PeopleSoft Pivot Grid

Data services

November 2018
Paula McDaniel
Data Analytics Learning and Education Instructor
Washington State Board of Community and Technical Colleges, Data Services

Table of Contents

📖 **Course Goal**

The goal of this course is to train end users on how to use existing Pivot Grids to view and analyze data.

📖 **Course Learning Objectives**

At the end of this course users will:
- Use the Pivot Grid display options to:
  - Update Filters
  - Update Chart Options
  - Export Data
  - Reset the Pivot Grid to the default view, if available
  - Save a Pivot Grid model view
  - Save the Pivot Grid as a new model view
- Manipulate how the Pivot Grid displays data
- Manipulate what data is displayed in the Pivot Grid

📖 **Using Pivot Grid Viewer**

PeopleSoft Pivot Grid supports operational dashboard reporting within the PeopleTools framework to provide a pivot table and chart representation of data using PSQuery, Composite Query, and component data source. The framework also enables you to see different views of the data, as in a Microsoft Excel pivot table, and the same data is also available in a chart view. This component enables user to:
- View the pivot grid in the browser. There are 3 options as selected by the Pivot Grid developer:
  - Pivot Grid only
    - Able to view the operational reporting data in a grid, where data pivoting, slicing, and dicing is possible.
  - Chart only
    - Able to view the operational reporting data in a chart, change the axis, filter the results, drill down to other dimensions and detail. In addition, you can display the grid from a chart-only view and then perform various actions—such as pivoting data, dragging and dropping, and slicing and filtering data—to change the grid layout. After the layout is satisfactory, you can synchronize the chart with the grid view.
  - Pivot Grid and chart
    - Able to view the operational reporting data in both a grid and a chart. The data between the grid and the chart is synchronized.
- Change the layout of the grid and the chart to view the data differently.
- Drill down on the grid and chart to get detailed views of the data.

You can save the grid and chart layouts based on the filtering and dicing done on the grid and chart. When rendering the Pivot Grid display, these user preferences have a higher priority than the default view options.

Definition of Pivot Grid Chart Components

As Pivot Grid Charts and Graphs are made up of various components it is important to understand each component and how it is representing the data graphically.

- **Axes Definition:** A horizontal or vertical line containing units of measure found in most chart type's in spreadsheet programs such as Excel. The axes border the plot area of column charts (bar graphs), line graphs, and other charts in Excel. An axis is used to display units of measure and provide a frame of reference for the data displayed in the chart.
- **Horizontal Axis:** The horizontal or X axis, running along the bottom of the plot area, usually contains category headings taken from the data in the worksheet.
- **Vertical Axis:** The vertical or y axis runs up the left side of the plot area. The scale for this axis is usually generated by the program based on the data being plotted in the chart.
- **Secondary Vertical Axis:** A second vertical axis - running up the right side of a chart - can be used when displaying two or more different types of data in a single chart.
- A climate graph or climatograph is an example of a combination chart that makes use of a second vertical axis to display both temperature and precipitation data in a single chart
- **Axes Titles:** All chart axes should be identified by an axis title that includes the units displayed in the axis.
- **Charts without Axes:** Bubble, radar, and pie charts are some chart types that do not use axes to display data.

Pivot Grid Attributes

Pivot grids can vary greatly as to what options are available to update by the user. The reason for this is that the creator of the model can decide which options to allow or disallow to end users. The following table lists the attributes the Pivot Grid developer controls the view option for to allow customization by the end user.

Attribute	View Option	User Preference
Pivot Grid core (including axis, values, aggregation functions, and All members).	No	No
Pivot Grid display option (including Grid, Chart, or Grid and Chart).	Yes	No
Grid Display Options (including Collapsible Data Area, expanded or collapsed Initial Grid View, drag-and-drop operations on the grid, and so on).	Yes	No
Grid axis information.	Yes	Yes
Grid report filter values.	No	Yes
Chart type information.	Yes	Yes
Chart axis information.	Yes	Yes

Attribute	View Option	User Preference
Other chart display options, such as legends, chart title, and so on.	Yes	Yes
PSQuery runtime prompt values.	Yes	Yes

Note: If the query used in the Pivot Grid model is changed after the Pivot Grid model is created, it will need to be modified and the Pivot Grid model saved to ensure all changes are properly displayed in the Pivot Grid Viewer.

