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About the Forecast Model

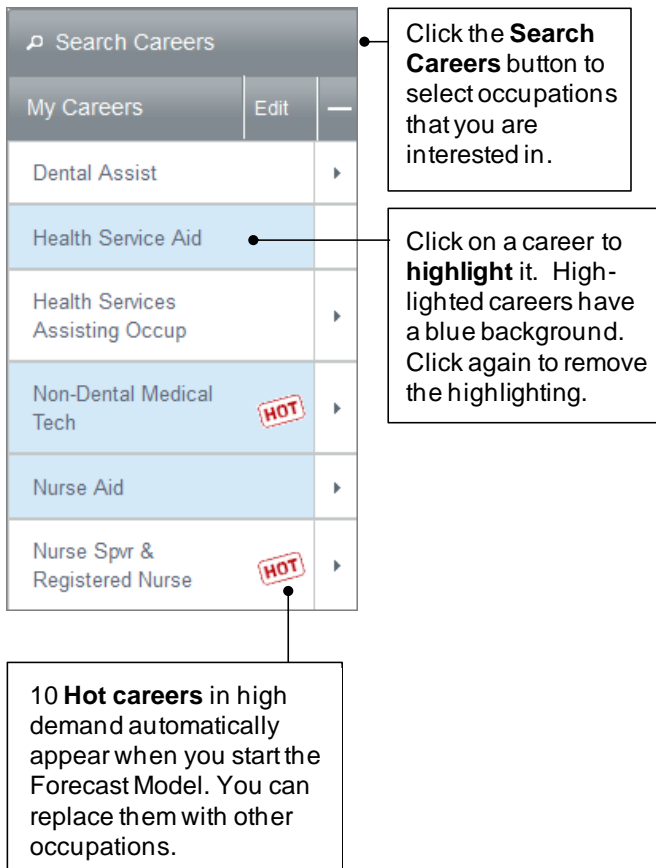
The BC Career and Labour Market Forecast Model 2010 - 2020 is an interactive website that provides a comprehensive view of present and future labour market conditions.

You can view information about careers using maps, graphs and a bubble chart, either by browsing 10 “Hot” careers in high demand, or by creating your own list of favourite occupations.

Careers are listed in alphabetical order in your “My Careers” list. The 10 “Hot” careers in high demand will automatically appear in the list when you start the Forecast Model. You can also add to or replace the Hot careers with other occupations that you choose yourself using the Search Careers features.

You can add as many careers as you wish to the My Careers list, and you can **highlight** up to 10 of them by clicking them in the list. Statistics displayed in the Maps, Graphs and Bubble Chart views will only appear for the careers that you have highlighted.

You can also download career information in a format that is readable in Microsoft Excel and other spreadsheet programs. The Download Data view allows you to select the careers and statistics that you want to download.



Click the **Search Careers button to select occupations that you are interested in.**

Click on a career to **highlight it. Highlighted careers have a blue background. Click again to remove the highlighting.**

10 Hot careers in high demand automatically appear when you start the Forecast Model. You can replace them with other occupations.

My Careers	Edit	
Dental Assist		▶
Health Service Aid		▶
Health Services Assisting Occup		▶
Non-Dental Medical Tech		▶ HOT
Nurse Aid		▶
Nurse Spvr & Registered Nurse		▶ HOT

Finding your way around

The layout of the Maps, Graphs and Bubble Chart screens

Search Careers
Click here to select the occupations you are interested in.

Job Statistics
Statistics for the careers you have highlighted in the "My Careers" list are displayed in the centre area of the screen.

More criteria
The Graphs and Bubble Chart pages allow you to narrow down (i.e. "filter") the Job Statistics by more criteria such as Regions.

My Careers
Your selected occupations are listed here. Click a career to **highlight** it in blue. You can highlight up to 10 careers at a time.

Search Careers

My Careers	Edit
Dental Assist	▶
Health Service Aid	▶
Nursing Assist	▶



Regions

BC

Job Statistics

- Job Openings
Newly created jobs & replacing retired workers
- Demand for Workers
Workers needed to fill jobs
- Available Workers
- Workers vs. Jobs
- Unemployment Rate
Percentage of available workers who are looking but not employed
- New Job Creation
- Employed Workers

Job Statistics categories
Click one or more categories to display different Job Statistics in the centre of the screen.

