This guide provides step-by-step instructions on how to:

- Interpret Census Geography
- Access Statistics Canada Data
- Create a Census Profile
- Create a Topic Based Tabulation
# TABLE OF CONTENTS

- Introduction .................................................................................................................. p.1
- Census geography ........................................................................................................ p.1
- Census data ..................................................................................................................... p.4
- Profile data ..................................................................................................................... p.5
  - HTML ............................................................................................................................ p.5
  - Beyond 20/20 ................................................................................................................ p.6
  - Downloading Beyond 20/20 software .......................................................................... p.6
  - Downloading Beyond 20/20 files ................................................................................ p.8
  - Switching dimensions ................................................................................................... p.8
  - Searching ....................................................................................................................... p.8
  - Selecting data ................................................................................................................. p.9
- Cleaning data in Excel ................................................................................................... p.13
- Topic-based Tabulations ............................................................................................. p.15
  - HTML ............................................................................................................................ p.15
  - Beyond 20/20 ................................................................................................................ p.16
  - Beyond 20/20 nesting .................................................................................................... p.18
- Saving your work ........................................................................................................... p.19
- Additional resources ..................................................................................................... p.20
- Beyond 20/20 resources .............................................................................................. p.20
- Other data sources ....................................................................................................... p.21
- Citing data sources ....................................................................................................... p.21
- Glossary ........................................................................................................................ p.22
- Census products overview ......................................................................................... p.24
- Thematic maps .............................................................................................................. p.25
- Contact information ..................................................................................................... p.26
Census 2011 Data

The Canadian Census is an important and often underutilized research tool.

In some cases, it may even be the only source for obtaining specific variable combinations important to your research.

It allows users to access detailed characteristics for very small geographic units.

In the past, there have been various restrictions on access, or levels of access. Today, all Census data as of the 2011 Census release, is being made freely available to everyone and at all geography levels via the Statistics Canada website.

**Census Questionnaire**

Normally, 80% of all households get the Census short form, while 20% get the Census long form.

With the 2011 Census, Statistics Canada was mandated by legislation to make the Census long form voluntary.

As it is now voluntary, the Census was renamed the National Household Survey (NHS).

**WEBSITE RESOURCES**


**CENSUS GEOGRAPHY**

You need to understand the interrelated nature of census geography in order to put together the pieces of the census data puzzle. Essentially, what you need to know is that there are several different levels of census geography each of which nests inside another. Working from the largest down to the smallest unit of
geography the levels are as follows: Division, Subdivision, Metropolitan area, Tracts, Federal electoral districts and Dissemination areas.

Census Reference Maps can be used to understand Census geography. Larger geographies include the country of Canada, as well as its Provinces, Territories, Federal electoral districts, and Census divisions.

Manitoba is divided into 23 Census divisions (CDs).

Each Division includes many subdivisions.

Census subdivisions can be Aboriginal Reserves, Rural municipalities, towns, villages, etc.

The City of Winnipeg is itself a Census subdivision.

Headingly and Winnipeg together make up Manitoba Census Division No. 11 and this is just 1 of 23 CDs in Manitoba.

Things to keep in mind

If your study area is Winnipeg, you need to decide what level of census geography you will use? Will you use the Census Subdivision (City of Winnipeg proper) or will you use the Census Division (City of Winnipeg and Headingly)?

Moreover, you must take into account that the City of Winnipeg is also a Census Metropolitan Area that includes much of the surrounding area just outside the urban core.

http://www12.statcan.gc.ca/census-recensement/2011/geo/map-carte/pdf/CMA-CA-CT_RMR-AR-
Census Metropolitan Areas are then further divided into Census tracts. Census tracts are a level of census geography commonly used when researching the complexities of large cities in Canada.

**Note:** Census tract geography changes over time because of population thresholds.

<table>
<thead>
<tr>
<th>Number of Winnipeg Census Tracts</th>
<th>Census Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>173</td>
<td>2011</td>
</tr>
<tr>
<td>165</td>
<td>2006</td>
</tr>
<tr>
<td>165</td>
<td>2001</td>
</tr>
<tr>
<td>157</td>
<td>1996</td>
</tr>
</tbody>
</table>

If a tract exceeds the population threshold, it will be divided into two (or more) separate census tracts. i.e. xxx will become xxx.1 and xxx.2 with each additional tract retaining the root census tract number incremented by one.

In general, tracts are representative of interrelated neighbourhoods. However, in some cases, there are exceptions. For example, let’s look at Census Tract #0015.00. This tract includes both West Broadway, a core neighbourhood characterized by poverty and Armstrong Point an upper class neighbourhood characterized by affluence.

The finest level of detail provided by census geography is a Dissemination Area (DA). By convention both Census Tracts and Census Subdivisions are divided into DAs. These areas are often comprised of only one or two city blocks. For example: Census tract #0015.00 is made up of 10 separate DAs.

