BCPROGRESSBOARD

GROWTH DRIVERS IN BRITISH COLUMBIA
THE SEARCH FOR INDUSTRY CANDIDATES

Report Prepared for:

Project 250: Regional Economies Expert Panel

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TECHNICAL NOTE AND DATA SOURCES

Employment data are from Statistics Canada's Labour Force Survey. The detailed information used in this study was obtained through a special request to Statistics Canada. Statistics Canada prepared information on British Columbia, Vancouver, Victoria, and BC exclusive of Vancouver and Victoria. All classifications are according to the North American Industry Classification System (NAICS).

Data on the number of establishments also comes from a Statistics Canada special request. Statistics Canada prepared information on the number of establishments by four digit NAICS industries for British Columbia, Vancouver, Victoria, and BC exclusive of Vancouver and Victoria.

Sales and profitability data come from two "off the shelf" Statistics Canada products: Financial Performance Indicators, Volume 3 for British Columbia, 1994-1997 and Financial Performance Indicators, Volume 3 for British Columbia, 1998-2001. These data are available at the provincial and national levels only; no sub-provincial breakdowns (Vancouver and Victoria for example) are available. These data are also reported on the precursor to NAICS, the Standard Industrial Classification (SIC). Concordance tables from SIC to NAICS were used to make the data comparable.

The employment "bins" referred to in tables 2.4 and 2.5 are created by ranking the industries by the average annual growth in employment and assigning a "1" to the top 10 industries and a "2" to the next 10 industries. A similar exercise was performed for the "number of establishments" data.

The first quartile in table 2.2 was created by ranking the industries by percentage of 2001 employment and then adding industries' "percentage of total employment" until (roughly) 25 percent of total employment was reached. The second quartile represents the industries which make up the second 25 percent of total employment. The third and fourth quartiles were created in the same manner.

ACKNOWLEDGEMENTS

Acknowledgements are tendered to Don McRae at BC Stats and Dennis Wong and Derek Adams at Statistics Canada for their assistance with data discovery and collection. Particular appreciation is expressed to Joel Emes, Senior Analyst at the BC Progress Board and Ken Peacock, Senior Policy Analyst at the Business Council of BC, for setting up the database for this study.

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FOREWARD

This study is intended to serve two roles.

One role is to provide a comprehensive quantitative basis for what is termed the '250 Region' economic stimulus and development exercise of the BC Progress Board. In this respect, the analysis is a companion piece to the regional consultations and expert papers that make up the heart of the project.

The other role is as a stand-alone examination of what is overall a static region in what has been a slow-growth province. In this context, the objective is to identify an appropriate, viable spectrum of industry clusters and individual industries that would form the range of economic growth candidates, not only in the '250' area but also in its '604' corollary centered on the Greater Vancouver Regional District or Statistics Canada's Vancouver census metropolitan area [CMA].

F.1: Geography and Structure

Here, the geography applied to the study needs to be sorted out. To BC residents, '604' and '250' are familiar terms for the telecommunications area codes denoting respectively the Lower Mainland census region (including the Fraser Valley east of Langley); and Regional BC including the Capital Regional District.

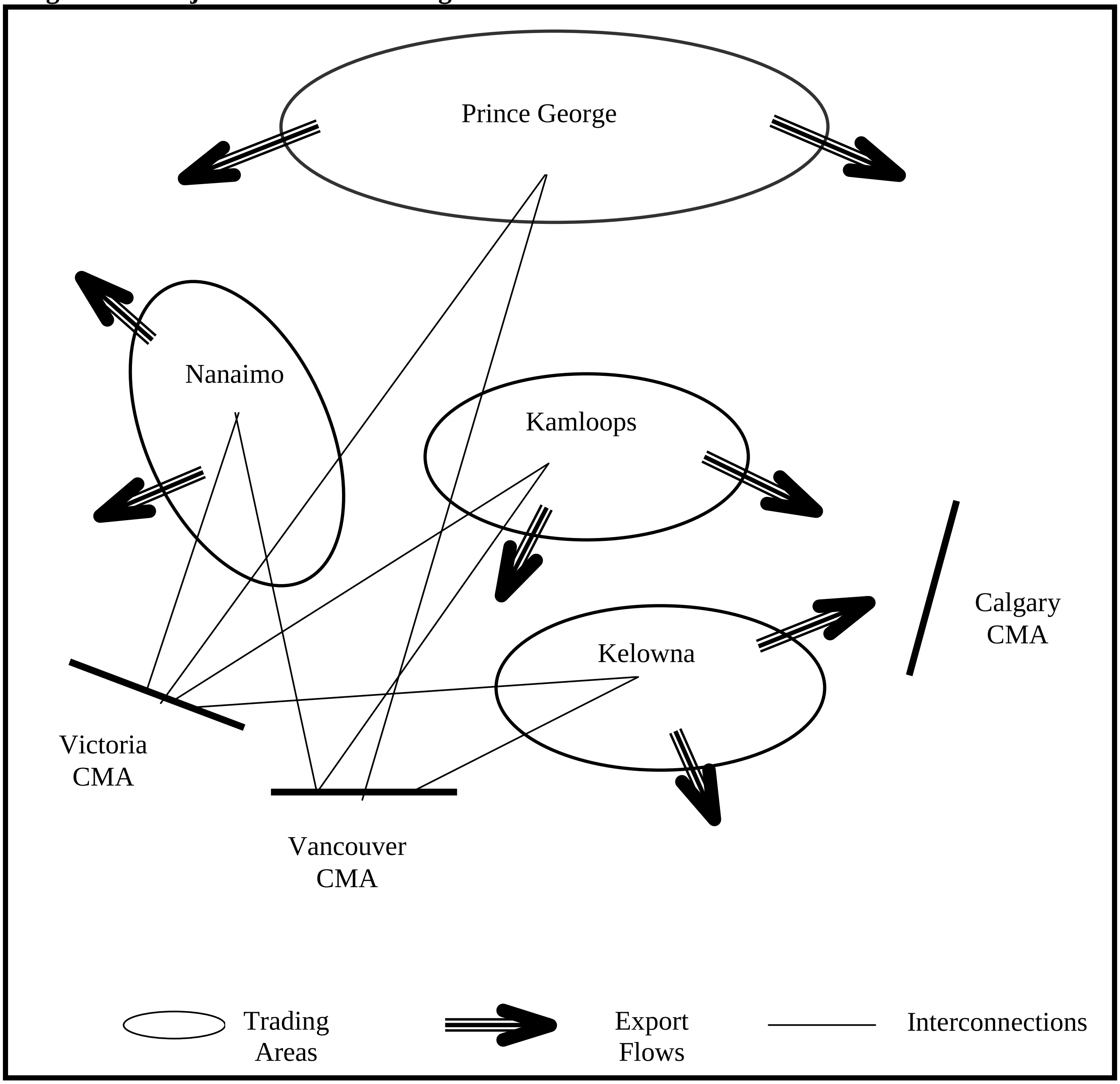
Statistically, however, at the level of industry GDP, employment, establishments, sales growth and financial measures, there are no such defined regions in either published or custom-ordered data. As a result, the data base for the study is developed, first for the province as a whole; and, secondly, in three regions, the Vancouver CMA, the Victoria CMA, and their residual area, Regional BC.

This arrangement can cause some difficulties. Placing the Fraser Valley in the '250' region may distort some agricultural industries in Regional BC. Elsewhere, population, employment and growth rates between sub-regions may differ. The Okanagan, in particular, has generated some growth drivers that have put it in a more economically advantageous position. As well, the industry composition of the export base is not evenly distributed among the sub-regions.

Even so, a basic structure of the resultant '250' region emerges, taking the form implicit in other studies of the project. Trade flows are primarily external, while overall command or supply emanates from the business (Vancouver) and government (Victoria) CMAs. Within the region, a great part of economic activity by GDP measure is carried out in the four largest census urban areas [CUAs]: Kamloops, Kelowna, Nanaimo and Prince George.

These cities are not necessarily the primary centres in their regional export bases. Gradually over the past 20 years, they have expanded their trading and service area functions to become dominant in transportation, wholesale and distribution, business and professional services, education, health, retail trade, and public administration. The pattern of major flows and trading areas for the four centres (and vis-à-vis the CMAs) is depicted in Figure F.1, indicating a certain autonomy in each case and a corresponding lack of interaction among them.

Figure F1: Major Flows and Trading Areas of the Four Centres.



Varying elements of this major urban activity growth in the four CUAs have been at the expense of smaller and medium-sized communities in the region. Yet it is collectively in these smaller centres that the greater parts of the mix of export industries not only of the region, but of the province as a whole, resides. With two main exceptions (animal aquaculture and oil and gas), the output volume of these industries has been static or shrinking. If there is a single, over-riding concern of this study, it is the economic nourishment of these communities. For without the export base they provide, the major urban areas would commence to wither in job, activity and income terms and, with them, although to a somewhat lesser extent (given their more autonomous economic structures) the two CMAs.

F.2: Progression and Prospects

This need for rural and resource regeneration is now of long-standing. For three post-war decades, basically from 1947 to the autumn of 1981, the Interior, North and mid-to-upper Vancouver Island were the growth generators – and leaders – of BC. Nor was this development pursued without a plan. In large measure, the report of the Legislative Committee on Post-War Rehabilitation was followed to 1952 by the Coalition government (Hope-Princeton Highway, the Alcan refinery at Kitimat, forest management licenses, *et al.*). This pursuit was even more vigorous in the Social Credit administration led by W.A.C. Bennett, the MLA who most closely adopted the report, and who was able (by a combination of policy and finance) to bring its key elements into action, yielding a prolonged period of commodity-led growth.

During the past two decades, the economic development focus has become more diffused, and more metropolitan oriented. In the 1981-91 census period, 360,000 net new jobs were created in BC, all but 1,000 in the Lower Mainland., Vancouver Island and the Okanagan. From population patterns released from the 2001 census, the job share of Regional BC (as defined in the '250' project) is not likely on an overall basis to have significantly improved.

This pattern, a new form of rural-to-urban migration is widespread (if not quite ubiquitous) among post-industrial economies. Characterized as due to 'agglomeration' economies arising from the location of or proximity to a complex set of inputs at one large site, as well as resultant lower transaction costs, the trend in output and employment has been to progressively larger centres, with absolute or relative de-industrialization in more peripheral areas. The implication for Regional BC is that a set of irresistible forces has emerged not only to strip rural and resource regions of their growth potential, but also to leave them with a declining export and economic base.

Yet the fishing and fish processing towns around Iceland prosper, and have not been de-populated. The extensive plantation forests and efficient wood products and paper mills of Sweden and Finland support high incomes. The range of aquaculture, energy-based output and tourism in Norway has expanded, not contracted. These are endowments like those of BC: in fact, BC has more. Yet these countries, and similar jurisdictions in their own fields, are quality-leaders, and thus price-setters, and have developed distinctive policies and products of their own.

In comparison, Regional BC is operating at the time the attention, the growth, and the capital investment essentially stopped. As will be seen, a dynamic and diversified set of industries has evolved in the 1990s in the '604' region or Vancouver CMA. The problem evident in the '250' region, at least vis-à-vis equivalent structures elsewhere, is that its critical export base is functioning on a 1970s resource management and production spectrum model. If employment and GDP growth are and have been gravitating to the southwest corner of BC, it is because the '604' region has a development model that (more or less) works.

Overhauling the model in Regional BC may require accommodations (between government, industry, Aboriginals, labour) that are sometimes painful, but even more solutions that are effective and decisive. One result in the key export industries would be of critical importance: to initiate growth by eliminating decline. The study, however, has sought other prospects. Emerging clusters of industries have been identified from the data as growth candidates. In addition, up to 48 industries at the four-digit level of classification detail that could locate on a viable basis in the '250' region all have 1994-99 average annual increases in sales revenue in current dollars of more than 5 per cent.

F.3: Strategy and Opportunity

These three sources by themselves may still be insufficient to overcome the locational attraction of the CMAs (and other CMAs beyond them). What is also needed is a strategy, and the main problem in formulating a strategy is: where to start? Given the five-decade progression of the '250' region, the question might be personalized. Assuming full knowledge of today's economic setting, and placing him in the prime of his powers, what would W.A.C. Bennett do?

Contemporaries and academics consulted on this question were (in their own ways) in basic agreement as to the initiative and approach that would result: build a megaproject. The '250' region needs jobs? Create them. BC is short of money? Use other people's, especially in and via the private sector. BC needs a sector to have a megaproject (or two) that can attract private investment? Try energy – electricity, oil and gas, methane-based, whatever sells. Are there corporate projects shelf-ready but tied up in the regulatory process? Do it right, but finish the process off – other Canadian and U.S. jurisdictions do.

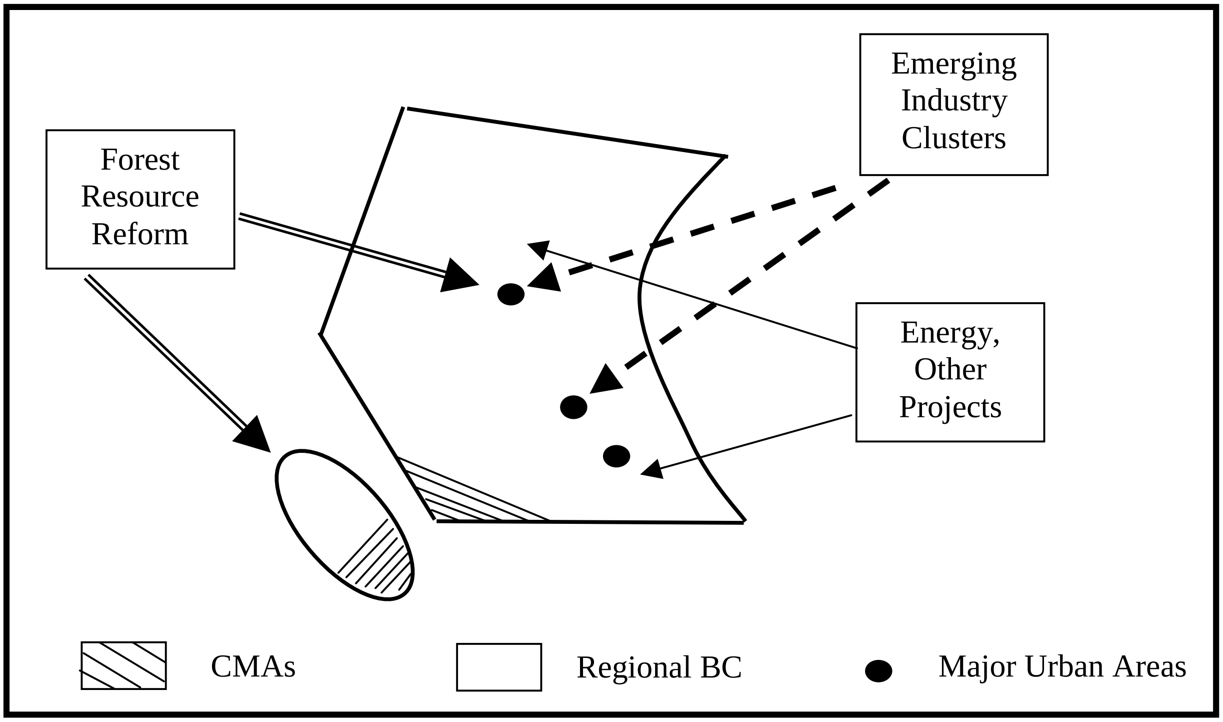
The validity of major, privately funded projects notwithstanding, a more imaginative scenario would extend to scrapping the 1970s model and instituting a complete reorientation for the forest sector (and, where necessary, other resource industries). A systematic search might also be launched into specialist areas in which the province's innovators (here now as well as new attractees) might excel.

Of course, the time *is* different, and the issues and interactions are more complex. For its part, environmentalism has coincidentally contributed to the formation of a landscape-based economy, of motion pictures, air transport, cruise ships, scenic tours, skiing facilities, greenhouses, specialty agricultural products, and computer system and software design. These industries top the leader board in GDP, employment and export growth, joined by an expanding set of industrial and consumer products industries.

Also, perhaps more fundamentally, the economy is deepening its human capital element. At a broader level, in all three regions in this study, Vancouver, Victoria and Regional BC, the three leading growth sectors (out of 17) are now termed (a) management of enterprises and other organizations; (b) professional, scientific and technical services; and (c) information, culture and recreation. By real GDP measure, all the industries cited in the above two paragraphs have achieved average annual growth rates of at least five per cent, or twice the BC average. All are also concentrated in the '604' region, with close to double the expansion rate of its '250' counterpart.

In the analysis, the mandate extends to the Vancouver and (to a lesser extent, due to data limitations) the Victoria CMAs. These references to the CMAs are largely by-catches from the data base assembled for the study. For Regional BC, the conversion from an uphill struggle to a plausible growth path is not likely to be simple. Yet, conceptually, the combination of major projects, renewed resource industries, enlarged emerging clusters, stimulating the human capital-based sectors, and a focus on new industries appropriate to the region ought to be achievable. An outline is offered in Figure F.2.

Figure F2: Growth Sources in the '250' Region



There still remains the need, at least as perceived from the results of this study, for a development model for the 250 region that is appropriate to the 2000s and 2010s. A progressive decline in commodity prices that undercut resource-based expansion and investment results when developing (and some developed) jurisdictions supply standard volumes with lower costs. At the same time, market share is eroded when advanced regions provide superior products at comparable prices.

In open economies faced with competition, what sells, and for how high a price, is a more important issue than what has traditionally grown on, or been extracted from, a particular type of site. In the '604' region, the export base is much more diversified than even two decades ago, suggesting that both choice and opportunity have and continue to exist for individual start-up firms and incipient industries. For the ‘250’ region, the problem is deeper-rooted. It is the system that needs changing, and that can liberate the creativity and innovation of its people.

All in all, there are fewer industry ‘growth’ candidates to start with in the ‘250’ region than in the CMAs. Even so, there appear to be enough, and major industry drivers in the export base can be revitalized – if they care to be.

To the greatest extent possible, it is probable that these options and opportunities will need to be generated by internal efforts within BC. As a location for new initiatives and investment, BC has been off the radar screen of business centres and capital markets for at least ten years. A decade’s neglect means that normal promotional approaches will not be enough. Instead, the province will attract notice by the actions for its own development that it undertakes itself. In this sequence, development attracts financing, and financing generates added investment activity.

Paradoxically for BC, the area in which this process is likely to be initiated most successfully is in the ‘250’ region for, at the start, the impacts involved would be big. For the region, as suggested in Figure F.2, the two largest initiatives would be (a) major projects, likely energy-based; and (b) forest resource and sector overhaul. Over time, however, the other sources would become increasingly significant, and would add to the diversification of economic activity of which the region has been in such need.

CHAPTER 1. THE INDUSTRY DISTRIBUTION OF ECONOMIC ACTIVITY

An open economy such as British Columbia develops over time an industrial structure with two broad elements. The larger of these, composed mainly of big services industries (retail trade, finance and real estate, health, education and the like), provide the greater part of output by GDP measure, employment, and number of establishments. Along with transportation and construction, however, they have little or no independent reason to function outside their internal market, although some opportunities may emerge over time.

