



HIGH TECH & CREATIVE ACTIVITIES

Economy - Sectors

Step 1: Understanding Yesterday and Today

Metropolitan Core Jobs & Economy Land Use Plan

Highlights

- High tech and creative activities is not a formally defined sector. Instead, it is a grouping of several sectors and sub-sectors.
- There are 31,485 Metro Core workers employed in high tech and creative activities. This is about 16% of all jobs in the Metro Core.
- Nearly 25% of these jobs are in computer systems design.
- The Metro core has 73% of city jobs and 29% of regional jobs in high tech and creative activities - a higher than average share.
- The CBD has a larger number of these employees than any other Metro Core sub-area. However, False Creek N. / Yaletown has the largest percent of its jobs in this sector.



What is included in the high tech and creative activities group?

Areas of the economy that are frequently used to describe today's economic activities include high tech, new economy, new media, and creative class. These terms do not match the formal economic sectors defined by Statistics Canada. Instead, employment statistics that describe these activities are usually drawn from several related and formally defined sectors.

There is no single definition of what activities make up the high tech and creative activities group (see Note 1 for a list of sources consulted). The group of high tech and creative activities profiled in this information sheet is a comprehensive grouping from a variety of sources. It is made up of:

- All of the Metro Core jobs in the information and cultural industries sector;
- All of the Metro Core jobs in the arts, entertainment and recreation sector;
- Nearly half of all Metro Core jobs in the professional, scientific and technical services sector; and
- A very small number of Metro Core jobs in the manufacturing and wholesaling sectors (computer and electronics manufacturing and computer and communications equipment and supplies wholesaling).

Please refer to related information sheets for detailed information on each sector.

JOBS

How many people work in high tech and creative activities?

There are 31,485 Metro Core workers employed in the High Tech and Creative Activities group created for this information sheet. This is about 16% of all jobs in the Metro Core. Nearly one quarter of all Metro Core jobs in high tech and creative activities are in computer systems design (Table 1 on pg. 2).

The employment data provided in this information sheet are subject to the following cautionary notes:

Cautionary note #1: double counting

The data listed in this information sheet is not independent of that listed in related sheets such as the professional, scientific and technical services sector sheet. This means that care must be taken not to double count jobs when comparing employment in the high tech and creative activities group to employment in formally defined sectors.

Cautionary note #2: over counting

Data limitations restrict the degree to which the statistics reported in this sheet reflect jobs that are *completely* high tech or creative in nature. As a result, some jobs are included that would not actually be high tech/creative in nature.

Activity	Metro Core	
Computer systems design ⁽³⁾	6,800	22%
Architecture & engineering ⁽³⁾	4,930	16%
Broadcasting & telecommunications ⁽¹⁾	4,145	13%
Arts, entertainment & recreation ⁽²⁾	3,890	12%
Motion picture & sound recording industries ⁽¹⁾	2,235	7%
Information services (internet providers) ⁽¹⁾	1,655	5%
Advertising services ⁽³⁾	1,600	5%
Software publishers ⁽¹⁾	1,545	5%
Newspaper, periodical, book & database publishers ⁽¹⁾	1,470	5%
Specialized design services (graphic & interior design) ⁽³⁾	1,470	5%
Scientific research & development services (biotechnology) ⁽³⁾	755	2%
Computer & communications equipment & supplies wholesaler-distributors ⁽⁴⁾	450	1%
Computer and electronic product manufacturing ⁽⁴⁾	305	1%
Data processing services ⁽¹⁾	235	1%
Total jobs in high tech/creative activities	31,485	100%

Statistics Canada 2001 Census: Jobs by NAICS (4 digit), 2001.xls. See Note 2.

Activities belong to the following:

⁽¹⁾ The information and cultural industries sector

⁽²⁾ The arts, entertainment and recreation sector

⁽³⁾ The professional, technical and scientific services sector

⁽⁴⁾ The manufacturing and wholesale sectors

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

(a) Percent of total jobs

High tech and creative activities account for approximately 16% of all jobs in the Metro Core. This is higher than the rest of the city and region where this sector accounts for approximately 10% and 11% of all employment respectively (Table 2).

	Metro Core	Rest of city	Rest of region
Total jobs	199,955	112,700	589,115
Number of people working in high tech and creative activities	31,485	11,675	65,985
% of total jobs	16%	10%	11%

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

(b) Share of high tech and creative activities jobs

The Metro Core has a higher share of city and regional jobs in the high tech and creative activities group:

- 73% of all city jobs in the high tech and creative activities group are in the Metro Core (vs. 64% of all city jobs).
- 29% of all regional jobs in the high tech and creative activities group are in the Metro Core (vs. 22% of all regional jobs).

This high share applies generally to about two-thirds of the activities included in the high tech and creative activities group (Table 3). The high share does not apply to scientific research and development, computer and electronics manufacturing, computer and communications equipment wholesaling, or arts, entertainment and recreation (although some sub-sectors in arts, entertainment and recreation do have a very high share of city and regional jobs located in the Metro Core - see Arts sector information sheet).