**Note:** Owing to its relatively small size, Dissemination Area data is often suppressed due to confidentiality concerns.
Statistics Canada will not release any data if there is a concern that an individual could be identified from it. As a result Dissemination Area data is often suppressed or omitted to avoid personal identification.

Looking to the map you will notice that DAs begin with 11, i.e. 1100657, 1100658 ... This is because this Census tract is within Manitoba Census Division 11.

Historically, Statistics Canada used Federal Electoral District as the basis for census geography. Due to access complications and methodology changes, Dissemination areas are more difficult to work with. As a result, most researchers use Census Tracts.

**ACCESSING DATA**

Create a **New** folder on the desktop of your computer and name it **Census_2011**.

Using a browser of your choice, navigate to the Statistics Canada Census homepage.


**Note:** This site does not provide a comprehensive listing of historic Census data. However, there are other websites that can be accessed to obtain additional census years. A listing of these other sites can be found in the Additional Resources section of this guide.

Click on the **Data Products** link.
Note: There are a variety of different data products and visualizations. Most of these provide data for broad levels of geography; such as country, province, territory and city wide products. However, there are only two data products that include census data at a detailed level of geographic specificity: Census Profiles and Topic-based tabulations.

VIEWING CENSUS PROFILES

Profile data is univariate. This means the data describes the distribution of a single variable. Statistics Canada provides you with two Profile viewing options that are useful if you just need to do some quick fact checking.

Option 1:

On the Data products page click the Census Profile link.

In the Option 1: Search box type Winnipeg, then click Search.

Note: the Search yields results for Winnipeg (City - e.g. Census Subdivision), Census metropolitan areas, Economic regions, Federal electoral districts and Population centres.

We are interested in reviewing Census Subdivision variables.

Under Census Subdivision heading click on the Winnipeg (City) link.

Take a few moments to review the data. You can see that there is a variety of variables available at this level of census geography (Population and Dwelling counts, as well as Age, Gender, Marital status, Family, Household and Language characteristics). In addition there is also data for the Census Division in which Winnipeg is found.

This option also lets you query the data by geography. For example: say you needed to do a quick comparison of the Total Population counts for Winnipeg and Regina in 2011. Write down the Population in 2011 for Winnipeg __________ now click the Change geography button. Resubmit the query this time using Regina as the Place name in order to determine the Population in 2011 for Regina (City) ________________.

Note: the Download tab at the top of the page can be used to download the data instead of simply viewing it onscreen.
Option 2:

Return to the Census Profile page.

Site Navigation Tip

You can click on the links along the top of the page to quickly navigate throughout the site.

Under Option 2: Select from a list, click the Manitoba link.

Scroll down the page to see the complete list of available data.

Note: This page contains links to the same levels of geography as Option 1 with the addition of a Designated Places dataset.

This option works well for one or a few geographic units, but not if you want to work with many units.

DOWNLOADING BEYOND 20/20 FILES

The preceding options do not provide access to Census Tract level. You must download the complete geographic level to obtain tract level data.

Navigate to the Census Profile page.

In the top right-hand corner of the page you will see that you have the option to Download – the complete geographic level. There are four data download options – CSV, TAB, IVT and XML.

Click the IVT or XML link.

Under Geographic levels select Census metropolitan areas, tracted census agglomerations and census tracts in IVT (Beyond 20/20) File format.
Scroll down to the bottom of the page and click the Download IVT or XML button.

Save this file to your Census 2011 folder.

Minimize your browser.

**USING BEYOND 20/20**

Once the file has been downloaded, double-click to Open it with Beyond 20/20.

*Note:* Beyond 20/20 is installed on Library lab workstations but it is not accessible from a desktop icon or the Program menu. The program will start when you open a Table file.

When the Beyond 20/20 Professional Browser starts take a few moments to orientate yourself to the user interface using the Quick Reference Guide. The step-by-step instructions will refer to specific toolbars, menus and views by name throughout this exercise. All of these are clearly labeled in the guide.

Upon start up, you will notice that the Table file is displayed in Table View. Your currently opened Table file contains all of the census tract data for every major city in Canada, starting with St. John’s Newfoundland.

The browser formats data to have a spreadsheet like appearance. However, the browser can support the viewing of multiple dimensions and it is this additional functionality that allows you to take your data beyond the row and column formatting of a spreadsheet.

**Table File**

A Table File is a proprietary file format used to hold data, along with textual and display information (Ivation Datasystems, 1998)

Table Files will have an .ivt file extension.
Software Download Tip

If you would like to install the program on your personal computer it can be freely downloaded for use from the Statistics Canada website.


SWITCHING DIMENSIONS

Currently the Geography dimension tile is not active.

To switch dimensions left-click Geography to select it, then drag and drop it on top of the column heading Sex (3).