The other set of industries are those that comprise the export base of the region. These industries ship all or a substantial part of their production in international and inter-provincial trade outside the boundaries of the region, earning external income for the province. Such industries as agriculture, resource-based production, much of manufacturing, tourism and recreation, as well as a range of advanced services industries developed in the 1990s, are the key determinants of the rate and structural extent of economic growth.

In 2001, BC exports totaled about $60 billion, the equivalent of close-to-half the province’s GDP of $130 billion. Broadly, the composition of these exports can be divided as in Figure 1.1 into four streams. The chief distinctions are between (a) goods and services, and (b) international and inter-provincial trade. For this study, a further division would be between the ‘250’ and ‘604’ regions as their export structures are radically different.

1.1 The Structure of the Export Base

As indicated in the Figure, export value in British Columbia is dominated by *goods* entering into international trade. The 54 per cent share of total export value by these goods in 2001 is only slightly smaller than the 56 per cent in 1997, with services continuing to increase gradually as a proportion of the total.

What is distinctive in this pattern is that fully 70 per cent of international trade in goods (the major component) emanates from the ‘250’ region. This preponderance is set out for the region’s chief industries in Table 1.1. Of the largest 25 export categories in 2001; the region leads in 16, including all the top 10. Moreover, the make-up of this export trade is unusually varied, indicating an endowment in the region that is remarkably diversified. While forest products (sawmills, paper, veneer/plywood, logging, millwork) account for $12.7 billion of export value, another $10 billion is generated from industries as different as oil and gas, mining, smelting and refining, electric generation and aquaculture.

In contrast in Table 1.2, the eight reported goods industries in the ‘604’ region are all in the manufacturing sector, yielding $2.3 billion in export value or one-tenth of the ‘250’ region total. Yet the ‘604’ area accounts for the larger part of the ‘other than top 25’ category, and the 1997-2001 expansion (even if in current dollars) has been impressive.

Figure 1.1a: Export Shares, 2001

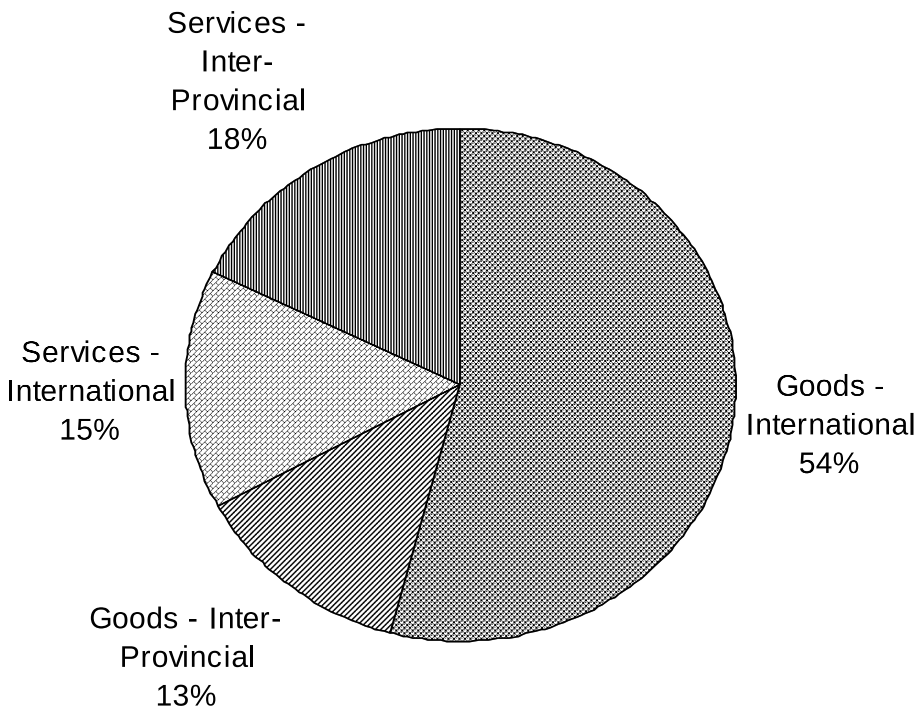


Figure 1.1b: Exports by Source Region

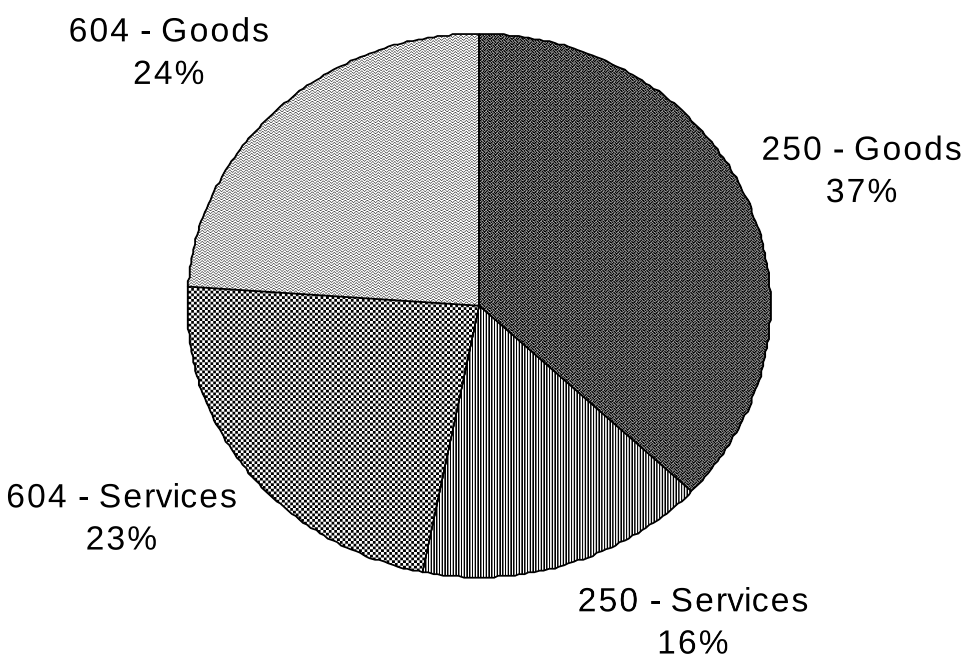


Table 1.1: Exports of Goods to Other Countries from Industries Predominantly Located Outside of Vancouver and Victoria ($millions)						
NAICS	Industry	1997	1998	1999	2000	2001
32111	Sawmills and Wood Preservation	8,394	6,977	7,857	7,422	7,154
32211	Pulp Mills	3,100	2,770	3,297	4,488	3,069
21111	Oil and Gas Extraction	791	1,023	1,277	2,616	2,756
32212	Paper Mills	1,611	1,732	1,768	1,822	1,724
21211	Coal Mining	2,003	1,813	1,300	1,332	1,431
22111	Electric Power Generation	226	325	458	1,987	1,406
32121	Veneer, Plywood and Engineered Wood Product Manufacturing	863	1,011	1,312	1,088	1,094
31171	Seafood Product Preparation and Packaging	503	445	441	540	564
33131	Alumina and Aluminum Production and Processing	522	556	535	651	519
21223	Copper, Nickel, Lead and Zinc Ore Mining	625	391	284	560	466
11331	Logging	64	152	286	369	395
11251	Animal Aquaculture	209	242	256	228	265
33141	Non-Ferrous Metal (except Aluminum) Smelting and Refining	458	464	524	517	261
32213	Paperboard Mills	173	188	233	262	244
11411	Fishing	154	153	191	185	204
32191	Millwork	145	177	295	223	184
Sub-Total		19,840	18,418	20,316	24,291	21,735
604 Industries		1,343	1,553	1,997	2,862	2,291
Other than top 25		6,263	6,920	7,541	8,018	7,753
Total (All Industries)		27,445	26,891	29,854	35,171	31,778
250 Industries		19,840	18,418	20,316	24,291	21,735
% Of exports for top 25 industries		93.7	92.2	91.0	89.5	90.5
% Of total exports		72.3	68.5	68.1	69.1	68.4
Sources: Industry Canada, Strategis, Trade Data Online; Statistics Canada.						

The emergence of the ‘604’ region's goods trade can be perhaps better illustrated in Table 1.3. In the two previous tables, the detailed five-digit code level of the NAFTA-based North American Industrial Classification System [NAICS] was adopted. Thus, in 2001, ‘other industry machinery manufacturing’ was the leading goods exporter in the ‘604’ region with $403 million. For a broader view, the classification detail in Table 1.3 is raised to the three-digit level, a higher order of aggregation. What is now reported is the machinery industry as a whole with more than three times the export value at $1.359 billion, and a sixth-place ranking. In all, 15 manufacturing industries are now listed in the leading 25 exports.

1.2 The Economic Rationale of the ‘250’ Region

From indicative inference, it is probable that the ‘604’ region generated the larger share of services exports, notably in such 1993-2001 growth leaders as air transport, motion pictures, computer system and software design, and information services, with the two regions splitting recreation such as scenic tours.

Table 1.2: Exports of Goods to Other Countries from Industries Predominantly Located In Vancouver and Victoria ($millions)

NAICS	Industry	1997	1998	1999	2000	2001
33329	Other Industrial Machinery Manufacturing	303	285	378	444	403
33441	Semiconductor and Other Electronic Component Mfg	160	255	416	964	307
32519	Other Basic Organic Chemical Manufacturing	375	252	211	266	254
33451	Navigational, Measuring, Medical, Control Instruments	147	162	174	207	215
32721	Glass and Glass Product Manufacturing	78	149	203	300	210
33661	Ship and Boat Building	61	106	138	108	206
32619	Other Plastic Product Manufacturing	101	153	206	211	205
32311	Printing	92	112	128	162	185
41511	N/A	26	78	144	199	306
Sub-Total		1,317	1,475	1,854	2,662	1,985
250 Industries		19,840	18,418	20,316	24,291	21,735
Other than top 25		6,263	6,920	7,541	8,018	7,753
Total (All Industries)		27,420	26,813	29,711	34,971	31,473
604 Industries		1,343	1,553	1,997	2,862	2,291
% Of exports for top 25 industries		6.3	7.8	9.0	10.6	9.7
% Of total exports		4.9	5.8	6.7	8.2	7.3

Sources: Industry Canada, Strategis, Trade Data Online; Statistics Canada.

Equally likely, with such ‘250’ region industries as oil and gas support activities and construction making the list, the export value of inter-provincial trade in goods may be divided fairly evenly between the two regions.

Even so, in the three-digit NAICS level in Table 1.3, those industries predominantly located in the ‘250’ region comprise 72 per cent of the 2001 value of BC’s international goods exports. As a result, they probably account for about 60 per cent of the province’s total export earnings in goods and services, in international and inter-provincial markets combined. A prolonged condition of static growth notwithstanding, the ‘250’ region still has enough capacity to maintain a sufficient contribution to allow BC to be in rough (although somewhat negative) balance between its exports and imports.

This importance in generating export earnings is the primary rationale of the ‘250’ region in the economic context of BC. By themselves, the Vancouver and Victoria CMAs could function on their own as there are enough localized export-directed activities (air, ports, manufacturing, computer-based services, recreation, etc.) to support a substantial part of the existing population. In the process, however, they would lose the foundation of the Regional BC market. The further vulnerability of the CMAs would be a more pronounced import dependency and imbalance than now.

In consequence, no matter how basic, unglamorous or environmentally unfashionable the ‘250’ region may be regarded, its front-line role remains in the economic welfare of the province, even though its degree of importance has been gradually diminishing. This outcome is the result of two decades of relative neglect in the 1980s and 1990s noted in the Foreword, as jobs, output and new industries gravitated overwhelmingly to the southwest corner of the province.

Table 1.3: BC Exports of Goods to Other Countries, by Industry, 2001

NAICS		Goods to Other Countries ($millions)	Percent of Total Goods to Other Countries
321	Wood Product Manufacturing	8,655	28.3
322	Paper Manufacturing	5,098	16.7
211	Oil and Gas Extraction	2,756	9.0
212	Mining (except Oil and Gas) & Mix Mining	2,028	6.6
22	Utilities	1,406	4.6
333	Machinery Manufacturing	1,359	4.4
311	Food Manufacturing	1,225	4.0
331	Primary Metal Manufacturing	1,023	3.3
334	Computer and Electronic Product Manufacturing	908	3.0
325	Chemical Manufacturing	776	2.5
111	Crop Production	563	1.8
3361 - 3363	Motor Vehicle, Body, Trailer & Parts Manufacturing	487	1.6
332	Fabricated Metal Product Manufacturing	477	1.6
335	Electrical Equipment, Appliance and Component Mfg	466	1.5
326	Plastics and Rubber Products Manufacturing	409	1.3
327	Non-Metallic Mineral Product Manufacturing	406	1.3
113 & 1153	Forestry and Logging with support activities	396	1.3
112	Animal Production	394	1.3
3364 - 3369	Other Transportation Equipment Manufacturing	367	1.2
315 & 316	Clothing Mfg & Leather & Allied Product Mfg	271	0.9
337	Furniture and Related Product Manufacturing	220	0.7
339	Miscellaneous Manufacturing	213	0.7
114	Fishing, Hunting and Trapping	205	0.7
323	Printing and Related Support Activities	185	0.6
324	Petroleum and Coal Products Manufacturing	148	0.5
312	Beverage and Tobacco Product Manufacturing	90	0.3
313 & 314	Textile Mills & Textile Product Mills	32	0.1
213	Support Activities for Mining and Oil and Gas Extraction	0	0.0
231	Prime Contracting	n/a	n/a
232	Trade Contracting	n/a	n/a
	Total*	30,563	100.0

* Four percent of the total exports of goods to other countries as reported by Stategis can not be accounted for after allocating exports by this set of NAICS codes.
Sources: Industry Canada, Strategis, Trade Data Online; Statistics Canada.

1.3 Growth Patterns in the '604' and '250 Regions

This trend can be traced over two periods. The shorter in Tables 1.4 and 1.5 is given by real GDP measure from 1997 to 2001, with an extended list provided in Appendix Table 1. The longer in

Figure 1.2 is by job growth (or loss) from 1993 to 2001, with a sector summary for BC and by region in Appendix Table 2. The difference in the starting years is due to Statistics Canada data-reporting policy. With the conversion from the previous Standard Industrial Classification [SIC] code to NAICS, Statscan went back only to 1997 for the recalculation of industry GDPs. In contrast, its Labour Force Survey, which reports employment by industry, did not require major alteration.

Over the 1993-2001 period, the leading five industries in the rate of job gains are key components of the new NAICS sectors of professional, scientific and technical services; and information, culture and recreation. Led by computer system design, motion picture and sound recording, and information services, they achieved annual employment growth rates as high as 21 per cent. As will be seen in Table 2.2 in the next chapter, the leading industries during the period are considerably more diffuse. Scenic and sightseeing transportation and recreation activities reflect the more active elements of the tourism sector. The industry termed 'other schools and educational support' (business, computer, ESL, etc.) has expanded dramatically in job total size. Led by machinery, manufacturing industries appear again.

The 109 industries ranked by employment (and establishment) growth are not the same in many export-oriented cases as the 88 for which real GDP data by industry for 1997-2001 are reported. As examples, the two leaders in job growth – computer system design and motion pictures – are not seperately cited in the GDP data. As a result, the composition of the 20 leading industries in Table 1.4 is substantially different. In the list, the oil and gas sector contributes three industries; metal ore mining appears; and information and culture industries (including computer services and motion pictures) continue positive growth. Yet fully 10 of the 20 leading industries are in the manufacturing sector. The emergence of a viable and growing manufacturing industry in both industrial and consumer products was first detected from 1996 data. The results over the last five years suggest that this expansion has continued, making manufacturing one of the most dynamic sectors in the BC industry structure. The lead growth industries are cited in Figure 1.2a.

In contrast, in the no-growth or loss categories in GDP in Table 1.5, the industries noted with one possible exception (other activities of the construction industry) are all predominantly located in the ‘250’ region. Aside from oil and gas, all the key industries in the region’s export base – forest products, mining, primary metals, electric generation (despite export increases), and fishing and seafood products failed to expand (or, if so, only marginally) and generally declined in output value and jobs over the past eight years.

In effect, in the ‘250’ region, attrition has occurred in the economic base without compensating offsets in the form of new activity. In the export industries (oil and gas again excepted) and their related infrastructure, there have been no major transportation initiatives or industrial projects in the last 15 years. Instead, there has been a winnowing of the resource base, an imposition of costs, and a lack of trade and investment support activities.

Table 1.4: BC Industries with High Real GDP Growth between 1997 and 2001 ($millions, 1997 Prices)								
NAICS	Industry	1997	1998	1999	2000	2001	1997-2001 % change	Average Annual % change
3369	Other transportation equipment manufacturing	11	17	18	17	27	150.9	29.3
2131	Support activities for mining and oil and gas extraction	277	367	387	518	629	127.3	23.3
230D	Oil and gas engineering construction	414	397	374	634	758	83.0	19.8
3364	Aerospace product and parts manufacturing	74	80	108	133	139	88.2	17.7
316	Leather and allied product manufacturing	4	4	6	8	8	81.8	17.5
335A	Electrical equipment and component manufacturing	102	133	153	173	164	61.5	13.5
3341	Computer and peripheral equipment manufacturing	156	240	232	261	226	45.1	12.5
230F	Communication engineering construction	119	140	203	185	168	40.6	11.0
5100	Information and cultural industries	3,618	3,831	4,085	4,811	5,334	47.4	10.3
337	Furniture and related product manufacturing	188	182	220	257	247	31.2	7.6
325A	Miscellaneous chemical product manufacturing	136	152	157	169	181	33.3	7.5
2122	Metal ore mining	513	622	537	663	639	24.6	6.9
3122	Tobacco manufacturing	9	12	12	12	12	28.0	6.8
5A05	Rental and leasing services and related	793	974	944	960	1,002	26.3	6.4
512	Motion picture and sound recording industries	221	252	247	259	281	27.2	6.4
2111	Oil and gas extraction	1,080	1,156	1,080	1,217	1,358	25.7	6.2
561	Administrative and support services	1,862	1,963	2,062	2,198	2,358	26.6	6.1
3115	Dairy product manufacturing	110	113	104	101	133	20.9	5.9
339	Miscellaneous manufacturing	164	169	211	190	200	22.0	5.8
5241	Insurance carriers	1,123	1,153	1,194	1,232	1,383	23.2	5.4
Sources: BC Stats, Statistics Canada.								

