



# PROFESSIONAL, SCIENTIFIC AND TECHNICAL SERVICES

## Economy - Sectors

Step 1: Understanding Yesterday and Today

### Metropolitan Core Jobs & Economy Land Use Plan

#### Highlights

- 17% of Metro Core employment is in this sector - the largest sector in the Core.
- Over 25% of these jobs are in legal services and over 20% in computer systems.
- The Metro Core has 80% of the city's jobs in this sector and 41% of the region's. This is a much higher than average share. In particular, there is a high share of legal services jobs.
- 53% of the Metro Core employees in this sector live in Vancouver.
- The Central Business District has a larger number of these employees than any other Metro Core sub-area. However, Triangle West has the largest percent of its jobs in this sector.



#### What is included in this sector?

The professional, scientific and technical services sector is comprised of establishments that sell the knowledge, skills and expertise of their employees (*Statistics Canada*). Jobs in this sector include:

- Lawyers
- Computer Systems Designers
- Accountants
- Architects and Engineers
- Specialized design (e.g., interior design)

A number of these activities relate to high tech and arts. See info sheet on [High Tech/Creative Activities](#)

#### JOBS

#### How many people are employed in this sector?

In 2001, over 33,000 people were employed in this sector in the Metro Core. This is 17% of all Metro Core employees, the largest percentage of all Metro Core sectors. The largest employers in this sector in the Metro Core are: legal services, computer systems design, architectural, engineering and accounting (Table 1).

Table 1: Jobs by type

Sub-sectors	Metro Core	
Legal services	8,195	25%
Computer systems design and related services (e.g. custom computer programming)	6,800	21%
Architectural, engineering and related services	4,930	15%
Accounting, tax preparation, and bookkeeping services	4,495	14%
Management, scientific and technical consulting services (e.g. economic consultants)	3,345	10%
Advertising and related services	1,600	5%
Other professional, scientific and technical services	1,490	5%
Specialized design services	1,470	4%
Scientific research and development services (e.g. Biotech)	755	2%
Total professional, scientific and technical services	33,105	100%

*Statistics Canada 2001 Census: Jobs by NAICS (4 digit), 2001.xls. See Note 1.*

## How does this compare to the rest of the city and the region?

### (a) Percent of total jobs

This sector accounts for approximately 17% of all jobs in the Metro Core. This is substantially higher than the rest of the city and region where this sector accounts for approximately 7% of all employment (Table 2).

	Metro Core	Rest of city	Rest of region
Total jobs	199,955	112,700	589,115
Number of people working in professional, scientific and technical services	33,105	8,260	40,105
% of total jobs	17%	7%	7%

Statistics Canada 2001 Census. Jobs by NAICS (2 digit), 2001.xls

### (b) Share of professional, scientific and technical services jobs

The Metro Core has a higher than average share of city and regional jobs in this sector:

- 80% of city jobs in this sector are in the Metro Core (vs. 64% of all city jobs)
- 41% of all regional jobs in this sector are in the Metro Core (vs. 22% of all regional jobs)

This high share applies generally to all sub-sectors, except scientific research and development services (Table 3).



A Professional at Work in Yaletown

Table 3: Share of city and regional jobs

	Metro Core's share of city	City total	Metro Core's share of region	Region total
Legal services	93%*	8,845	67%*	12,290
Accounting services	82%*	5,470	43%*	10,520
Computer systems design and related services (e.g. custom computer programming)	82%*	8,325	37%*	18,325
Advertising and related services	78%*	2,045	41%*	3,910
Architectural, engineering and related services	76%*	6,460	35%*	14,010
Specialized design services (e.g. interior design)	71%*	2,080	36%*	4,045
Management, scientific and technical consulting services (e.g. economic consultants)	71%*	4,735	35%*	9,675
Other professional, scientific and technical services (e.g. public opinion polling)	67%*	2,225	31%*	4,775
Scientific research and development services (e.g. Biotech)	64%	1,175	19%	3,925
Total professional, scientific and technical services	80%	41,370	41%	81,480
All Sectors Total	64%	312,660	22%	901,775

Statistics Canada 2001 Census: Jobs by NAICS (4 digit), 2001.xls. Note: \* indicates share is greater than 64% of city jobs or 22% of regional jobs.