📖 Pivot Grid View Options

Pivot Grid View Options is the component that facilitates creating new views and updating existing ones for a Pivot Grid model. How the user chooses to display the data in the Pivot Grid can be saved as an individual Pivot Grid View Name. Thus one Pivot Grid can have multiple View Names individualized to each users' preference. This diagram shows Pivot Grid view options.
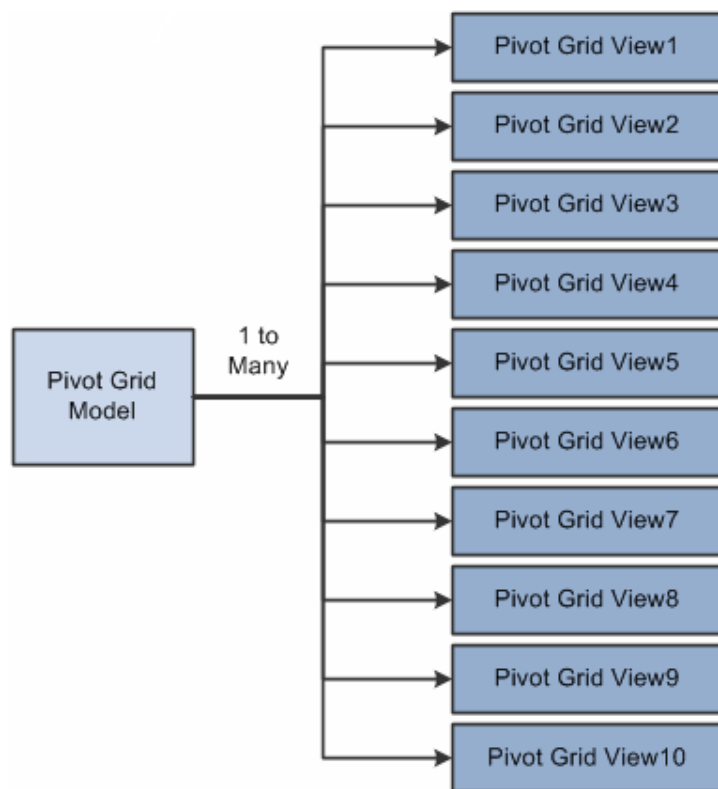
Note: Whenever a new Pivot Grid model is created, it is always associated with a default view. The default view name is <Pivot Grid Model Name>.View. Unfortunately, The Pivot Grid Viewer component is not fully accessible using a screen reader, for example, JAWS (Job Access With Speech).

📖 Searching for a Pivot Grid Model Using the Pivot Grid Viewer
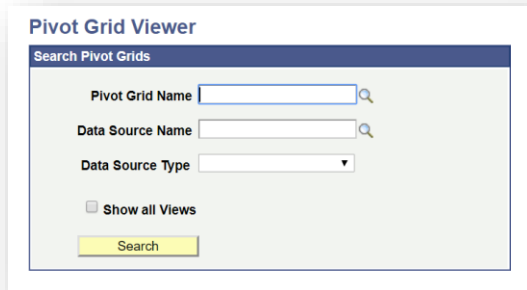
Use the Pivot Grid Viewer page (Main Menu → Reporting Tools → Pivot Grid → Pivot Grid Viewer) to view and manipulate the Pivot Grid model.

Note: If the display option is Grid Only, Pivot Grid displays the grid without the chart. Pivot Grid displays number 0 (zero) in the grid cell if the value on the grid cell is equal to 0.

To view a Pivot Grid model using Pivot Grid Viewer page:
Enter search criteria into one of the three filter options and select to display the default view or all views. To view all of the available Pivot Grid models with no search filters simply click on the magnifying glass or the Search button.

- Pivot Grid Name
- Pivot Grid Data Source Name
- Pivot Grid Data Source Type
- Show all Views will allow the user to see all saved views of a particular Pivot Grid model.

Note: Pivot Grid Viewer supports only PeopleSoft Query data source and PeopleSoft Query type.