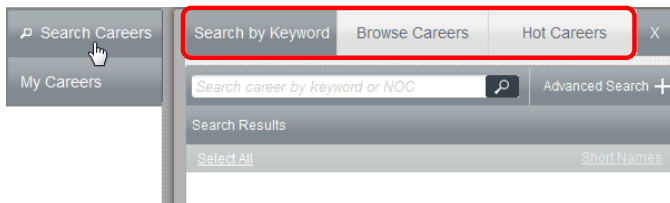
Search Careers

The 10 “Hot” careers in high demand will automatically appear in your My Careers list when you start the Forecast Model. You can also add to or replace the Hot careers with other occupations that you choose using the Search Careers features.

To search for careers:

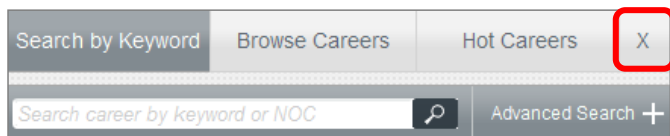
To begin your search, click on the **Search Careers** button. A search criteria box will slide open, allowing you to find occupations using 3 main search criteria:

- Search by Keyword
- Browse Careers
- Hot Careers.



Click one of the **Search by Keyword**, **Browse Careers** or **Hot Careers** buttons.

To close the search criteria box, click on the button at the top right of the search criteria box.



Manage your “My Careers” list

See the section in this Help document entitled [Managing your My Careers List](#) to see how to add occupations to the list, how to remove occupations, and how to display related occupations.

Search by Keyword

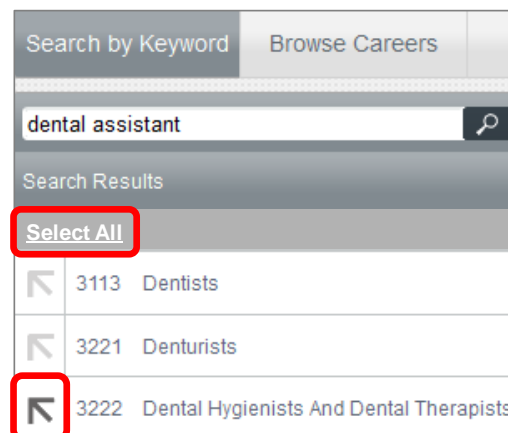
In the search criteria area, type an occupation into the search box and click the search button to view your results.



If your search does not generate any results, try a broader job title.

To add a career to your list:

Click the **arrow button** to the left of the job title in the search results. The occupation will appear in your My Careers list. To remove it, click again on the arrow button and the occupation will be deleted from the My Careers list.



To add all the career results to your list:

Click on the **Select All** option above the arrow buttons. All of the occupations in your search results will appear in your My Careers list.

Advanced Search

Advanced Search allows you to find a career based on salary expectations and education requirements. It will also narrow your search results, based on salary and education, once you have completed a search.

To expand or collapse the Advanced Search area, click the **+** or **-** button.

Browse Careers

The **Browse Careers** search area presents a list of occupations organized according to their National Occupational Classification (NOC) code. The federal government's NOC system classifies jobs in Canada according to skill level and skill type, and assigns each a two-digit, three-digit and four-digit code. It organizes over 30,000 job titles into 520 occupational group descriptions.

A four-digit code, called the "NOC code", identifies the occupation:

- At the 1-digit level, there are 10 broad groups based on skill type.
- At the 2-digit level, there are 26 major groups based on skill type and skill level.
- At the 3-digit level, the major groups are further divided into 140 minor groups.
- At the 4-digit level, the system is expanded into 520 occupations.

To browse careers by NOC categories:

- **Select a category** from the 1-digit NOC column.
- **Move through the next columns** for more specific information.
- **To add careers** to your My Careers list, click the arrow button to the left of the occupation, or "Select All" to add all results to My Careers.

Hot Careers

This section presents 10 occupations that are in high demand. These careers are automatically displayed when you start the Forecast Model.

You may also add Hot careers to your My Careers list by clicking the arrow button to the left of the occupation, or “Select All” to add all results to My Careers.

