

Simon Fraser University Library Guide to Using PCensus

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Section I . Introduction to PCensus

PCensus integrates census data and mapping software which allows for unique and flexible ways to examine demographic data and generate reports. It also features the capability for side-by-side census tract comparisons. Currently, the SFU Library runs Version 8.73, which operates in conjunction with the mapping software MapPoint. The PCensus databases contain primarily Canadian census data, as well as some United States data. The data available includes:

- 1981 census to the 2006 census data for Canada, the Provinces, and all Census Subdivisions
- 1981, 1986, 1991, 1996, 2001 and 2006 data for all B.C. Enumeration Areas to the Census Tract (CT)level
- 1991, 1996, 2001 and 2006 data to the B.C. Forward Sortation Area (FSA) level
- Population data from the 1990 and 2000 United States Census

A significant advantage of PCensus over other census products is that it provides all of the Canadian census data (both 100% and 20%) in one convenient list. Using PCensus, you can easily:

- Compare two or more census areas (i.e. Vancouver and Victoria) and get the data in a side-by-side display.
- Compare the same area across all census years (note: comparisons of different census years cannot be done in side-by-side display. You must do each census year separately)
- Create your own area, by radius, polygon, or driving time.
- Print your file or save it as an Excel file, an ASCII text file, an HTML file or as a comma-delimited ASCII file, which allows for data exporting to spreadsheets.

PCensus is also the only census product which provides data at the Dissemination Area (DA) or FSA - first three digits of a postal code.

PCensus is particularly useful for certain Business and Geography assignments, though other disciplines working with statistics, census information, and/or maps may also find the program functions useful. In addition to the features described above, PCensus is useful for projects where you need to:

- Create sales territories and make market evaluations and comparisons based on the demographic information from specific geographic locales
- Use demographic information to research prime business locations and target potential customers
- Create demographic maps for use in Word documents, PowerPoint presentations, and other visual presentations.
- Create maps from data stored in Microsoft Office Excel, Office Access, Office Outlook, SQL Server, or other database sources. Do note that this is a more complex task that will require some practice and time working with the MapPoint and PCensus programs.

For more information on the research and specific tasks possible with PCensus, please see **Section VIII: Sample Research Exercises.**

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The specific demographic databases available in PCensus include:

- 2001 Canada Census (Provinces)
- Canada 2001 Census: British Columbia
- 2001 Census (British Columbia)
- 2006 Census, Release 3 [British Columbia] (Canada, Provinces)
- 1981 Canada Census (Provinces)
- British Columbia 1981 Census 2A & B (EA)
- 1986 Canada Census (Provinces)
- British Columbia 1986 Census 2A & B (EA)
- 1991 Canada Census (Provinces)
- British Columbia 1991 Census 2A & B (EA)
- 1996 Canada Census (Provinces)
- Canada 2001 Census (Canada, Provinces)
- 1990 STF1A: United States (Standard)
- 2000 SF1+ [United States]
- 2000 SF3+ [United States]
- World Population

Note: Some of these database templates are not supported by PCensus version 8.73, and you will receive error messages. Please contact a librarian if you encounter difficulties with a specific template.

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Section II: SFU Standalone Computer Information

PCensus is only available on standalone computers at the Bennett and Belzberg Libraries. The standalone computer at Bennett is bookable online (Standalone 2); the Belzberg standalone computer is available on a first come, first served basis (LIB BEL11). There is no internet connection at these computer stations, nor word processing programs; Microsoft Excel is installed. While you can print from these workstations, you will need to bring an USB drive in order to save your work electronically.

For a link to the booking function at the Bennett Library, see the PCensus database information page:

<http://cufts2.lib.sfu.ca/CRDB/BVAS/resource/5599>

Do note that other census products are available. Please consult our online library guide **Which Census Product Should I Use?** for information on choosing the right census product for your project (<http://www.lib.sfu.ca/help/publication-types/census/census-choices>).

Section III: Census Metropolitan Area and Census Tract Maps

The eight maps of the Vancouver CMA are included in **Appendix A** as references for finding CT numbers. To find the CT number of the area you wish to study, first consult the main **Vancouver CMA** map and then, if necessary, select the appropriate inset map; these inset maps detail the more densely populated Vancouver areas.

If you are studying a geographic area other than the Vancouver CMA, reference maps for the rest of Canada are available on the Canada Census website (<http://www12.statcan.gc.ca/census-recensement/index-eng.cfm>):

1. From the left-hand menu, click on **Geography**
2. Under **Maps**, click on **Reference Maps** for a list of options (Census tract maps by CMA/CA or Dissemination Area). Click on an option for both its description and to find a specific reference map.

Note: Not all available PCensus databases have all of the data for geographic areas outside of British Columbia.

Federal Electoral District numbers can be identified by using the Index of Electoral Districts map that is also included in **Appendix A**. If you find this map difficult to read, it is also available online: http://geodepot.statcan.ca/Diss/Maps/ReferenceMaps/Canada_E.pdf

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Section IV. Census Terminology

If you are unfamiliar with census terminology, here are some useful definitions that will help you understand both this guide and census information in general:

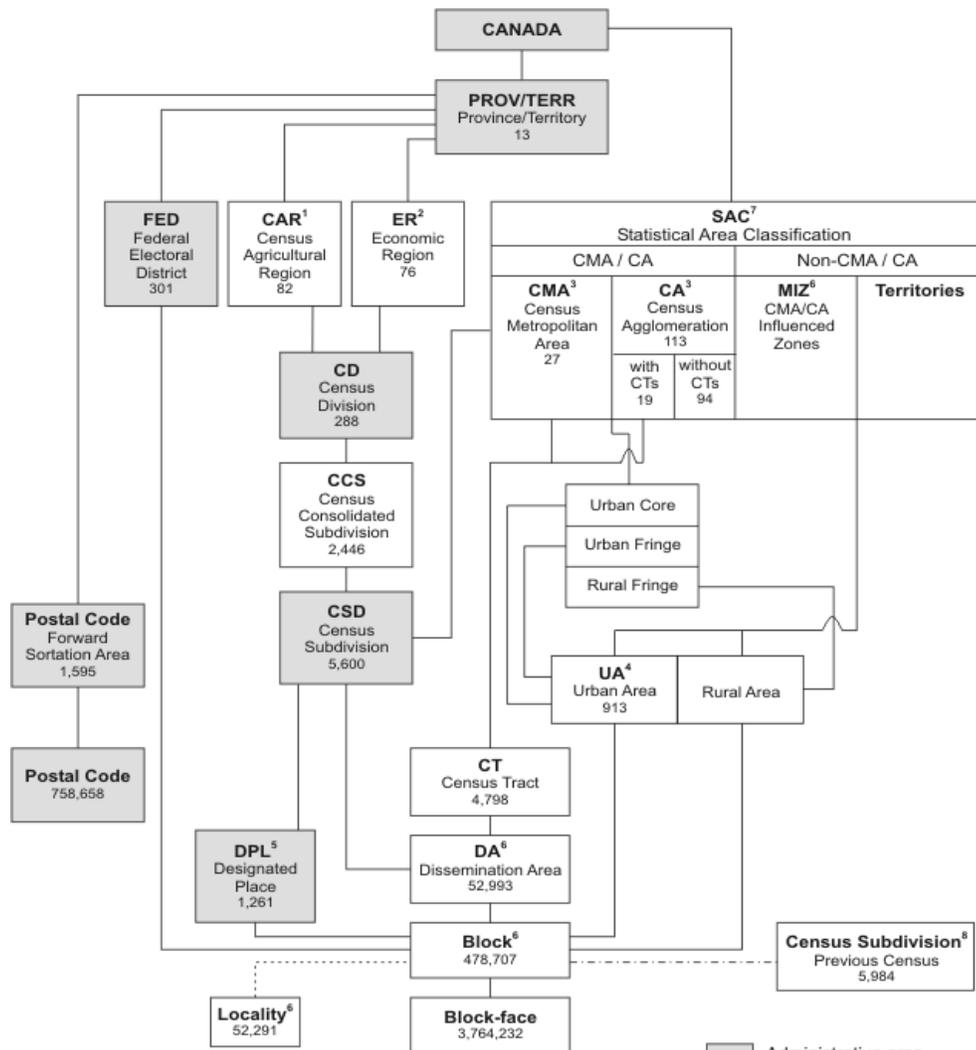
- **Census Universes:** Universes refer to what is counted. There are four universes: Population, Families, Households, and Dwellings. Census questions must relate to one of these four universes.
- **Variables:** Variables are symbols or terms to which numerical values can be assigned (e.g., age is a census variable). Some variables are based on 100% data and some are based on 20% data.
- **100% versus 20% Data:** In a census year, most households (80%) receive a short census questionnaire, which is used to determine statistics such as population, age, sex, and marital status; this is 100% data. The long census questionnaire is delivered to 20% of households and includes numerous additional questions on a variety of subjects, including education, ethnicity, mobility, income, and employment; this is 20% data.
- **Dissemination Area (DA):** A small area composed of one or more neighbouring blocks with a population of 400 to 700 persons.
- **Census Tract (CT):** A permanent, neighbourhood-like community located in a large urban area (>50,000), which generally has a population between 2,500 and 8,000. Census tracts are assigned numbers rather than names. Data from census tracts are good for local area analysis in urban planning, educational research, and market research.
- **Federal Electoral District (FED):** An area represented by a Member of Parliament (MP) elected to the House of Commons.
- **Census Subdivision (CSD):** A municipality or an area treated as equivalent to a municipality for statistical purposes (e.g., an Indian reserve or an unorganized territory). This is the level for finding data about an entire city such as Vancouver or Burnaby.
- **Census Metropolitan Area (CMA):** An area composed of one or more neighbouring municipalities with an urban core. A CMA has a population of at least 100,000.
- **Census Agglomeration (CA):** An area composed of one or more neighbouring municipalities with an urban core. A CA must have an urban core population of at least 10,000.
- **Forward Sortation Area (FSA):** The first three characters of a postal code. The average number of households that share the same FSA is 8,000, but the number can range from zero to more than 60,000 households.

The diagram “**Hierarchy of Standard Geographic Units for Dissemination, 2001 Census**” on the following page illustrates the interrelationship of some of the above definitions.

For more on census terminology and other census information, please consult our online Canadian Census publication guide (<http://www.lib.sfu.ca/help/publication-types/census>).

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Hierarchy of Standard Geographic Units for Dissemination, 2001 Census



¹ Census agricultural regions in Saskatchewan are composed of census consolidated subdivisions.

² Economic regions in Ontario are composed of municipalities (census subdivisions).

³ One CMA and four CAs cross provincial boundaries.

⁴ Five UAs cross provincial boundaries.

⁵ Designated places do not cover the total area of CSDs. Eighty-two DPLs cross CSD boundaries, of which 13 also cross CD boundaries.

⁶ Census metropolitan area and census agglomeration influenced zones (MIZ), dissemination area, block, and locality are new concepts for the 2001 Census.

⁷ The Statistical Area Classification (SAC) is a new geographic classification that allocates each CSD according to whether it is a component of a CMA, CA, a census metropolitan area and census agglomeration influenced zone (MIZ), or the territories outside the CAs of Whitehorse and Yellowknife.

⁸ For the 2001 Census only, a best fit linkage is created between the 1996 CSDs and 2001 blocks to facilitate historical data retrieval.

Source: <http://www12.statcan.gc.ca/english/census01/Products/Reference/dict/geoint.htm>

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Section V: Getting Started

PCensus operates in conjunction with MapPoint, and both programs should open simultaneously; many features of PCensus will not work properly unless MapPoint is also running. If MapPoint does not open at the same time, minimise the PCensus window and then open MapPoint by selecting it from the program menu.

Note: PCensus has a context-sensitive Help function, which provides detailed descriptions of all of the controls used in the program and provides links to other relevant information. You can also press F1 or click the Help icon on the tool bar.

PCensus is programmed to open to the **Project Wizard**: click on **New Project**. You will now see a list of options, and while your choice will depend on what you intend to do, for most exercises you will select the first or second option:

1. **Select a Predefined area:** this option provides you with demographic reports based on standard geography-based, statistic gathering parameters. The available predefined areas depend on which database you are using, but generally include CMAs, CTs, FSAs, etcetera.
2. **Use a map to define polygon, circle, or drive time areas:** this option lets you generate custom demographic reports by selecting geographic regions outside of the predefined areas (CMAs, CTs, FSAs, etcetera).
3. **Batch Sites – create circles/drive times from your database of site locations:** in order to use this option, you must have a list of site locations, generally in the form of an address list within a database or spreadsheet, that PCensus can use to calculate drive times or create circles on a map. Without external data, you cannot use this feature. It is recommended that you discuss this type of project with a librarian or the Research Data Library before beginning such a project with PCensus.
4. **Sitescan – cover an area with a grid of sites to help determine the best site location:** this is another advanced feature that allows you to analyze a large number of sites with the purpose of finding and ranking locations that best meet specific demographic criteria, such as a minimum population and income level within a specified distance/drive time. It is recommended that you discuss this type of project with a librarian or the Research Data Library before beginning such a project with PCensus.

Sample Search:

The following steps outline the process for a simple search of one Vancouver Census Tract area. Begin by opening PCensus, then:

1. Select **New Project Wizard**
2. Click on **Select a Predefined Area**, then click **Next**.

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3. Select the **2006 Census, Release 3 [British Columbia] (Canada, Provinces)** demographic database.
4. The **Select a Custom Data Template (if required)** field is generally auto-selected based on the demographic database chosen, as is the case in this example.
5. **Select a Predefined Area Type.** The available options will also depend on the demographic database chosen, and you will see a number of options for this search. Click on **Census Tract (CT)**.
6. A very long alphabetical list will appear. Type “Va” to skip to Vancouver. Select **Vancouver, B.C.**, then click the **CT** button on the left.
7. A columnar list of numbers will appear. Select the first one **0001.01**. Normally, you would select the neighborhood from the Vancouver CMA map first, where the corresponding CT number is indicated. In this example, the neighborhood is comprised of the blocks in the 49th Ave, Marine Dr., and Boundary Rd. area, which is detailed in the CMA Map Inset 3. See **Appendix A – Maps**.
8. Click **Next**, then **Finish**
9. At this point, you have the option of renaming the **Study Title**. The default is the CMA number and CT number combined – keeping these numbers in your title is a good way to preserve a defined reference to the data in the subsequent report.
10. Click **Search Now**.