Select the hyperlink of the desired Pivot Grid. Then click on Search. The link to the Pivot Grid will display below the heading Pivot Grid Name where the user must click the hyperlinked name to access to Pivot Grid.
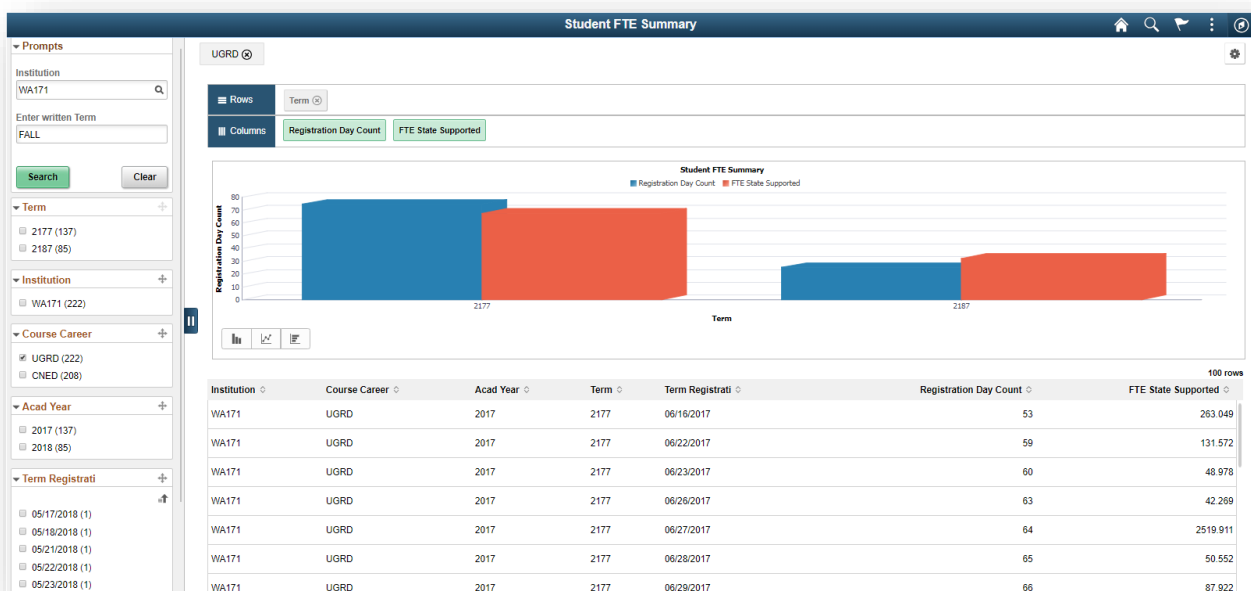

The Pivot Grid model appears with the grid, chart, or both based on the display option selected.

📖 Pivot Grid Display Options

Pivot Grids can be displayed as a chart, grid or both. The display option is selected by the Pivot Grid developer. The options available for manipulation by the end user change depending on the display option selected.
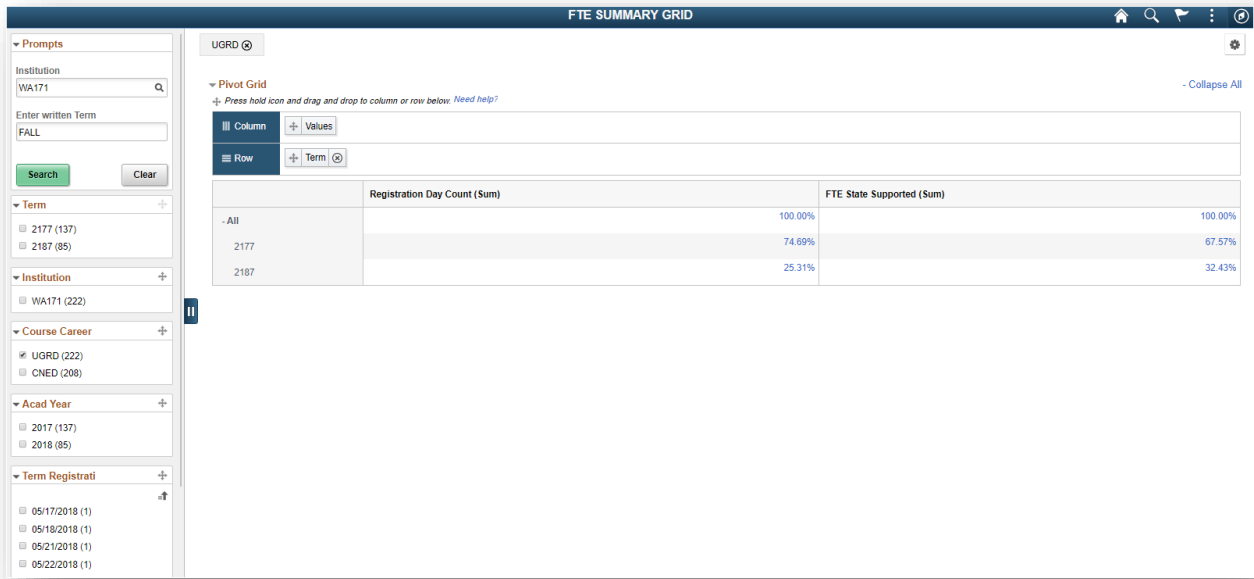
Chart Only

This example illustrates the fields and controls on the Pivot Grid Viewer page with the default display of Chart Only.