Search by Keyword	Browse Careers	Hot Careers	X
Hot In-Demand Careers			
Select All	Short Names		
↖	215	Architects, Urban Planners And Land Surveyors	HOT
↖	727	Carpenters And Cabinetmakers	HOT
↖	213	Civil, Mechanical, Electrical And Chemical Engineers	HOT
↖	071	Managers In Construction And Transportation	HOT
↖	321	Medical Technologists And Technicians (except Dental Health)	HOT
↖	315	Nurse Supervisors And Registered Nurses	HOT
↖	323	Other Technical Occupations In Health Care (except Dental)	HOT
↖	311	Physicians, Dentists And Veterinarians	HOT
↖	416	Policy And Program Officers, Researchers And Consultants	HOT
↖	415	Psychologists, Social Workers, Counsellors, Clergy And Probation Officers	HOT

Managing your “My Careers” list

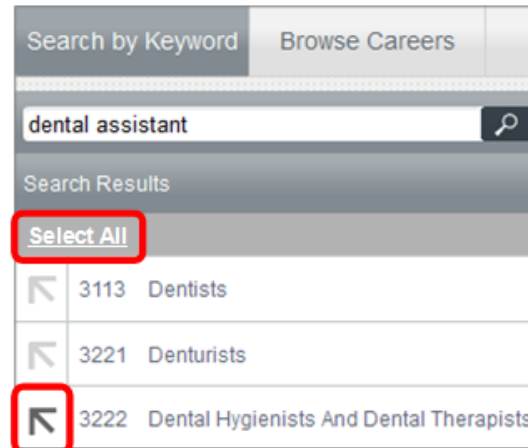
To add a career to the list:

Use the search features described above to add occupations from the search results to the My Careers list.

In the search criteria area where your search results are displayed,

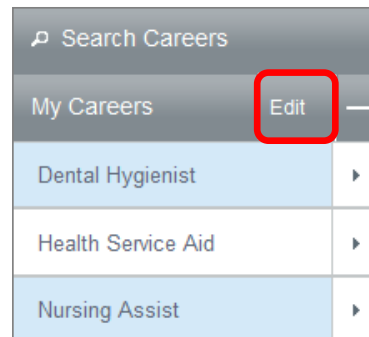
- Click the arrow button to the left of an occupation.

- Select an entire group of occupations by clicking “Select All” above the arrows.
- Your selected occupations will appear in the My Careers list.

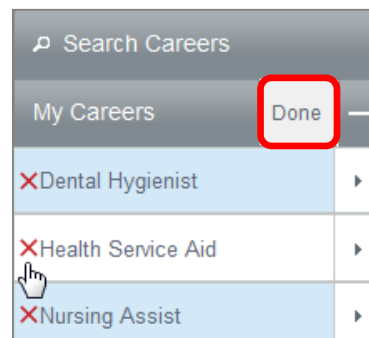


To delete one or more careers from the list:



- Click the **Edit** button to the right of “My Careers”.

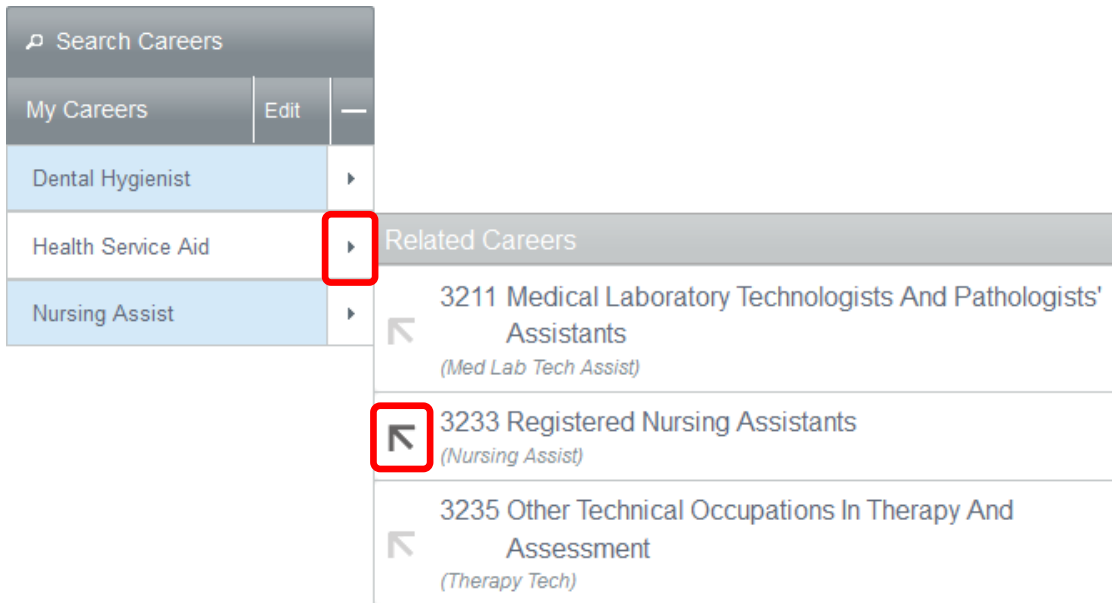


- A red **X** will appear beside each career on the My Careers list. Click on the **X** next to the career(s) you want to delete.
- Click the **Done** button when you are finished.