Table 1.5: Selected BC Industries with Low Real GDP Growth between 1997 and 2001 ($millions, 1997 Prices)								
NAICS	Industry	1997	1998	1999	2000	2001	1997-2001 % change	Average Annual % change
3221	Pulp, paper and paperboard mills	1,481	1,405	1,587	1,710	1,524	2.9	1.2
2121	Coal mining	670	634	642	651	697	3.9	1.1
33A0	Primary metal and fabricated metal product manufacturing	1,195	1,243	1,245	1,322	1,217	1.8	0.6
2200	Utilities	2,468	2,474	2,511	2,633	2,434	(1.4)	(0.2)
321*	Wood product manufacturing	3,552	3,448	3,717	3,798	3,412	(3.9)	(0.8)
114	Fishing, hunting and trapping	201	168	166	158	171	(14.8)	(3.5)
2123	Non-metallic mineral mining and quarrying	106	99	94	96	85	(19.6)	(5.2)
230E	Electric power engineering construction	204	227	206	181	146	(28.8)	(7.5)
230I	Other activities of the construction industry	45	38	37	33	32	(27.9)	(7.6)
3117	Seafood product preparation and packaging	160	116	92	89	82	(48.7)	(14.8)
* BC Stats estimate								
Sources: BC Stats, Statistics Canada.								

1.4 Regional Composition of Sector Employment

These patterns can be examined in one further way. In Table 1.6a 2001 employment by the 17 NAICS sectors is set out by number and name, and the percent share of the BC total. Data for

Figure 1.2a: Employment Growth in Selected Industries, BC

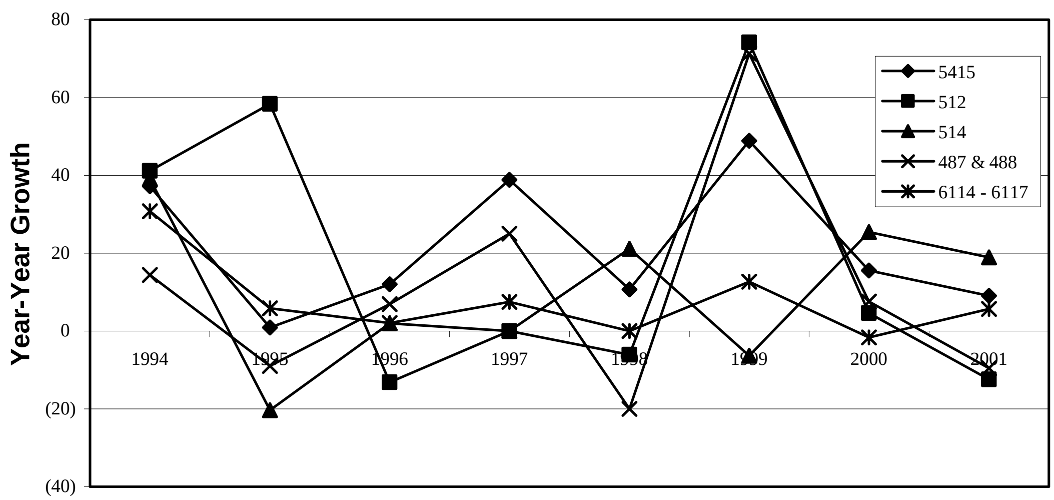
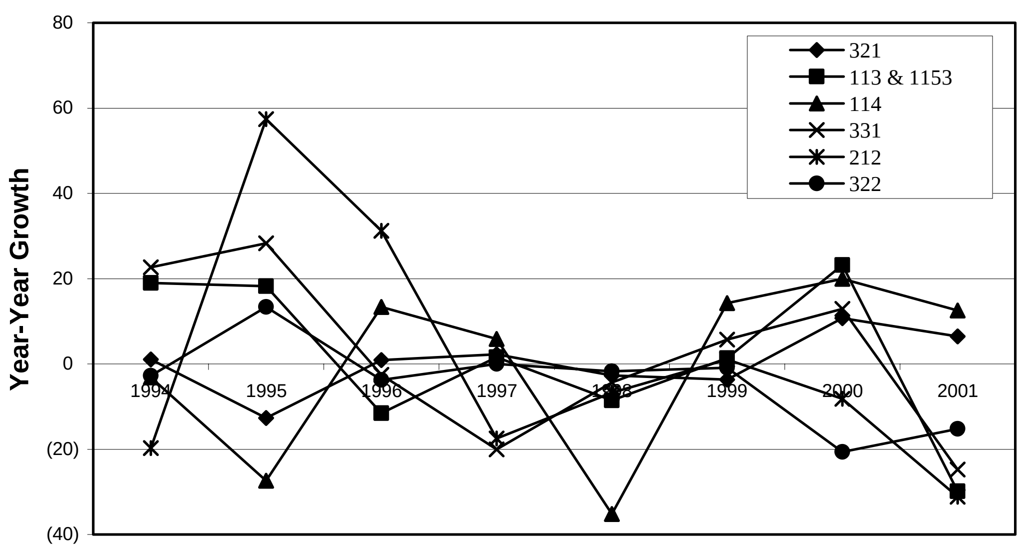


Figure 1.2b: Employment Growth in Selected Industries, BC



Legend for Figure 1.2a and 1.2b

5415	Computer System Design & Services
512	Motion Picture & Sound Recording Industries
514	Information serv & Data Processing serv
487 & 488	Scenic & Sightseeing Trans & Support Activities
6114 - 6117	Other schools & educational support
321	Wood prod Manufacturing
113 & 1153	Forestry & Logging with support activities
114	Fishing, Hunting & Trapping
331	Primary Metal
212	Mining (except Oiland Gas) & Mix Mining
322	Paper Manufacturing

four areas are included, first for the province as a whole, then for the Vancouver CMA, Victoria CMA and Regional BC. In Table 1.6b, the same sectors are reported in terms of their provincial and three *regional* percentage shares and average annual job growth.

In BC as a whole, the job leaders by size are retail trade (12.4% of total employment), health care (10.5%), manufacturing (10.1%); and accommodation and food services (8.8%). The first two are domestic in market-orientation; the latter two are respectively largely or partly export-directed. In the Vancouver CMA and Regional BC, retail trade is still the largest sector. It is followed by manufacturing, health care, and professional/scientific services in the Vancouver CMA; and health care, manufacturing, and accommodation and food services in Regional BC The Victoria CMA is a partial variant. Health care is the largest sector, followed by retail, public administration, and accommodation/food.

In the average annual rate of job growth, however, the rising sectors are the three human capital-based categories: management and administrative; professional, scientific and technical; and information, culture and recreation. All achieve average job growth rates of close to five to six per cent in BC and the Vancouver CMA; over nine per cent in Victoria (professional, information); and a range of 4.1 per cent (professional) to 8.3 per cent (management) in Regional BC.

Job declines are also evident. In Regional BC in the 1997-2001 period, four sectors declined in employment: agriculture, construction, manufacturing (dominated by wood products and pulp mills), and public administration. The Victoria CMA experienced decreases in five sectors: construction, manufacturing, wholesale, health care, and public administration. Vancouver was unscathed except for the primary resource and public administration sectors; while agriculture, utilities and public administration were the only losers in the province as a whole.

From these basic patterns, two quests must be undertaken. The first is much greater detail at the industry level. In the data series adopted, the industry total ranges from 110 to 530. The second is to test growth potential for the ‘250’ region to the greatest practical extent possible. As a result, data bases have been developed covering industry GDP, employment, establishments, sales average annual growth, and profit measures. These are the tasks of the following chapter, to which we now turn.

Table 1.6a: Employment and Percent of Total Employment by Industry, BC and Its' Regions

NAICS	Industry	BC, 2001		Vancouver, 2001		Victoria, 2001		RBC, 2001	
		Percent of Total (BC)	Number employed (000s)	Percent of Total (BC)	Number employed (000s)	Percent of Total (BC)	Number employed (000s)	Percent of Total (BC)	Number employed (000s)
111 - 112	Agriculture	1.3	25.9	0.3	6.6	0.0	0.0	0.9	18.4
113, 114, 1153, 21	Forestry, Fishing, Mining, Oil and Gas	2.2	43.3	0.3	6.3	0.1	1.9	1.8	35.1
22	Utilities	0.6	11.7	0.3	6.3	0.0	0.0	0.2	4.5
23	Construction	5.9	114.9	2.9	55.4	0.4	8.0	2.7	51.5
31 - 33	Manufacturing	10.1	196.2	5.5	106.1	0.3	6.1	4.3	84.0
41	Wholesale	3.5	68.5	2.3	45.3	0.2	3.1	1.0	20.2
44 - 45	Retail	12.4	240.9	6.4	124.9	1.0	18.6	5.0	97.4
48 - 49	Transportation and Warehousing	5.5	106.9	3.2	63.1	0.3	5.4	2.0	38.4
52 - 53	Finance, Insurance, Real Estate and Leasing	6.0	116.2	3.9	74.8	0.4	7.2	1.8	34.2
54	Professional, Scientific and Technical Serv.	7.3	141.0	5.0	97.0	0.6	11.6	1.7	32.5
55 & 56	Management, Administrative and Other Supp.	3.8	73.9	2.3	44.7	0.3	6.6	1.2	22.6
61	Educational Services	7.0	135.7	3.6	70.5	0.6	12.3	2.7	53.0
62	Health Care and Social Assistance	10.5	203.8	5.2	100.2	1.0	18.8	4.4	84.7
51 & 71	Information, culture and recreation	5.5	106.2	3.4	66.8	0.4	8.5	1.6	30.8
72	Accommodation and food services	8.8	170.6	4.6	88.7	0.7	13.9	3.5	68.0
81	Other services	5.0	97.8	2.7	52.8	0.4	7.6	1.9	37.4
91	Public administration	4.6	88.8	2.1	41.5	0.9	17.3	1.5	29.9
Sum		100.0	1,942.3	54.1	1,051.0	7.6	146.9	38.2	742.6

Sources: BC Stats; Statistics Canada.

Table 1.6b: Average Annual Employment Growth and Employment as a Percent of Regional Employment by Industry

NAICS	Industry	BC, 2001 Percent of Total (Region)	BC, 2001 Average Annual Growth, 1997-2001	Vancouver, 2001 Percent of Total (Region)	Vancouver, 2001 Average Annual Growth, 1997-2001	Victoria, 2001 Percent of Total (Region)	Victoria, 2001 Average Annual Growth, 1997-2001	RBC, 2001 Percent of Total (Region)	RBC, 2001 Average Annual Growth, 1997-2001
111 - 112	Agriculture	1.3	(2.8)	0.6	3.4	0.0	n/a	2.5	(3.3)
113, 114, 1153, 21	Forestry, Fishing, Mining, Oil and Gas	2.2	0.3	0.6	(2.7)	1.3	n/a	4.7	1.7
22	Utilities	0.6	(0.4)	0.6	0.6	0.0	n/a	0.6	0.7
23	Construction	5.9	0.2	5.3	1.3	5.4	(0.8)	6.9	(0.2)
31 - 33	Manufacturing	10.1	1.2	10.1	2.8	4.1	(1.1)	11.3	(0.1)
41	Wholesale	3.5	1.6	4.3	0.8	2.1	(0.4)	2.7	4.3
44 - 45	Retail	12.4	1.7	11.9	2.4	12.5	0.3	13.1	1.5
48 - 49	Transportation and Warehousing	5.5	0.9	6.0	1.9	3.6	2.0	5.2	0.0
52 - 53	Finance, Insurance, Real Estate and Leasing	6.0	0.3	7.1	0.5	4.8	2.7	4.6	0.4
54	Professional, Scientific and Technical Serv.	7.3	4.8	9.2	4.9	7.8	9.1	4.4	4.1
55 & 56	Management, Administrative and Other Supp.	3.8	6.6	4.3	6.6	4.4	4.9	3.0	8.3
61	Educational Services	7.0	2.4	6.7	3.1	8.3	3.4	7.1	1.7
62	Health Care and Social Assistance	10.5	2.7	9.5	2.8	12.6	(1.1)	11.4	3.9
51 & 71	Information, culture and recreation	5.5	6.0	6.4	6.0	5.7	9.4	4.1	5.9
72	Accommodation and food services	8.8	4.4	8.4	5.3	9.3	4.0	9.2	3.5
81	Other services	5.0	0.8	5.0	1.3	5.1	2.3	5.0	0.7
91	Public administration	4.6	(1.6)	3.9	(0.8)	11.6	(1.5)	4.0	(0.9)
Sum / Average for all industries		100.0	1.9	100.0	2.4	98.7	0.9	100.0	1.4

Sources: BC Stats; Statistics Canada.

CHAPTER 2. THE IDENTIFICATION OF GROWTH INDUSTRIES

The objective of this study is to identify and propose that set of industries or groups of industries that can initiate output and employment growth in the '250' region of BC. As comparatively few industries have acted as positive economic drivers in most parts of the region over the past decade, it is necessary to focus on those with growth potential, notably those (whether in the region or not) that export or possess export possibilities from a '250' base.

These industries may currently be leading, lagging or in-between. In this respect, the make-up of the BC economy is like that of a ship. As alluded in the previous chapter, the greater part of the economy (akin to the hull) is composed of primarily domestic sectors that produce some 60 per cent of total output. The propulsion of the economy, its direction and response time (engine room, bridge, rudder) is generated by the set of growth industries in play at any given time. What determines the speed or progress of the economy is not just the propulsive industries. While these may be insufficient, they may also be limited by excess weight of domestic industries (superstructure) or by drag (ballast) from the lagging sectors.

2.1 The BC Economy at the Sector Level

This process can begin to be traced at the sector level, then progress to finer industry detail. In Table 2.1, reformulated from Appendix Table 2a at the end of the document, the 17 NAICS industry divisions are ranked in quartiles in descending order of 1993-2001 employment growth. As evident later, the majority of high-growth specific industries are found in the first quartile. In 2001, this group of four divisions provided 25 per cent of total employment in BC, 28 per cent in the Vancouver CMA, but 21 per cent in Regional BC – of which close to half was in accommodation and food services. In GDP growth, all four have achieved average annual rates of double or more the all-industries BC rate of 2.2 per cent.

As reclassified by NAICS, this quartile is headed by the three industry divisions based on human capital or the direct application of knowledge. While most professional services have been slow in employment growth, industries involved in management, scientific and technical services, information and culture have achieved high rates over the period. Lead growth industries up to 2001 such as computer system design, motion pictures and information services also increasingly engage in services exports, mainly from the '604' region. The fourth division, accommodation and food services, also contains some higher-growth, export earnings elements.

The second quartile consists of four large domestic services divisions, two institutional (health, education), two in the business sector (wholesale, retail). Together, these divisions provide 33 per cent of total employment in BC, led by retail (12.4%) and health care (10.5%). These sectors hover around the all-industries average growth rate, health care and education above, retail and wholesale below, and are mainly dependent on general economic conditions in the province, including the level of institutional funding. While preponderantly domestic, they do possess some export earnings potential.

Table 2.1: NAICS Industry Divisions Ranked by Average Annual Growth in Employment, by Quartile, BC 1993-2001

Quartile	NAICS Code	Industry Division	Percent of Total Employment (2001)	Average Annual Growth Rate (%)
I	55/56	Management and Administrative	3.8	6.6
	51/71	Information, culture, recreation	5.5	6.0
	54	Professional, scientific, technical services	7.3	4.8
	72	Accommodation and food services	8.8	4.4
II	62	Health care and social assistance	10.5	2.7
	61	Educational services	7.0	2.4
	44/45	Retail trade	12.4	1.7
	41	Wholesale trade	3.5	1.6
III	31-33	Manufacturing	10.1	1.2
	48/49	Transportation and warehousing	5.5	0.9
	81	Other services	5.0	0.8
	52/53	Finance, insurance, real estate	6.0	0.3
IV	113/114	Forestry, fishing, mining, oil & gas	2.2	0.3
	23	Construction	5.9	0.2
	22	Utilities	0.6	(0.4)
	91	Public Administration	4.6	(1.6)
	111/112	Agriculture	1.3	(2.8)

Sources: BC Stats, Statistics Canada

In the four sectors in the third quartile, lagging industries begin to outweigh leading industries. In transportation, declines in rail and truck transport pull down the effect of gains in air and water modes. In the finance sector, an above-average performance in insurance is negated by a decrease in real estate. In the large manufacturing sector, shortfalls or actual declines in resource-based production counteract the gains of the industrial and consumer products growth to yield an overall provincial annual average rate of 1.2 per cent. In the next section, the lagging impacts will be found mainly in the '250' region. Overall, this quartile contributed 27 per cent of total jobs in BC.

The remaining divisions in the last quartile are the losing sectors with 15 per cent of total jobs. The division with forestry, fishing and mining is barely positive only because of the inclusion of oil and gas. The others have lost some to significant ground. As with transportation, both construction and utilities have been affected by the economic slowdown in BC vis-à-vis other jurisdictions, most of which appears to have originated in the '250' region. The decline in public administration has been ongoing and has not yet ceased. Agriculture is a special case, exhibiting (as in manufacturing) decreases in standard or commodity output but gains in specialty products.

Table 2.2: BC and Regional Rankings by Quartile in Average Annual Employment Growth (%), NAICS Industry Divisions, BC, 1993-2001

Quartile	NAICS Code	Industry Division	BC	Vanc. CMA	Vic. CMA	RBC
I	55/56	Management and Administrative	1	1	3	1
	51/71	Information, culture, recreation	2	2	1	2
	54	Professional, scientific, technical services	3	4	2	4
	72	Accommodation and food services	4	3	4	6
II	62	Health care and social assistance	5	7	(12)	5
	61	Educational services	6	6	5	7
	44/45	Retail trade	7	9	9	9
	41	Wholesale trade	8	13	(10)	3
III	31-33	Manufacturing	9	8	(13)	(14)
	48/49	Transportation and warehousing	10	10	8	13
	81	Other services	11	11	7	11
	52/53	Finance, insurance, real estate	12	15	6	12
IV	113/114	Forestry, fishing, mining, oil & gas	13	(17)	n/a	8
	23	Construction	14	12	(11)	(15)
	22	Utilities	(15)	14	n/a	10
	91	Public Administration	(16)	(16)	(14)	(16)
	111/112	Agriculture	(17)	5	n/a	(17)

Sources: BC Stats, Statistics Canada
Note: Negative rankings denote employment decline

2.2 Regional Variation at the Macro-Level

The provincial aggregates of these 17 NAICS divisions may disguise differences in growth rates, not only within the various sectors, but also between the three regions in this study. In each area, the three human capital/knowledge-based divisions appear in the first quartile, although the order may vary. In the Victoria CMA, (i) information, culture and recreation and (ii) professional, scientific and technical services both achieved average annual increases in employment in excess of nine per cent, while management and administrative grew at only half this rate.

Conversely, in Regional BC, the management division rose in jobs by more than eight per cent, followed (at some distance) by information and professional/scientific. The growth of these three divisions in the Vancouver CMA was more balanced with annual rates between five and six per cent. The rankings by quartiles are set out in Table 2.2.

Some results are surprising. In the Victoria CMA, the number of health care employees actually fell slightly in the 1993-2001 period, despite population growth and an older demographic profile. Accommodation and food services in Regional BC trailed the two CMAs by a considerable margin, indicating an (as yet) under-developed recreation and tourism resource; or, alternatively, the difficulty of diversifying in this sector.

In Victoria again, the finance, insurance and real estate sector has been relatively strong, perhaps due to a higher per capita concentration of retirement and investment income. In the Vancouver CMA, the average growth rate for the finance sector by 2001 was weak, the result of a roller-coaster real estate market during the period.