Grid Only

This example illustrates the fields and controls on the Pivot Grid Viewer page with the default display of Grid Only.
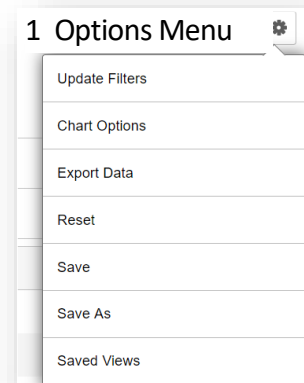

Grid and Chart

This example illustrates the fields and controls on the Pivot Grid Viewer page with the default display of Grid and Chart. Key navigation areas have been marked and full descriptions of what each area does are found below the image.
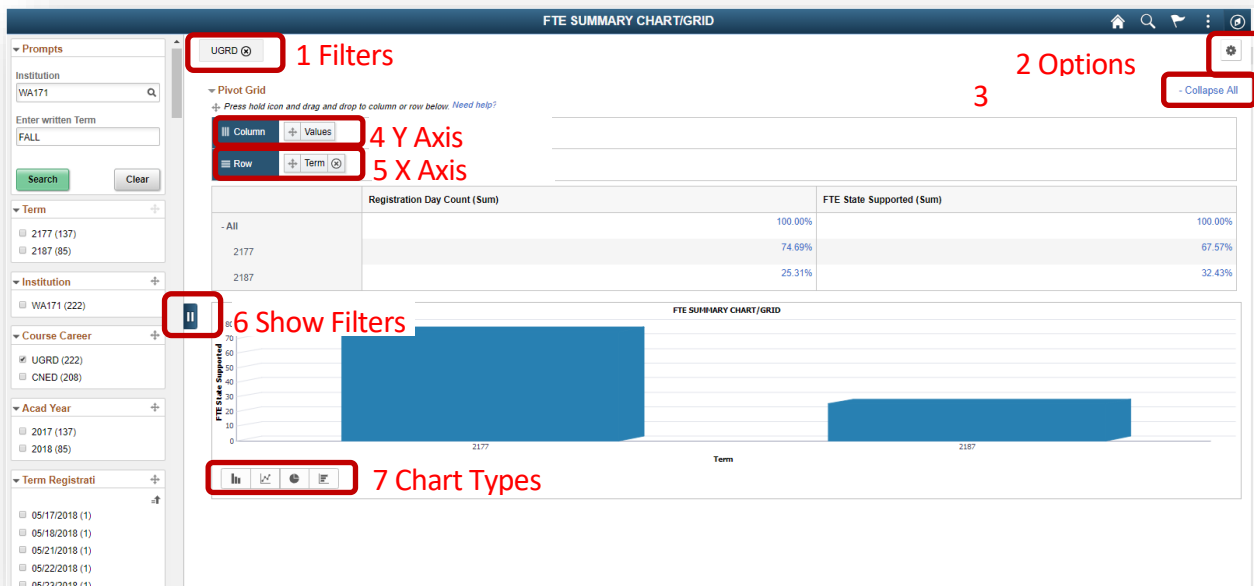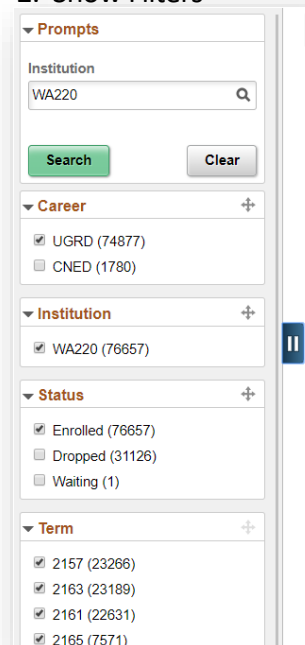
1. Filters Applied – Displays what filters have been applied to the Pivot Grid.
2. Options Menu – Allows the user to select to:
    o Update Filters
    o Select Chart Options
    o Export Data
    o Reset the Pivot Grid to the default options
    o Save the Pivot Grid default model
    o Save the Pivot Grid as a new View with whatever changes have been applied
    o See any other Saved Views of the Pivot Grid model.
3. Expand or Collapse All – When first opening a Pivot Grid the default will be to see the collapsed view but this can be changed by clicking Expand All.
4. Y Axis
    o Vertical axis on the Pivot Grid chart. An attribute that qualifies a value. For example, if the value is a count of employees, possible values could be departments, job codes, pay grade, etc.
5. X Axis:
    o Horizontal axis of the Pivot Grid chart. A value that is used to make business decisions. Generally a number or count.
6. Show Filters – This area allows the end user to select or deselect prompts, filters and other attributes. Also users to drag and drop in order to make chart overlays (2 Y Axis attributes and one X Axis value) or Series (1 Y Axis attribute and 2 X Axis values).
7. Chart Displays – Allows the end user to select the type of chart to display.