To view related careers:

- Click the  button to the right of an occupation on the My Careers list. A list of Related careers will appear.
- You can click the  arrow to the left of a Related Career to add it to the My Careers list.



The screenshot shows a 'Search Careers' interface. At the top, there is a search bar and a 'My Careers' section with an 'Edit' button. Below this, a list of occupations is displayed: 'Dental Hygienist', 'Health Service Aid', and 'Nursing Assist'. Each occupation has a right-pointing arrow button to its right. The 'Health Service Aid' row is highlighted, and its dropdown menu is open, showing a 'Related Careers' section. This section lists three related occupations: '3211 Medical Laboratory Technologists And Pathologists' Assistants (Med Lab Tech Assist)', '3233 Registered Nursing Assistants (Nursing Assist)', and '3235 Other Technical Occupations In Therapy And Assessment (Therapy Tech)'. Each related career entry has a left-pointing arrow button to its left. Red boxes highlight the right arrow for 'Health Service Aid' and the left arrow for '3233 Registered Nursing Assistants'.

Search Careers	
My Careers	Edit
Dental Hygienist	▶
Health Service Aid	▶
Nursing Assist	▶

Related Careers

- 3211 Medical Laboratory Technologists And Pathologists' Assistants
(Med Lab Tech Assist)
- 3233 Registered Nursing Assistants
(Nursing Assist)
- 3235 Other Technical Occupations In Therapy And Assessment
(Therapy Tech)

Maps

Where will the jobs be over the next 10 years? Using the Maps view, you can answer this question for any of the 560 occupations in the Forecast Model, looking at BC as a whole or at a region.

The Maps view displays statistics about the careers that you have highlighted in your My Careers list. If you have not selected any careers, statistics for the 10 Hot careers will automatically appear.

You can see a trend line showing regional or province-wide statistics for each career.

Not every career has statistics relating to it. Where statistics don't exist, the Forecast Model displays values for a broader career. In these cases, an asterisk (*) will appear beside the job title.

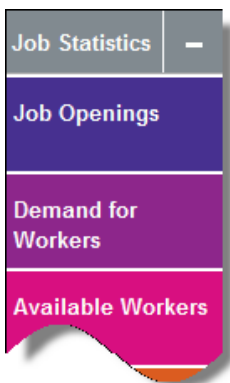
You can use Maps to compare career statistics for:

- one or more careers
- the whole province, or one or more regions
- specific years from 2010 through 2020.

View Job Statistics:

Click any of the categories under the **Job Statistics heading** on the right side of the screen. A map and a trend line chart will be displayed.

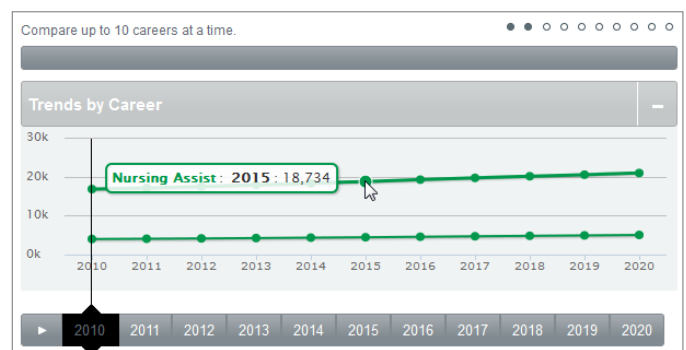
If you do not click on any of the Job Statistics categories, the first category ("Job Openings") will be displayed.



The trend line chart:

A trend line chart is displayed at the top of the screen, showing statistics for all years for the occupations highlighted in your My Careers list.

Hover your mouse over a dot on a trend line to see the career name and the statistical value for the given year.



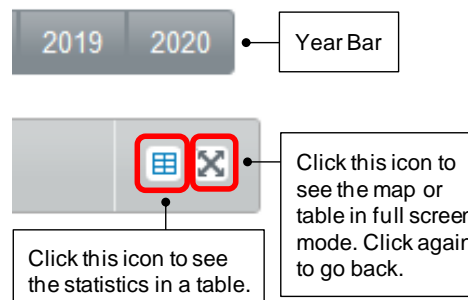
If you want to see statistics for one occupation at a time, highlight the occupation on your "My Careers" list, and de-highlight the rest by clicking on them.