As expressions of regional variation, two NAICS divisions in particular stand out. These sectors are agriculture and manufacturing. In Regional BC, employment in agriculture was reduced by close to three per cent. Yet in the Vancouver CMA, the annual job gain rate increased by *more* than three per cent, giving it fifth rank among the 17 industries.

The sector in Regional BC covers areas as productive and diverse as southern and central Vancouver Island (field crops); the central and eastern Fraser Valley (dairy); the Okanagan (fruit); the Kamloops-Cariboo area (cattle); and the Peace River (grain). Of all sub-divisions in this study, the performance of this output has been the worst in BC. In contrast, agriculture in the Vancouver CMA – based on high-value crops, greenhouse products, and other specialties – has achieved one of the better employment growth outcomes.

In manufacturing, the gap between the Vancouver CMA and Regional BC is not as stark. Given the job size of the sector, it is of even greater impact. In Regional BC, the combination of wood products, pulp and paper, primary metals and seafood products led to a slight average annual decline in employment of –0.1 per cent. In the Vancouver CMA, the impressive growth rates in a number of industrial and consumer products industries led to an average gain of +2.8 per cent, despite some drag from wood products and paper. Even so, as in agriculture, job growth in specialty output in an industry like wood products was well above the provincial average.

This bifurcation, or dichotomy as it is usually called, between the two main regions is somewhat at variance with trends in industry replacement in more dynamic economies. Yet, despite BC's weak GDP expansion in the Canadian context, even the '604' region has turned over its leading set of growth sectors three times in the past 15 years: from the last of the resource-led expansions (1985-89); to the surge in real estate and residential construction from in-migration (1988-96); to the development of new groups of advanced services and manufacturing industries (1995-2001). In contrast, the industrial structure in most parts of the '250' region is relatively unchanged.

2.3 Industry Performance at the Micro-Level

In level of aggregation and descriptive nomenclature, data on both leading and lagging industries are provided in Statistics Canada series. For the type of analysis required, generic categories like 'high tech', or 'resources', or even 'tourism' do not isolate the individual industries to be sought. The BC economy consists of more than 700 such industries, each producing specific types of products or services (and at various stages). About 125 of these may engage in exports to a greater or lesser extent. Whether leading or lagging, it is more instructive to decompose the generic sectors into their individual industries, and then reconstitute them as existing or potential growth-generating clusters.

For this purpose, a range of statistical series (published or custom-ordered) is available at varying levels of industry detail. The measures include GDP by industry, employment, the number and size ranges of establishments, and (for small and medium-sized business) sales and profits. All these series have been used in this study. Unfortunately, the same industries are not necessarily reported in each series. As noted, the 2001 GDP by industry series is in transition from the SIC to the NAICS code, and at 110 industries (22 with suppressed detail) is incomplete.

Conversely, sales and profit performance is reported for 530 industries. At this stage, however, these industries have annual sales of $5 million or less; are available only from 1994 to 1999; are reported in current not constant dollars; and until the next annual version are given by SIC code.

Moreover, as with GDP by industry, both sales and profit data are provided only for the province as a whole. Even so, location suitability can be inferred; the level of industry detail is helpful; and the size range suggests the emerging industries that can provide growth impetus as they establish and grow larger.

More consistent are the data series for employment and establishments. In these cases, industries and years are essentially the same, and reporting is possible by special order not just for the province as a whole but also for the Vancouver and Victoria CMAs. Deducting the CMAs from the BC total yields the ‘250’ region of interest, Regional BC. As a result, it is possible to determine the relative growth status of exporting industries, whether established or emerging. It is also possible to track their growth patterns and cluster formations (or their lack) at a sub-provincial level, particularly between the Vancouver CMA and Regional BC.

2.3.1 Growth Industries in the Domestic Sectors

The focus of this study is on existing and emerging *export* oriented industries as the propulsive opportunities for GDP and job growth in the ‘250’ region. Even so, the *domestic* sectors of the BC economy should not be altogether ignored. Education is likely to be central to the expansion of the human capital/knowledge-based cluster with several exporting industries. A good part of wholesale activity is associated with export-import trade and distribution. For their part, transportation, utilities, construction and finance are closely associated with activity among the regional growth drivers and frequently assist in making them possible.

In the province’s GDP structure in the 1997-2001 period, however, only three of the leading 20 growth industries (as reported by Statscan), and seven of the next 20, can be characterized as domestic. The representation expands somewhat when a list of leading employment generators over the 1993-2001 period is compiled. The domestic entries in the two sets of industries are given by

GDP and employment measure respectively in Table 2.3. Note that all entries exceed the BC all-industries annual average growth rates of 2.2 per cent (GDP, 1997-2001) and 2.4 per cent (employment, 1993-2001).

Conversely, few purely domestic entries are found among the slowest growth or declining industries. GDP growth rates for 88 industries were given in Appendix Table 1.1. Annual average rates for employment are cited for 99 industries in Appendix Table 2.2. Among the 20 industries recording the lowest GDP growth rates in the private sector, only three (residential construction, soft drink mfrg., printing) are likely to have all or the bulk of their output sold in the domestic market. Among the 16 actual losers in employment, seven (including legal services, real estate and postal service) are primarily domestic.

Table 2.3: Domestic NAICS Industries with Average Annual Employment Growth above BC Industry Average, Ranked by GDP and Employment Rates

NAICS Code	Ranked by GDP (%) 1997-2001	Average Annual Increase	NAICS Code	Ranked by Employment (%) 1993-2001	Average Annual Increase
3122	Tobacco manufacturing	6.8	5613	Employment services	17.3
5A05	Rental & leasing services	6.4	523	Securities, commodity cont.	10.3
5241	Insurance carriers	5.4	5616	Security services	9.4
2213	Water, sewer systems	3.8	492	Couriers and messengers	7.0
493	Warehousing & storage	3.7	513	Broadcasting and telecom	6.0
562	Waste management	3.5	5617	Building services	5.5
8131	Religious organizations	2.4	5412	Accounting & tax preparation	5.4
			623	Nursing, residential care fac.	5.1
			511	Publishing industries	4.2
			323	Printing & related	2.7
	All-industry average	2.2		All-industry average	2.4
	Number of industries above avg.	35		Number of industries above average	47

Sources: BC Stats, Statistics Canada.
Note: Non-business sector not included.

Within the ranks of domestic industries, there may well be candidates for expansion in the '250' region. These are likely to reflect changes in consumer purchase trends or business input needs. Supplying business inputs, the wholesale trade sector grew at 2½ times the region's all-industries average of 1.4 per cent. In retail trade, electronics retailers, sporting goods stores, health and personal care providers and motor vehicle dealers performed well above the sector average. The education sector has spawned the top-20 industry 'Other Schools and Educational Support', generating considerable foreign income.

Using GDP, job, establishment, sales or profits data as developed for this study, a number of domestic industries may become sources of expansion in the region. Yet, without incremental growth in the ‘250’ economy, their output may simply displace other products or services. Where these ‘growth’ elements in the domestic sectors may now be concentrated in the ‘604’ region, an outward diffusion into ‘250’ areas – especially to the larger urban centres – may occur.

Overall, however, the pace of growth in most industries in the domestic economy will probably be governed by what happens in the leading and lagging export sectors. In this respect, the broad domestic sector structure of the ‘250’ region has been deflated by the halt to forward progress experienced by all but one (oil and gas) of the resource-based primary and manufacturing industries. Reviving the major economic drivers, or finding new ones, would automatically reflate the level of economic activity in the region in such sectors as retail trade, financial services, real estate, legal and accounting, and the like.

2.3.2 Export Industries: Leading and Lagging

Three principal features characterize the 20 leading growth industries in BC over the 1993-2001 period. One, they are concentrated in the Vancouver CMA or ‘604’ region of this study. Two, they tend to be the product of change whether in market dynamics, recent technology or relative production costs. Three, they have now reached the expansion stage at which they have begun to cluster. Not all the leading growth industries export. Exceptions include employment services, security services, and nursing care facilities. But most do.

The list of the 20 lagging industries includes a number of isolated entries in public administration and construction that have declined provincially. Eight of the 20 emanate from the resource base, including crop production, animal production, forestry, fishing, primary metals, mining, paper and utilities – wood products at 2001 having held its ground. Moreover, except for the forest sector with a well-established inter-industry pattern, there is little evidence of cluster formation in the region.

In compiling these lists of leading vs. lagging industries, a combination of employment and establishments growth rates was adopted. As set out in the Technical Note, average annual growth rates were ranked for each of the two measures. Thus the three leading industries in Table 2.4 have high rankings in both criteria. Similarly, as indicated in Table 2.5, the lagging industries have low rankings. Depending on their results, the 99 industries in the sample were then placed in groups of 10 or ‘bins’. The bins, in turn, were then ranked from 1 (best) to 10 (worst).

The rationale in this approach is that expanding industries with higher-to-high annual growth rates should be increasing their number of establishments in the process. In the majority of cases, this joint expansion of jobs and operations does hold, although the number of establishments tends to rise at a slower pace. This correlation is not reliable across all industries. Instead, some industries increase individual plant size while taking on more workers, from start-up (1-4 employees) through the second (5-19) and third (20-99) stages until the 100+ level is reached. Indeed, in many of these industries, expansion in the last decade has been strong enough that this largest size group is one of the fastest growing. As well, in the process of industry growth, consolidation may occur.

Table 2.4: Leading Performers in Employment and Establishments Growth, BC

NAICS Industry	Employment				Number of Estblishments				
	Percent of Total, 2001	Average Annual Growth, 1993-2001	Rank for Employment Growth, 1993-2001 (of 109)	Bin number* (of 10)	Percent of Total, 2001	Average Annual Growth, 1998-2001	Rank for Growth in Number of Establishments, 1998-2001 (of 109)	Bin number*	Average Bin number*
Computer System Design Services	1.8	21.7	1	1	1.6	14.5	2	1	1.0
Motion Picture and Sound Rec. Ind.	0.5	18.3	2	1	0.7	11.9	3	1	1.0
Info. Services and Data Proc. Serv.	0.5	10.0	10	1	0.3	29.2	1	1	1.0
Scenic and Sightseeing Transpo. & Rel.	0.9	10.8	7	1	0.8	4.7	11	2	1.5
Security Services	0.6	9.0	15	2	0.3	5.1	9	1	1.5
Other Schools and Educational Support	1.0	7.9	20	2	0.8	6.2	7	1	1.5
Couriers and Messengers	0.4	6.9	26	3	0.2	5.1	10	1	2.0
Other Professional Services	0.4	7.6	21	3	0.9	8.6	4	1	2.0
Business Services	0.4	14.5	4	1	0.3	2.0	22	3	2.0
Amusement, Gambling and Rec. Ind.	1.4	8.3	17	2	1.1	2.0	20	2	2.0
Health and Personal Care Stores	0.9	6.6	28	3	0.9	4.0	15	2	2.5
Management, Scientific and Tech. Serv.	1.1	5.5	35	4	2.7	7.9	6	1	2.5
Broadcasting and Telecom.	1.5	5.9	32	4	0.2	5.8	8	1	2.5
Machinery Manufacturing	0.3	8.2	18	2	0.4	0.4	36	4	3.0
Fabricated Metal Product Manu.	0.7	5.0	39	4	0.7	1.0	30	3	3.5
Travelling Services	0.5	9.4	14	2	0.7	(0.2)	44	5	3.5
Building Services	1.7	5.5	34	4	2.1	1.1	29	3	3.5
Nursing and Res. Care Facilities	1.7	5.1	37	4	0.6	1.2	27	3	3.5
Publishing Industries	0.6	4.2	47	5	0.4	3.8	17	2	3.5
Perf. Arts, Spect. Sports and Rel. Ind.	0.7	3.4	52	6	0.6	8.2	5	1	3.5

Sources: Statistics Canada, Labour Force Survey; Establishments data.
Note: See Technical Note for a description of "Bin number".

As the '604' and '250' regions exhibit considerable variations, both in growth rates and industry ranking, a selection of industries by employment is made in Table 2.6 for the Vancouver CMA and Table 2.7 for Regional BC. The industries in the CMA will be encountered below in the discussion on cluster formation. The ones in the '250' region are a subject for the third chapter.

The economic growth problem in BC may now be more closely defined. It is not just that there are too many lagging industries, with too much weight, and not enough in the leading group. Instead, the problem is somewhat more unusual. Normally, if there were no valid hope of resuscitation, declining industries would be allowed to die, their towns and regions along with them. In such cases, 'growth' industries would have emerged during the last decade in sufficient size and job-creating power to replace them. This requisite size has not yet been achieved in BC, and may take the better part of the next 10 years to reach. It will also take all major drivers to respond.

In the larger sense, it may be an advantage in province-wide development that the 'sunset' or 'dinosaur' industries and their towns did not yield. Revival and renewal are usually much less expensive in terms of social cost than is abandonment, provided there is a viable policy course that can be taken. The legacy (even if out-moded) is that there is a base that can be built on in order to restore growth dynamics to the region.

Table 2.5: Lagging Performers in Employment and Establishments Growth, BC									
	Employment				Number of Estblishments				
NAICS Industry	Percent of Total, 2001	Average Annual Growth, 1993-2001	Rank for Employment Growth, 1993-2001 (of 109)	Bin number* (of 10)	Percent of Total, 2001	Average Annual Growth, 1998-2001	Rank for Growth in Number of Establishments, 1998-2001 (of 109)	Bin number*	Average Bin number*
Crop Production	0.6	(2.4)	93	10	1.4	(0.1)	43	5	7.5
Animal Production	0.6	(0.1)	82	9	1.2	(0.7)	60	6	7.5
Printing and Rel. Support Act.	0.4	2.7	57	6	0.4	(1.8)	81	9	7.5
Pers. and Household Goods Whol.-Dist.	0.4	2.7	56	6	0.8	(3.0)	90	9	7.5
Forestry and Logging with supp.	1.3	1.7	70	7	2.7	(2.1)	83	9	8.0
Fishing, Hunting and Trapping	0.3	0.0	81	9	0.3	(1.3)	70	7	8.0
Trade Contracting	3.8	0.5	76	8	6.2	(1.7)	77	8	8.0
Food Manufacturing	1.2	3.0	54	6	0.6	(3.7)	93	10	8.0
Primary Metal Manufacturing	0.4	2.2	64	7	0.1	(2.8)	87	9	8.0
Food, Bev. and Tob. Whol.-Dist.	0.6	0.9	74	8	0.7	(1.4)	71	8	8.0
Gasoline Stations	0.6	(1.2)	89	9	0.9	(1.3)	69	7	8.0
Federal Gov. Public Admin.	1.5	(1.2)	88	9	0.0	(0.7)	61	7	8.0
Furn. and Home Furn. Stores	0.4	1.3	71	8	0.7	(2.2)	84	9	8.5
University	1.0	1.9	66	7	0.0	(13.5)	99	10	8.5
Mining (except O+G) & Mix Mining	0.3	0.8	75	8	0.1	(13.4)	98	10	9.0
Utilities	0.6	(0.4)	85	9	0.1	(3.0)	88	9	9.0
Prime Contracting	2.1	(0.1)	83	9	4.6	(2.4)	85	9	9.0
Paper Manufacturing	0.8	(4.0)	96	10	0.1	(1.4)	73	8	9.0
Local, Mun. & Other Public Admin.	1.4	(4.1)	97	10	0.4	(1.8)	80	8	9.0
Non-Store Retailers	0.3	(0.1)	84	9	0.3	(3.5)	92	10	9.5
Postal Service	0.4	(3.9)	95	10	0.0	(2.7)	86	9	9.5
Rail Transportation	0.3	(5.5)	98	10	0.0	(11.7)	97	10	10.0

Sources: Statistics Canada, Labour Force Survey; Establishments data.
Note: See Technical Note for a description of "Bin number".

2.4 Cluster Formation in the '604' and '250' Regions

The task of enhancing regional growth rates is aided when the *clustering* of like or inter-related industries commences to occur. Not all industries cluster; all that is required by many domestic industries (bakeries, newspapers, personal services, petroleum refining) is a local or regional market as well as enough transport cost insulation. But many industries do cluster, and they tend to be export-oriented or to have export-earning components.

The determination of an industrial cluster in either goods or services depends mainly on two factors. The first can be gleaned from input-output tables that show the extent of inter-industry flows of materials, supplies and services (inputs), and of forward sales to user industries or to exports (outputs). The other factor is the similarity, over and above the same or related inputs, of needs. With like production functions, these needs may include educational resources, specific labour skills, energy, maritime access, climate or even local and regional amenities.

The process of cluster formation can also be traced through successive input-output tables or models. In an area like manufacturing involving many parts and components, the early stages are characterized by assembly; a reliance on imported requirements; and a low domestic content in total output value. In the next stage after enough expansion occurs, other industries will locate to supply a range of input needs, reducing the value share of imports, and raising domestic content. Finally, the original industries will expand sufficiently to interact, trade and share with each other, and a production system or network evolves.

In the industry data for the Vancouver CMA, four distinct clusters can be discerned. These can be categorized as: (i) the human capital/knowledge-based; (ii) industrial and consumer product manufacturing; (iii) cultural and information industries; and (iv) recreation and tourism. There is a fifth cluster, specialty agriculture and higher-value food manufacturing, but its boundaries extend beyond the region. There are also embryonic clusters in manufactured wood products; textiles/clothing/leather; and education that are omitted in this discussion.

The fact of clustering in the ‘604’ region can be evidenced by the use of GIS analysis. A test of establishments at the industry level revealed location concentration by firms in a specific area of the region in virtually every case. When the industries are pooled into their formative clusters, the results are equally striking, suggesting movements of information, skills and inputs within and among their constituent industries.

In the ‘250’ region, only one industry cluster is apparent, the forest sector. This cluster is, however, by far the largest in BC and is of long-standing. Moreover, it has the longest input-output sequence, integrating horizontally as well as vertically, as well as in domestic content in total value of about 90 per cent. This sequence runs from forestry services, to forestry and logging, through wood products, and in material flows to pulp mills and paper converting, and to the range of secondary and tertiary millwork and other specialties. In illustration, the cluster structure in the ‘604’ region is provisionally depicted in Figure 2.1. The inter-industry structure in the forest sector is traced in Figure 2.2.