1 Options Menu ⚙

| Update Filters |
| Chart Options |
| Export Data |
| Reset |
| Save |
| Save As |
| Saved Views |

2. Show Filters

▼ Prompts
Institution
WA220 🔍

[Search]   [Clear]

▼ Career ✛
☑ UGRD (74877)
☐ CNED (1780)

▼ Institution ✛
☑ WA220 (76657)

▼ Status ✛
☑ Enrolled (76657)
☐ Dropped (31126)
☐ Waiting (1)

▼ Term ✛
☑ 2157 (23266)
☑ 2163 (23189)
☑ 2161 (22631)
☑ 2165 (7571)

📖 **Using Pivot Grid Display Options**

As always the display options available depend on the selections of the developer when the Pivot Grid model was created.

Options Menu
Use the Options Menu to perform actions relating to the Pivot Grid.

Update Filters
Most Pivot Grids will have available filters that end users can select from. These filters are available to select by opening the Show Filters bar which will be discussed later in the chapter. However, users also have the option to add or remove facets available to select from by clicking Update Filters in the Option Menu. A list of all available facets or filters will appear where users can add facets if anymore are available or remove them from the Pivot Grid model view.
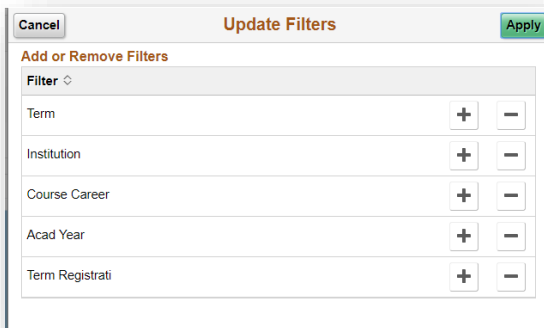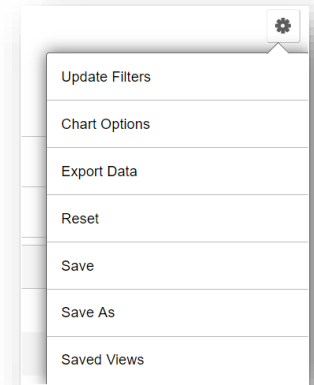
Clicking the minus icon to the right of the facet will remove it. A pop up will appear letting the user know the removal will be saved upon saving the view.
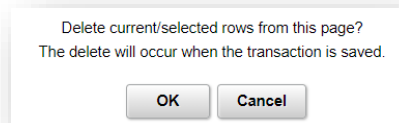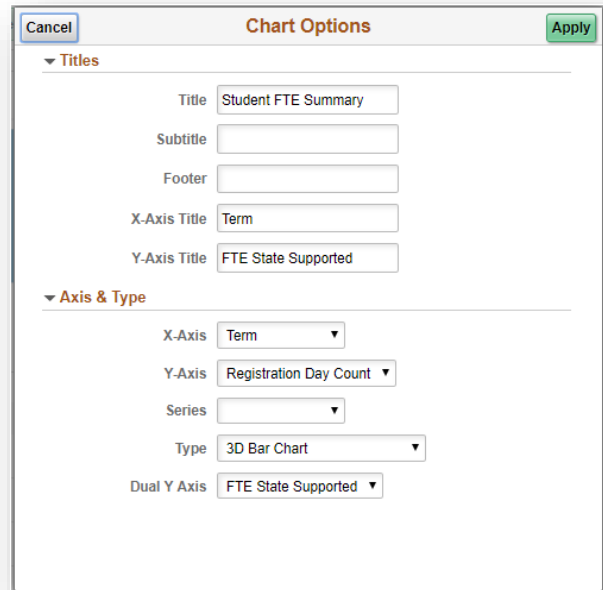
To add another facet to filter on click any plus icon to the right and if there are any available facets they will appear. Click until there are no more facets available. Any facets removed will no longer appear in the Show Filters bar and any added will now appear.