View statistics by region:

To see the trend line chart for a specific region, click the region on the map of BC. The map will zoom in to that region and the region's career statistics will appear in the chart. To go back to the map of the whole province, click the region again.

View statistics in table format:

Below and to the right of the Year Bar, you will see two icons that present a different view:



Graphs

The Graphs view displays statistics about the careers that you have highlighted in your My Careers list. If you have not selected any careers, statistics for the 10 Hot careers will automatically appear.

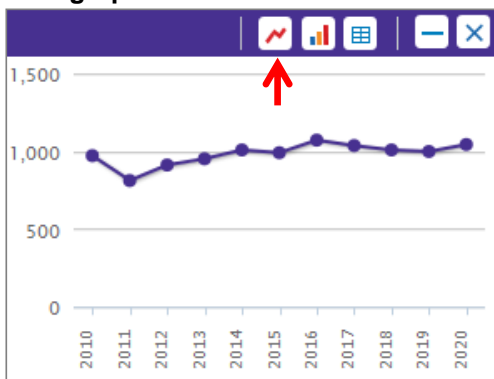
Not every career has statistics relating to it. Where statistics don't exist, the Forecast Model displays values for a broader career. In these cases, an asterisk (*) will appear beside the job title.

You can use Graphs to compare career statistics for:

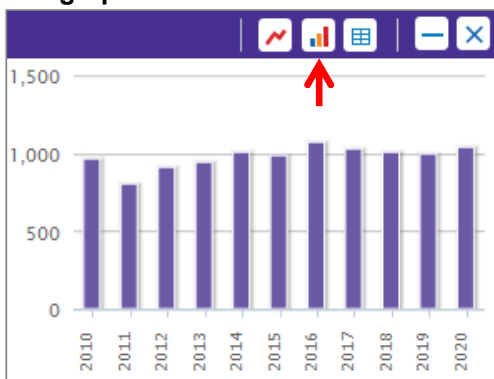
- one or more careers
- the whole province, or one or more regions
- specific years from 2010 through 2020.

You can display statistics in three different graph formats: a line graph, a bar graph, and a table:

Line graph



Bar graph



Table

2010	972
2011	812
2012	912
2013	952
2014	1009
2015	991
2016	1072
2017	1037
2018	1009
2019	999
2020	1044

View Job Statistics:

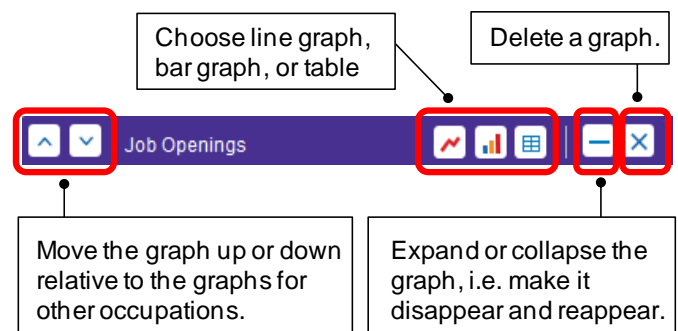
Click any of the categories under the **Job Statistics heading** on the right side of the screen. A graph will appear for each career that is highlighted in your My Careers list.

If you do not click on any of the Job Statistics categories, the first category ("Job Openings") will be displayed.

Choose how the statistics are displayed:

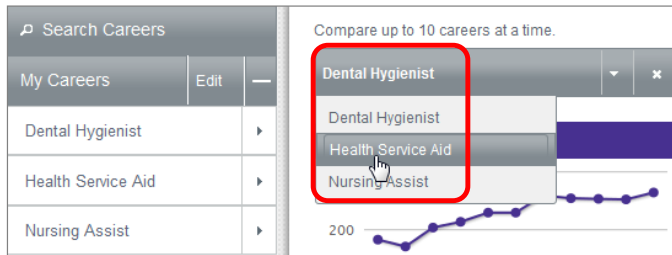
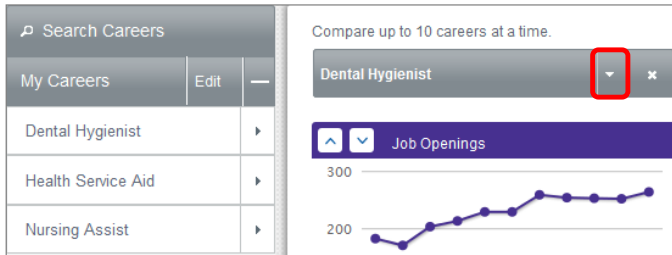
Click an icon beside the graph title to:

- change the order of the graphs
- collapse and expand the graphs
- delete a graph
- choose which type of graph to display (line graph, bar graph or table).



