0
Wood pulp, paper and paper products	2	13	4	-5	31	14	31	-4	-6	33	-26	-24
Printing and publishing	14	-21	25	1	-17	0	28	-46	94	106	-65	8
Primary metal products	11	30	-19	4	-7	-28	40	45	-10	9	137	-38
Other metal products	2	-11	13	12	3	9	-21	-32	37	-16	-29	-10
Machinery and equipment	-2	18	11	15	2	46	-46	48	37	34	11	-1
Motor vehicles, other transport equipment and parts	-25	99	6	-38	73	35	19	62	11	-29	152	1
Electrical, electronic and communications products	4	25	70	-19	-9	94	31	68	75	0	-54	38
Non-metallic mineral products	-11	39	-2	6	32	-14	-6	74	1	-48	-29	-9
Petroleum and coal products	2	3	200	27	34	56	-14	-79	342	-29	-60	-50
Chemicals, pharmaceuticals and chemical products	-13	2	4	-13	-3	-33	-6	1	67	-8	-2	-7
Other manufactured products	-45	135	69	-11	153	47	-52	70	205	-82	214	103
Total manufacturing	-2	20	17	0	20	11	-	-	37	2	17	0
Non-durables	0	16	17	0	26	6	-	-	50	10	12	6
Durables	-3	24	16	-1	14	18	-	-	32	-1	19	-3

Source: Statistics Canada

Table 7.10 (a): British Columbia Interprovincial Trade Imports, by Manufacturing Product, by Province
Current dollars (\$ million)

	1997	1998	1999	2000	1997	1998	1999	2000	1997	1998	1999	2000	1997	1998	1999	2000
	All Provinces				from Alberta				from Ontario				from Quebec			
Meat, fish and dairy products	1,384	1,301	1,426	1,497	596	632	643	684	360	268	312	351	228	229	303	240
Fruits, vegetables and other food products, feeds	1,457	1,469	1,446	1,362	258	231	266	321	891	931	910	792	156	153	137	139
Soft drinks and alcoholic beverages	322	295	289	259	124	125	144	130	87	49	50	51	44	39	15	8
Tobacco and tobacco products	152	248	241	232	-	-	-	-	70	134	111	14	82	114	-	218
Leather, rubber and plastic products	308	254	280	328	59	51	50	87	158	127	142	150	59	49	59	62
Textile products	284	240	213	216	6	5	8	12	97	82	62	67	144	120	111	111
Hosiery, clothing and accessories	260	242	233	232	12	8	8	7	75	64	62	65	151	152	141	134
Lumber and wood products	434	315	391	350	211	164	186	169	97	68	115	64	77	42	48	59
Furniture and fixtures	213	182	198	270	49	45	47	85	115	94	101	124	34	33	36	52
Wood pulp, paper and paper products	525	453	487	530	83	97	156	161	254	227	208	204	142	81	90	107
Printing and publishing	551	541	445	500	92	109	104	131	318	289	223	239	48	36	21	18
Primary metal products	571	601	606	711	119	99	108	115	339	367	330	454	47	35	29	45
Other metal products	759	611	683	680	189	183	218	246	396	288	285	264	139	102	108	106
Machinery and equipment	466	293	269	491	137	72	72	264	196	130	118	124	86	56	66	90
Motor vehicles, other transport equipment and parts	953	805	866	766	53	102	73	51	604	437	589	573	151	123	94	60
Electrical, electronic and communications products	816	683	715	657	129	126	84	76	445	345	315	359	205	171	280	177
Non-metallic mineral products	231	188	220	225	115	93	129	122	92	77	68	74	19	16	21	26
Petroleum and coal products	1,328	835	1,361	2,643	1,159	680	1,187	2,284	106	92	71	106	16	25	47	63
Chemicals, pharmaceuticals and chemical products	1,215	1,085	1,128	1,144	337	302	370	372	505	456	451	513	314	270	248	215
Other manufactured products	367	213	242	385	17	18	13	47	204	126	149	215	122	56	63	99
Total manufacturing	12,595	10,855	11,737	13,475	3,745	3,142	3,865	5,360	5,408	4,648	4,672	4,800	2,264	1,899	-	2,029
Non-durables	7,524	6,720	7,315	8,710	2,714	2,233	2,927	4,179	2,844	2,654	2,539	2,485	1,232	1,115	-	1,182
Durables	5,071	4,135	4,422	4,765	1,032	909	938	1,180	2,563	1,994	2,132	2,315	1,031	784	-	848

Source: Statistics Canada

Table 7.10 (b): British Columbia Interprovincial Trade Imports, by Manufacturing Product, by Province
 % change from previous year

	1998	1999	2000	1998	1999	2000	1998	1999	2000	1998	1999	2000
	All Provinces			from Alberta			from Ontario			from Quebec		
Meat, fish and dairy products	-6	10	5	6	2	6	-26	17	12	1	32	-21
Fruits, vegetables and other food products, feeds	1	-2	-6	-10	15	20	5	-2	-13	-2	-11	1
Soft drinks and alcoholic beverages	-9	-2	-10	0	16	-10	-43	2	1	-11	-62	-45
Tobacco and tobacco products	63	-3	-4	-	-	-	91	-17	-87	39	-	-
Leather, rubber and plastic products	-17	10	17	-14	-2	72	-20	12	5	-18	21	6
Textile products	-16	-11	1	-10	44	59	-15	-25	8	-17	-7	0
Hosiery, clothing and accessories	-7	-4	-1	-35	5	-18	-15	-3	6	1	-7	-4
Lumber and wood products	-27	24	-11	-23	14	-9	-30	71	-45	-46	15	23
Furniture and fixtures	-15	9	36	-9	5	80	-18	8	22	-5	11	42
Wood pulp, paper and paper products	-14	7	9	17	60	3	-10	-9	-2	-43	11	20
Printing and publishing	-2	-18	12	19	-5	26	-9	-23	7	-27	-42	-13
Primary metal products	5	1	17	-17	9	6	8	-10	37	-27	-18	57
Other metal products	-19	12	0	-3	19	13	-27	-1	-7	-27	6	-2
Machinery and equipment	-37	-8	83	-47	-1	267	-34	-9	5	-35	19	36
Motor vehicles, other transport equipment and parts	-16	8	-12	91	-28	-31	-28	35	-3	-18	-24	-36
Electrical, electronic and communications products	-16	5	-8	-2	-34	-9	-23	-9	14	-17	64	-37
Non-metallic mineral products	-19	17	2	-20	39	-6	-17	-11	9	-18	34	24
Petroleum and coal products	-37	63	94	-41	74	92	-14	-22	49	61	86	33
Chemicals, pharmaceuticals and chemical products	-11	4	1	-10	22	1	-10	-1	14	-14	-8	-13
Other manufactured products	-42	14	59	6	-28	254	-38	19	44	-54	13	56
Total manufacturing	-14	8	15	-16	23	39	-14	1	3	-16	-	-
Non-durables	-11	9	19	-18	31	43	-7	-4	-2	-10	-	-
Durables	-18	7	8	-12	3	26	-22	7	9	-24	-	-

Source: Statistics Canada