	Metro Core's share of city	City total	Metro Core's share of region	Region total
Software publishers	91%*	1,690	39%*	3,980
Broadcasting and telecommunications	88%*	4,710	25%*	16,385
Data processing services	87%*	270	37%*	640
Information services (internet service providers)	83%*	2,000	40%*	4,105
Computer systems design and related services	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 (graphic & interior design)	71%*	2,080	36%*	4,045
Newspaper, periodical, book and database publishers	66%*	2,235	29%*	5,115
Motion picture and sound recording industries	65%*	3,445	37%*	5,975
Scientific research and development services (biotechnology)	64%	1,175	19%	3,925
Computer and electronic product manufacturing	54%	560	5%	5,925
Arts, entertainment and recreation(1)	53%	7,280	21%	18,835
Computer and communications equipment and supplies wholesaler-distributors	51%	885	11%	3,970
Total jobs in high tech/ creative activities	73%	43,160	29%	109,145
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.
(1) Some sub-sectors have a high share.*

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 high tech and creative activities group were classified in the “business service industries” sector, the “communication and other utility industries” sector, and the “other service industries” sector. From 1981 to 2001, Business and other service jobs in the Metro Core increased by 93%, while communication and utilities decreased by 18%. In comparison, total jobs in the metro Core increased by 14% (Table 4).

	1981	2001	% change
Total Jobs	193,846	221,246	14%
Business service industries	22,478	43,372	93%
Communication and other utility industries	10,789	8,825	-18%
Other service industries	10,595	20,412	93%

Statistics Canada 1981& 2001 Census: Jobs by SIC, 1981 to 2001.xls. See Note 3.

Who is working in high tech and creative activities and what do they do?

Women occupy 39% of the positions in high tech and creative activities in the Metro Core. This is on par with the City of Vancouver and the GVRD where women occupy 39% and 41% of the positions in this sector. Overall, women occupy 50% of all jobs in the region.

Fulltime workers hold 87% of high tech and creative activities jobs in the Metro Core. In addition, full time employment in high tech and creative activities is more common in the Metro Core than in the city and region where 84% and 81% of high tech and creative activities workers are employed on a full time basis. 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*).

BUSINESSES

How many businesses are in this group and what size are they?

There are 3,888 business establishments in the high tech and creative activities group in the Metro Core. This is 13% of all businesses (compared to 16% of all employment)

Statistics Canada lists many businesses as indeterminate in size (46% in this group of activities - see Note 4). Of those businesses for which size is known (Table 5):

- About 90% have less than 50 employees
- 79 businesses have over 100 employees

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 five employees compared to the rest of the city and region (Table 5).

# of employees	Metro Core		Rest of city		Rest of region	
1-4	1,031	49%	897	68%	2,964	62%
5-19	635	30%	279	21%	1,180	25%
20-49	259	12%	76	6%	362	8%
50-99	110	5%	34	3%	159	3%
100-499	71	3%	25	2%	134	3%
500+	8	0%	4	0%	9	0%
Total	2,114	100%	1,315	100%	4,808	100%

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

SPACE AND LOCATION

How many people work from home in this group?

Of those people employed in the Metro Core high tech and creative activities group, only 7% work from home. This is significantly less than the city and region where 15% of employees in this group work from home (Table 6).

Table 6: Employees working from home

	Metro Core	City	Region
Total	31,505	43,160	109,145
Work at Home	2,350	6,370	16,615
%	7%	15%	15%
% across all sectors	3%	7%	9%

Statistics Canada: *Jobs by NAICS (4 digit), 2001.xls*. Note: Figures above do not include employees with no fixed place of work.

Where in the Metro Core are jobs in this group located?

The largest numbers of high tech and creative activities jobs by employment area are:

- Central Business District: 12,570 jobs
- Downtown South: 3,120 jobs
- False Creek N./ Yaletown: 3,005 jobs (see Figure 1 on last page)

Overall, 16% of Metro Core jobs are in high tech and creative activities. Sub-areas where these activities comprise significantly more than 16% are:

- False Creek N./ Yaletown (37%)
- Triangle West (30%) (See Table 7 on last page)

What types of space do high tech and creative activities occupy?

Observation suggests that businesses in the high tech and creative activities group occupy mostly offices and industrial/ manufacturing spaces.

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

According to a Vancouver Economic Development Commission report, 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*).