Using Chart Options
Use the Chart Options dialog box to change different chart options. Open the Chart Options dialog box by selecting Chart Options from the Options Menu icon on the Pivot Grid Viewer page.

Note: The X Axis, Y-Axis Series, Overlay Field, and Chart Filters fields in the User Charting Options dialog box are not editable if the display option is Pivot Grid and Chart.

- Title
  - o   Enter the title of the pivot grid.
- Subtitle
  - o   Enter the subtitle if required. It displays under the title with smaller font size.
- Footer
  - o   Enter additional information to display as footer text.
- X-Axis
  - o   Select to change the X-Axis. You can change the X-axis from the User Charting Options, if you decide to use another field as x-axis.
- Y-Axis
  - o   Select to change the Y-Axis. You can change the X-axis from the User Charting Options, if you decide to use another field as Y-axis.
- Series
  - o   Select the X-axis field to define as series.
- Overlay Field or Dual Y Axis
  - o   Select the Y-axis field to define as an overlay.

Export Data
To export the query results select Export Data from the Options Menu icon. The results will download as per normal for the browser being used.

Reset
To reset the Pivot Grid to back to the default view and remove any changes made click on Reset from the Options Menu icon.

Save
To save changes to the default version of the Pivot Grid click Save from the Options Menu. Note: the better option is to save a distinct view of the Pivot Grid rather than changing the default view.

Save As
To save any changes as a distinct view click on Save As from the Options Menu. This will save changes to a new view of the Pivot Grid model.

Saved Views

To see any saved views select Saved Views from the Options Menu. A pop up window will appear with the hyperlinked names of any saved views for that Pivot Grid model which users can click on to go directly to that view.
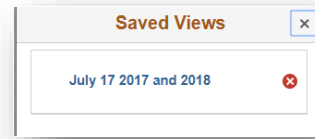

Expand/Collapse All

Depending on the display option there may be a collapse or expand all hyperlink in the upper right side of the screen. When first opening a Pivot Grid the default is for all options to be collapsed so users may see just a single bar in the chart or a total amount in a grid. To expand the chart and grid simply click on the Expand All hyperlink.
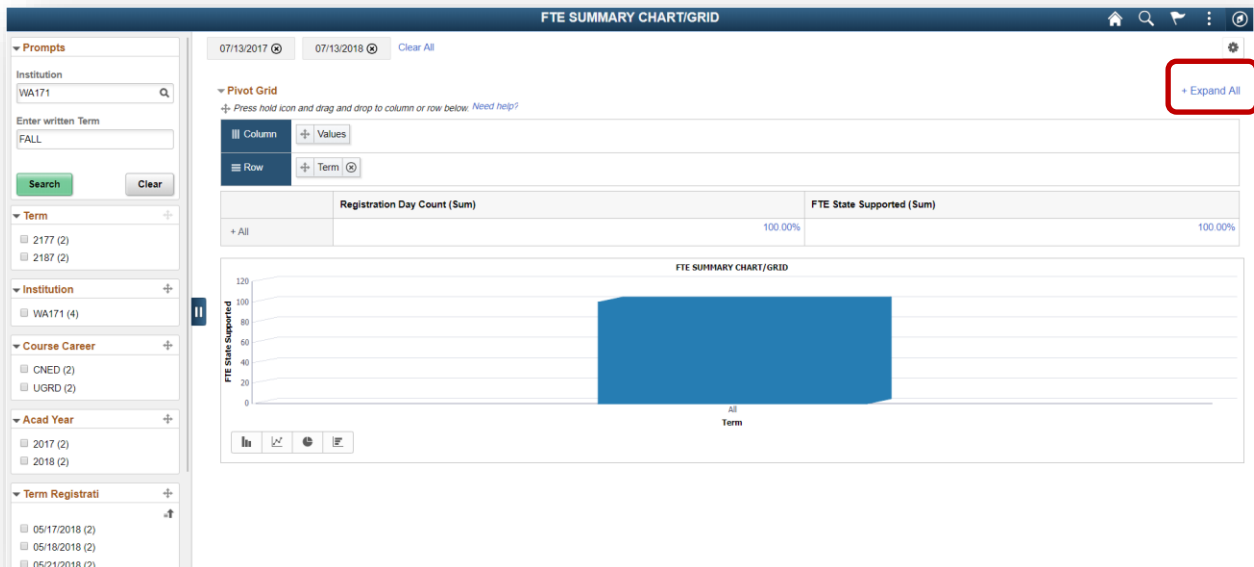
X and Y Axes

The X and Y axes are representation of rows and columns in graph form. One of the most valuable aspects of Pivot Grid is that it allows users to drag and drop facets from one axis to another or to select filters as a row or column. All of this, of course, depends on how the Pivot Grid was set up by the developer as developers can allow or disallow these actions on a grid by grid basis.

