

BRITISH COLUMBIA BUSINESS INDICATORS

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The Role of Small Business in B.C.'s Emerging Industries

B.C.'s economic structure has traditionally reflected a rich endowment of natural resources. Goods production is dominated by the forest sector and other natural resource industries. To this day, the forest sector is important to virtually every community in the province. Forestry and related manufacturing industries directly employed 106,000 people (6.0% of the province's workers) and accounted for 7.4% of the provincial GDP in 1994.

As British Columbia's economy matures, new industries are emerging as creators of economic growth. The provincial GDP grew by 35% between 1985 and 1994. Growth in traditional industries, such as Forestry and Mining along with their related manufacturing, lagged the average, growing by 7% and 16%, respectively. It was growth in the service and finance industries that led expansion of the B.C. economy. The greatest gains were made in Retail and Wholesale Trade, with a GDP increase of 63%, and Finance, Insurance and Real Estate, with a 50% increase in GDP between 1985 and 1994.

Our interest in emerging industries stems from the prominent role they are expected to play in future economic growth. While many are presently small relative to traditional industries, they have potential for expansion and, ultimately, diversification of the B.C. economy. The growth in many of these industries is spurred by advances in technology, both in communications and in production processes. Such changes create new products, occupations, and business opportunities. These same forces may also underly the erosion of our present form of industrial organization, leading to a reduction in standard blue- and white-collar occupations due to productivity gains, and an increase in self-employment and small business in the emerging service oriented sectors.

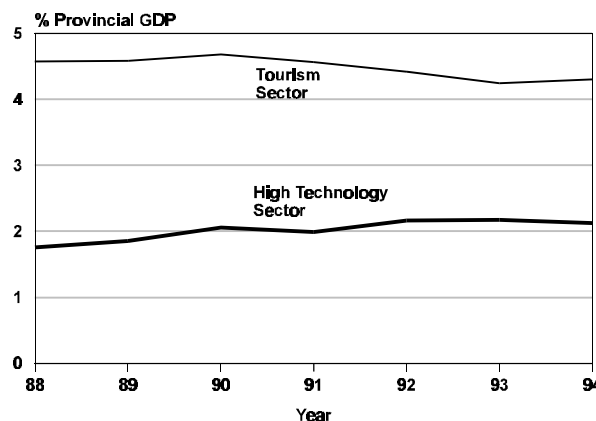
Emerging industries are also notable for the minimal demands they make on natural resources to create and deliver their products and services. Among the relatively small service oriented industries, two have received a lot of attention: Tourism and High-tech. In this note, we

review the performance of these two emerging industries and the role that small business has played in their development.

How have the Tourism and High-tech sectors fared in terms of GDP growth? In 1994, the Tourism sector was about twice the size of the High-tech sector, accounting for 4.3% of provincial GDP, compared with 2.1% for High-tech. However, High-tech sector GDP grew by 72% between 1988 and 1994, an increase 30 percentage points greater than for the provincial economy and ten percentage points greater than Finance, Insurance and Real Estate. Growth in Tourism GDP was less stable over the period; increasing as a percentage of provincial GDP through 1990, failing to keep pace during the next three years to 1993, and rebounding in 1994.

We may now examine the role of small business in the two sectors. Small businesses account for almost half (47%) of the employment in Tourism. In 70 of the 92 industries included in the Tourism definition, small businesses account for more than half of all employment.

**Emerging Industries Share of Provincial GDP
BC, 1988-1994**



Source: BC Stats

Chart 1

The table below lists the fifteen tourism related industries with the highest small business employment proportions and the fifteen with the lowest. It is clear that small businesses are not evenly distributed throughout the SICs making up the Tourism sector, but are concentrated in some and virtually absent from others. (Please note that none of the industries listed cater solely to tourists, but each has a tourism component.)

Fifty eight percent of employment in the High Technology sector is accounted for by small businesses. The table below shows that small businesses account for more than half of the total employment in 10 of the 15 industries or industry groups included in the high technology definition. Small businesses account for a higher overall percentage in the High-tech sector than Tourism, and are also more widespread amongst the SICs included in the definition.

Tourism Industries with the Highest Small Business Shares

SIC	Industry Name	% Small business
6596	Pet stores	92.6
6322	Boats, outboard motors and boating accessories dealers	93.2
6351	Garages (general repairs)	98.6
4575	Limousine service to airports and stations industry	100.0
6323	Motorcycle and snowmobile dealers	100.0
6593	Art galleries and artist supply stores	100.0
6595	Monument and tombstone dealers	100.0
6597	Coin and stamp dealers	100.0
6598	Mobile home dealers	100.0
9121	Lodging houses and residential clubs	100.0
9113	Tourist courts and cabins	100.0
9693	Dance halls, studios and schools	100.0
9694	Coin-operated amusement services	100.0
9695	Roller skating facilities	100.0
9644	Other race tracks	100.0

Small Business Shares for High Technology Industries

SIC	Industry name	% Small business
3912	Other instruments and related products industry	100.0
3911	Indicating, recording and controlling instruments industry	85.8
3999	Other manufactured products industry	85.8
337*	Electrical products group	65.3
772	Computer and related services	64.3
3199	Other machinery and equipment industries NEC	63.9
3194	Turbine and mechanical power transmission equipment	59.8
3192	Construction, mining machinery and materials handling	56.9
775*	Engineering and scientific and technical services group	52.1
37*	Chemical and chemical products group	52.0
335	Communication and electronic equipment	48.9
336	Office, store and business machines	43.4
868	Medical and other health laboratories	33.7
3211	Aircraft and aircraft parts industry	29.4
3*	Other manufacturing group	24.1

* A grouping of selected industries

Tourism Industries with the Lowest Small Business Shares*

SIC	Industry Name	% Small business
4531	Railway transport industry	0.4
8611	General hospitals	0.7
8531	University education	1.0
8272	Resource conservation and industrial development admin	1.2
7021	Chartered banks	1.4
4511	Scheduled air transport industry	1.5
4571	Urban transit systems industry	3.1
7339	Other property and casualty insurers	5.0
4841	Postal service industry	5.4
4821	Telecommunication carriers industry	5.7
602	Liquor, wine and beer stores	10.8
7031	Trust companies	12.1
8364	Recreation and culture administration	12.3
455	Service industries incidental to water transport	13.3
9696	Botanical and zoological gardens	13.9

*Small business percentages that are very small but not zero reflect portions of large enterprises that are treated independently in our data source.