The Geography tile is now the active dimension. It is visible in Table View and its name is displayed in the Active Dimension Box.

You will now use the horizontal scroll bar to navigate to the Winnipeg Census Tracts.

Scroll to the right until you see the number 602 (this is the code assigned to Winnipeg by Statistics Canada).

As you are scrolling through the data you are making a cross Canada journey, starting in the East with St. Johns and progressing westerly from Province to Province and City to City. As such, the data for Winnipeg will be located in the table between Thunder Bay, Ontario (595) and Regina, Saskatchewan (705).

Search Tool Tip

If you know what data you are looking for you can quickly find it using the Search tool. The Search tool allows you to search based on words or phrases in the code or label fields of a table.

On the Toolbar click the Search button.
In the Search dialog box select English Description.

For Type of Selection choose Find Next.

Type Winnipeg into the Text to Find textbox.

Click OK.

This will advance your position in the table to the first column of Winnipeg census tracts.

Click the heading of the column Winnipeg (602) 2000 to select it. This first column of Winnipeg data is a summary total of all of Winnipeg’s census tracts. Subsequent Winnipeg columns are totals for individual census tracts.
**Note:** You can click and drag to mark adjacent columns or hold down the **Ctrl** key and click to mark non-adjacent tracts. Alternatively, to select a range of values you can click on the first column, hold down the **Shift** key and click on the last column.

With the first column selected, scroll to the right until you see the last Winnipeg census tract column. (**Hint:** it is census tract number **6020700.00** and it is located to the left of the **Regina** totals column).

Hold down the **Shift** key and click on the column heading of the last Winnipeg census tract to create a range selection of all Winnipeg census tracts.

**Note:** There are 173 census tracts in Winnipeg. To check that you have them all selected look in the **Status Bar**, located in the bottom right corner of the screen. There you can see that 174 columns are currently selected - one column of totals and 173 columns of individual census tracts.

### SHOWING ITEMS

On the **Toolbar** select **Item** then **Show** to subset your data to Winnipeg census tracts.
In the Profile of Census column scroll down until you see the nine variables associated with Lone-Parent families as listed below:

**VARIABLES**

Total lone-parent families by sex of parent and number of children

**Female parent**
- 1 child
- 2 children
- 3 or more children

**Male parent**
- 1 child
- 2 children
- 3 or more children

Click on the first variable **Total lone parent families**... to select it.

Hold down the **Shift** key and select the last lone-parent variable to create a range selection.

On the **Toolbar** select **Item** then **Show** to subset the **Census Profile** dimension to **Lone-parent family** variables.

This data will be used in a future mapping project. Therefore, you need to switch dimensions so that the Geography data values are displayed in rows not columns, this allows for table joining.
To switch dimensions left-click Geography to select it, then drag and drop it on top of the Profile of Census.

**DISPLAYING ALTERNATE LABELS**

Make sure that the Geography dimension is now active.

On the Toolbar check that Geography is displayed in the Active Dimension Box.

![Image of Active Dimension Box]

**Active Dimension Tip**

You can always tell what dimension is active because the dimension title will appear as white text on a black background.

A dimension may have more than one field of labels. Your Geography dimension has several different labels.

On the Toolbar click the Next Label button to cycle through the different available label options.

Ensure that the label showing census tracts to two decimal places is displayed.

![Image of Census tracts]

We will need the data label in this format in order to join it with a mapping file in a future exercise.

You have done a fabulous job of acquiring and preparing your data. Now it’s time to save all your good work.

From the Main menu select File then Save As.

In the Save As dialog box type LoneParent into the File Name textbox.
From the List Files of Type drop down menu select Excel Worksheet.

Under Directories navigate to your Census_2011 folder.

Click OK.

CLEANING DATA IN EXCEL
An important part of any research project is taking the time to familiarize yourself with the data that you will be using in your study.

Start Excel.

Open the LoneParent spreadsheet.

If necessary, expand the column width so that you are able to read all the column headings and then take a moment to review the data.

You will note that the spreadsheet has some extra rows as well as unnecessary data (e.g. the totals row for Winnipeg appearing at the top of the spreadsheet). Also, there are column headers that start with numbers and two missing data values in the table. Hover your mouse over the missing values in census tract 6020024.00. You will see that data was not available for a specific reference period. Additionally, hover over the missing values for census tract 6020052.00. You will see that data has been suppressed to meet the confidentiality criterion of the Statistics Act. We need to clean up these anomalies before using this data.
Here are some table formatting tips that you should know:

- Column headings must start with a letter.
- Column headings must be formatted as text.
- Column headings should not exceed ten characters.
- Column headings should not contain spaces (use the underscore character or CamelCase style).

Remove the extra rows and missing data values from the sheet.