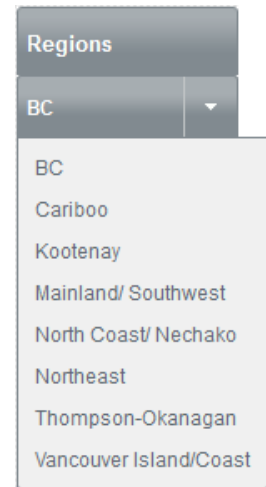
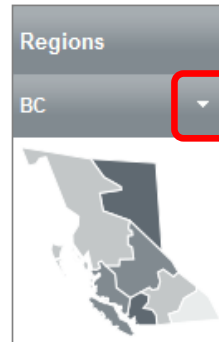
Moving the graphs on the screen:

The down arrow next to the each occupation title displays a dropdown list of all the careers in your My Careers list. Choose one from this list to make it appear in that location on the screen.



View statistics by region:

To see statistics for a specific region, select a region from the dropdown list under “Regions” at the top right of the screen. To go back to the map of the whole province, select “BC” on the dropdown list.



Bubble Chart

The Bubble Chart allows you to compare up to 4 different variables at once for 2 to 10 careers at a time.

You can:

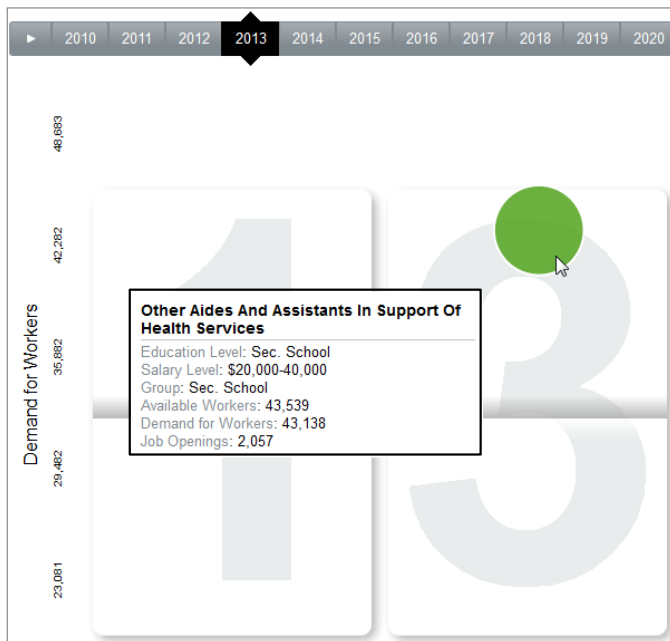
- select one of the Preset Reports on the right side of the screen to view the most popular comparisons,

OR

- create your own custom display.

Each bubble represents an occupation that is highlighted in your My Careers list. If you haven't highlighted anything for the My Careers list, the chart displays data for the 10 Hot careers. The 2-digit year appears in large gray characters on the background of the bubble chart.

Hover your mouse over a bubble to see the career name and the statistical values for the given year:



See the diagram on the next page for a guided tour of the features on the Bubble Chart screen.

Create a custom display:

The X-Axis, the Y-Axis, the Bubble Size and the Bubble Colour are the four ways that you can view the job statistics.

For the X-Axis, Y-Axis and Bubble Size, you can select a value from the dropdown menu beside the headings X-Axis, Y-Axis and Bubble Size:



Select more variables:

To compare two sets of statistics, select "**Bubble Size Off**" at the bottom of the screen.

To compare three sets of statistics, select a data set from the Bubble Size dropdown menu, and make sure that "Bubble Size Off" is not checked.

The **Bubble Colours** dropdown menu at the top right of the screen allows you to add one more variable for Regions, Salary, Education and National Occupational Classification (NOC) code.