The next step is to look at how the small business component in Tourism and High Tech has been doing over time. The employment proportions are used to divide a time series of GDP values for each SIC between small and large establishments. This measure gives us a rough indication of GDP change in the small business component of the Tourism and High-tech sectors. The measure is described as rough because it estimates GDP for small establishments based on their proportion of employment. It does not represent actual measurement of GDP for small businesses, but assumes that GDP is exactly proportional to the number of employees.

Chart 2 shows that this surrogate measure of GDP of small businesses in the Tourism industry grew at a faster rate than that of the Tourism sector overall between 1984 and 1994. At the beginning of this period, small businesses accounted for 40% of Tourism GDP, while by 1994, they contributed 44% of Tourism GDP. In fact, small businesses in the Tourism sector more than doubled their GDP during this period, from \$783 million to \$1.610 billion.

There are many more emerging industries than the two studied here. As British Columbia's economy continues to grow and mature, these industries will play a larger role in a more diverse economy. The flexibility and resourcefulness of small businesses makes them important players in the development of these industries.

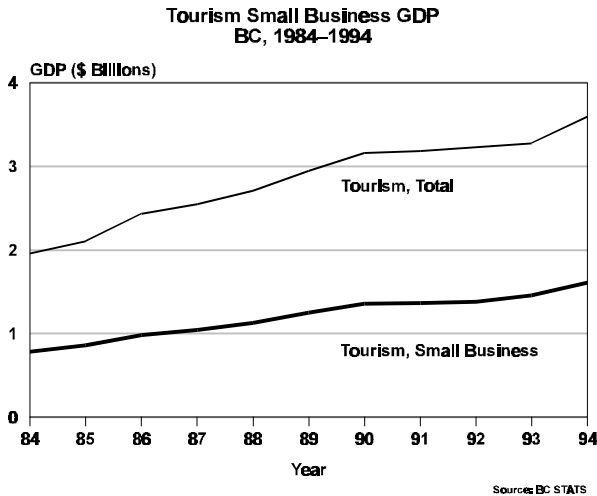


Chart 2

Small businesses account for a greater percentage of GDP in the High-tech sector than in the Tourism sector. In 1994, about 54% of High-tech GDP was produced by small businesses; ten percentage points higher than Tourism. However, unlike Tourism, GDP growth has been slower in high technology industries with high concentrations of small businesses. As a result, the growth rate of small business GDP between 1988 and 1994 of 62% lagged the sector average of 72%. Note, however, that the small business portion's rate of GDP growth for this period exceeded that of high growth industries such as Finance, insurance and real estate, Retail and wholesale trade and Other services.

Calculating the Small Business component in Tourism and High Tech

Both the Tourism and High-tech sectors are defined as a group of industries described by a set of standard industrial codes (SICs). The Tourism sector is comprised of 96 three and four digit SICs representing services in the accommodation, food and beverage, recreation, transportation, and travel trade fields. As all activities in these industries are not dedicated solely to tourists, BC Stats has developed weights for the industries to estimate the proportion of activity related directly to tourism. Similarly, the High Technology sector is comprised of 24 three and four digit SICs from fields such as, telecommunications, electronics, aircraft production, pharmaceuticals, computer services and engineering. Weights were also applied to some of the SICs included in the high technology definition.

Estimates of the proportion of small businesses in each component industry were calculated with data from Statistics Canada's Business Register (BR). All establishments with a payroll deduction account that are located in British Columbia are listed on the BR, along with an employment size category and SIC. For this study, each establishment was assigned an employment size equal to the mid-point of its associated employment size category. Those with fewer than 50 employees were coded as small businesses. The small business percentage was then calculated by dividing the number of employees in the small establishments in each SIC by the total number of employees in that SIC. It is important to note that information was available to make this calculation only for the single year, 1994. Changes over time in the overall small business shares as shown in Charts 2 and 3, result only from the change in the relative importance of each component industry, rather than from information about the changing small business shares within the component industries.

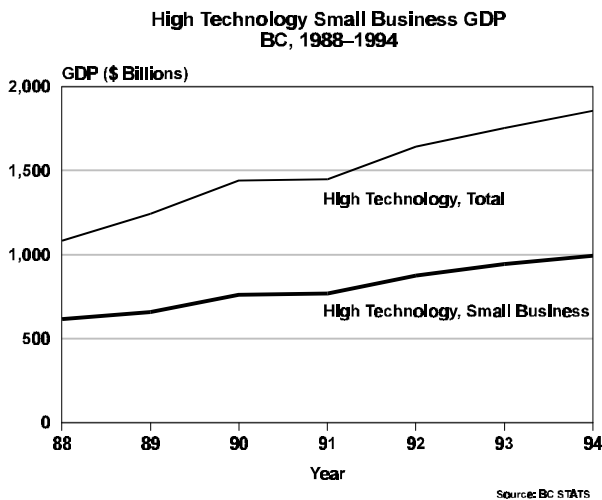


Chart 3