Rename the columns according to the following naming convention:

<table>
<thead>
<tr>
<th>Old Column Name</th>
<th>New Column Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profile of Census Geography Winnipeg</td>
<td>CT_ID Total</td>
</tr>
<tr>
<td>Total lone-parent families by sex of parent and number of children</td>
<td>Female Parent FemPar</td>
</tr>
<tr>
<td></td>
<td>OneChd_F TwoChd_F MultiChd_F</td>
</tr>
<tr>
<td>1 child</td>
<td>OneChd_M TwoChd_M MultiChd_M</td>
</tr>
<tr>
<td>2 children</td>
<td></td>
</tr>
<tr>
<td>3 or more children</td>
<td></td>
</tr>
</tbody>
</table>

Review the changes that you have made.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>FemPar</td>
<td>OneChd_F</td>
<td>TwoChd_F</td>
<td>MultiChd_F</td>
</tr>
<tr>
<td>CT_ID</td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>5202001.00</td>
<td>170</td>
<td>125</td>
<td>80</td>
<td>35</td>
</tr>
<tr>
<td>3</td>
<td>5202002.00</td>
<td>340</td>
<td>285</td>
<td>175</td>
<td>75</td>
</tr>
<tr>
<td>4</td>
<td>5202003.00</td>
<td>275</td>
<td>216</td>
<td>135</td>
<td>60</td>
</tr>
<tr>
<td>5</td>
<td>5202004.01</td>
<td>235</td>
<td>196</td>
<td>130</td>
<td>65</td>
</tr>
<tr>
<td>6</td>
<td>5202004.02</td>
<td>155</td>
<td>116</td>
<td>85</td>
<td>25</td>
</tr>
<tr>
<td>7</td>
<td>5202005.00</td>
<td>170</td>
<td>140</td>
<td>90</td>
<td>40</td>
</tr>
<tr>
<td>8</td>
<td>5202005.00</td>
<td>305</td>
<td>236</td>
<td>150</td>
<td>65</td>
</tr>
<tr>
<td>9</td>
<td>5202007.00</td>
<td>250</td>
<td>185</td>
<td>90</td>
<td>65</td>
</tr>
<tr>
<td>10</td>
<td>5202008.00</td>
<td>130</td>
<td>95</td>
<td>60</td>
<td>35</td>
</tr>
<tr>
<td>11</td>
<td>5202009.00</td>
<td>160</td>
<td>125</td>
<td>60</td>
<td>35</td>
</tr>
<tr>
<td>12</td>
<td>5202010.00</td>
<td>200</td>
<td>155</td>
<td>100</td>
<td>40</td>
</tr>
<tr>
<td>13</td>
<td>5202011.00</td>
<td>160</td>
<td>145</td>
<td>105</td>
<td>30</td>
</tr>
<tr>
<td>14</td>
<td>5202012.00</td>
<td>235</td>
<td>295</td>
<td>125</td>
<td>50</td>
</tr>
<tr>
<td>15</td>
<td>5202013.00</td>
<td>120</td>
<td>10</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>5202014.00</td>
<td>180</td>
<td>140</td>
<td>105</td>
<td>30</td>
</tr>
<tr>
<td>17</td>
<td>5202015.00</td>
<td>355</td>
<td>290</td>
<td>185</td>
<td>70</td>
</tr>
<tr>
<td>18</td>
<td>5202016.00</td>
<td>150</td>
<td>120</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>19</td>
<td>5202017.00</td>
<td>165</td>
<td>130</td>
<td>90</td>
<td>30</td>
</tr>
<tr>
<td>20</td>
<td>5202018.00</td>
<td>140</td>
<td>110</td>
<td>70</td>
<td>25</td>
</tr>
<tr>
<td>21</td>
<td>5202019.00</td>
<td>210</td>
<td>165</td>
<td>65</td>
<td>45</td>
</tr>
<tr>
<td>22</td>
<td>5202020.00</td>
<td>140</td>
<td>115</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>23</td>
<td>5202021.00</td>
<td>400</td>
<td>330</td>
<td>180</td>
<td>90</td>
</tr>
<tr>
<td>24</td>
<td>5202022.00</td>
<td>395</td>
<td>330</td>
<td>170</td>
<td>100</td>
</tr>
<tr>
<td>25</td>
<td>5202023.00</td>
<td>350</td>
<td>305</td>
<td>165</td>
<td>75</td>
</tr>
<tr>
<td>26</td>
<td>5202025.00</td>
<td>235</td>
<td>200</td>
<td>90</td>
<td>65</td>
</tr>
</tbody>
</table>
Save your cleaned Excel file in your Census_2011 folder.

**VIEWING TOPIC-BASED TABULATIONS**

Maximize your browser.

Navigate to the Statistics Canada Data products page and click on the Topic-based tabulations link.

You will see links to a series of tables based on data topics, with each available at various levels of census geography.