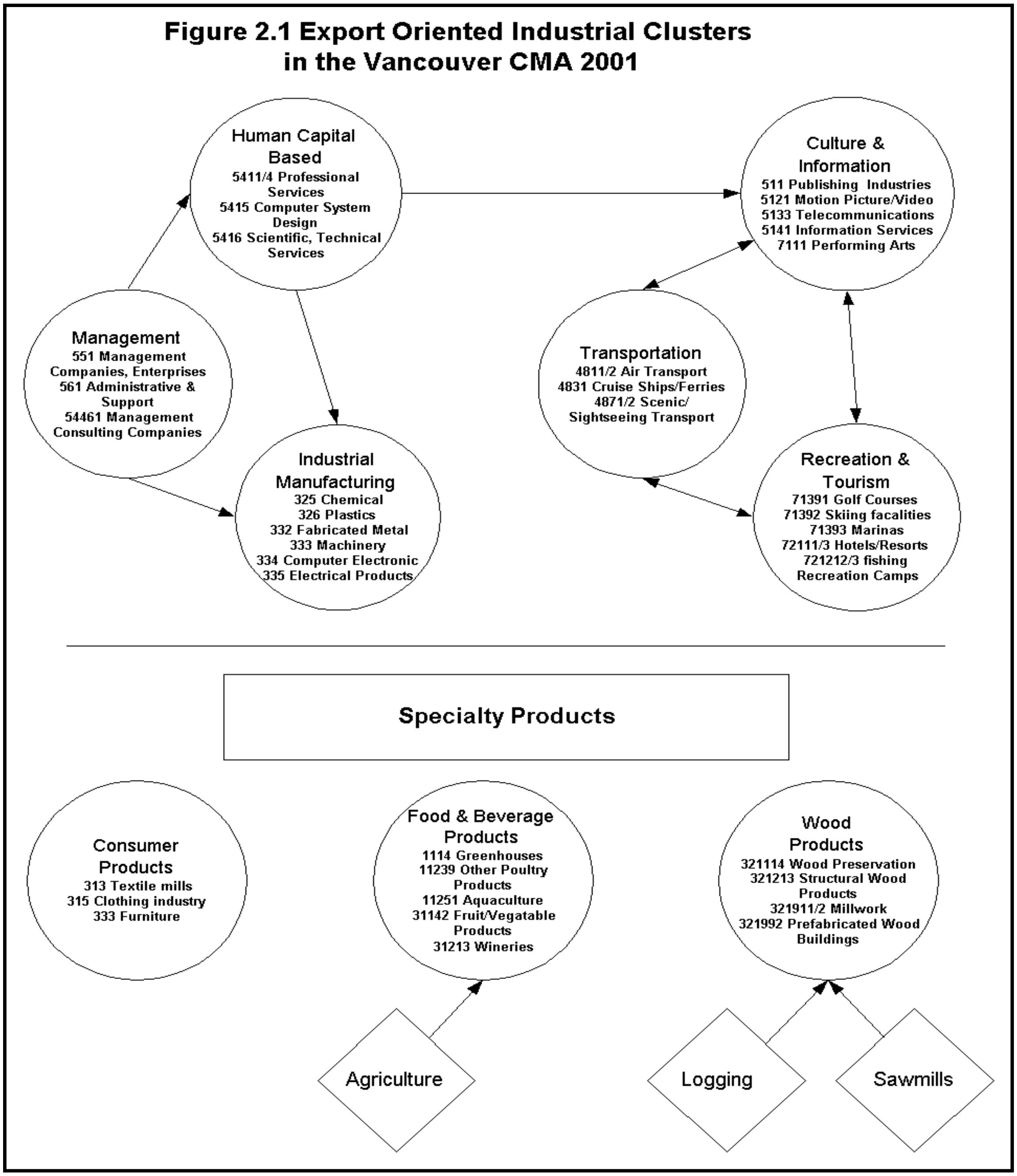
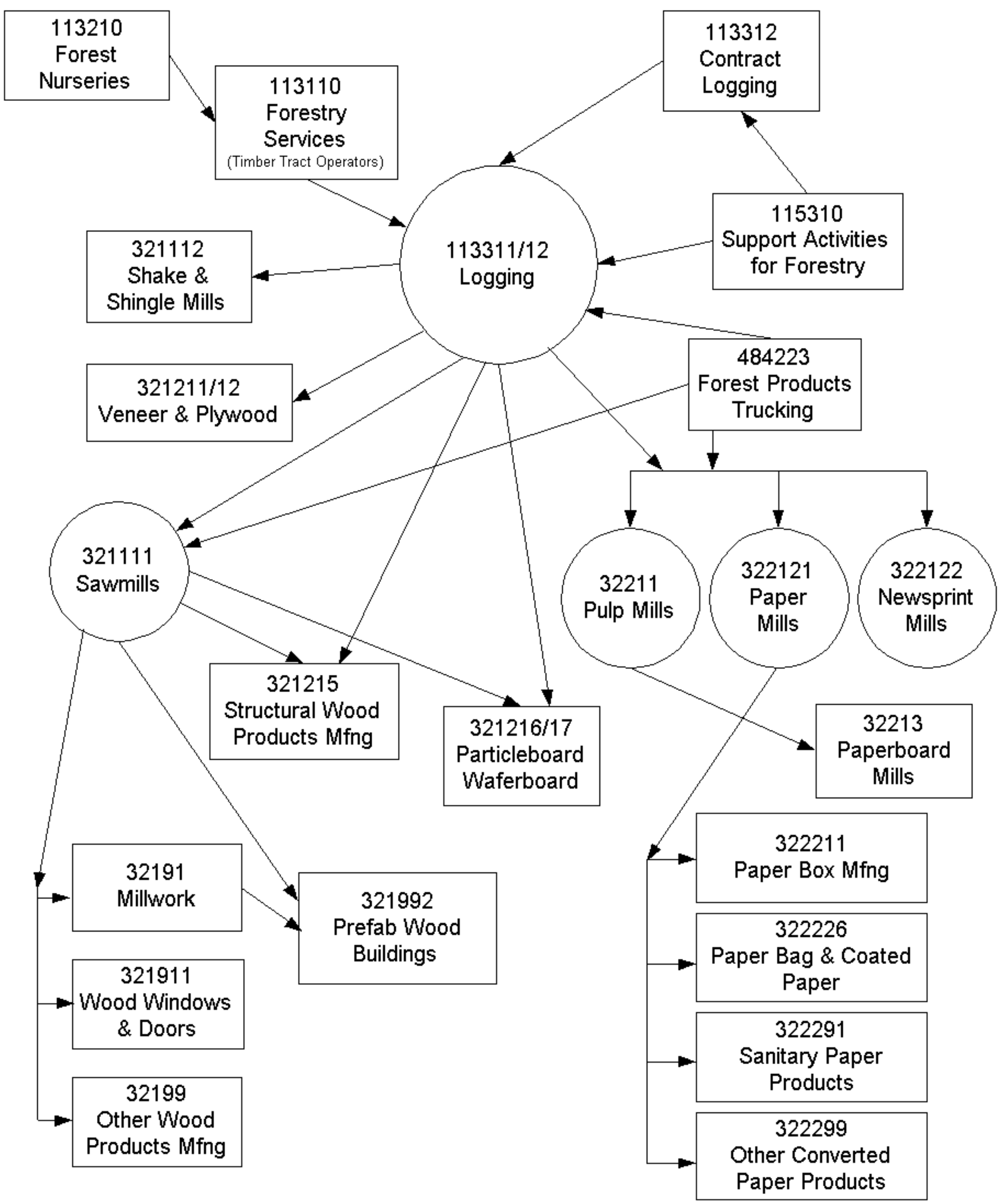


Figure 2.1 Export Oriented Industrial Clusters
in the Vancouver CMA 2001
Human Capital Based
5411/4 Professional Services
5415 Computer System Design
5416 Scientific, Technical Services
Culture & Information
511 Publishing Industries
5121 Motion Picture/Video
5133 Telecommunications
5141 Information Services
7111 Performing Arts
Management
551 Management Companies, Enterprises
561 Administrative & Support
54461 Management Consulting Companies
Transportation
4811/2 Air Transport
4831 Cruise Ships/Ferries
4871/2 Scenic/ Sightseeing Transport
Industrial Manufacturing
325 Chemical
326 Plastics
332 Fabricated Metal
333 Machinery
334 Computer Electronic
335 Electrical Products
Recreation & Tourism
71391 Golf Courses
71392 Skiing facalities
71393 Marinas
72111/3 Hotels/Resorts
721212/3 fishing Recreation Camps
Specialty Products
Consumer Products
313 Textile mills
315 Clothing industry
333 Furniture
Food & Beverage Products
1114 Greenhouses
11239 Other Poultry Products
11251 Aquaculture
31142 Fruit/Vegatable Products
31213 Wineries
Wood Products
321114 Wood Preservation
321213 Structural Wood Products
321911/2 Millwork
321992 Prefabricated Wood Buildings
Agriculture
Logging
Sawmills

Figure 2.2 Schematic Depiction of Inter-Industry Flows in the Forest Products Cluster 2001



The key industries in the clusters themselves are summarized in Table 2.6 for the '604' region and Table 2.7 for the '250'. Representation is limited in some cases due to the small 99-industry size in the 2001 data. These entries are expanded in the two Figures by the inclusion of the 530-industry small and medium-sized business series. Inclusion of the '604' clusters would not usually be made in a study concerned with Regional BC. Even so, cluster growth may prompt an outward expansion to other areas of the province as has occurred in the Okanagan and the Victoria CMA.

Table 2.6 Lead Growth Industries in Cluster Formation in the Vancouver CMA, by Employment and Establishments, 1993-2001

NAICS code	Industry	% Average Annual Change	
		Employment	Establishments
A. Human Capital / Knowledge-Based			
514	Information & data processing services	15.5	39.8
5415	Computer system design services	22.9	14.6
5416	Mgmt, Scientific and tech. services	5.5	6.2
5417	Other professional services	9.8	7.8
B. Culture and Information			
512	Motion picture and sound recording	20.9	12.6
513	Broadcasting and telecommunications	8.2	6.3
711	Performing arts, spectator sports	3.1	8.0
712	Heritage institutions	7.5	8.0
C. Industrial Manufacturing			
331	Primary metal	5.2	(5.3)
325	Chemical industries	5.2	(1.1)
326	Plastics and rubber industries	11.8	(2.8)
332	Fabricated metal products industries	8.9	0.8
333	Machinery industries	10.7	0.1
334	Computer and electronic products	5.2	(0.9)
335	Electrical equipment, appliances	14.2	(1.2)
386	Transportation equipment manufacturing	11.1	(1.4)
D. Recreation and Tourism			
487	Sceninc and Sightseeing Transportation	14.4	4.8
481	Air transportation	3.5	(0.3)
483	Water transportation	14.9	(2.6)
713	Amusement, gambling, recreation	8.4	(0.5)
721	Accommodation services	6.1	(0.3)
722	Food service and drinking places	6.2	1.7

Sources: BC Stats; Statistics Canada.

Table 2.7 Key Industries in Cluster Formation in Regional BC, by Employment and Establishments, 1993-2001

NAICS code	Industry	% Average Annual Change	
		Employment	Establishments
A. Forest Sector			
113	Forestry and logging	3.8	(2.1)
321	Wood products manufacturing	1.1	0.6
322	Paper manufacturing	(4.9)	(5.2)
325	Chemicals manufacturing	n/a	0.8
484	Truck transportation	0.8	2.0
482	Rail transportation	(6.8)	(16.7)
B. Human Capital / Knowledge-Based			
5415	Computer system design services	n/a	11.2
5416	Mgmt, Scientific and Tech. Serv.	9.9	12.8
514	Information & data processing Services	n/a	18.2
5417	Other professional services	11.3	9.4
511	Publishing industries	14.4	3.9
C. Recreation and Tourism			
487	Sceninc and Sightseeing Transportation	9.6	4.5
711	Performing arts, spectator sports	8.1	9.7
713	Amusement, gambling, recreation	8.9	3.3
721	Accommodation services	6.0	(1.3)
722	Food service and drinking places	2.9	(1.4)

Sources: BC Stats; Statistics Canada .

Extending the view to supportive industries, a curiousity in the knowledge-based cluster is a marked difference in the education input. Employment in university education rose in the 1993-2001 period at an annual rate of 3.3 per cent in the Vancouver CMA and 3.5 per cent in Regional BC. Post-secondary education, however, increased by 14.9 per cent a year in the CMA and by 8.2 per cent in Regional BC. A reasonable assumption might be that the post-secondary input has been instrumental in achieving the high growth rates in the knowledge-based cluster, at least to this point of time. Further advances may require a more emphatic university content.

No similar clusters have evolved in the '250' region, although some appear to be in an embryonic stage. The knowledge-based cluster has been impeded by the small presence (until recently) of computer system design services. There is scope for a recreation cluster of rapidly expanding industries (skiing facilities, golf courses, recreation camps, scenic/sightseeing transport). The region's cultural industries are still small in size but have generally higher growth rates. The major shortfall is in industrial products manufacturing. The industries that do exist tend to be small in establishment size; geared to local or regional industry supply; and over-matched by their equivalents in the wholesale trade. Even so, there are some evident bases to build on.

One of these is specialty agriculture, both crop and animal. As will be seen in the 530-industry series, there are nine agricultural industries (including greenhouse products) that could conceptually locate with appropriate technology and techniques to the ‘250’ region. Such a move may require sturdy and sustained economic development effort. As the patterns in agriculture in the two regions suggest, the effort may be warranted and productive.

One notable feature of the cluster patterns, especially in Table 2.6 for the Vancouver CMA but also in Table 2.7 for Regional BC, deserves attention. This outcome is a marked contrast between clusters in annual growth rates for employment and establishments. In the CMA, key industries in the first two clusters – human capital/ knowledge and culture/ information – exhibit explosive annual rates in both jobs and output sites. In Regional BC, although data are incomplete due to small industry size, a similar pattern holds.

Employment growth has also been strong in both the industrial manufacturing and the recreation/ tourism clusters. With few exceptions, however, the number of establishments in these job growth clusters actually declined. These are the same industries that expand by moving up the employee size range hierarchy, and would appear to add capacity where they have located.

For the ‘250’ region, two conclusions may be conjectured. One, the human capital-based industries, being skills-intensive with lower start-up capital costs, may be the easier to recruit. The risk is that, being mobile, their location may not be permanent. Two, the higher capital-cost industries especially in manufacturing may be more difficult initially to attract. Once established, however, they may well stay put, diversify their product range, and grow.

2.5 Emerging Candidates in Small Business

The search for industry candidates for location in the ‘250’ region now comes to its last hunting-ground, the 530-industry data base for small business firms with annual sales of $5 million or less. Limited in its 2001 release by Statscan to the 1994-99 period, presented by SIC code, and available only for the province as a whole, this data base cannot be integrated (until its conversion to NAICS in the next release) with results by industry for GDP, employment and establishments.

The series is nevertheless a remarkable resource. It offers year-to-year changes in sales revenue as well as a number of annual financial measures, of which pre-tax profit rates on revenues was selected for this study. The format was conceived by Statscan as a means by which businesses in a reported industry could compare their results vs. their industry norm. Yet the combination of sales growth figures, profit ratios, and industry detail make the data base a useful tool in the task at hand.

Table 2.8 Small and Medium-Sized Industries with Average Annual Sales Revenue Growth of 10 Per Cent or More, 1994-1999

SIC No.	Industry Description	Average Annual Sales Growth (%)	Average Annual Profits (%)
Agriculture			
0129	Other animal specialty farms	17.1	n/a
0141	Field crop combination farms	21.8	1.8
0162	Greenhouse products	18.3	3.2
0169	Other horticultural specialties	12.2	(4.4)
0229	Other agricultural crop services	12.6	1.5
Fishing			
0321	Services incidental to fishing	18.5	2.9
Mining, Oil and Gas			
0911	Oil and gas contract drilling	14.7	2.8
Food Manufacturing			
1049	Other dairy products	36.2	3.9
1053	Feed industry	15.8	(0.6)
1111	Soft drink industry	26.0	0.7
1131	Brewing products industry	13.6	(5.0)
Wood Product			
2591	Wood preservation industry	15.9	4.1
Other Manufacturing			
3063	Hand tool & implement industry	15.6	2.7
3099	Other metal fabricating industry	12.0	n/a
3111	Agricultural implement industry	27.4	4.8
Construction			
4255	Environmental control work	35.4	4.3
Transportation			
4511	Scheduled air transport industry	13.6	2.3
4512	Non-scheduled air, chartered	14.9	0.9
4523	Aircraft servicing industry	14.1	3.9
4542	Ferry industry	11.2	(0.4)
4549	Other water transport industry	11.0	2.3
Business Services			
7721	Computer services	17.0	5.4
Accomodation and Recreation			
9149	Other recreation & vacation camps	11.1	(0.6)
9653	Skiing facilities	19.2	4.1

Sources: BC Stats; Statistics Canada.

Sources: BC Stats; Statistics Canada.

In assessing results by industry in the data base, it is necessary to recall that sales changes are calculated in nominal or current, not constant, dollars. While price inflation was low during this period, industry performance in many cases is likely to be slightly over-stated in real terms. Even so, the relatively low profit margins in small business in BC suggest price caution rather than widespread increases.

Overall, even with some adjustment for possible inflation, small business in the province appears to have fared better in sales growth than many of their larger industry counterparts. Of the 530 industries in the compilation, well over one-half exceeded the BC annual average in GDP growth of 2.2 per cent. Fully 81 had average yearly sales growth of 10 per cent or more during the period. Of these, 38 or close to half were in manufacturing. In addition, industries in both agriculture and recreation are in this leading group. An initial selection by sector of 24 industry candidates that may be of relevance to the ‘250’ region is made in Table 2.8.

This list of industries by no means exhausts the range of possible location candidates for the ‘250’ region. Individual industry nuggets appear not only in the small business series, but in other data bases used in the study. A number of cases will be encountered in the next chapter.

Some of these industries may already be present but are capable of further development. Others may be attracted to the region because of conditions established by local or regional authorities, in partnership with industrial land developers, utilities, transport operators, and the like. Combinations of activities in wood products, specialty agriculture and food products, and recreation and culture may be facilitated in this way, leading to the formation of clusters. Revival of the resource sectors would also induce software, computer and information services firms.

These approaches have worked elsewhere, but have generally required a large institutional or public utility leader. Nor are any specific industry candidates, or groups of industries, formally proposed for particular attention in this study, although some may be used in illustration. The economic map of BC, and the elements that underlie it, is sufficiently diverse that every area is obliged to determine its own set of priorities. Still, these agencies of development and change might be aided by a region-wide framework or plan. In a highly provisional way, such a framework is attempted in the concluding chapter.

CHAPTER 3. A DEVELOPMENT OUTLINE FOR THE '250' REGION

The target set for the provincial economy by the BC Progress Board is to achieve first-rank status in Canada in a number of benchmarking measures by the year 2010. This objective comes after a decade in which BC declined in real terms in per capita GDP, productivity, capital stock, corporate profits, and personal disposable income. The goal also confronts 10 years of treatment of the provincial economy as a secondary issue. As a result, the province has tended (except in certain sectors like real estate) to slip off radar screens in business capitals and financial centres around the world.

Having slid down the ranking ladder of Canadian provinces, the requirement for BC to meet its 2010 targets is accelerated development. Over this decade, average annual growth in real GDP in Canada is projected to be 3.0 per cent (vs. BC's 1997-2001 average of 2.2%). For BC to regain and surpass the national level, real GDP in the '604' region must expand by about 4.5 per cent a year, and in the '250' region by at least 3.0 per cent annually (vs. the 1997-2001 rate of 1.4%). When the tide in Regional BC seems to be moving against the region, how is this to be done?