## How has this employment changed over time?

The analysis of economic sectors over time is limited due to changes to the industrial classification methods used by Statistics Canada over the past 25 years. In 1981, the majority of the jobs within the professional, scientific and technical services sector were classified in the “business service industries” sector. From 1981 to 2001, business service jobs in the Metro Core increased by 93%, compared to a 14% increase for all jobs (Table 4).

	1981	2001	% change
Total jobs	193,846	221,246	14%
Business service industries jobs	22,478	43,372	93%

*Statistics Canada 1981& 2001 Census: Jobs by SIC, 1981 to 2001.xls. See Note 2.*

## Who is working in this sector and what do they do?

Women occupy 46% of the positions in this sector in the Metro Core. This is slightly higher than the rest of the city and region where women occupy 43% of the positions in this sector. Overall, women occupy 50% of all jobs in the region.

Fulltime workers hold 90% of the jobs in this sector in the Metro Core. This is higher than the rest of the city and region where 73% and 78% of workers are employed full time, respectively. Overall, 77% of all jobs in the region provide full time work (*Statistics Canada 2001 Census: Jobs by NAICS (2-digit and 4-digit) by work activity by sex.xls*).

Not surprisingly, nearly two thirds of Metro Core employees in this sector work in administrative and scientific professions (Table 5).

Business, finance and administrative occupations	11,145	34%
Natural and applied sciences and related occupations	9,290	28%
Occupations in social science, education, government service and religion	5,680	17%
Management occupations	3,530	11%
Occupations in art, culture, recreation and sport	2,230	7%
Sales and service occupations	640	2%
Total	33,105	100%

*Statistics Canada 2001 Census: Jobs by NAICS by Occupation, 2001.xls.*

## Where do employees in this sector live?

Approximately 53% of Metro Core employees in this sector reside in the City of Vancouver. This is the same proportion as that across all Metro Core sectors (Table 6).

Vancouver *	17,540	53%
North Shore	4,740	14%
Burnaby/New West	3,500	11%
South of Fraser	2,500	8%
NE Sector	1,840	6%
Richmond	1,520	5%
Total	32,395	100%

*Statistics Canada 2001 Census: Jobs by NAICS by POR, Metro Core, 2001.xls. . Note: \* includes people who work at home in this sector in the Metro Core.*

## BUSINESSES

### How many businesses are in this sector and what size are they?

There are nearly 5,700 business establishments in this sector in the Metro Core. This is 20% of all business establishments in the Metro Core (vs. 17% of all jobs).

Statistics Canada lists many businesses as indeterminate in size (47% in this sector - see Note 3). Of those for which size is known:

- 95% have less than 50 employees
- 52 have over 100 employees (Table 7).

## How do these businesses compare to the rest of the city and the region?

The Metro Core has a smaller proportion of businesses with less than 5 employees and a higher proportion of businesses with over 50 employees than the rest of the city and region (Table 7).

# of employees	Metro Core		Rest of city		Rest of region	
1-4	1,737	58%	1,255	73%	4,444	72%
5-19	845	28%	337	20%	1,251	20%
20-49	276	9%	72	4%	297	5%
50-99	104	3%	29	2%	85	1%
100-499	47	2%	16	1%	64	1%
500+	5	0%	1	0%	3	0%
Total	3,014	100%	1,710	100%	6,144	100%

Statistics Canada: *Businesses by NAICS (2-digit) by Size, 2001.xls*.

## SPACE AND LOCATION

### How many people work from home in this sector?

Of those people employed by the Metro Core professional, scientific and technical services sector, only 7% work from home (Table 8).