Click the Families, households and marital status link.

This takes you to a list of ten topic-based tabulation tables. Six of these have data at the census tract level.

In this exercise we will be working with Topic-based tabulation 2: Age Group of Child (13), Census Family Structure (7) and Sex (3) for the Children in Census Families in Private Households.

Once again Statistics Canada has provided you with two options for working with Topic-based tabulations.

**Option 1:**

Option 1 is an HTML file format suitable for onscreen viewing.

Click on the HTML link for Tabulation 2: Census Metropolitan Areas, Census Agglomerations and Census Tracts.

Once Tabulation 2 opens, you will note that you can select Geography and Sex (3) as data categories for the table.

![Image of Tabulation 2](image.png)

Type the letter W into the text box under Geography.

**Note:** Typing W advances your current position in the table to Windsor. Typing W once more will advance you to the Winnipeg data. Using keystroke shortcuts such as these will save you time and reduce your need to scroll through the data.
Select Winnipeg from the Geography drop-down list.

Click the Submit button.

You will now see the topic-based tabulation for the Census Metropolitan Area of Winnipeg. The Age group of child and Census family structure dimensions are displayed in the rows and columns of the table.

This option works very well if you want to look at single or small number of geographic units.

**Option 2:**

Option 2 is a Beyond 20/20 file suitable for data display and manipulation. This option allows you to view a large number of geographic units.

Navigate back to the Topic-based tabulations page.

Click on the B20/20 link for Tabulation 2: Census Metropolitan Areas, Census Agglomerations and Census Tracts.

Choose to Open the file when prompted.

Beyond 20/20 can be used to view and subset topic-based tabulations in much the same way as Census Profiles.

This table actually has four dimensions: 1. Geography, 2. Sex, 3. Census family structure and 4. Age group of child.

![Image of the table]

### Age Group of Child (13), Census Family Structure (7) and Sex (3) for the Children in Census Families in Private Households of Census Metropolitan Areas, Tracts

<table>
<thead>
<tr>
<th>Geography (1)</th>
<th>Sex (3)</th>
<th>Total - Sex</th>
<th>Male parent families</th>
<th>Female parent families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Census family</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total - Age group of child</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 15 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 to 4 years</td>
<td>56,810</td>
<td>42,200</td>
<td>37,540</td>
<td>4,560</td>
</tr>
<tr>
<td>5 to 9 years</td>
<td>31,025</td>
<td>23,835</td>
<td>20,460</td>
<td>3,375</td>
</tr>
<tr>
<td>10 to 14 years</td>
<td>10,175</td>
<td>7,780</td>
<td>6,830</td>
<td>810</td>
</tr>
<tr>
<td>15 to 19 years</td>
<td>10,220</td>
<td>7,580</td>
<td>6,765</td>
<td>735</td>
</tr>
<tr>
<td>15 to 17 years</td>
<td>6,230</td>
<td>4,525</td>
<td>4,080</td>
<td>445</td>
</tr>
<tr>
<td>18 years</td>
<td>2,060</td>
<td>1,560</td>
<td>1,400</td>
<td>145</td>
</tr>
<tr>
<td>19 years</td>
<td>2,010</td>
<td>1,516</td>
<td>1,375</td>
<td>140</td>
</tr>
<tr>
<td>20 to 24 years</td>
<td>8,005</td>
<td>6,175</td>
<td>5,605</td>
<td>370</td>
</tr>
<tr>
<td>25 years and over</td>
<td>7,480</td>
<td>4,605</td>
<td>4,420</td>
<td>185</td>
</tr>
<tr>
<td>25 to 29 years</td>
<td>3,420</td>
<td>2,575</td>
<td>2,460</td>
<td>120</td>
</tr>
<tr>
<td>30 years and over</td>
<td>4,050</td>
<td>2,930</td>
<td>1,960</td>
<td>65</td>
</tr>
</tbody>
</table>
We want to structure the tabulation so that greater insight can be attained from our data. We will arrange the dimensions in such a way as to determine if there are differences by Census family type for the number of children aged 30 years or older.

Currently the **Age group of child** dimension is active.

You want to switch the Geography and Age group of child dimensions to answer our query.

Left-click the **Geography** dimension to select it.

Drag and drop it on top of the **Age group of child** dimension.

In the **Geography** dimension select a range that includes the **Winnipeg totals** and all individual **Winnipeg census tracts**.

*(Hint: Use the Search tool as you did in the Census Profile exercise to locate the Winnipeg data and then hold down the Shift key to select the range of data values.)*

On the **Toolbar** select **Item** then **Show** to subset the **Geography** dimension to Winnipeg census tracts.

Switch the **Geography** and **Age group of child** dimensions so that Age group of child is the active dimension.