Guided tour of the features on the Bubble Chart screen:

The screenshot shows a bubble chart interface with the following callouts:

- Year Bar**: Click a year to display job statistics for that year.
- Play button**: Click to watch an animated forecast of job statistics through all the years.
- Bubble**: Each bubble represents a highlighted occupation on your "My Careers" list.
- Bubble Colours**: This area indicates what the bubble colours mean. Click the down arrow to select colours by Region, Salary, Education or NOC Group.
- Preset Reports**: These are popular data displays. The values on the X-Axis and Y-Axis, and the meaning of the Bubble Size, automatically appear in the **display values** area below.
- Display values**: You can customize the display by changing the values on the X-Axis and Y-Axis, and the statistic that is represented by the Bubble Size. Click the down arrows to select your values.
- Bubble Size Off**: Check this box to make all the bubbles the same size. This helps to better see overlapping bubbles.
- Bubble Size**: Adjust the slider to make all bubbles larger or smaller. This is useful when bubbles are overlapping, or too small or too large to see properly.
- Bubble Zero Offset**: If a statistic that is represented by the Bubble Size has a negative value, the bubble will not appear on the screen because a circle (the bubble) cannot have a negative radius. Adjust the Bubble Zero Offset slider to increase the radius of all bubbles so that the bubbles with negative values become visible.

The chart itself displays 'Demand for Workers' on the Y-axis and 'Available Workers' on the X-axis. A legend on the right shows salary ranges: \$80,000-100,000 (blue), \$60,000-80,000 (teal), \$40,000-60,000 (green), \$20,000-40,000 (light green), and up to \$20,000 (yellow). The 'Preset Reports' list includes: Workers Available vs. Demand for Workers vs. Job Openings, Jobs replacing retirement vs. Newly Created Jobs, BC's first time workers vs. Workers new to BC, and Available workers vs. Demand for workers vs. Unemployment rate. The 'Display values' section shows: X-Axis: Available Workers, Y-Axis: Demand for Workers, Bubble Size: Job Openings.

Compare statistics over years

A title for your chart will appear at the top of the screen, indicating which statistics you are comparing.

There are two ways to compare statistics over years:

- Skip back and forth through the years by clicking on individual years in the **Year Bar** above the bubble chart.

OR

- Click the **“Play”** arrow at the left of the Year Bar to watch an animated forecast. As the forecast progresses, the bubbles will move around the chart, growing and shrinking in accordance with the rise and fall of the data you have selected.



Adjust the settings for a better view

At the bottom of the Guided Tour chart on the previous page, see the following features that help to better see bubbles that are overlapping, too large or too small:

- Bubble Size Off
- Bubble Size
- Bubble Zero Offset.

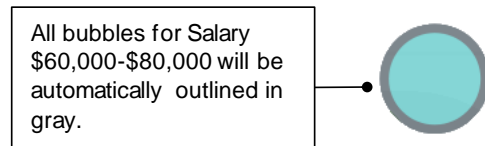
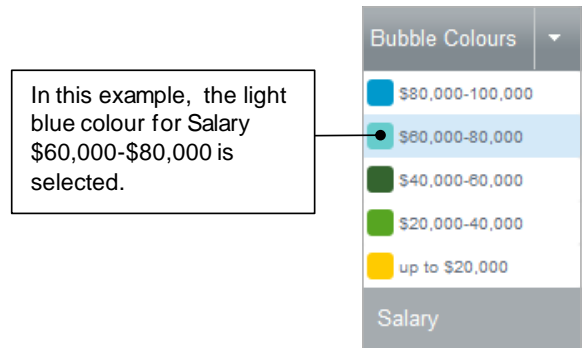
Track changes to careers over time

Select a variable to track:

- Under “Bubble Colours” at the top right of the screen, colours are shown for 4 variables: **Region, Salary, Education, and NOC Group** (National Occupational Classification). Click the down arrow and select one of the variables.



- Click on the colour that you want to track. All bubbles in that colour will be outlined in gray.



Enable “Trace Bubble Motion”:

- Check the **“Trace Bubble Motion”** checkbox at the bottom of the screen.
- A line will appear that shows the path of each of the highlighted bubbles from 2010 to 2020.



Download Data

The Download Data view allows you to create data in a format called “comma-separated values format” (.csv format) that is readable in Microsoft Excel and other spreadsheet programs.

To download all data

Click the **Download All** button to create a spreadsheet with all the data in the Forecast Model about the careers you have highlighted in your My Careers list.

To download a selection of data

To create a smaller, custom spreadsheet:

- Click on the criteria that you would like to download, from the five columns displayed:
 - My Careers OR NOC Level
 - Indicators
 - Regions
 - Years.
- Use **Shift+Click** to select multiple criteria that are contiguous in a column.
- Use **Ctrl+Click** to select multiple criteria that are no contiguous.