The search generates a report entitled **2006 Census Snapshot**, listing these categories:

- Census Snapshot (default display)
- Total Population
- Ages
- Average Age
- Families
- Households
- Occupied Dwellings

If you click on the **2006 Census Snapshot** title tab, you will be able to select a report section with more detailed information on these categories. Note that you are also provided with graphs of the information, accessible by clicking on the Graph tab.

Tips:

1. The **ADD** button in the **Predefined Area Type** selection box will allow you to combine the information from two or more geographical areas.
2. Clicking on **New Study Area** on the menu bar and selecting **New Predefined Study Area** will take you back to the Step 3 (selection of a Demographic Database). Repeat the same steps and select another CT for a side by side comparison. You can use these same instructions to compare two or more provinces, CMAs or any other census geographical area. See **Sample Research Exercise 2 - Combining the information from two or more Census Tracts**.
3. See the Slideshow tutorial in the PCensus database description page for a step-by-step visual demonstration of a variation of this exercise:
(<http://cufts2.lib.sfu.ca/CRDB/BVAS/resource/5599>)

See **Section VIII. Sample Research Exercises** for a list of other tasks possible with PCensus.

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Section VI: Printing, Exporting, and Saving Your Work

PCensus can be a difficult program to use and is prone to errors if used improperly – which can happen accidentally. Print, export, or save your work as soon as you have obtained the information you need. You can always delete files later. You must use a USB device if you wish to export data files or save any part of a PCensus project.

Printing

When you are ready to print a report, click on **File** and select **Print**, and the **Print Profile Report** window will appear:

1. You can add and/or change the **Report Header** titles
2. Select **Landscape** or **Portrait** – up to 4 columns display well in portrait, more than 4 columns should be printed in landscape
3. **Layout Options** - allow you to further customise the design of your report
4. **Check Categories to Print** – select the categories by using the checkboxes

Note: If you print all categories, each one prints on a separate page. Some reports can result in as many as 75 pages of output. If you wish to have all data, it is best to save or export.

You can also print the profile graphs and maps that are generated by PCensus. Click on the profile tabs to view the graphs or maps before selecting **File** and **Print**.

Exporting

Rather than printing, you can export the data from all or parts of a PCensus project. Insert your USB device, and while viewing the **Profile Report**, click on **Export**, then **Export Profile Totals**. The export window will appear:

1. Select the drive location of your USB device by clicking on **Browse**.
2. Select the categories you wish to export; CTRL + click allows you to make multiple selections, or you can select **All Categories**.
3. Select a file format:
 - a. Excel Spreadsheet – saves the data directly into a Microsoft Excel spreadsheet.
 - b. Comma Delimited ASCII – use when you want import data into database programs or spreadsheet programs like MS Excel.
 - c. ASCII text
 - d. HTML file - works well for viewing and/or printing at a later date.
4. Add and/or change **Report Header** titles.
5. Leave the checkbox **View Created File** selected to open the file after exporting.
6. Click **OK**.

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Saving

Saving a project will allow you to return to your work later to make additions or changes. To save a project, insert your USB device, then click on **File** and select **Save Project As** to bring up the **Save As** window:

1. Rename the project under **File Name**
2. Select the drive location of your USB device
3. Click **Save**.

You can also save and export the profile graphs and maps that are generated by PCensus:

1. Click on the **Profile Graph** tab to view the graph.
2. Click on **Export**, then **Export Graph as Graphic** to bring up the export window.
3. Select the drive location of your USB device.
4. Rename the file if desired.
5. Under **Save as Type**, select .bmp (Microsoft Bitmap).
6. Click **Save**.

Follow the same steps for maps.

Section VII: Citing PCensus reports, MapPoint maps, and Other Products

You must formally acknowledge your sources of information when using PCensus reports, MapPoint maps, and other statistical products. The following is a citation example of a Census Profile accessed through PCensus (Turabian style):

Statistics Canada. *2001 Census of Canada: Profile Data for Vancouver and Victoria at the Census Tract level*. Ottawa, Ont.: Statistics Canada [producer]; Vancouver, B.C.: Tetrad Computer Applications [distributor], 2002. Accessed 26 August 2004. Available from PCensus for MapPoint [computer file], Simon Fraser University Library.

Note: PCensus census data is produced by Statistics Canada, but distributed by the Tetrad company.

MapPoint maps carry a Microsoft copyright. If you use maps generated from PCensus/MapPoint in your thesis, you will need written permission from Microsoft MapPoint:

(<http://www.microsoft.com/mappoint/en-us/support.aspx>).

Essentially, the copyright information must accompany the map and it may not be offered for sale, as copyright law prohibits copying a map for commercial publication. You should also refer to the license agreement that comes with MapPoint for more information. Please contact a librarian for details on SFU's MapPoint license agreement.

For more detailed information on properly citing statistical information, see the SFU guide **Citing guide for Statistics Canada, PCensus, EStat, and CHASS data**

(<http://www.lib.sfu.ca/help/writing/citing-statistics>).

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Section VIII: Sample Research Exercises

This section provides step-by-step instructions for nine of the most common research tasks with PCensus, and concludes with a list of other possible research reports. Please read **Section V: Getting Started** as an overview before attempting any of the following exercises.

- 1. Comparison of Two Census Tracts: Vancouver and Victoria.**
- 2. Combining the information from two or more Census Tracts.**
- 3. Using MapPoint to Create a Custom Study Area – Polygons**
- 4. Using MapPoint to Create a Custom Study Area – Circle**
- 5. Comparison of Household Income by FSA, with Exported Graph**
- 6. Family Structure and Children in the Vancouver CMA, exported and displayed as HTML**
- 7. Population summary comparison of LA and Seattle, exported as an Excel spreadsheet**
- 8. Canada/US Comparison – California and B.C.**
- 9. Population Comparison of Canada, United States, and Mexico**
- 10. Other Possible Research Data Outputs**

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1. Comparison of Two Census Tracts: Vancouver and Victoria.