If allowed, to drag and drop a facet from a filter to an axis simply click and drag the desired facet to the desired axis.
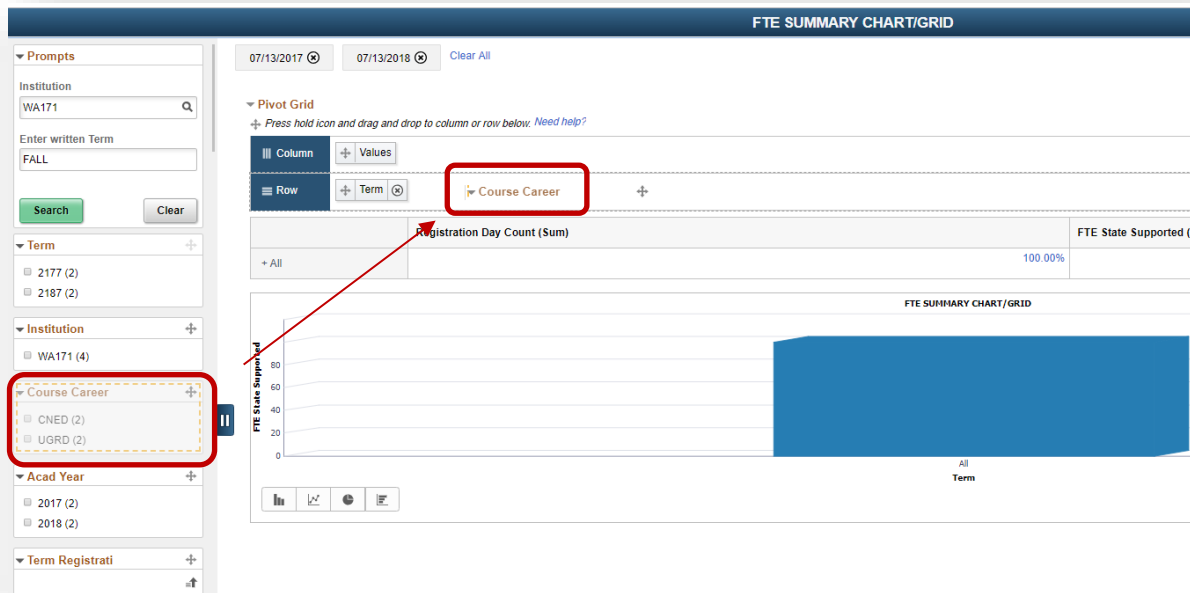
The Pivot Grid will re-render and display the changes in the grid, chart or both depending on the selected display option.
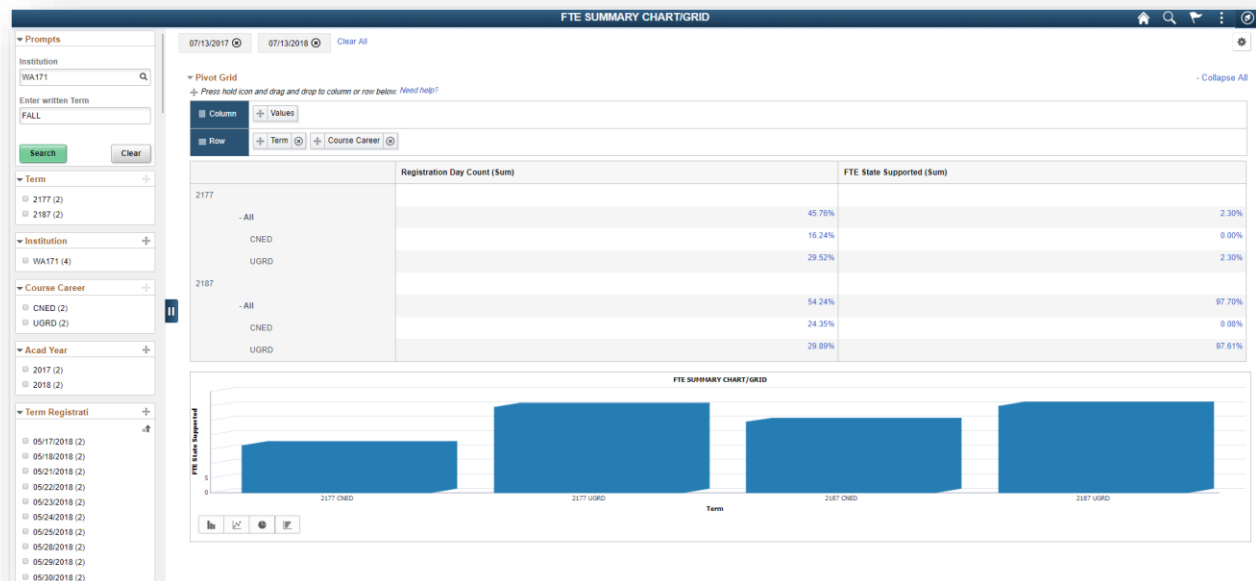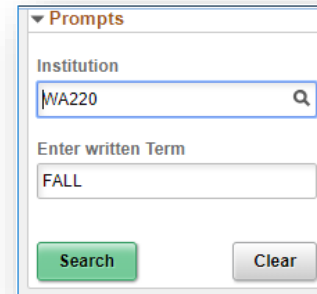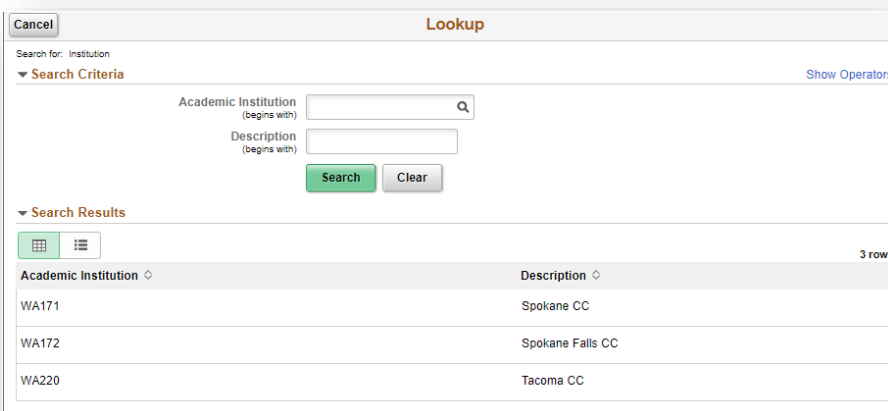
Show Filters