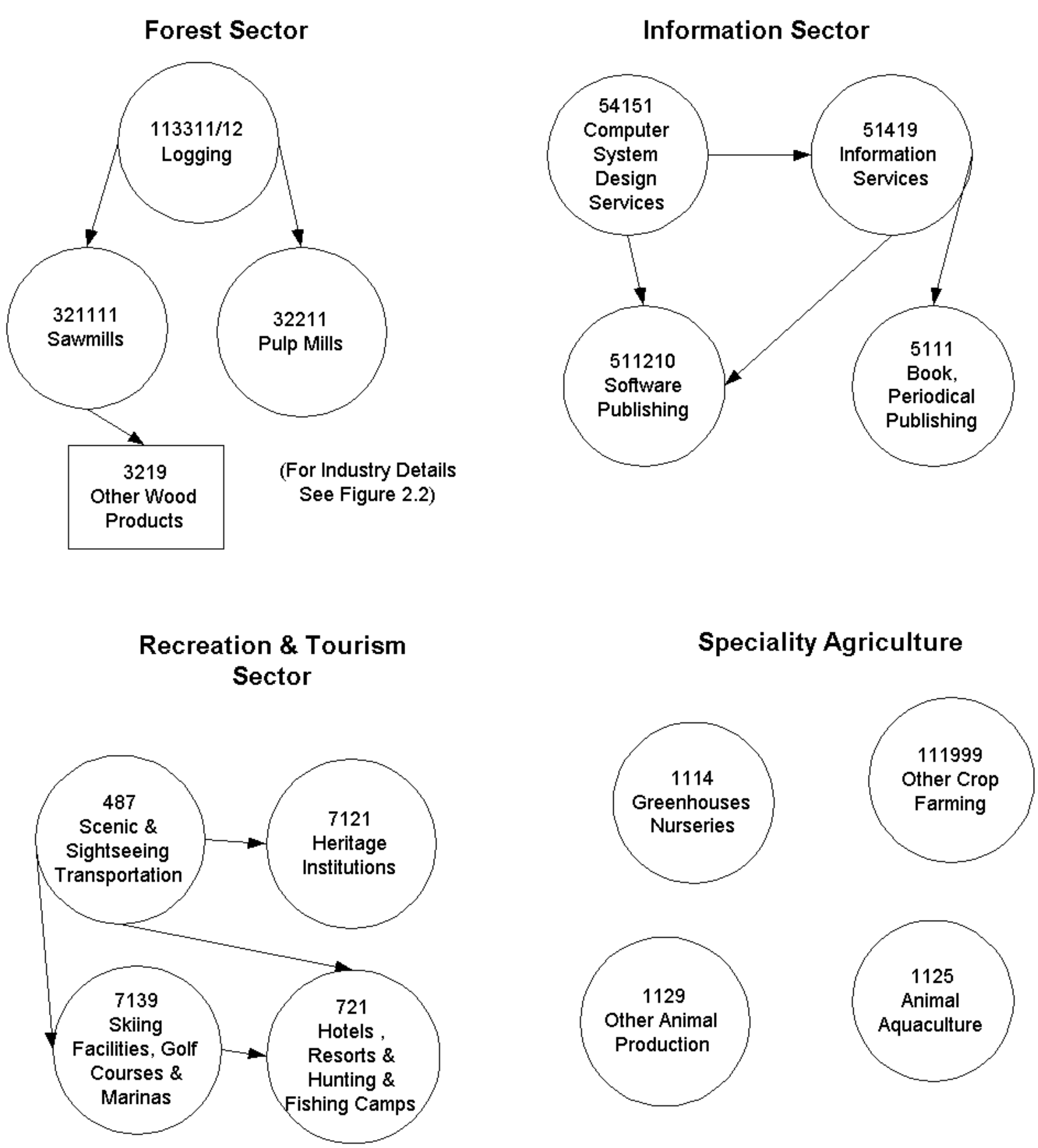
This question raises more issues than the initial stage of a search (as in this study) for possible candidates for development. Instead, a whole and in some cases integrated program of industry development will be needed. This program involves projects, expansion and business formation in a range of sectors. Along the way, however, concerns about tenure, property rights, and certainty as to the conditions for recovering capital investment without jeopardy to title, duration or commitments, will complicate the process. Many of these issues will require negotiations. Yet there has to be a place to start. Assuming all difficulties can be overcome, this starting-point can be what economic development might be feasible in the region.

In this respect, it should be noted that the '250' region cannot become a replica of the industry and cluster structure of its '604' counterpart. Recalling Figure 2.1 from the previous chapter, even with its high, sector level of depiction, the '604' clusters that have formed have done so during the 1993-2001 period. To the extent they are the product of innovation, technology and the markets they create, these industries are 'new'. They are also mainly metropolitan; and, in some cases, are resistant to migration to Regional BC. Yet, as shall be discerned, not all.

Like every other large non-metropolitan, more peripheral region, what Regional BC will have to work with for the most part is what it already possesses, or can make use of, or develop for export capacity. In the Foreword, it was argued that there has been no economic plan conceived for the province in general, or the region in particular, since the mid-1940s. This plan was largely implemented in the next three decades. Except for occasional projects or measures, however, forward progress essentially stopped. Now, what the region can undertake needs to be reassessed.

What this study has concluded is that five different types of economic activity in what would become an expanded export base in the '250' region are available for investigation and (if that stage is passed) implementation. Four of these are summarized in the highly simplified cluster diagrams in the four quadrants of Figure 3.1. In addition, there are individual industries that may also be capable of attraction, drawn from the list in Table 2.8. There is also a fifth category (not drawn) that would be conceived as kick-starting the process. This activity consists of major projects in various areas of the region.

Figure 3.1 Formative Industry Clusters in the '250' Region of British Columbia, 2001



The result is a five-pronged development program. In summary, such a program would have the following elements:

1. Major Projects

These would be large, capital undertakings in three potential categories: energy, mines and infrastructure. Energy includes hydroelectricity, oil and natural gas (in the North East and off the North Coast), and methane-based thermal production. Some mines are on the threshold of development, but may require negotiations even if the regulatory review process is reformed. Infrastructure includes strategic highways that would attract private capital, but also airports and other facilities. Any two or three of these projects would signal that development in the resource areas of BC has resumed.

As observed in the foreword, the time of the 2000s presents difficulties and complications for major projects that did not exist in the 1950s and 1970s. A further problem is timing. Agreements made in a period of low commodity prices may prove costly when conditions improve. Most large projects – a thermal plant, mine development, a circle highway route to Whistler – take time to engineer, build and complete. The first need, however, is for the province (or the regions if they have authority and financing acumen) to stake out a set of projects that would be attractive to investors and beneficial to BC.

2. Forest Sector

As outlined in Figure 2.2, the forest sector is unusually complex in its inter-industry relations. This integrated system is under threat, not just because of the 27 per cent U.S. duty on softwood lumber, but also as a result of an outmoded regulatory regime. A series of reforms has been the subject of a number of attempts at consensus and resolution, so far without effect. What may be required is a bolder approach.

Reforms already proposed include outcomes-based regulation, the elimination of controlled harvest levels, and the separation of timber from specific mills. Two other initiatives would appear warranted. One is the creation of a large auction market that sets prices on actual sales and not a ‘market-based’ formula. This volume, in the range of 50 per cent of each licensee’s annual harvest on a representative basis, can be enacted as a requirement without the necessity for any take-back of forest tenure. This proportion may be sufficient to satisfy the U.S. in the softwood lumber dispute.

The other measure would be the opportunity for licensees to buy Crown timber forward. While timberland would not be for sale, the standing timber would. The term of sales might be from six months supply to five or even 15 years, depending on the size and financial condition of the various company buyers. These approaches are suggestive only. Yet the combination would transform the industry; make it more competitive; improve the asset base of firms in the industry (through the timber privatization); open up raw material sources for specialized operators; and, when the timing for appropriate valuation occurs, create substantial financial proceeds for the province.

The direct beneficiary of any forest regime reforms will be the '250' region. At present, the prospect for the next year or two is the set of measures that has already begun. Fewer mills would operate, but individually produce more lumber in order to spread fixed expenses and some variable costs over a larger number of units. Undercuts of the harvest would likely occur but, while more timber might be available for margin-added and specialty producers, no tenures or equivalent opportunity would exist. Given a major overhaul so that profitability could be restored, while a measure of competition stimulated companies to improve, all segments of the '250' industry – Coast as well as Interior, from forestry services [NAICS 113110] to value-based wood products [NAICS 32199] - would be given opportunities to expand.

3. *Information Sector*

In the '250' region, the separate Human Capital/Knowledge-Based and the Information/ Culture clusters may need to merge in order to achieve sufficient scale. The reason is that many of their constituent industries are still small or embryonic in the region. As a prime case, computer system design services [NAICS 5415] has been the fastest-growing industry in BC at an annual rate of 21.7 per cent since 1993; has expanded to 35,000 employees (vs. 49,500 for all wood products manufacturing); and now interacts with a number of satellite industries. Yet, from Labour Force Survey data, this industry appears to have reached the minimum reporting level of 1,500 employees in Regional BC only during 2001.

Even so, there have been a number of growth industries in these clusters in the region. Information services and data processing [NAICS 5141/2] has expanded at an annual rate of 7.8 per cent; other professional services [NAICS 5417/8] at 7.8 per cent; and management, scientific and technical services [NAICS 5416] at 9.9 per cent, all since 1993. In culture and information, performing arts [NAICS 711] at 8.1 per cent and publishing industries [NAICS 511] at 14.4 per cent both exceeded the provincial annual average growth rate.

The impetus for this group of industries will come in part from technology and 'older' product or service displacement. It may also occur on the basis of independent location, as firms migrate to southern and central Vancouver Island and the Okanagan. The major stimulus, however, would emanate from new activity in major projects and resource sector development in the region. This expanded '250' market would create a larger domestic base, while leading to the innovation and scale necessary for export.

4. *Recreation and Tourism*

The tourism sector in BC is dominated by the Vancouver-Victoria-Whistler triangle. In a number of primarily recreation categories, the '250' matches or surpasses the '604' region performance in the 1993-2001 period. In particular, scenic and sightseeing transportation

[NAICS 487] with an average growth rate of 9.6 per cent and skiing facilities, golf courses and marinas [NAICS 7139] have expanded significantly. In addition, recreation and vacation camps, hunting and fishing lodges, and the like appear to have increased in size and number. Overall, the category of amusement, gambling and recreation industries [NAICS 713] has expanded slightly ahead (8.9% annually vs. 8.4%) of the provincial average rate, as did accommodation services (6.0% vs. 4.0%).

As this above listing suggests, scenic travel and outdoor recreation industries have not only been expanding, but may form the core of a recreation and tourism cluster for the region. In this respect, the key need may be access and transportation. A North Coast cruise ship dock will feed into adjacent areas. Yet improved air services and some short but strategic highway projects would open up a greater range of possibilities.

5. Specialty Agriculture

Earlier, in Chapter 2, the striking difference in the agriculture sector between the '604' and '250' regions was noted. In the Vancouver CMA, agriculture was the fifth-ranked sector in terms of 1993-2001 annual growth. In Regional BC, it came last with both crop and animal production experiencing declines. The extent of the expansion of greenhouse products [in NAICS 1114] has clearly been instrumental in the CMA's performance, in part due to technological adaptation of a high order. Even so, specialty crops [NAICS 11199] and 'other' animal production [NAICS 1129] have contributed to this growth.

The prospect of replication of this success in the '250' region has not been examined in this study. Aquaculture [NAICS 1129), now assigned to the livestock component of agriculture, is one distinct possibility, not just for coastal areas but also for the inland fishery. Greenhouse technology may be capable of refinement for expansion in the Okanagan and Kamloops area, as well as Vancouver Island. These possibilities would need to be examined. Yet what is indicated for the region is a need to diversify in the sector; and, in diversification efforts, it is generally more productive to seek higher- rather than lower-value production.

Even though the aggregate growth rates in GDP, employment and establishments in Regional BC have been sluggish, it will be evident from the above summary that expansion candidates do exist. They would all fare better were a coordinated development plan worked out, rather than be tackled piecemeal, since they provide inputs as well as sales outlets for each other. A search for location candidates and potential cluster formations, however, is the easy part. More difficult (as attempts at forest reform suggest) is implementation.

In this regard, British Columbia may have to do something different by way of a development approach. The problem is that Ministers are not by nature deal-makers, and bureaucrats are not entrepreneurs. In the task facing the '250' region, to raise its annual GDP growth rate to three per cent over the decade, both types of skills and attitudes are likely to be necessary. For its part in the process, government should not subsidize, nor in decisions regarding location candidates should it interfere. But it can undertake research as to possibilities. It can coordinate a program. And it can set up a highly competent, experienced, respected team or group to make the projects and the industries happen.

APPENDIX TABLES

Appendix Table 1: BC GDP by Industry ($millions, 1997 prices)				
NAICS code		2001	1997-2001 % change	Average Annual % change
3369	Other transportation equipment manufacturing	27	150.9	29.3
2131	Support activities for mining and oil and gas extraction	629	127.3	23.3
230D	Oil and gas engineering construction	758	83.0	19.8
3364	Aerospace product and parts manufacturing	139	88.2	17.7
316	Leather and allied product manufacturing	8	81.8	17.5
335A	Electrical equipment and component manufacturing	164	61.5	13.5
3341	Computer and peripheral equipment manufacturing	226	45.1	12.5
230F	Communication engineering construction	168	40.6	11.0
5100	Information and cultural industries	5,334	47.4	10.3
337	Furniture and related product manufacturing	247	31.2	7.6
325A	Miscellaneous chemical product manufacturing	181	33.3	7.5
2122	Metal ore mining	639	24.6	6.9
3122	Tobacco manufacturing	12	28.0	6.8
21	Mining and oil and gas extraction	3,407	28.8	6.8
5A05	Rental and leasing services and related	1,002	26.3	6.4
512	Motion picture and sound recording industries	281	27.2	6.4
2111	Oil and gas extraction	1,358	25.7	6.2
561	Administrative and support services	2,358	26.6	6.1
5600	Administrative and support, waste management and remediation services	2,529	25.7	5.9
3115	Dairy product manufacturing	133	20.9	5.9
339	Miscellaneous manufacturing	200	22.0	5.8
5241	Insurance carriers	1,383	23.2	5.4
3111	Animal food manufacturing	75	23.5	5.4
11A0	Crop and animal production	1,108	22.2	5.2
541	Professional, scientific and technical services	4,873	21.5	5.0
3352	Household appliance manufacturing	3	17.2	4.9
2213	Water, sewage and other systems	167	15.8	3.8
3253	Pesticide, fertilizer and other agricultural chemical manufacturing	41	12.3	3.8
113	Forestry and logging	3,618	13.6	3.7
493	Warehousing and storage	297	14.4	3.7
562	Waste management and remediation services	172	14.6	3.5
1100	Agriculture, forestry, fishing and hunting	5,421	13.4	3.4
911A	Federal government public administration (except defence)	1,684	11.6	2.8
44-45	Retail trade	6,759	11.6	2.8
5A01	Monetary authorities and depository credit intermediation	3,965	10.8	2.6
2212	Natural gas distribution	462	10.5	2.6
5A04	Owner-occupied dwellings	12,118	10.7	2.6
72	Accommodation and food services	3,975	10.6	2.6
8131	Religious organizations	359	9.9	2.4
5A00	Finance and insurance, real estate and related	25,909	9.7	2.3
6113	Universities	1,020	9.4	2.3
T001	**All industries**	**113,849**	**8.9**	**2.2**
115	Support activities for agriculture and forestry	524	7.8	2.1
3261	Plastic product manufacturing	273	7.3	2.1
41	Wholesale trade	5,291	7.2	1.8
315	Clothing manufacturing	136	4.4	1.7
81A0	Personal and laundry services and private households	942	6.8	1.7
813A	Grant-making, civic, and professional and similar organizations	839	6.2	1.6
62A0	Health care and social assistance (except hospitals)	4,731	6.1	1.5
6200	Health care and social assistance	7,659	6.0	1.5
more				

Appendix Table 1: BC GDP by Industry in millions of dollars, 1997 prices (continued)				
NAICS code	Industry	2001	1997-2001 % change	Average Annual % change
622	Hospitals	2,927	5.9	1.5
6100	Educational services	5,718	5.8	1.4
5A06	Other finance, insurance and real estate, and management of companies	2,919	5.0	1.3
31-33	Manufacturing	12,004	4.6	1.3
8100	Other services (except public administration)	2,956	5.1	1.3
611A	Educational services (except universities)	4,699	5.0	1.2
3221	Pulp, paper and paperboard mills	1,524	2.9	1.2
2121	Coal mining	697	3.9	1.1
31212	Breweries	156	2.4	0.9
91	Public administration	5,957	3.3	0.8
5A03	Lessors of real estate	4,523	2.9	0.7
71	Arts, entertainment and recreation	1,152	2.1	0.6
33A0	Primary metal and fabricated metal product manufacturing	1,217	1.8	0.6
912	Provincial and territorial public administration	2,011	2.0	0.5
913	Local, municipal and regional public administration	1,751	1.5	0.4
48-49	Transportation and warehousing	6,634	0.7	0.2
230H	Repair construction	1,379	0.6	0.2
486	Pipeline transportation	592	0.6	0.2
811	Repair and maintenance	817	0.3	0.1
484	Truck transportation	1,166	(0.8)	(0.1)
2200	Utilities	2,434	(1.4)	(0.2)
3116	Meat product manufacturing	246	(2.7)	(0.5)
321*	Wood product manufacturing	3,412	(3.9)	(0.8)
2211	Electric power generation, transmission and distribution	1,805	(5.3)	(1.2)
230B	Non-residential building construction	1,200	(8.3)	(1.5)
3362	Motor vehicle body and trailer manufacturing	91	(8.3)	(2.0)
9111	Defence services	512	(8.6)	(2.0)
323	Printing and related support activities	296	(9.4)	(2.0)
23	Construction	5,836	(9.3)	(2.3)
3254	Pharmaceutical and medicine manufacturing	20	(13.3)	(2.9)
3114	Fruit and vegetable preserving and specialty food manufacturing	104	(12.0)	(3.1)
114	Fishing, hunting and trapping	171	(14.8)	(3.5)
2123	Non-metallic mineral mining and quarrying	85	(19.6)	(5.2)
31211	Soft drink and ice manufacturing	46	(24.2)	(5.7)
230A	Residential construction	1,695	(24.1)	(6.3)
230E	Electric power engineering construction	146	(28.8)	(7.5)
230I	Other activities of the construction industry	32	(27.9)	(7.6)
3251	Basic chemical manufacturing	136	(32.0)	(9.1)
3117	Seafood product preparation and packaging	82	(48.7)	(14.8)

* BC Stats estimate

Sources: BC Stats, Statistics Canada.