Review your data and take note of what differences are indicated by Census family type when it comes to children 30 years and over. What are you able to infer?
Note: If your study area was comprised of a single census tract or a few adjacent census tracts you could use the Previous and Next Item buttons on the Toolbar to advance to the tracts of interest. For example, click the Next Item button to view the Census Tract 001 for Winnipeg.

This table has a Sex dimension that we have not yet utilized. What if your research was trying to determine the ratio of children over 30 living with their parents by gender? This information could be attained by nesting the Sex dimension within the Age group of child dimension.

NESTING DIMENSIONS
Remember we can show multiple dimensions by nesting one dimension within another.

Select the Sex dimension and drag it to the right of Age group of child dimension.

Note: The border of the column will become highlighted to indicate that nesting will take place.
Now you are able to determine not only the number of children over 30 years of age living at home with their parents but also their gender.

What gender in this age group is most likely to be living at home with their parents?

SAVING YOUR WORK
You have done a fabulous job of accessing and exploring Census data! Throughout this exercise you have accessed Profile and Topic-based tabulations from the Statistics Canada website in a variety of different file formats. You have also worked with this data in the Beyond 20/20 Browser. Additionally, you have Switched and Nested different dimensions to derive new information from your data. Now it’s time to Save all your good work.

From the File menu, choose Save As.

Note: Beyond 20/20 provides you with several different file format options when saving data into a new table.

In File Name type AgeGroup.

In List Files of Type choose Excel Worksheet (*.xls).

Under Directories navigate to your Census_2011 folder.

Click OK.
Additional Resources

HISTORIC CENSUS ACCESS
The following websites provide users with access to historic census data not available from Statistics Canada.

The University of Toronto
This site is one of the best sources of older census materials.
URL: http://datalib.chass.utoronto.ca/major/censusag.htm

The Canadian Census Analyser
This site provides access to Census Profile data, in some cases all the way back to 1961.
URL: http://datacentre.chass.utoronto.ca.proxy2.lib.umanitoba.ca/census/

The Internet Archive
Statistics Canada has placed 2725 scanned older Census publications in the Internet Archive. This collection is extensive dating from the 1851 census to the most current
URL: http://www12.statcan.gc.ca/Forum/Index-eng.cfm

BEYOND 20/20 RESOURCES
Beyond 20/20 software is available on most public computer workstations in the Libraries and can be downloaded free of charge.

Software Download
URL: http://www.beyond2020.com/media/downloads/SC/ProBrowser.exe

User Guide
A detailed 304 page guide, available in pdf format.

Quick Start Guide
A 29 page quick reference guide available in pdf format.
OTHER DATA SOURCES

City of Winnipeg Neighbourhood Profiles
The City of Winnipeg Neighbourhood Profile is popular because it provides users with intuitive access to data by neighbourhood name rather than Census tract number. It currently provides a decade of coverage spanning the census years of 1996 to 2006.

URL: http://winnipeg.ca/census/2006/

Equinox
The Equinox site provides access to Census geography, Census of Agriculture and Census of Population aggregate files.

URL: http://equinox2.uwo.ca.proxy2.lib.umanitoba.ca/EN/BasicSearch.asp

CITING DATA SOURCES
No matter where you get your data from, it should be properly cited.

There is a helpful site titled How to Cite Statistics Canada Products. Look to the examples provided to learn how to cite all kinds of Census products.

URL: http://www.statcan.gc.ca/pub/12-591-x/12-591-x2009001-eng.htm

STATISTICS CANADA
Statistics Canada provides many good resources such as videos, chat sessions and tips on how to deal with both Census and National Household Survey data.

URL: http://www.statcan12.gc.ca/Forum/index-eng.cfm

STATISTICS AND DATA LIBGUIDE
Many good resources are showcased in the Statistics and Data LibGuide available from the University of Manitoba Libraries website. Be sure to review the guide and if you require any additional assistance please contact the Data Librarian directly.

URL: http://libguides.lib.umanitoba.ca/statistics

Data Librarian: Gary Strike ph. 204-474-7086 or email: Gary.Strike@umanitoba.ca
GLOSSARY

Census Agglomerations - **(CA)** are similar to CMAs, except that they have an urban core of at least a population of 10,000. There are 118 CAs, with three CAs in Manitoba: Portage la Prairie, Brandon and Thompson.

Census Divisions - **(CD)** are groups of neighbouring municipalities, joined together for regional planning. There are 288 CDs in Canada, with Manitoba being divided into 23 CDs. Statistics Canada refers to these divisions by number.