1. Select **New Project Wizard**
2. Click on **Select a Predefined Area**, then click **Next**
3. Selections:
 1. Demographic database: **2006 Census, Release 3 [British Columbia]**
 2. Custom Data Template: default
 3. Predefined Area Type: **Census Tract (CT)**
4. Click **Next**
5. A very long alphabetical list of locations will appear. Type **“Va”** to skip to Vancouver. Select **Vancouver, B.C.**, then click the **CT** button on the left.
6. A list of Census Tract numbers will appear. Select the first one **“0001.01”**
7. Click **Next, Finish, and Search Now.**
8. Your data will display in a columnar list. Click on **Study Area** on the menu bar and select **New Predefined Study Area.**
9. Repeat Steps 3 - 7, this time selecting Victoria and **“0001.00”** from the list of CT numbers.
10. Click **Next, Finish, and Search Now.** A second columnar list will display next to your first selection.
11. Click **File** on the menu bar and select **Print**
12. Enter **Comparison of Two Census Tracts: Vancouver and Victoria** as the report header, and select **2006 Census Census Snapshot** as the category to print.
13. Select the appropriate printer, and click **Print.** Do note that the printer you select will differ in the Belzberg and Bennett Libraries, and printer settings can change, so please ask a librarian for assistance if your report does not appear in the print queue.

See the next page to view the sample report.

Note: Use the same instructions to compare two or more provinces, CMA's or any other census geographical area.

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PCensus for MapPoint



Page 1

Comparison of Two Census Tracts: Vancouver and Victoria Profile Report 2006 Census: Release 3 [British Columbia]

2006 Census Census Snapshot	59933 0001.01		59935 0001.00	
		%		%
Total Population	6,265		3,040	
Males	2,866	46%	1,405	46%
Females	3,400	54%	1,635	54%
2006 Population by Age	6,265		3,040	
0 to 4 years	240	4%	145	5%
5 to 19 years	1,215	19%	445	15%
20 to 24 years	440	7%	135	4%
25 to 34 years	550	9%	390	13%
35 to 44 years	935	15%	480	16%
45 to 54 years	1,130	18%	510	17%
55 to 64 years	820	13%	500	16%
65 to 74 years	480	7%	195	6%
75 to 84 years	280	4%	180	6%
85 years and over	185	3%	65	2%
Average age of population	40.8		42.3	
Median age	42.7		43.5	
Dominant age group	5 to 19 years	19%	45 to 54 years	17%
Families	1,815		820	
Persons per family	3.0		2.7	
Two-parent families	1,365	75%	715	87%
With no children at home	470	28%	415	51%
With children at home	895	49%	305	37%
Lone-parent families	450	25%	100	12%
Total children at home	2,215		895	
Children per family	1.2		0.8	
Households	2,250		1,405	
Persons in private households	6,005		3,005	
Persons per household	2.7		2.1	
Occupied Dwellings	2,250		1,410	
Owned Dwellings	1,250	56%	935	66%
Rented Dwellings	995	44%	470	33%
Single detached houses	200	9%	650	46%
Semi-detached/duplex	1,715	76%	300	21%
Apartments	335	15%	370	26%
Movable dwelling	0	0%	0	0%
Dominant building type	Semi-detached...	76%	Single detache...	46%

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2. Combining the information from two or more Census Tracts.

1. Select **New Project Wizard**
2. Click on **Select a Predefined Area**, then click **Next**
3. Selections:
 1. Demographic database: **2006 Census, Release 3 [British Columbia]**
 2. Custom Data Template: default
 3. Predefined Area Type: **Census Tract (CT)**
4. Click **Next**
5. A very long alphabetical list of locations will appear. Type "**Va**" to skip to Vancouver. Select **Vancouver, B.C.**, then click the **CT** button on the left.
6. Click on **Add Another** (on the right of the box displaying your first CT).
7. Select your second CT from the list: **0001.02**
8. Repeat steps 6 and 7 until you have accumulated all the census tracts you want. We will only combine CTs 0001.01 and 0001.02. Click **Next, Finish** and **Search Now**.
9. Your data will display in a columnar list. This is the combined data from all CTs selected, as will be indicated in the column title.
10. Click **File** on the menu bar and select **Print**
11. Enter **Combining the information from two or more Census Tracts** as the report header, and select **2006 Census Census Snapshot** as the category to print.
12. Select the appropriate printer, and click **Print**. Do note that the printer you select will differ in the Belzberg and Bennett Libraries, and printer settings can change, so please ask a librarian for assistance if your report does not appear in the print queue.

See the next page to view the sample report.

Note: You can also use MapPoint to create a custom area, an option that will allow you to create a more particularly defined study area - especially by using Polygons. See **Sample Research Exercise 3. Using MapPoint to Create a Custom Study Area – Polygons**

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Combining the data from two or more Census Tracts.
 Profile Report
 2006 Census: Release 3 [British Columbia]

2006 Census Census Snapshot	59933 0001.01, 59933 0001.02	%
Total Population	10,880	
Males	5,005	46%
Females	5,075	54%
2006 Population by Age	10,880	
0 to 4 years	485	4%
5 to 19 years	2,035	19%
20 to 24 years	710	7%
25 to 34 years	1,120	10%
35 to 44 years	1,775	16%
45 to 54 years	1,880	17%
55 to 64 years	1,275	12%
65 to 74 years	795	7%
75 to 84 years	495	4%
85 years and over	315	3%
Average age of population	40.4	
Median age	41.8	
Dominant age group	5 to 19 years	19%
Families	3,215	
Persons per family	2.9	
Two-parent families	2,470	77%
With no children at home	920	26%
With children at home	1,550	46%
Lone-parent families	740	23%
Total children at home	3,745	
Children per family	1.2	
Households	3,945	
Persons in private households	10,615	
Persons per household	2.7	
Occupied Dwellings	3,950	
Owned Dwellings	2,325	61%
Rented Dwellings	1,555	39%
Single detached houses	370	6%
Semi-detached/row/duplex	2,750	70%
Apartments	815	21%
Movable dwelling	0	0%
Dominant building type	Semi-detached/...	70%

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3. Using MapPoint to Create a Custom Study Area – Polygons

1. Select **New Project Wizard**
2. Click on **Use a Map to define polygon, circle, or drive time areas**, then click **Next**.
3. Select **Polygon**, then click **Next**.
4. Select **Tracing on a Map** as the method for drawing the polygon, then click **Next**.
5. A map will appear. You will probably need to change the map view using the **Adjust Map** tool box. Click **Continue** when you are finished adjusting. You can also zoom to a location by typing in an address – click the binocular icon.
6. Address:
 - a. Country: Canada
 - b. Street Address: 515 West Hastings
 - c. City: Vancouver
 - d. Province: BC
 - e. Postal Code: V6B 5K3
7. Click **Find**, then **OK**. An adjusted map view will appear with a point indicating the address location.
8. Drawing a polygon:
 - a. Right-click set a point on the map. Start at the corner of West Hastings and Howe Street (right-click), then drag the line south to on Howe to Robson.
 - b. Right-click at Howe and Robson, and drag the line up Robson to Richards.
 - c. Right-click, and drag the line up Richards back to West Hastings. Double-click to finish the polygon.
9. The Study Area Wizard window now appears. The shape name is **Traced Polygon**. Click **Next**.
10. Selections:
 - a. Demographic database: **2006 Census, Release 3 [British Columbia]**
 - b. Custom Data Template: default
11. Click **Finish**, and **Search Now**.
12. A map will start generating. The black squares represent dwellings; uncheck **Show Points on the map** to hide these squares, and click **Continue**.
13. After the map is generated, the data will display in a column. Click on the title tab **Census Snapshot** to select different categories of information. Click on the Map tab to view the map and the drawn polygon.
14. Click on **Export** on the menu bar, and select **Export Map as Graphic...**
15. Insert your USB drive, and browse to its drive location on the computer terminal.
16. File name: **MapPointPolygonExercise**; Save as Type: Windows bitmap (*.bmp).