	Metro Core	City	GVRD
Total	33,105	44,165	81,470
Work at home	2,180	6,170	18,230
%	7%	14%	22%
% across all sectors	3%	7%	9%

Statistics Canada: *Jobs by NAICS (2 digit), 2001.xls*.  
Note: Figures above do not include employees with no fixed place of work.

## Where in the Metro Core is this sector located?

Approximately 83% of Metro Core jobs in this sector are located in the Downtown Peninsula.

The largest numbers of jobs in this sector by employment area are:

- Central Business District: 18,000 jobs
- Downtown South: 2,800 jobs
- Broadway West: 1,400 jobs (see Figure 1 on 2<sup>nd</sup> last page).

Overall, 17% of Metro Core jobs are in this sector. Sub-areas where this sector comprises significantly more than 17% are:

- Triangle West (32%)
- False Creek North/Yaletown (17%)
- Burrard Slopes North (24%)
- Central Business District (24%) (See Table 9 on 2<sup>nd</sup> last page).

## What types of space does this sector occupy?

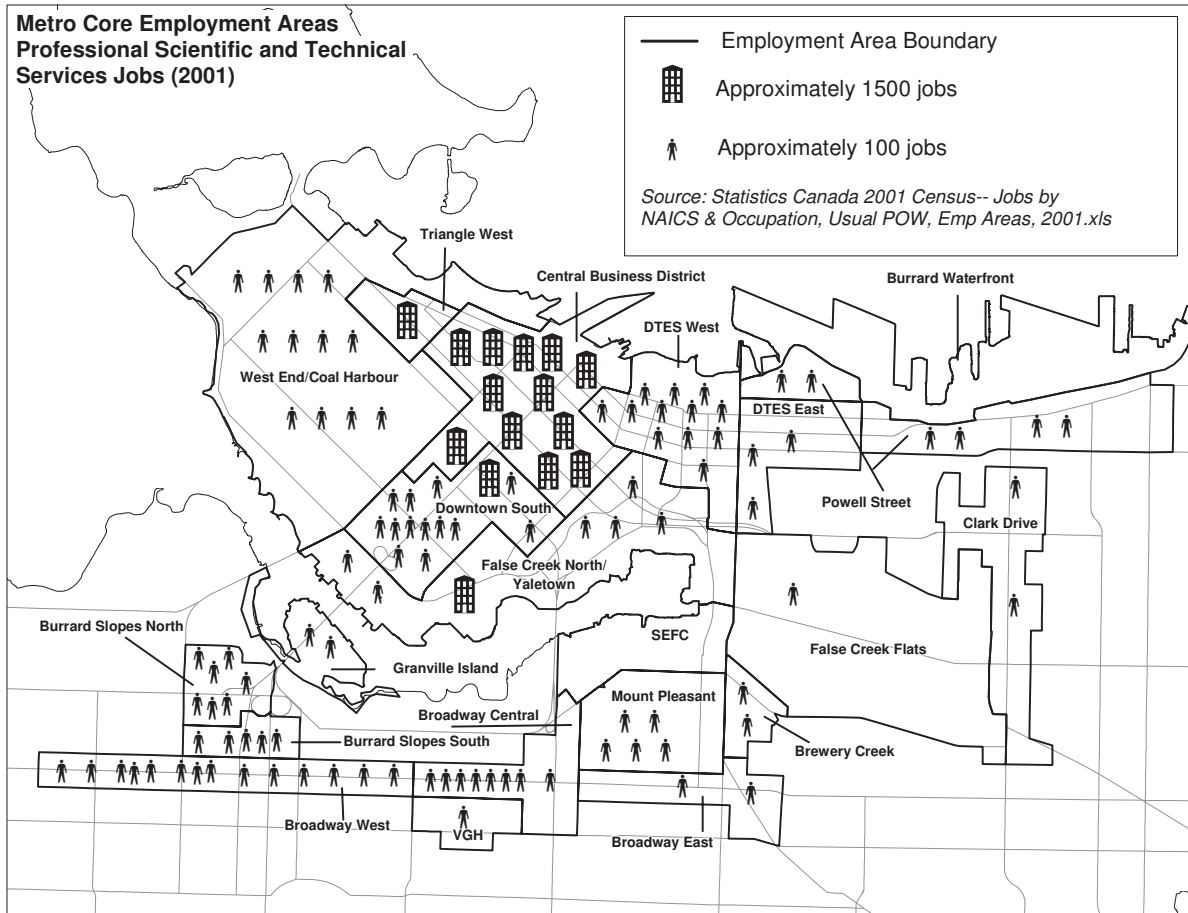
Observation suggests that most Metro Core businesses in this sector occupy office spaces. According to analysts, “over the last 12 months, approximately 1.5 million square feet of ‘AAA’ and ‘A’ class space was absorbed throughout Greater Vancouver with 50% of the activity taking place in Downtown Vancouver alone.” (CB Richard Ellis. 2005. *Market View: Greater Vancouver Office Market*. Vancouver: CB Richard Ellis).

