Parameters: The Parameters function allows end user to build parameter slicers to feed different elements into a query other than the typical “where” part of the query. Once created you can use the parameter as part of the query, custom members and sets. When is use the Parameterized hierarchies will appear in blue on the selection tree.

A. Creating a Parameter:

1. Using the Applicant Yield by Zip Code report as an example; this report list several measures. Rather than listing each of these within their own column, we can give the end user the ability to select which measure they would like to view by creating a parameter for the selected measures.

   ![Applicant Yield by Zip Code Report](image)

   2. Right click on the Measures within the Columns panel and then click on View Elements.

   ![View Elements](image)

   3. The measures selected for the report are highlighted. Right click on any one of the highlighted measures. This will cause a new menu to appear. Click on Parameters and then Create new parameters:

   ![Create new parameters](image)

   4. Enter in the following:
i. Name of the new Parameter within the Parameter Name field.

ii. Enter in a description of parameter within the Description field.

iii. Select hierarchies/measures for the new parameter by clicking and then ctrl click to continue selecting items. (Note: If you right clicked on one of the selected measure originally the elements selected will be used.)

iv. Set the default value for the Slicer: First is the first element selected for the parameter, Last is the last selected element for the parameter or Default Member, which will default the slicer to the selected element.

v. Click OK to save.

5. The new parameter will now appear within the Parameters folder within the list of measures (bottom of the list).
6. Double click on the new parameter ‘@ Applicant Measures’. The parameter will automatically appear within the report as a Slicer. Click the ‘Run Query’ button. The report will update to display each of the measure individually.
• **Custom Elements:**

A. **Creating a Custom Measure:** To create a new measure based on already existing measures, click on the Custom Items icon within the Query panel and then click on Custom Measure Wizard.

B. The Measure, shown below, will then appear.

1. Enter the name of the new measure in the Name field.
2. Enter a description for the new measure. (not required)
3. Select the format.
4. Click on one of the Formula Types.
5. Choose the measures to use within the formula and then click the Next button.
C. The Custom Member screen will appear. On the Custom Member screen, everything will default in based upon the information entered on the Measure Wizard screen. You will need to identify the type of Access for the new measure. Private or Public. If Private, only you can see and use the custom measure. If Public, everyone can see and use the custom measure.

D. Once the Access type has been selected, test the new measure by click on the Test MDX button and then click on Create to finish the creation of the new measure.

E. One additional screen will appear for assign security access to whom can modify the custom measure.

F. The measure will now appear within the Custom Elements folder within the Measures. Below is an example of a report using the custom measure
• Custom Sets:

A. Creating a Custom Set: A custom set can be used for easy data display and selection. To create a new Custom Set based on an existing parameter or dimensions, click (and CTRL click) on the elements you would like to use for the new set from within the Elements window.

1. Once the selected elements are highlighted, right Click on one of the highlighted elements and click on the Custom Elements option from the menu.

2. Click on ‘Member Sets’

3. Click on ‘Default Custom Set’. The Custom Set screen will appear.
4. Enter in a Set Name for your new data/member set and description.
5. Select the Access level (Private/Public).
6. Click on ‘Test MDX’ to run the code.
7. Click on Create to finish the creation of the new member set.
8. The Custom Set Security screen will appear. This allows you to assign what type of users can read and/or modify the custom set and then click OK to complete.

9. The new custom set will appear in the Custom Elements folder within the hierarchy it was created in.
• **Cascading Slicers:** Cascading slicers are created to limit the amount of elements the end user sees when selecting elements from a slicer within a report. For example, the report may have the slicers of Department and Major. Rather than listing all Majors, when using a cascading slicer, the Majors will be limited to only display those that fall within the selected department.

A. **Creating a Cascading Slicers:**

1. Select the first hierarchy to use for the Cascading Slicer and create a new parameter for it. In this example, Department is used.
2. Next select the hierarchy for the second portion of the cascading slicer. Using Major for this example. Using the Advanced Set Designer, we will create a new custom element that will use the select level of the selection as well as call the parameter of the first slicer select.

   i. Click on the Advance Set Designer within the Query ribbon panel.

   ii. Click on the ‘Add Elements’ button

   iii. Select the Dimension and the Hierarchy for the selected Dimension. Major is selected for both in this example. Also, right click on “All Majors” within the middle white box and select “All Descendants of All Majors”
iv. Click on the ‘Filter Elements’ button and then select the “Non Empty” option.

v. Select the parameter you created for the first slicer within the ‘Cross set of items’ section.
vi. Enter in the name of the new custom element, a description as well as set the Access level (Private/Public) and then click OK.

![Image](image1.png)  

Result:

![Image](image2.png)

vii. Now double click on the new custom element (Major – A1 in this example). This will automatically add the hierarchy Major to the Slicers as well as add the Department and Major with the report:

![Image](image3.png)