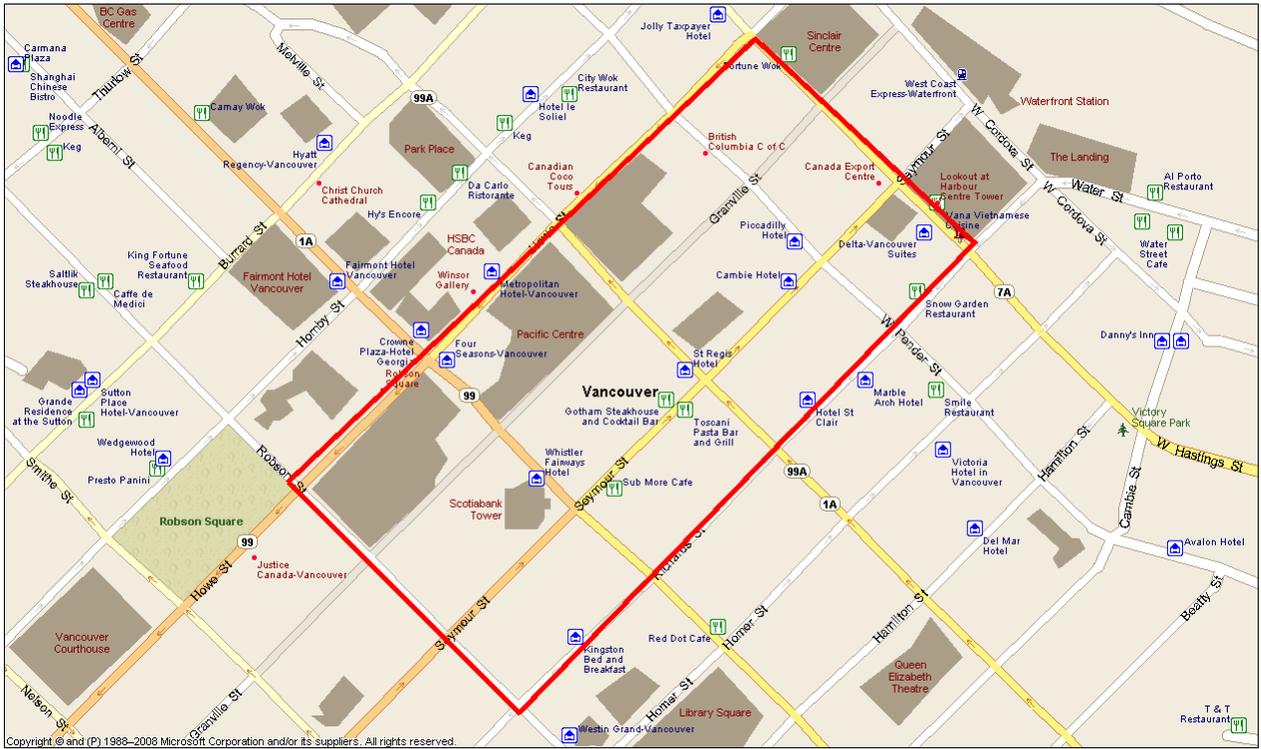
See the next page to view the sample map.

Note: Select Circle or Drive Times from the options in the Mapped Study Area window for another way of defining a custom study area. See Sample Exercise 4.

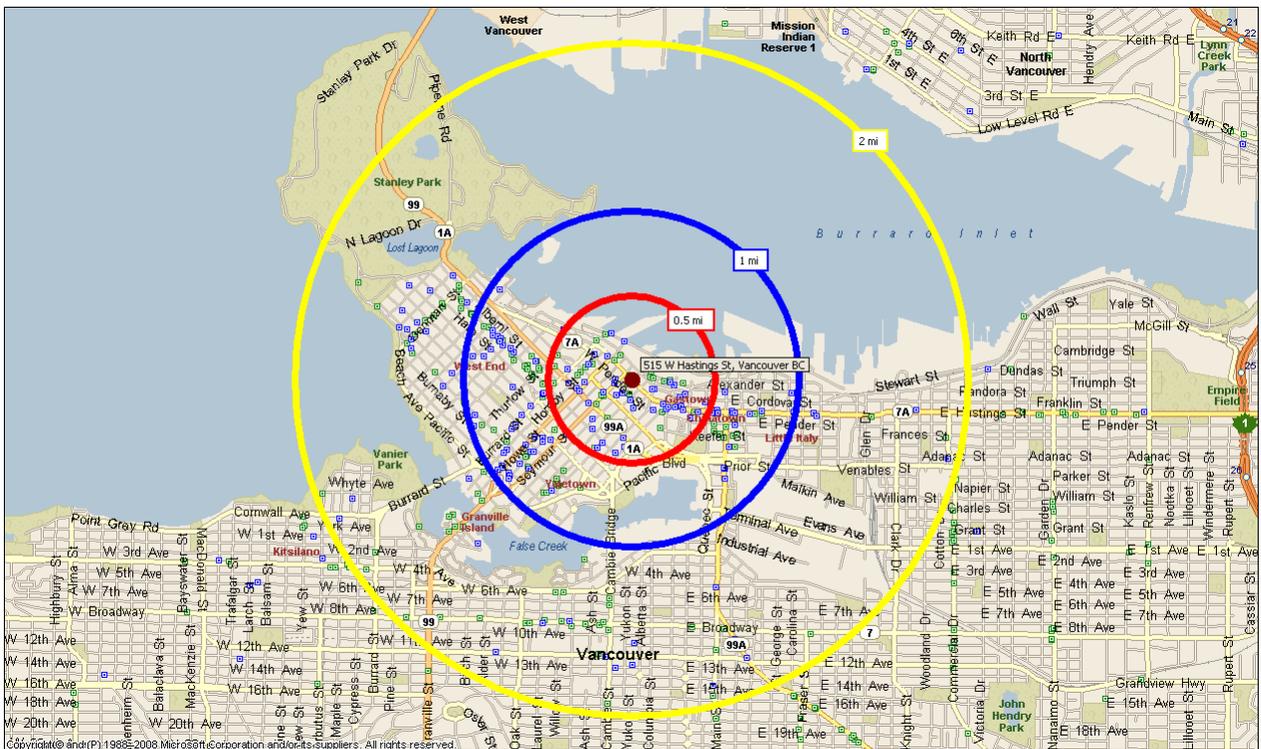
See the Slideshow tutorials in the PCensus database description page for a step-by-step visual demonstration of this exercise: (<http://cufts2.lib.sfu.ca/CRDB/BVAS/resource/5599>)

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Polygon Custom Area Map:



Circle Custom Area Map:



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4. Using MapPoint to Create a Custom Study Area – Circle