<table>
<thead>
<tr>
<th>Division Number</th>
<th>Division Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Eastern Manitoba</td>
</tr>
<tr>
<td>2</td>
<td>Steinback Area</td>
</tr>
<tr>
<td>3</td>
<td>Pembina Valley</td>
</tr>
<tr>
<td>4</td>
<td>Pilot Mound Area</td>
</tr>
<tr>
<td>5</td>
<td>South West Area</td>
</tr>
<tr>
<td>6</td>
<td>Virden Area</td>
</tr>
<tr>
<td>7</td>
<td>Brandon Area</td>
</tr>
<tr>
<td>8</td>
<td>Central Manitoba</td>
</tr>
<tr>
<td>9</td>
<td>Portage la Prairie Area</td>
</tr>
<tr>
<td>10</td>
<td>Whitehorse Plains</td>
</tr>
<tr>
<td>11</td>
<td>Winnipeg</td>
</tr>
<tr>
<td>12</td>
<td>Beausejour Area</td>
</tr>
<tr>
<td>13</td>
<td>Selkirk Area</td>
</tr>
<tr>
<td>14</td>
<td>South Interlake</td>
</tr>
<tr>
<td>15</td>
<td>Western Manitoba</td>
</tr>
<tr>
<td>16</td>
<td>Roblin/Russell/Rosburn</td>
</tr>
<tr>
<td>17</td>
<td>Dauphin</td>
</tr>
<tr>
<td>18</td>
<td>North Interlake</td>
</tr>
<tr>
<td>19</td>
<td>North East Manitoba</td>
</tr>
<tr>
<td>20</td>
<td>Swan River</td>
</tr>
<tr>
<td>21</td>
<td>Flin Flon – North West</td>
</tr>
<tr>
<td>22</td>
<td>Thomspn – North Central</td>
</tr>
<tr>
<td>23</td>
<td>Churchill Northern Manitoba</td>
</tr>
</tbody>
</table>

Census Metropolitan Areas - **(CMA)** consist of a large urban core (50,000+) with groups of adjacent, largely urban municipalities (census subdivisions) that have a high degree of social and economic integration (total population 100,000+). There are 34 CMAs in Canada, with Winnipeg being the only CMA in Manitoba. Winnipeg CMA consists of Winnipeg urban area, plus: Brokenhead, St.Clements, Richot, Tache, Springfield, Rosser, Headingley, St. Francois Xavier, West St. Paul and East St. Paul.
Census Subdivisions - (CSD) is an area that is a municipality or equivalent, as defined by the province or territory. Census subdivisions may consist of: Rural municipalities, Aboriginal Reserves, Towns, Villages, unorganized territories, etc. For example, Roseau River 2 Reserve, Hanover RM, Steinback city, Niverville town, and St.Pierre-Jolys village are all Census subdivisions found in Census Division no.2. Note that Census division 11 consists of two subdivisions, Winnipeg city and Headingley RM. There are 276 Census subdivisions in Manitoba.

Census Tracts - (CT) are small relatively stable areas of between 2,500 and 8,000 population, situated within Census Metropolitan Areas. Winnipeg CMA had 173 Census Tracts for the 2011 Census.

Designated Places - (DP) usually small communities that do not meet the criteria used to define municipalities or urban areas. Designated Places are created by provinces / territories in Co-operation with Statistics Canada. There were 1063 DPs in Canada in 2006. Census provides data for 43 Manitoba DPs: Barrows, Berens River, Bissett, Brochet, Camperville, Cormorant, Crane River, Cross Lake, Dallas/Red Rose, Duck Bay, Easterville, Fisher Bay, Gods Lake Narrows, Homebrook, Island Lake, Mallard, Manigotogan, Matheson Island, Meadow Portage, Moose Lake, Norway House, Pelican Rapids, Pikwitonei, Pine Dock, Rock Ridge, Seymourville, Sherridon, Spence Lake, Thicket Portage, Wabowden, Waterhen, Grunthal, Ashern, Fisher Branch, La Salle, Mitchell, Lorette, Landmark, Lundar, Lockport A, Lockport B, Blumenort, and Falcon Lake.

Dissemination Areas - (DA) are small areas with population between 400 and 700. This may be a couple of blocks in a city, or a rural area. There are 52,993 DAs in Canada, with 2,235 in Manitoba. For Winnipeg, see the Winnipeg Census tracts map to identify appropriate tracts, and then access the map for that individual tract to see the boundaries of the DAs. Tract maps are linked to their numbers on the left column of this page.

Federal Electoral Districts - (FED) is the area represented by a Member of Parliament, elected to the House of Commons. There were 308 FEDs in Canada in 2006, with 14 located within Manitoba, and 8 in Winnipeg. Names are: 46-1 Brandon - Souris , 46-2 Charleswood St. James - Assiniboia, 46-3 Churchill, 46-4 Dauphin - Swan River, 46-5, Elmwood-Transcona, 46-6 Kildonan-St.Paul, 46-7 Portage - Lisgar, 46-8 Provencher, 46-9 Saint Boniface, 46- 10 Selkirk - Interlake, 46-11 Winnipeg Centre, 46-12 Winnipeg North, 46-13 Winnipeg South, 46-14 Winnipeg South Centre.