## WHAT ELSE DO WE KNOW ABOUT THE ECONOMIC ROLE OF THIS SECTOR?

In the City of Vancouver, advanced technology businesses with over 50 employees are growing at a much higher rate than those with a staff of less than 50. Between 1999 and 2001, the number of advanced technology businesses with over 50 employees grew by 19% while the number of advanced technology businesses with less than 50 employees grew by just 4% (VEDC. 2002. *Vancouver’s Key Private Sector Industries for Clustering*. Vancouver: VEDC).

This sector typically generates 4% of British Columbia’s Gross Domestic Product and accounts for 7% of employees in BC. This is significantly lower than the Metro Core where nearly 17% of all employees work in this sector (BC Stats-- BC GDP by Industry and BC Employment by Industry).

Figure 1: Distribution of jobs



**Table 9: Percent of total jobs by employment area**

Triangle West	32%	Broadway West	14%	Broadway East	5%
False Creek North/Yaletown	26%	Powell Street	9%	DTES East	4%
Burrard Slopes North	24%	Broadway Central	8%	Clark Drive	3%
Central Business District	24%	Brewery Creek	8%	False Creek Flats	3%
Downtown South	22%	Mount Pleasant Industrial	8%	SE False Creek	2%
Burrard Slopes South	22%	West End/Coal Harbour	7%	Burrard Waterfront	2%
DTES West	18%	Granville Island	7%	VGH	2%

Statistics Canada 2001 Census-- Jobs by NAICS (2-digit), Employment Areas, 2001.xls.  
 Note: Available data for the Burrard Waterfront employment area covers a geography that exceeds the boundaries of the Metro Core

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## Sources / Contacts

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Sources of information are recorded throughout this Information Sheet. Additional notes are provided here:

1) In this paper, NAICS refers to the 1997 North American Industrial Classification System, which was the system used by Statistics Canada in 2001 to categorize jobs and businesses by industry sector.

2) Re: Table 4 - Data in this table are categorized according to 1980 SIC (Standard Industrial Classification). SIC was the classification method used by Statistics Canada prior to the 2001 Census. The job totals in Table 4 are higher because they include an estimate of jobs with no fixed place of work. This estimate is reached by assigning to the Metro Core a share of the workers with no fixed place of work. The share is determined on a sector by sector basis and is based on the number of workers with a known place of work.

3) Re: Table 7 - Businesses in the “indeterminate” category have no employees registered on the payroll. They may have contract workers, or no workers at all. “Indeterminate” does not equate with “self-employed”. Self-employed businesses may be in either category.

This Information Sheet was published by the City of Vancouver. It is one in a series of Information Sheets produced for the Metropolitan Core Jobs and Economy Land Use Plan. The purpose of this initiative is to develop a long term land use policy plan to accommodate future economic activity and jobs in the Metro Core. For further information, please e-mail [corejobs@vancouver.ca](mailto:corejobs@vancouver.ca) or visit the website [www.vancouver.ca/corejobs](http://www.vancouver.ca/corejobs)