Industries and Industry Groups not included in Appendix Table 1 due to Suppression by Statistics Canada	
324	Petroleum and coal products manufacturing
333	Machinery manufacturing
485	Transit and ground passenger transportation
513	Broadcasting and telecommunications
3113	Sugar and confectionery product manufacturing
3222	Converted paper product manufacturing
3252	Resin, synthetic rubber, and artificial and synthetic fibres and filaments manufacturing
3262	Rubber product manufacturing
3273	Cement and concrete product manufacturing
3361	Motor vehicle manufacturing
3363	Motor vehicle parts manufacturing
3365	Railroad rolling stock manufacturing
3366	Ship and boat building
31213	Wineries
31214	Distilleries
230C	Transportation engineering construction
230G	Other engineering construction
311A	Miscellaneous food manufacturing
31A0	Textile and textile product mills
327A	Miscellaneous non-metallic mineral product manufacturing
334A	Electronic product manufacturing
48A0	Air,rail,water,scenic and sightseeing, and support activities for transportation
49A0	Postal service and couriers and messengers
51A0	Publishing industries, information services and data processing services

Appendix Table 2a: Employment Data by Industry, British Columbia

NAICS	Industry	Employment, 2001	Employment, Percent of Total, 2001	Average Annual Growth, 1993-2001	Growth times Size	Rank for 1993-2001 Employment Growth (of 17)
111 - 112	Agriculture	25.9	1.3	(2.8)	(3.7)	17
113, 114, 1153, 21	Forestry, Fishing, Mining, Oil and Gas	43.3	2.2	0.3	0.6	13
22	Utilities	11.7	0.6	(0.4)	(0.3)	15
23	Construction	114.9	5.9	0.2	1.0	14
31 - 33	Manufacturing	196.2	10.1	1.2	12.0	9
41	Wholesale	68.5	3.5	1.6	5.5	8
44 - 45	Retail	240.9	12.4	1.7	21.3	7
48 - 49	Transportation and Warehousing	106.9	5.5	0.9	5.2	10
52 - 53	Finance, Insurance, Real Estate and Leasing	116.2	6.0	0.3	1.8	12
54	Professional, Scientific and Technical Serv.	141.0	7.3	4.8	34.9	3
55 & 56	Management, Administrative and Other Supp.	73.9	3.8	6.6	25.0	1
61	Educational Services	135.7	7.0	2.4	17.0	6
62	Health Care and Social Assistance	203.8	10.5	2.7	28.7	5
51 & 71	Information, culture and recreation	106.2	5.5	6.0	32.8	2
72	Accommodation and food services	170.6	8.8	4.4	38.4	4
81	Other services	97.8	5.0	0.8	4.1	11
91	Public administration	88.8	4.6	(1.6)	(7.2)	16
Sum / Average for all industries		1,942.3	100.0	1.9	n/a	n/a

Sources: BC Stats; Statistics Canada.

Appendix Table 2b: Employment Data by Industry, Vancouver

NAICS code	Industry	Employment, 2001	Employment, Percent of Total, 2001	Average Annual Growth, 1993-2001	Growth times Size	Rank for 1993-2001 Employment Growth (of 17)
111 - 112	Agriculture	6.6	0.6	3.4	2.1	5
113, 114, 1153, 21	Forestry, Fishing, Mining, Oil and Gas	6.3	0.6	(2.7)	(1.6)	17
22	Utilities	6.3	0.6	0.6	0.4	14
23	Construction	55.4	5.3	1.3	6.9	12
31 - 33	Manufacturing	106.1	10.1	2.8	27.9	8
41	Wholesale	45.3	4.3	0.8	3.7	13
44 - 45	Retail	124.9	11.9	2.4	28.7	9
48 - 49	Transportation and Warehousing	63.1	6.0	1.9	11.7	10
52 - 53	Finance, Insurance, Real Estate and Leasing	74.8	7.1	0.5	3.3	15
54	Professional, Scientific and Technical Serv.	97.0	9.2	4.9	45.0	4
55 & 56	Management, Administrative and Other Supp.	44.7	4.3	6.6	28.1	1
61	Educational Services	70.5	6.7	3.1	20.8	6
62	Health Care and Social Assistance	100.2	9.5	2.8	27.1	7
51 & 71	Information, culture and recreation	66.8	6.4	6.0	37.8	2
72	Accommodation and food services	88.7	8.4	5.3	44.9	3
81	Other services	52.8	5.0	1.3	6.7	11
91	Public administration	41.5	3.9	(0.8)	(3.2)	16
Sum / Average for all industries		1,051.0	100.0	1.9	n/a	n/a

Sources: BC Stats; Statistics Canada.

Appendix Table 2c: Employment Data by Industry, Victoria

NAICS code	Industry	Employment, 2001	Employment, Percent of Total, 2001	Average Annual Growth, 1993-2001	Growth times Size	Rank for 1993-2001 Employment Growth (of 17)
111 - 112	Agriculture	0.0	0.0	n/a	n/a	n/a
113, 114, 1153, 21	Forestry, Fishing, Mining, Oil and Gas	1.9	1.3	n/a	n/a	n/a
22	Utilities	0.0	0.0	n/a	n/a	n/a
23	Construction	8.0	5.4	(0.8)	(4.4)	11
31 - 33	Manufacturing	6.1	4.1	(1.1)	(4.6)	13
41	Wholesale	3.1	2.1	(0.4)	(0.7)	10
44 - 45	Retail	18.6	12.5	0.3	3.1	9
48 - 49	Transportation and Warehousing	5.4	3.6	2.0	7.1	8
52 - 53	Finance, Insurance, Real Estate and Leasing	7.2	4.8	2.7	12.9	6
54	Professional, Scientific and Technical Serv.	11.6	7.8	9.1	71.0	2
55 & 56	Management, Administrative and Other Supp.	6.6	4.4	4.9	21.7	3
61	Educational Services	12.3	8.3	3.4	27.7	5
62	Health Care and Social Assistance	18.8	12.6	(1.1)	(13.4)	12
51 & 71	Information, culture and recreation	8.5	5.7	9.4	53.9	1
72	Accommodation and food services	13.9	9.3	4.0	37.3	4
81	Other services	7.6	5.1	2.3	12.0	7
91	Public administration	17.3	11.6	(1.5)	(17.9)	14
Sum / Average for all industries		146.9	98.7	1.9	n/a	n/a

Sources: BC Stats; Statistics Canada.

Appendix Table 2d: Employment Data by Industry, Regional BC

NAICS	Industry	Employment, 2001	Employment, Percent of Total, 2001	Average Annual Growth, 1993-2001	Growth times Size	Rank for 1993-2001 Employment Growth (of 17)
111 - 112	Agriculture	18.4	2.5	(3.3)	(8.2)	17
113, 114, 1153, 21	Forestry, Fishing, Mining, Oil and Gas	35.1	4.7	1.7	8.1	7
22	Utilities	4.5	0.6	0.7	0.4	10
23	Construction	51.5	6.9	(0.2)	(1.7)	15
31 - 33	Manufacturing	84.0	11.3	(0.1)	(1.3)	14
41	Wholesale	20.2	2.7	4.3	11.6	3
44 - 45	Retail	97.4	13.1	1.5	20.3	9
48 - 49	Transportation and Warehousing	38.4	5.2	0.0	0.2	13
52 - 53	Finance, Insurance, Real Estate and Leasing	34.2	4.6	0.4	2.0	12
54	Professional, Scientific and Technical Serv.	32.5	4.4	4.1	18.1	4
55 & 56	Management, Administrative and Other Supp.	22.6	3.0	8.3	25.3	1
61	Educational Services	53.0	7.1	1.7	12.1	8
62	Health Care and Social Assistance	84.7	11.4	3.9	44.5	5
51 & 71	Information, culture and recreation	30.8	4.1	5.9	24.5	2
72	Accommodation and food services	68.0	9.2	3.5	32.1	6
81	Other services	37.4	5.0	0.7	3.3	11
91	Public administration	29.9	4.0	(0.9)	(3.8)	16
Sum / Average for all industries		742.6	100.0	1.9	n/a	n/a

Sources: BC Stats; Statistics Canada.

Appendix Table 2.2: Employment by industry, BC (000s)

NAICS Code	NAICS Industry	1993	2001	2001 % of total	Average Annual Growth, 1993-2001	2001 Quartile
5415	Computer System Design & Services	7.8	34.9	1.8	21.7	2
512	Motion Picture & Sound Recording Industries	3.4	9.9	0.5	18.3	4
5613	Employment services	2.3	5.1	0.3	16.4	4
5614	Business services	3.2	8.0	0.4	14.5	4
3361 - 3363	Parts Manufacturer	2.5	3.9	0.2	12.1	4
551	Management of Enterprises & Other Admin Services	3.2	4.2	0.2	11.6	4
487 & 488	Scenic & Sightseeing Trans & Support Activities	9.7	18.0	0.9	10.8	3
326	Plastics & Rubber prod Manufact	4.7	7.0	0.4	10.8	4
335	Electrical Equip, Appliance & Component Manuf	2.1	3.2	0.2	10.3	4
514	Information serv & Data Processing serv	4.6	8.8	0.5	10.0	4
523	Securities, Commodity Contr, & Other Interm & Rel	8.5	15.7	0.8	10.0	4
3364 - 3369	Other Transportation Equip. Manufacturer	4.5	6.5	0.3	9.9	4
6112	Post secondary	8.7	15.8	0.8	9.6	4
5615	Traveling services	5.5	9.0	0.5	9.4	4
5616	Security services	6.6	12.3	0.6	9.0	4
315 & 316	Clothing Manufact, Leather & Allied Manf.	6.4	9.6	0.5	8.6	4
713	Amusement, Gambling & Recreation Industries	15.6	27.3	1.4	8.3	3
333	Machinery Manufacturing	4.3	6.5	0.3	8.2	4
313 & 314**	Textile Mills & Prod Mills	2.3	3.0	0.2	8.0	4
6114 - 6117	Other schools & educational support	10.4	18.5	1.0	7.9	3
5417 & 5419	Other professional serv	4.8	8.2	0.4	7.6	4
712*	Heritage Institutions	0.0	3.8	0.2	7.5	4
325	Chemical Manufacturing	4.9	5.7	0.3	7.3	4
312	Beverage & Tobacco products	2.6	3.7	0.2	7.0	4
485	Transit & Ground Passenger Transportation	9.5	14.9	0.8	7.0	4
492	Couriers & Messengers	5.4	7.7	0.4	6.9	4
453	Miscellaneous Store Retailers	15.3	24.6	1.3	6.8	3
446	Health & Personal Care Stores	11.6	17.7	0.9	6.6	3
483	Water Transportation	5.7	6.7	0.3	6.3	4
213	Support Activities for Mining & Oil & Gas	2.7	3.7	0.2	6.0	4
562	Waste Management & Remediation serv	2.4	2.9	0.1	6.0	4
513	Broadcasting & Telecommunications	21.4	30.0	1.5	5.9	2
417	Machinery, Equip & Supp Wholesalers Distribr.	13.8	20.2	1.0	5.6	3
5617	Building services	21.7	32.5	1.7	5.5	2
5416	Management, Scientific & Tech Services	15.1	21.6	1.1	5.5	3
5412	Accounting & tax preparation	17.4	21.0	1.1	5.4	3
623	Nursing & Residential Care Facilities	23.5	33.4	1.7	5.1	2
812	Personal & Laundry serv	23.1	31.4	1.6	5.1	2
332	Fabricated Metal prod Manufact	9.2	13.2	0.7	5.0	4
334	Computer & Electronic prod Manufact	5.1	7.0	0.4	4.9	4
624	Social Assistance	34.2	46.3	2.4	4.8	2
722	Food serv & Drinking Places	86.1	124.2	6.4	4.8	1
415	Motor Vehicle & Parts Wholesaler-Distr	5.3	4.7	0.2	4.7	4
416	Building Material & Supplies Wholesaler-Distr	10.1	9.7	0.5	4.6	4
451	Sporting Goods, Hobby, Book & Music Stores	10.8	13.6	0.7	4.5	4
445	Food & Beverage Stores	45.4	62.9	3.2	4.4	1
511	Publishing Industries	9.6	12.4	0.6	4.2	4
721	Accommodation serv	35.3	46.4	2.4	4.0	2
418 & 419	Miscellaneous Wholesaler-Distributors & Brokers	10.9	11.9	0.6	3.8	4
443	Electronics & Appliance Stores	7.8	9.6	0.5	3.7	4
493	Warehousing & Storage	5.4	4.1	0.2	3.4	4
711	Performing Arts, Spectator Sports & Related Ind	11.8	13.9	0.7	3.4	4
339	Miscellaneous Manufacturing	10.3	8.9	0.5	3.0	4
311	Food Manufacturing	19.6	22.5	1.2	3.0	3
481	Air Transportation	12.8	15.1	0.8	2.9	4

Appendix Table 2.2: Employment by industry, BC (000s), continued

NAICS Code	NAICS Industry	1993	2001	2001 % of total	Average Annual Growth, 1993-2001	2001 Quartile
414	Personal & Household Goods Wholesaler-Distr	9.2	8.0	0.4	2.7	4
323	Printing & Related Support Activities	7.9	8.4	0.4	2.7	4
337	Furniture & Related prod Manufact	8.7	8.0	0.4	2.6	4
327	Non-Metallic Mineral prod Manufact	5.4	5.2	0.3	2.6	4
621	Ambulatory Health Care serv	41.4	48.5	2.5	2.4	2
532 & 533	Rental & Leasing serv & Owners & Lessors	10.4	11.5	0.6	2.4	4
5413 & 5414	Architectual, Engineering & Design services	27.9	32.4	1.7	2.2	2
524 & 526	Insurance Carriers & Related Activities & Other	21.6	24.3	1.3	2.2	3
331	Primary Metal	7.5	7.9	0.4	2.2	4
622	Hospitals	65.2	75.5	3.9	2.0	1
6113	University	17.3	19.2	1.0	1.9	3
441	Motor Vehicle & Parts Dealers	24.3	26.2	1.3	1.9	3
5418	Advertising & related serv	5.9	5.9	0.3	1.8	4
912	Provincial & Territorial Public Admin	29.5	32.2	1.7	1.8	2
113 & 1153	Forestry & Logging with support activities	25.8	26.1	1.3	1.7	3
442	Furniture & Home Furnishings Stores	8.4	8.0	0.4	1.3	4
814	Private Households	12.0	11.6	0.6	1.3	4
6111	Primary & secondary	76.2	82.2	4.2	1.2	1
212	Mining (except Oiland Gas) & Mix Mining	7.6	6.2	0.3	0.8	4
232	Trade Contracting	72.1	74.0	3.8	0.5	1
811	Repair & Maintenance	35.9	36.8	1.9	0.5	2
448	Clothing & Clothing Accessories Stores	20.0	20.2	1.0	0.4	3
321	Wood prod Manufacturing	49.2	49.5	2.5	0.3	1
521 & 522	Monetary Authorities: Central Bank & Credit Act.	38.3	37.8	1.9	0.1	2
114	Fishing, Hunting & Trapping	6.4	5.4	0.3	0.0	4
112	Animal prod	14.8	12.0	0.6	(0.1)	4
231	Prime Contracting	42.1	40.9	2.1	(0.1)	2
454	Non-Store Retailers	7.1	6.2	0.3	(0.1)	4
22	UTILITIES	12.3	11.7	0.6	(0.4)	4
5411	Legal services	18.3	17.1	0.9	(0.5)	3
484	Truck Transportation	28.6	26.0	1.3	(0.6)	3
911	Frederal Government Public Admin (Incl. Defence)	34.0	30.0	1.5	(1.2)	3
447	Gasoline Stations	13.0	11.2	0.6	(1.2)	4
452	General Merchandise Stores	30.5	27.1	1.4	(1.3)	3
444	Building Material & Garden Equip & Supplies	16.6	13.5	0.7	(1.5)	4
813	Religious, Grant-Making, Civic, & Profess Org	21.3	17.9	0.9	(1.7)	3
111	Crop prod	15.7	11.5	0.6	(2.4)	4
531	Real Estate	35.2	27.0	1.4	(2.8)	3
491	Postal Service	11.6	7.7	0.4	(3.9)	4
322	Paper Manufacturing	21.6	15.0	0.8	(4.0)	4
913 - 919	Local, Municipal & Regional Public Admin	37.7	26.5	1.4	(4.1)	3
482	Rail Transportation	11.5	6.4	0.3	(5.5)	4
413	Food, Beverage & Tobacco Wholesaler-Distr	11.7	11.4	0.6	n/a	4
211	Oil and Gas Extraction	1.9	1.8	0.1	n/a	4
324	Petroleum & Coal prods Manufact	0.0	1.5	0.1	n/a	4
111999 & 112991	Mix farming	3.3	0.0	0.0	n/a	n/a
1151 & 1152	Support Activities for Agriculture	0.0	0.0	0.0	n/a	n/a
411	Farm prod Wholesaler-Distributors	2.0	0.0	0.0	n/a	n/a
412	Petroleum prod Wholesaler-Distributors	0.0	0.0	0.0	n/a	n/a
486	Pipeline Transportation	0.0	0.0	0.0	n/a	n/a

Notes:
0.0 denotes suppressed data
* 1993-1994 growth is not available; ** 1996-1997 and 1997-1998 growth are not available
Sources: BC Stats; Statistics Canada

Appendix Table 2.3: Employment by industry, Vancouver (000s)

NAICS Code	NAICS Industry	1993	2001	2001 % of total	Average Annual Growth, 1993-2001	2001 Quartile
5415	Computer System Design & Services	5.8	27.9	2.7	22.9	1
512	Motion Picture & Sound Recording Industries	2.5	8.1	0.8	20.9	4
514	Information serv & Data Processing serv	2.7	6.0	0.6	15.5	4
331	Primary Metal	1.7	3.0	0.3	15.2	4
5614	Business services	2.2	5.5	0.5	14.9	4
483	Water Transportation	1.9	3.0	0.3	14.9	4
6112	Post secondary	4.3	9.3	0.9	14.9	3
487 & 488	Scenic & Sightseeing Trans & Support Activities	5.5	11.8	1.1	14.4	3
335	Electrical Equip, Appliance & Component Manuf	1.7	3.0	0.3	14.2	4
443	Electronics & Appliance Stores	4.0	6.4	0.6	12.6	4
5615	Traveling services	3.8	6.6	0.6	11.9	4
326	Plastics & Rubber prod Manufact	3.9	4.8	0.5	11.8	4
333	Machinery Manufacturing	2.5	4.9	0.5	10.7	4
442	Furniture & Home Furnishings Stores	3.4	5.9	0.6	10.5	4
523	Securities, Commodity Contr, & Other Interm & Rel	6.5	12.0	1.1	10.4	3
493	Warehousing & Storage	4.3	3.6	0.3	10.3	4
485	Transit & Ground Passenger Transportation	6.0	10.5	1.0	10.1	3
5417 & 5419	Other professional serv	2.1	3.6	0.3	9.8	4
315 & 316	Clothing Manufact, Leather & Allied Manf.	5.7	8.8	0.8	9.6	4
6114 - 6117	Other schools & educational support	6.3	12.2	1.2	9.6	3
814	Private Households	4.6	7.1	0.7	9.5	4
5616	Security services	4.4	8.2	0.8	9.3	4
453	Miscellaneous Store Retailers	7.0	13.3	1.3	9.3	3
446	Health & Personal Care Stores	5.6	9.9	0.9	9.0	3
492	Couriers & Messengers	3.5	4.9	0.5	8.8	4
624	Social Assistance	13.4	20.6	2.0	8.7	2
713	Amusement, Gambling & Recreation Industries	7.8	12.6	1.2	8.4	3
912	Provincial & Territorial Public Admin	8.0	10.7	1.0	8.3	3
513	Broadcasting & Telecommunications	14.6	23.3	2.2	8.2	1
623	Nursing & Residential Care Facilities	9.9	15.9	1.5	7.0	2
447	Gasoline Stations	5.4	5.3	0.5	7.0	4
332	Fabricated Metal prod Manufact	5.7	9.2	0.9	6.9	4
5412	Accounting & tax preparation	10.1	13.3	1.3	6.7	3
451	Sporting Goods, Hobby, Book & Music Stores	6.5	7.6	0.7	6.7	4
417	Machinery, Equip & Supp Wholesalers Distribr.	8.2	12.7	1.2	6.5	3
812	Personal & Laundry serv	13.0	18.7	1.8	6.4	2
722	Food serv & Drinking Places	43.0	68.0	6.5	6.2	1
721	Accommodation serv	16.1	20.7	2.0	6.1	2
445	Food & Beverage Stores	20.4	30.7	2.9	5.9	1
414	Personal & Household Goods Wholesaler-Distr	7.2	5.9	0.6	5.3	4
532 & 533	Rental & Leasing serv & Owners & Lessors	6.8	6.5	0.6	5.2	4
524 & 526	Insurance Carriers & Related Activities & Other	13.0	16.4	1.6	5.2	2
325	Chemical Manufacturing	3.8	4.3	0.4	5.2	4
311	Food Manufacturing	12.9	16.2	1.5	4.7	2
5617	Building services	11.6	15.8	1.5	4.7	2
418 & 419	Miscellaneous Wholesaler-Distributors & Brokers	8.2	8.6	0.8	4.4	4
322	Paper Manufacturing	3.8	3.9	0.4	4.3	4
454	Non-Store Retailers	2.3	2.3	0.2	4.0	4
5416	Management, Scientific & Tech Services	11.3	13.9	1.3	3.9	3
337	Furniture & Related prod Manufact	5.2	4.4	0.4	3.9	4
111	Crop prod	4.4	3.9	0.4	3.6	4
481	Air Transportation	10.0	12.0	1.1	3.5	3
6113	University	11.7	13.3	1.3	3.3	3
323	Printing & Related Support Activities	6.2	7.0	0.7	3.2	4
482	Rail Transportation	5.3	3.2	0.3	3.2	4