The Show Filters bar will default to a closed position. Click on the blue box with the two vertical lines to open or close the Show Filters bar. We have already seen how to drag and drop filters to use them as columns or rows in the Pivot Grid however there are other options available in this section as well.

Update Prompts

When a Pivot Grid is created the developer must select a default value for any prompts. This does not mean, however that only that prompt can be displayed. Pivot Grid allows end users to change the displayed prompt at any time. Within the Show Filters bar at the top the user is able to search for different prompt values to select if the query was set up to display a list by clicking on the magnifying glass to the right of the prompt. Either enter in search criteria or select one of the hyperlinked results under the Search Results area.

Select Filters

The default will be to display all filters however only certain filters can be selected. For example, in the example below we see that Academic Career is a filter option. The default will be to show results for both Undergrad and Continuing Education however we can select one or the other by clicking in the checkbox to the left of the career we would like to see. Once selected an icon will appear at the top of the screen indicating what filters have been selected for the Pivot Grid.

Chart Types

Users are able to change the displayed chart type by selecting one of the icons below the rendered chart. Available chart types are bar graph, line chart, pie chart and horizontal bar graph. The pie icon will only display if there is no series in the chart.

Drill Down

Both Chart and Grid displays allow users to drill down to see the underlying data that makes up the graph or chart. Simply click on the bar graph, line or pie slice to see the underlying chart data or the hyperlinked number or percentage for the grid.

1 Chart Drill Down Data

1 Grid Drill Down Data

📖 Course Review

In this course we learned how to:

- Use the Pivot Grid display options to:
  - Update Filters
  - Update Chart Options
  - Export Data
  - Reset the Pivot Grid to the default view, if available
  - Save a Pivot Grid model view
  - Save the Pivot Grid as a new model view
- Manipulate how the Pivot Grid displays data
- Manipulate what data is displayed in the Pivot Grid