1. Select **New Project Wizard**
2. Click on **Use a Map to define polygon, circle, or drive time areas**, then click **Next**
3. Select **Circle**, then click **Next**
4. Entries:
 - a. Country: Canada
 - b. Street Address: 515 West Hastings
 - c. City: Vancouver
 - d. Province: BC
 - e. Postal Code: V6B 5K3
5. Click **Find**, then **Next**. A map and a new menu will appear.
6. You can now choose how many rings to draw around your selected address, and the distance range(s) between each. Choose 3 rings: 0-0.500, 0.500-1.00, 1.00-2.00. Select Miles as the Distance units.
7. Click **Next**. You are now given the option to change the name of the shape. Click **Next**.
8. Selections:
 - a. Demographic database: **2006 Census, Release 3 [British Columbia]**
 - b. Custom Data Template: default
9. Click **Finish**, and **Search Now**.
10. A map will be generated showing the three rings around your address point. The black squares represent dwellings; uncheck **Show Points on the map** to hide these squares, and click **Continue**.
11. After the map is generated, the data will display in three columns that correspond to the circle ranges. Click on the title tab **Census Snapshot** to select different categories of information.
12. Click on the Map tab, then **Export** on the menu bar, and select **Export Map as Graphic...**
13. Insert your USB drive, and browse to its drive location on the computer terminal.
14. File name: **MapPointCircleExercise**; Save as Type: Windows bitmap (*.bmp).

See the previous page to view the sample map.

Note: Select Polygon or Drive Times from the options in the Mapped Study Area window for another way of defining a custom study area. See Sample Exercise 3.

See the Slideshow tutorials in the PCensus database description page for a step-by-step visual demonstration of this exercise: (<http://cufts2.lib.sfu.ca/CRDB/BVAS/resource/5599>)

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5. Comparison of Household Income by FSA, with Exported Graph

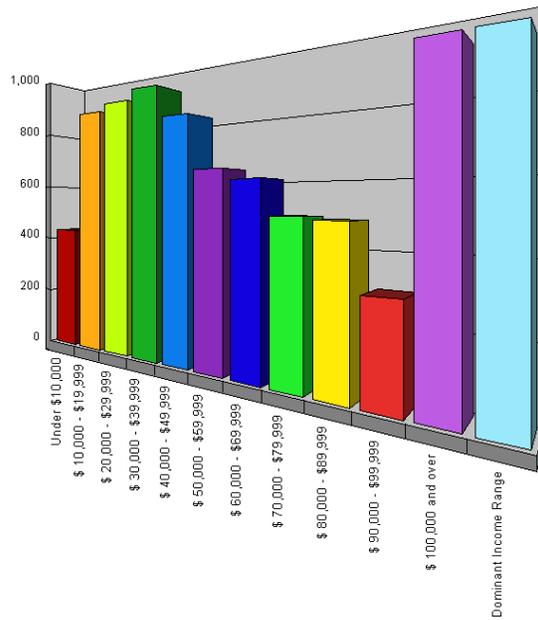
1. Select **New Project Wizard**
2. Click on **Select a Predefined Area**, then click **Next**
3. Selections:
 1. Demographic database: **2001 Census [British Columbia]**
 2. Custom Data Template: default
 3. Predefined Area Type: **Postal FSA**
4. Click **Next**.
5. Type "**VA**" to skip to Vancouver and select **V5K Vancouver**, then click **Next, Finish**, and **Search Now**.
6. The data from this FSA will display in a columnar list. Click on **Study Area** on the menu bar and select **New Predefined Study Area**.
7. Repeat Steps 3 – 5, selecting **V3A Langley** as the FSA. A second columnar list of data will appear next to the first.
8. Click on the title tab **2006 Census Snapshot** to select a new data category: **2000 Household Income**.
9. Click on the Profile Graph tab to view the data in graph form. Selections for category variables:
 1. FSA (Study Area(s))
 2. Graph values: default
 3. Private Households by Income
 4. Percent Groups
10. Click **Export** on the menu bar, and select **Export Graph as Graphic**.
11. Insert your USB drive, and browse to its drive location on the computer terminal.
12. File name: **V5K-Vancouver**; Save as Type: Windows bitmap (*.bmp).
13. Now select V3A Langley to view this FSA graph. Repeat steps 9-11 to export this graph, naming the file **V3A-Langley**.

See the next page to view the sample graphs.

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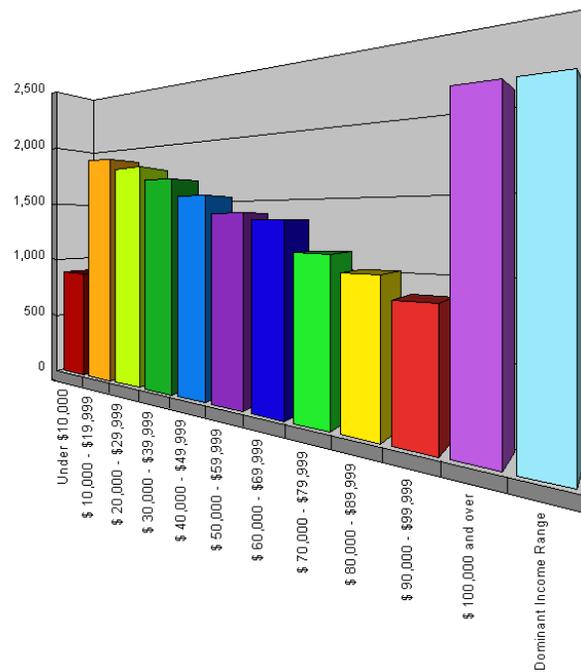
Postal FSA Comparison Graphs:

V5K Vancouver, BC



Private households by Income

V3A Langley, BC



Private households by Income

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6. Family Structure and Children in the Vancouver CMA, exported and displayed as HTML

1. Select **New Project Wizard**
2. Click on **Select a Predefined Area**, then click **Next**
3. Selections:
 - a. Demographic database: **2006 Census Release 3 [British Columbia]**
 - b. Custom Data Template: default
 - c. Predefined Area Type: **Metro Area (CMA/CA)**
4. Click **Next**.
5. An alphabetical list will appear. Type "Va" to jump forward and select **Vancouver**.
6. Click **Next, Finish, and Search Now**.
7. Click on the title tab **Census Snapshot**, and select the category **Family Structure and Children**.
8. Insert your USB drive. From the menu bar, click **Export**, and select **Export Profile Totals**
9. Select HTML file, then Browse to select the drive location of your USB.
10. File name: **VancouverCMA-FamilyStructure**; Save as Type: HTML File (*.htm)
11. Click **Save**.
12. Make sure the **View Created File** box is checked and click **OK**.
13. An Internet Explorer window will open with the data displayed.

See the next page to view the sample report.