Appendix Table 2.3: Employment by industry, Vancouver (000s), continued

NAICS Code	NAICS Industry	1993	2001	2001 % of total	Average Annual Growth, 1993-2001	2001 Quartile
711	Performing Arts, Spectator Sports & Related Ind	8.6	9.2	0.9	3.1	4
339	Miscellaneous Manufacturing	7.8	6.1	0.6	2.8	4
416	Building Material & Supplies Wholesaler-Distr	7.5	6.7	0.6	2.7	4
334	Computer & Electronic prod Manufact	4.5	5.2	0.5	2.5	4
5413 & 5414	Architectual, Engineering & Design services	20.1	22.0	2.1	2.4	2
622	Hospitals	35.0	40.5	3.9	2.4	1
511	Publishing Industries	6.3	5.9	0.6	2.2	4
444	Building Material & Garden Equip & Supplies	8.0	7.2	0.7	1.8	4
232	Trade Contracting	34.2	37.5	3.6	1.7	1
811	Repair & Maintenance	17.5	17.7	1.7	1.5	2
231	Prime Contracting	18.0	17.9	1.7	1.5	2
413	Food, Beverage & Tobacco Wholesaler-Distr	8.2	7.9	0.8	1.5	4
621	Ambulatory Health Care serv	22.1	23.2	2.2	1.3	2
6111	Primary & secondary	33.6	35.7	3.4	1.1	1
441	Motor Vehicle & Parts Dealers	12.6	11.6	1.1	1.0	3
22	UTILITIES	6.8	6.3	0.6	0.6	4
911	Frederal Government Public Admin (Incl. Defence)	16.3	14.6	1.4	0.1	3
5418	Advertising & related serv	4.3	3.6	0.3	0.1	4
5411	Legal services	13.2	12.7	1.2	(0.1)	3
321	Wood prod Manufacturing	13.2	11.5	1.1	(0.8)	3
521 & 522	Monetary Authorities: Central Bank & Credit Act.	25.7	22.3	2.1	(0.9)	2
452	General Merchandise Stores	16.3	14.3	1.4	(1.2)	3
484	Truck Transportation	12.9	10.2	1.0	(1.2)	3
448	Clothing & Clothing Accessories Stores	12.8	10.5	1.0	(1.7)	3
531	Real Estate	21.0	17.6	1.7	(2.0)	2
813	Religious, Grant-Making, Civic, & Profess Org	13.4	9.3	0.9	(2.2)	3
913 - 919	Local, Municipal & Regional Public Admin	22.9	16.2	1.5	(3.0)	2
491	Postal Service	6.9	3.6	0.3	(4.1)	4
113 & 1153	Forestry & Logging with support activities	4.2	0.0	0.0	(14.4)	n/a
3364 - 3369	Other Transportation Equip. Manufacturer	2.3	4.3	0.4	n/a	4
5613	Employment services	1.8	3.7	0.4	n/a	4
551	Management of Enterprises & Other Admin Services	2.3	3.3	0.3	n/a	4
327	Non-Metallic Mineral prod Manufact	1.6	3.2	0.3	n/a	4
114	Fishing, Hunting & Trapping	3.0	2.7	0.3	n/a	4
313 & 314	Textile Mills & Prod Mills	2.0	2.6	0.2	n/a	4
415	Motor Vehicle & Parts Wholesaler-Distr	3.4	2.5	0.2	n/a	4
112	Animal prod	2.3	2.1	0.2	n/a	4
312	Beverage & Tobacco products	0.0	1.6	0.2	n/a	4
562	Waste Management & Remediation serv	1.6	1.6	0.2	n/a	4
712	Heritage Institutions	0.0	1.6	0.2	n/a	4
111999 & 112991	Mix farming	0.0	0.0	0.0	n/a	n/a
1151 & 1152	Support Activities for Agriculture	0.0	0.0	0.0	n/a	n/a
211	Oil and Gas Extraction	0.0	0.0	0.0	n/a	n/a
212	Mining (except Oiland Gas) & Mix Mining	0.0	0.0	0.0	n/a	n/a
213	Support Activities for Mining & Oil & Gas	0.0	0.0	0.0	n/a	n/a
324	Petroleum & Coal prods Manufact	0.0	0.0	0.0	n/a	n/a
3361 - 3363	Parts Manufacturer	0.0	0.0	0.0	n/a	n/a
411	Farm prod Wholesaler-Distributors	1.8	0.0	0.0	n/a	n/a
412	Petroleum prod Wholesaler-Distributors	0.0	0.0	0.0	n/a	n/a
486	Pipeline Transportation	0.0	0.0	0.0	n/a	n/a

Note: 0.0 denotes suppressed data
Sources: BC Stats; Statistics Canada

Appendix Table 2.4: Employment by industry, Victoria (000s)

NAICS Code	NAICS Industry	1993	2001	2001 % of total	Average Annual Growth, 1993-2001	2001 Quartile
812	Personal & Laundry serv	1.7	2.6	1.7	14.9	3
5413 & 5414	Architectual, Engineering & Design services	1.7	1.8	1.2	12.0	3
5617	Building services	2.2	3.3	2.2	8.7	2
722	Food serv & Drinking Places	6.1	11.2	7.5	8.6	1
521 & 522	Monetary Authorities: Central Bank & Credit Act.	2.0	2.5	1.7	8.3	3
621	Ambulatory Health Care serv	3.5	4.0	2.7	7.4	2
445	Food & Beverage Stores	4.9	5.9	4.0	4.4	2
6113	University	2.5	3.0	2.0	3.7	2
231	Prime Contracting	2.6	2.8	1.9	3.5	3
6111	Primary & secondary	5.4	6.2	4.2	2.4	1
811	Repair & Maintenance	2.8	2.5	1.7	0.4	3
912	Provincial & Territorial Public Admin	11.3	10.8	7.3	0.1	1
622	Hospitals	8.3	7.5	5.0	0.1	1
913 - 919	Local, Municipal & Regional Public Admin	3.1	2.0	1.3	(0.7)	3
624	Social Assistance	5.1	4.2	2.8	(0.7)	2
232	Trade Contracting	6.2	5.2	3.5	(1.6)	2
452	General Merchandise Stores	2.6	2.1	1.4	(1.8)	3
623	Nursing & Residential Care Facilities	4.3	3.2	2.1	(2.4)	2
911	Frederal Government Public Admin (Incl. Defence)	5.8	4.4	3.0	(2.9)	2
721	Accommodation serv	4.2	2.8	1.9	(4.0)	3
5415	Computer System Design & Services	1.5	3.9	2.6	n/a	2
5416	Management, Scientific & Tech Services	0.0	2.0	1.3	n/a	3
713	Amusement, Gambling & Recreation Industries	0.0	2.0	1.3	n/a	3
813	Religious, Grant-Making, Civic, & Profess Org	1.9	1.9	1.3	n/a	3
711	Performing Arts, Spectator Sports & Related Ind	0.0	1.8	1.2	n/a	3
453	Miscellaneous Store Retailers	1.9	1.7	1.1	n/a	3
6114 - 6117	Other schools & educational support	0.0	1.7	1.1	n/a	3
446	Health & Personal Care Stores	1.5	1.6	1.1	n/a	3
448	Clothing & Clothing Accessories Stores	0.0	1.6	1.1	n/a	3
451	Sporting Goods, Hobby, Book & Music Stores	0.0	1.6	1.1	n/a	3
5412	Accounting & tax preparation	0.0	1.6	1.1	n/a	3
524 & 526	Insurance Carriers & Related Activities & Other	1.6	1.5	1.0	n/a	3
111	Crop prod	0.0	0.0	0.0	n/a	3

Note: 0.0 denotes suppressed data

Sources: BC Stats; Statistics Canada

Appendix Table 2.5: Employment by industry, Regional BC (000s)

NAICS Code	NAICS Industry	1993	2001	2001 % of total	Average Annual Growth, 1993-2001	2001 Quartile
413	Food, Beverage & Tobacco Wholesaler-Distr	2.6	2.5	0.3	14.8	4
511	Publishing Industries	2.3	5.0	0.7	14.4	4
532 & 533	Rental & Leasing serv & Owners & Lessors	2.9	4.2	0.6	13.3	4
5417 & 5419	Other professional serv	2.3	4.0	0.5	11.3	4
5416	Management, Scientific & Tech Services	2.9	5.7	0.8	10.2	4
416	Building Material & Supplies Wholesaler-Distr	2.2	2.5	0.3	10.0	4
487 & 488	Scenic & Sightseeing Trans & Support Activities	3.8	5.8	0.8	9.6	4
713	Amusement, Gambling & Recreation Industries	6.7	12.6	1.7	8.9	3
418 & 419	Miscellaneous Wholesaler-Distributors & Brokers	2.3	3.1	0.4	8.4	4
6112	Post secondary	3.4	5.1	0.7	8.2	4
711	Performing Arts, Spectator Sports & Related Ind	2.2	2.9	0.4	8.1	4
623	Nursing & Residential Care Facilities	9.3	14.4	1.9	8.0	2
453	Miscellaneous Store Retailers	6.4	9.7	1.3	7.8	3
451	Sporting Goods, Hobby, Book & Music Stores	3.1	4.4	0.6	7.8	4
5617	Building services	7.9	13.4	1.8	7.5	3
485	Transit & Ground Passenger Transportation	2.5	3.5	0.5	7.4	4
417	Machinery, Equip & Supp Wholesalers Distribr.	4.6	6.7	0.9	6.8	3
721	Accommodation serv	15.0	22.9	3.1	6.0	2
337	Furniture & Related prod Manufact	3.2	3.0	0.4	5.9	4
6114 - 6117	Other schools & educational support	3.3	4.6	0.6	5.6	4
446	Health & Personal Care Stores	4.5	6.2	0.8	5.4	4
5413 & 5414	Architectual, Engineering & Design services	6.1	8.6	1.2	4.6	3
483	Water Transportation	2.5	2.4	0.3	4.2	4
624	Social Assistance	15.8	21.6	2.9	4.2	2
621	Ambulatory Health Care serv	15.8	21.3	2.9	4.0	2
441	Motor Vehicle & Parts Dealers	10.8	13.3	1.8	4.0	3
445	Food & Beverage Stores	20.0	26.4	3.6	3.9	2
812	Personal & Laundry serv	8.5	10.1	1.4	3.9	3
113 & 1153	Forestry & Logging with support activities	20.8	23.9	3.2	3.8	2
448	Clothing & Clothing Accessories Stores	6.3	8.1	1.1	3.6	3
6113	University	3.1	3.0	0.4	3.5	4
521 & 522	Monetary Authorities: Central Bank & Credit Act.	10.5	12.9	1.7	3.4	3
622	Hospitals	21.9	27.5	3.7	3.3	1
722	Food serv & Drinking Places	37.0	45.1	6.1	2.9	1
332	Fabricated Metal prod Manufact	3.1	3.4	0.5	2.8	4
813	Religious, Grant-Making, Civic, & Profess Org	6.0	6.8	0.9	2.8	3
481	Air Transportation	2.4	2.5	0.3	2.8	4
5412	Accounting & tax preparation	6.3	6.0	0.8	2.6	4
491	Postal Service	3.8	3.2	0.4	2.4	4
912	Provincial & Territorial Public Admin	10.3	10.7	1.4	1.6	3
6111	Primary & secondary	37.2	40.3	5.4	1.4	1
811	Repair & Maintenance	15.6	16.6	2.2	1.3	2
443	Electronics & Appliance Stores	2.8	2.5	0.3	1.2	4
321	Wood prod Manufacturing	35.0	37.6	5.1	1.1	1
212	Mining (except Oiland Gas) & Mix Mining	6.5	5.0	0.7	1.0	4
513	Broadcasting & Telecommunications	5.6	5.6	0.8	1.0	4
484	Truck Transportation	15.1	15.2	2.0	0.8	2
911	Frederal Government Public Admin (Incl. Defence)	11.9	11.0	1.5	0.8	3
22	UTILITIES	5.5	4.5	0.6	0.7	4
452	General Merchandise Stores	11.6	10.7	1.4	0.6	3
524 & 526	Insurance Carriers & Related Activities & Other	7.0	6.4	0.9	0.3	3
311	Food Manufacturing	6.1	5.5	0.7	0.3	4
232	Trade Contracting	31.7	31.3	4.2	0.1	1
112	Animal prod	12.4	9.8	1.3	0.1	3
5411	Legal services	4.1	3.3	0.4	0.0	4

Appendix Table 2.5: Employment by industry, Regional BC (000s), continued

NAICS Code	NAICS Industry	1993	2001	2001 % of total	Average Annual Growth, 1993-2001	2001 Quartile
231	Prime Contracting	21.5	20.2	2.7	(0.3)	2
447	Gasoline Stations	6.3	5.3	0.7	(0.8)	4
454	Non-Store Retailers	4.1	3.5	0.5	(1.0)	4
331	Primary Metal	5.7	4.9	0.7	(1.3)	4
114	Fishing, Hunting & Trapping	2.6	1.9	0.3	(1.9)	4
913 - 919	Local, Municipal & Regional Public Admin	11.7	8.3	1.1	(2.6)	3
444	Building Material & Garden Equip & Supplies	7.4	5.7	0.8	(2.7)	4
111	Crop prod	9.9	6.9	0.9	(2.7)	3
531	Real Estate	11.7	8.3	1.1	(2.7)	3
814	Private Households	6.5	3.9	0.5	(4.1)	4
322	Paper Manufacturing	17.6	11.0	1.5	(4.9)	3
442	Furniture & Home Furnishings Stores	4.1	1.5	0.2	(5.0)	4
482	Rail Transportation	6.1	3.2	0.4	(6.8)	4
5415	Computer System Design & Services	0.0	3.1	0.4	n/a	4
213	Support Activities for Mining & Oil & Gas	2.0	2.7	0.4	n/a	4
5616	Security services	0.0	2.7	0.4	n/a	4
3361 - 3363	Parts Manufacturer	0.0	2.6	0.4	n/a	4
523	Securities, Commodity Contr, & Other Interm & Rel	1.6	2.5	0.3	n/a	4
492	Couriers & Messengers	1.6	2.2	0.3	n/a	4
339	Miscellaneous Manufacturing	0.0	2.1	0.3	n/a	4
312	Beverage & Tobacco products	0.0	2.0	0.3	n/a	4
327	Non-Metallic Mineral prod Manufact	3.2	2.0	0.3	n/a	4
414	Personal & Household Goods Wholesaler-Distr	1.7	2.0	0.3	n/a	4
415	Motor Vehicle & Parts Wholesaler-Distr	1.7	1.9	0.3	n/a	4
5418	Advertising & related serv	0.0	1.8	0.2	n/a	4
5614	Business services	0.0	1.8	0.2	n/a	4
5615	Traveling services	0.0	1.8	0.2	n/a	4
514	Information serv & Data Processing serv	1.9	1.8	0.2	n/a	4
326	Plastics & Rubber prod Manufact	0.0	1.7	0.2	n/a	4
211	Oil and Gas Extraction	0.0	1.5	0.2	n/a	4
512	Motion Picture & Sound Recording Industries	0.0	1.5	0.2	n/a	4
111999 & 112991	Mix farming	3.1	0.0	0.0	n/a	n/a
1151 & 1152	Support Activities for Agriculture	0.0	0.0	0.0	n/a	n/a
313 & 314	Textile Mills & Prod Mills	0.0	0.0	0.0	n/a	n/a
315 & 316	Clothing Manufact, Leather & Allied Manf.	0.0	0.0	0.0	n/a	n/a
323	Printing & Related Support Activities	1.5	0.0	0.0	n/a	n/a
324	Petroleum & Coal prods Manufact	0.0	0.0	0.0	n/a	n/a
325	Chemical Manufacturing	0.0	0.0	0.0	n/a	n/a
333	Machinery Manufacturing	0.0	0.0	0.0	n/a	n/a
334	Computer & Electronic prod Manufact	0.0	0.0	0.0	n/a	n/a
335	Electrical Equip, Appliance & Component Manuf	0.0	0.0	0.0	n/a	n/a
3364 - 3369	Other Transportation Equip. Manufacturer	1.5	0.0	0.0	n/a	n/a
411	Farm prod Wholesaler-Distributors	0.0	0.0	0.0	n/a	n/a
412	Petroleum prod Wholesaler-Distributors	0.0	0.0	0.0	n/a	n/a
486	Pipeline Transportation	0.0	0.0	0.0	n/a	n/a
493	Warehousing & Storage	0.0	0.0	0.0	n/a	n/a
5613	Employment services	0.0	0.0	0.0	n/a	n/a
551	Management of Enterprises & Other Admin Services	0.0	0.0	0.0	n/a	n/a
562	Waste Management & Remediation serv	0.0	0.0	0.0	n/a	n/a
712	Heritage Institutions	0.0	0.0	0.0	n/a	n/a

Note: 0.0 denotes suppressed data
Sources: BC Stats; Statistics Canada