Figure 1: Distribution of jobs

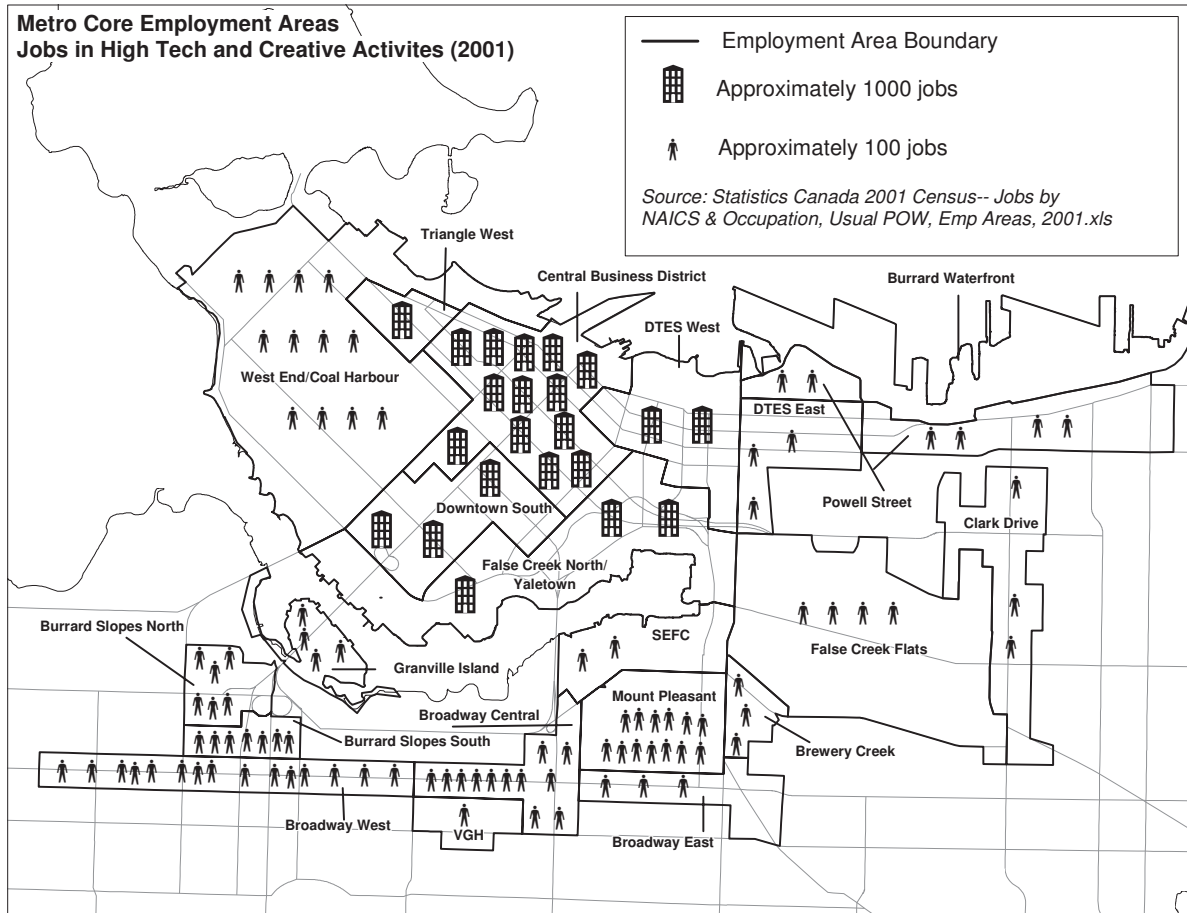


Table 7: Percent of employment area total jobs

False Creek N. /Yaletown	37%	Central Business District	16%	Powell Street	9%
Triangle West	30%	Broadway West	15%	False Creek Flats	9%
Burrard Slopes South	27%	Granville Island	15%	West End/Coal Harbour	7%
Downtown South	25%	SEFC	14%	Clark Drive	6%
Burrard Slopes North	23%	Broadway Central	12%	DTES East	5%
DTES West	22%	Brewery Creek	11%	VGH	2%
Mount Pleasant	18%	Broadway East	10%		

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. Therefore, employment data for the Burrard Waterfront has been omitted from this information sheet.

Sources / Contacts

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

1) Re: sources used to identify the high tech and creative activities that are profiled in this information sheet:

BC Stats and the B.C. Ministry of Competition, Science, and Enterprise. (2001). Defining the British Columbia High Technology Sectors Using NAICS. Victoria: BC Stats.

Florida, R. (2002). The Rise of the Creative Class: and how its transforming work, leisure, community and everyday life (Appendix A). New York: Perseus Books Group.

Hutton, T. (2005). The New Economy of the Inner City: Restructuring Processes and Implications for Vancouver. UBC: Centre for Human Settlements.

Statistics Canada. (2004) Census Metropolitan Areas as Culture Clusters. By David Coish. Trends and Conditions in Census Metropolitan Areas. Minister of Industry. Catalogue No. 89-613-MIE, No. 004

Statistics Canada. (2005). Labour Markets, Business Activity, and Population Growth and Mobility in Canadian CMAs. By Andrew Heisz, Sébastien LaRochelle-Côté, Michael Bordt and Sudip Das. Trends and Conditions in Census Metropolitan Areas. Minister of Industry. Catalogue no. 89-613-MIE – No. 006

Colliers International. (2004). 'Old Yaletown' Type Users Office Demand. Vancouver: Colliers International. The Colliers report is used as the basis for identifying High Tech and Creative activities in the Metro Core for two reasons:

- Of the sources consulted, the Colliers list is a very inclusive list.
- The methodology used by Colliers was applied in downtown Vancouver [source listed above]

2) 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.

3) 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.

4) Re: Table 5 - 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 or visit the website www.vancouver.ca/corejobs