PCensus for MapPoint

**Vancouver CMA Family Structure and Children HTML file
Profile Report
2006 Census: Release 3 [British Columbia]**

2006 Census Family Structure and Children	Vancouver, BC	
		%
Census families in private households by family structure	500,120	
Married couples	433,180	75%
With no children at home	166,040	29%
With children at home	267,140	46%
1 child	100,246	17%
2 children	119,729	21%
3 or more children	47,175	8%
Common-law couples	69,825	10%
With no children at home	41,610	7%
With children at home	17,215	3%
1 child	9,175	2%
2 children	5,765	1%
3 or more children	2,255	0%
Lone parent families	66,115	10%
Male parent	16,870	3%
1 child	11,050	2%
2 children	4,460	1%
3 or more children	1,360	0%
Lone Female parent	71,245	12%
1 child	43,775	8%
2 children	20,905	4%
3 or more children	6,565	1%
Total children at home by age	662,665	
Under 6 years of age	125,675	19%
6 - 14 years	218,535	33%
15 - 17 years	79,715	12%
18 - 24 years	145,155	22%
25 years and over	65,870	10%
Children/family	1.1	
Total number of census families in private households	500,120	
2 persons	262,475	45%
3 persons	134,790	23%
4 persons	132,000	23%
5 or more persons	50,655	8%

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7. Population summary comparison of LA and Seattle, exported as an Excel spreadsheet

1. Select **New Project Wizard**
2. Click on **Select a Predefined Area**, then click **Next**
3. Selections:
 1. Demographic database: **2000 Census SF1+ [United States]**
 2. Custom Data Template: default
 3. Predefined Area Type: **Place**
4. Click **Next**
5. A long alphabetical list of locations will appear. Type "Seat" to jump forward in the list and select **Seattle City, WA** as the place name.
6. Click **Next, Finish, and Search Now.**
7. The data will display in a columnar list. Click **Study Area** on the menu bar and select **New Predefined Study Area.**
8. Repeat Steps 3-5, selecting **Los Angeles City, CA** as the place name.
9. Click on the **Population Summary** title tab to view other data categories. Click **Cancel.**
10. Insert your USB drive. Click **Export** on the menu bar, and select **Export Profile Totals...**
11. File format: **Excel spreadsheet**; Title: **LA/Seattle Population Summary Comparison.**
12. Make sure the **View Created File** box is checked, and click **OK** to view the file.
13. An Excel workbook will open. Click **File** on the menu bar and select **Save As...** to save the Excel file to your USB drive.

See the next page to view the sample report.

Note: The **Add Another** button in the Predefined Area Type selection box will combine data from cities, counties, and states in any combination you choose. You can also use this exercise outline to compare states to cities, cities to counties, etcetera.

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PCensus for MapPoint

LA/Seattle Population Comparison Profile Report 2000 Census SF1+

Population Summary	Seattle city, WA		Los Angeles city, CA	
	563,374	% base	3,694,820	% base
Total Population				
Population/square mile	6,717.00		7,876.80	
Land area (square miles)	83.9		469.1	
By Sex:				
Total Male	280,973	50%	1,841,805	50%
Total Female	282,401	50%	1,853,015	50%
Population By Age:				
	563,374	% base	3,694,820	% base
Under 5 years	26,215	4.70%	285,976	7.70%
5 to 9 years	24,459	4.30%	297,837	8.10%
10 to 14 years	23,425	4.20%	255,604	6.90%
15 to 19 years	29,648	5.30%	251,632	6.80%
20 to 24 years	51,014	9.10%	299,906	8.10%
25 to 34 years	122,282	21.70%	674,098	18.20%
35 to 44 years	95,077	16.90%	584,036	15.80%
45 to 54 years	81,453	14.50%	428,974	11.60%
55 to 59 years	24,830	4.40%	143,965	3.90%
60 to 64 years	17,164	3.00%	115,663	3.10%
65 to 74 years	29,463	5.20%	187,111	5.10%
75 to 84 years	27,273	4.80%	125,829	3.40%
85 years and over	11,071	2.00%	44,189	1.20%
Mean age	38		33.69	
Median Age	35.4		31.6	
Population By Race/Hispanic Origin				
	563,374	% base	3,694,820	% base
One Race	538,226	96%	3,503,532	95%
White	394,889	70%	1,734,036	47%
Black or African American alone	47,541	8%	415,195	11%
American Indian and Alaska Native	5,659	1%	29,412	1%
Asian	73,910	13%	369,254	10%
Native Hawaiian and Other Pacific Islander	2,804	0%	5,915	0%
Other race	13,423	2%	949,720	26%
Two or more races	25,148	4%	191,288	5%
Hispanic or Latino	29,719	5%	1,719,073	47%
Not Hispanic or Latino	533,655	95%	1,975,747	53%
White alone	382,532	68%	1,099,188	30%
Population By Household Type:				
	563,374	% base	3,694,820	% base
Persons living in households	536,719	95%	3,612,223	98%
In family households	337,739	60%	2,982,571	81%
In nonfamily households	198,980	35%	629,652	17%
Persons in group quarters	26,655	5%	82,597	2%
Institutionalized persons	6,860	1%	30,446	1%
Others	19,795	4%	52,151	1%

Updated: 4/25/2010

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8. Canada/US comparison – California and BC.

1. Select **New Project Wizard**
2. Click on **Select a Predefined Area**, then click **Next**
3. Selections:
 1. Demographic database: **2000 Census SF1+ [United States]**
 2. Custom Data Template: default or comparison?
 3. Predefined Area Type: **State**
4. Click **Next**
5. A long alphabetical list of locations will appear. Type “C” to jump forward in the list, and select **California**.
6. Click **Next, Finish, and Search Now**.
7. The data will display in a columnar list. Click **Study Area** on the menu bar and select **New Predefined Study Area**.
8. Selections:
 1. Demographic database: **2001 Census [British Columbia]**. A Message Box will appear: “The selected database is not the same type as used by the other study areas in your project. Do you want to use this database anyway?”
 2. Click **Yes**.
 3. Custom Data Template: default
 4. Predefined Area Type: **Province**
9. Select **British Columbia**, and click **Next, Finish, and Search Now**.
10. A second columnar list of data will appear by the first.

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9. Population Comparison of Canada, United States, and Mexico

1. Select **New Project Wizard**
2. Click on **Select a Predefined Area**, then click **Next**
3. Selections:
 1. Demographic database: **World Population**
 2. Custom Data Template: default
 3. Predefined Area Type: **Country**
4. Click **Next**
5. Select **Canada** then click **Next**, **Finish**, and **Search Now**.
6. On the menu bar, click on **Study Area** and select **New Predefined Area Study**.
7. You will be taken back to the original selection screen. Repeat steps 3-5, selecting **United States** as the country.
8. On the menu bar, click on **Study Area** and select **New Predefined Area Study**. Repeat steps 3-5 again, selecting **Mexico** as the country.
9. Click on the title tab **Population Trends**, and select the category **Population Numbers**.
10. Click **File** on the menu bar and select **Print**
11. Enter **Population Comparison of Canada, United States, and Mexico** as the report header, and select **Population Numbers** as the category to print.
12. Select the appropriate printer, and click **Print**. Do note that the printer you select will differ in the Belzberg and Bennett Libraries, and printer settings can change, so please ask a librarian for assistance if your report does not appear in the print queue.