Forward Sortation Areas - (FSA) are the area represented by the first three digits of a postal code. There are 1,593 FSAs in Canada, 64 FSAs in Manitoba, with just over half being in the Winnipeg Area. Winnipeg FSAs start with R2 and R3. Manitoba rural areas start with R0. Canada Post has maps for FSAs (pdf 3.3 Mb) available on their website at: http://www.canadapost.ca/business/tools/pg/fsamaps/pdf/Canada.pdf. The Manitoba maps are on pages 95-98 of this document.
CENSUS PRODUCTS OVERVIEW

Analysis series of comprehensive articles. Free of charge. Multimedia presentations (may require Micromedia Flash Player) Highlight tables present key indicators at various levels of geography. Free of charge via the internet.

Topic-based tabulations cross-tabulated tables with groups of variables on related subjects. Walk-in users, those on campus or those going through the proxy server can access tables at all levels of geography except Dissemination area and Forward Sortation Area through the Depository Services Program. Current faculty, students or staff can access these two levels of geography, for non-commercial purposes, through the Data Liberation Initiative.

Profiles: provide access to univariate data. Walk-in users, those on campus or those going through the proxy server will get access to tables at all levels of geography except Dissemination and Forward Sortation Areas through the Depository Services Program. Current faculty, students or staff can access these two levels of geography, for non-commercial purposes, through the Data Liberation Initiative. There are many subcategories of profile data:

- Aboriginal Population Profiles
- Community Profiles
- Cumulative Electronic Profiles contains all variables (2175 characteristics).
- Dissolved Census Subdivision Profiles
- Federal Electoral District Profile
- Provincial and Territorial Profiles
- Statistical Area Classification Profiles

Census of Agriculture: Statistics Canada produces a wide variety of Census of Agriculture information. The public can access information for Canada at country, province, territory, Census Agricultural Region, Census Division and Census Consolidated Subdivision levels directly from the 2006 Census of Agriculture site of Statistics Canada.

Current faculty, students and staff, for non-commercial purposes, can request the information in Excel format. Contact the Data Librarian for more information.

Cartographic Boundary Files: Statistics Canada creates digital boundary files for all Census geographies. These can be used to thematically map Census variables. This data is restricted to current faculty, students and staff, for non-commercial purposes, through the Data Liberation Initiative.

Reference Maps show boundaries for all levels of geography.

Survey Data: Statistics Canada produces three Public Use Microdata Files for the Census: Individuals, Families, and Households. These allow users to create their own cross-tabulations, based on a sample of Census returns. This data is restricted to current faculty, students and staff, for non-commercial purposes, through the Data Liberation Initiative.
Thematic maps: Maps designed to convey topical or thematic information.

2011 Census – Thematic maps by theme

“A thematic map shows the spatial distribution of one or more specific data themes for standard geographic areas. The map may be qualitative in nature (e.g., predominant mother tongue) or quantitative (e.g., percentage population change).”


2011 National Household Survey – Thematic maps by theme

Education – National maps - Labour / Commuting to work – Census tracts - Income – Census division, Census subdivision, Census tracts - Housing – Census division, Census tracts for selected cities (not including Winnipeg)


GeoSearch 2011

You can search for socio and economic statistics by geography based on the 2011 Census.

http://www.statcan.gc.ca/pub/92-196-x/2011001/figures/fig4.9-eng.htm

Thematic maps by subject (including non-Census)

2006 and 2001 Census, agriculture, environment, health, justice, transport and warehousing.

Contact Information

If you have any further questions regarding Census or Geospatial Data please contact:

<table>
<thead>
<tr>
<th>GARY STRIKE</th>
<th>CYNTHIA DIETZ</th>
<th>GENERAL INQUIRIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATA LIBRARIAN</td>
<td>GIS LIBRARIAN</td>
<td></td>
</tr>
<tr>
<td>Tel (204) 474-7086</td>
<td>Tel (204) 474-7134</td>
<td>Reference Desk</td>
</tr>
<tr>
<td><a href="mailto:Gary.Strike@umanitoba.ca">Gary.Strike@umanitoba.ca</a></td>
<td><a href="mailto:Cynthia.Dietz@umanitoba.ca">Cynthia.Dietz@umanitoba.ca</a></td>
<td>204-474-9844</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Circulation Desk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>204-474-9544</td>
</tr>
</tbody>
</table>

Elizabeth Dafoe Library
25 Chancellor’s Circle
University of Manitoba, Winnipeg, Manitoba R3T 2N2
http://www.umanitoba.ca/libraries/

Credits: This course was authored by Gary Strike, with technical documentation and graphics by Jennifer Charney, 2013. Acknowledgements: The author would like to acknowledge all Reference Services staff for their support of this project.

References