Example 1

Example 1 on the next page illustrates a simple request for data showing how demand for doctors and nurses will grow in the year 2012.

Example 2

To see data for a National Occupational Classification (NOC) code, use the “NOC Level” button instead of the “My Careers” button.

My Careers	NOC Level
1 Digit	
2 Digit	
3 Digit	
4 Digit	

Example 2 below illustrates a request for data showing all the jobs forecast to be occupied by BC’s first-time workers on Vancouver Island and Coast in 2012. The resulting spreadsheet file contains the statistics for all 523 jobs in the NOC database.

Example 1

This is a request for data showing how demand for doctors and nurses will grow in the year 2012:

[Download All](#)

My Careers	NOC Level	Indicators	Regions	Years
Select All		Select All	Select All	Select All
Construction & Transp Mgr		Job Openings	BC	2010
Civil, Mech, Elec & Chem Engin		Demand for Workers	Cariboo	2011
Architect & Urban Planner		Available Workers	Kootenay	2012
Physician, Dentist & Vet		Workers vs. Jobs	Lower Mainland-Southwest	2013
Nurse Spvr & Registered Nurse		Unemployment Rate	North Coast & Nechako	2014
Non-Dental Medical Tech		New Job Creation	Northeast	2015
Optician, Midwife, LPN, Paramedic		Employed Workers	Thompson-Okanagan	2016
Psychologist & Social Wkr		Source of Jobs	Vancouver Island & Coast	2017
Program Officer & Researcher		New Workers		2018
Carpenter & Cabinetmaker		Expansion demand		2019
		Replace Retirement		2020
		BC's First Time Workers		
		Additional Experienced Workers		
		Workers new to BC		
		Other Net In Mobility		

[Download Selection](#)

Note: Downloads will be in .csv format.

Here is the resulting spreadsheet file. The “Indicator Values” for “New Job Creation” and “Replace Retirement” indicate that demand for workers is coming from people leaving the field, and not from job expansion.

Occupation NOC	Occupation Name	Indicator Name	Region	Year	Indicator Value
311	Physicians, Dentists And Veterinarians	Expansion demand	Vancouver Island & Coast	2012	87
311	Physicians, Dentists And Veterinarians	Replace Retirement	Vancouver Island & Coast	2012	111
315	Nurse Supervisors And Registered Nurses	Expansion demand	Vancouver Island & Coast	2012	254
315	Nurse Supervisors And Registered Nurses	Replace Retirement	Vancouver Island & Coast	2012	416

Example 2

This is a request for data showing all the jobs forecast to be occupied by BC's first-time workers on Vancouver Island and Coast in 2012:

Download All

My Careers	NOC Level	Indicators	Regions	Years
1 Digit		Select All	Select All	Select All
2 Digit		Job Openings	BC	2010
3 Digit		Demand for Workers	Cariboo	2011
4 Digit		Available Workers	Kootenay	2012
		Workers vs. Jobs	Lower Mainland-Southwest	2013
		Unemployment Rate	North Coast & Nechako	2014
		New Job Creation	Northeast	2015
		Employed Workers	Thompson-Okanagan	2016
		Source of Jobs	Vancouver Island & Coast	2017
		New Workers		2018
		Expansion demand		2019
		Replace Retirement		2020
		BC's First Time Workers		
		Additional Experienced Workers		
		Workers new to BC		
		Other Net In Mobility		

Download Selection

Note: Downloads will be in .csv format.

The resulting spreadsheet file contains the statistics for all 523 jobs in the NOC database:

Occupation NOC	Occupation Name	Indicator Name	Region	Year	Indicator Value
8253	Farm Spvrs And Specialized Livestock Workers	BC's First Time Workers	Vancouver Island & Coast	2012	63
9465	Testers And Graders, Food And Beverage Processing	BC's First Time Workers	Vancouver Island & Coast	2012	18
4143	School And Guidance Counsellors	BC's First Time Workers	Vancouver Island & Coast	2012	180
8262	Fishing Vessel Skippers And Fishermen/women	BC's First Time Workers	Vancouver Island & Coast	2012	13
9464	Tobacco Processing Machine Operators	BC's First Time Workers	Vancouver Island & Coast	2012	18
4141	Secondary School Teachers	BC's First Time Workers	Vancouver Island & Coast	2012	180
	Elementary School A... Teachers	BC's First Time Workers	Vancouver Island & Coast	2012	180