See the next page to view the sample report.



Population Comparison of Canada, United States, and Mexico
 Profile Report
 World Population

Population Numbers	Canada	United States	Mexico
1950	14,011,422	152,271,000	25,405,153
1960	18,266,765	180,571,000	38,578,505
1970	21,749,986	205,052,000	52,775,158
1980	24,593,300	227,725,463	66,685,808
1990	27,780,600	250,151,894	81,416,113
2000	31,278,097	282,358,631	100,349,766
2001	31,582,805	285,023,856	101,679,171
2002	31,902,268	287,675,528	103,400,165
2003	32,207,113	290,342,554	104,507,991
2004	32,507,874	293,027,571	106,398,961
2005	32,805,041	295,734,134	107,669,838
2006	33,098,932	298,444,215	108,524,684
2007	33,390,141	301,136,947	110,767,448
2008	33,679,263	303,821,646	112,195,018
2009	33,966,367	306,496,396	113,604,257
2010	34,252,514	309,162,561	114,994,753
2012	34,818,585	314,508,098	117,727,260
2015	35,653,360	322,592,787	121,711,922
2020	36,983,180	336,031,546	128,008,016
Source: <i>Interimperial Data Base (IDB) - Census Bureau International Programs Center</i>			

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10. Other Possible Research Data Outputs

See **Appendix B : Sample Reports from Previous PCensus Versions** to view the following reports:

- Canada 1995 daytime population, Alberta and B.C. comparison
- Canada 1995 consumer spending, B.C. and Ontario comparison
- Canada 1996 Census – B.C. Census Summary
- Canada 1996 Census – 1995 Individual Total Income – Postal code comparison
- Canada 1996 Census – Census Tract mode of transportation data
- Canada 1996 Census – Vancouver Quadra FED summary
- Canada 1996 Census – Sample Lifestyles – Vancouver and Kelowna comparison
- Canada – Census History – B.C. Citizenship
- 1995 Consumer Spending – Compares B.C. to the rest of Canada
- Canada 1998 Estimates and Projections, B.C. Population Trends
- Canada 1996 Census Population and Dwellings, CT Profile
- 1995 Psyte Major Groups, summary data for all of B.C.
- 1990 STF31 (Standard) – Census of Population and Housing for California
- PCensus Lifestyle Targeting – Aboriginal Population in Selected Postal Codes

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Section IX: Additional Resources and Search Aids

The SFU Library has a number of additional resources and search aids that can be used to assist you with your project. The following is a list of these resources:

- *PCensus Users Guide, Version 7.5* - Z 699.5 C44 P34 – available at the Belzberg Reference desk. (<http://troy.lib.sfu.ca/record=b1429055~S1a>)
- PCensus slideshow tutorials (<http://cufts2.lib.sfu.ca/CRDB/BVAS/resource/5599>)
 - Predefined study areas
 - Creating custom study areas - circles
 - Creating custom study areas - polygons
- SFU Canada Census publication guide (<http://www.lib.sfu.ca/help/publication-types/census>)
- *2006 Census Dictionary* by Statistics Canada (<http://www12.statcan.gc.ca/census-recensement/2006/ref/dict/index-eng.cfm>)
- *Census metropolitan areas, census agglomerations and census tracts* HA 745 C46 1997 (<http://troy.lib.sfu.ca/record=b1844505~S1a>)
- *Guide to federal electoral districts* JL 193 E432 2009 (<http://troy.lib.sfu.ca/record=b5528292~S1a>)
- Geographic Codes: Selected Tables
<http://www.sfu.ca/rdl/dlib/data/survey/census/96census/docs/geocodes.html>
 - Web link: http://geodepot.statcan.ca/Diss/Maps/ReferenceMaps/Canada_E.pdf
 - <http://www12.statcan.gc.ca/census-recensement/2006/ref/dict/index-eng.cfm>*Canadian atlas of F.S.A. postal areas* HE 6653 C37 2006 Belzberg (<http://troy.lib.sfu.ca/record=b5332473~S1a>)
 - *Allocation of area code designators* HE 6653 C253 1997 Bennett, Belzberg (<http://troy.lib.sfu.ca/record=b1871982~S1a>)
 - *Canada's postal code directory* (<http://www.westminster.ca>)

If you encounter difficulties using PCensus, require additional help with your research, or have any other questions, please consult with a librarian at one of our Reference desks or online at Ask a Librarian (<http://www.lib.sfu.ca/help/ask-a-librarian>)

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Appendix A: Reference Maps

Printed reference maps are only included in the binder printouts located at the Bennett and Belzberg information desks. Please consult the online maps using this link:

http://geodepot.statcan.ca/Diss/Maps/ReferenceMaps/index_e.cfm

The following maps are included in the printed appendix:

Vancouver CMA (1/8)

Inset 1 (2/8) – West Vancouver/North Vancouver

Inset 2 (3/8) – Burnaby/Coquitlam/Port Coquitlam/North Surrey

Inset 3 (4/8) – Vancouver

Inset 4 (5/8) – Pitt Meadows/Maple Ridge/North Langley

Inset 5 (6/8) – Richmond/Delta

Inset 6 (7/8) – Surrey/White Rock

Inset 7 (8/8) - Langley

Index of Electoral Districts (Canada FEDs)

Note: The CMA maps listed may differ from those currently available at Statistics Canada. For the most current map information, please consult the Statistics Canada website:

<http://www12.statcan.gc.ca/census-recensement/2006/geo/ref-eng.cfm>

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Appendix B: Sample Reports from Previous PCensus Versions

Printed **Sample Reports from Previous PCensus Versions** are only included in the binder printouts located at the Bennett and Belzberg information desks. The reports included in the printed appendix were generated using past versions of PCensus at the SFU Library. These reports can still be reproduced using the current version, as well as similar reports using the most current census data.

Here is a list of the reports:

- Canada 1995 daytime population, Alberta and B.C. comparison (Sample 1)
- Canada 1995 consumer spending, B.C. and Ontario comparison (Sample 2)
- Canada 1996 Census – B.C. Census Summary (Sample 3)
- Canada 1996 Census – 1995 Individual Total Income – Postal code comparison (Sample 4)
- Canada 1996 Census – Census Tract mode of transportation data (Sample 5)
- Canada 1996 Census – Vancouver Quadra FED summary (Sample 6)
- Canada 1996 Census – Sample Lifestyles – Vancouver and Kelowna comparison (Sample 7)
- Canada – Census History – B.C. Citizenship (Sample 8)
- 1995 Consumer Spending – Compares B.C. to the rest of Canada (Sample 9)
- Canada 1998 Estimates and Projections, B.C. Population Trends (Sample 10)
- Canada 1996 Census Population and Dwellings, CT Profile (Sample 11)
- 1995 Psyte Major Groups, summary data for all of B.C. (Sample 12)
- 1990 STF31 (Standard) – Census of Population and Housing for California (Sample 14)
- PCensus Lifestyle Targeting – Aboriginal Population in Selected Postal Codes