Hierarchical Columns

Column Types

There are three types of data columns possible in Analytics. Up to now only two of those column types have been available in our data: Measures and Facts.

- **Measure Column** — Holds a simple list of numerical data values. Measures, being numeric, can be aggregated in some way. Examples include Grade Points, Opening Balance, or Employee Count. Measures are represented by a yellow icon.

- **Fact Column** — Holds a flat list of alpha-numeric data values. Examples include Employee ID, Major Plan, or Object Code. Facts are represented by a blue icon.

We now have a third type of column available for use – **Hierarchical** columns.

- **Hierarchical Column** — Holds data values that are organized using either named levels or parent-child relationships. A hierarchy is represented by a tree-like structure. Individual members are shown in an outline manner. Hierarchies allow you to drill deeper into the data to view more detailed information and still see the structure you’re drilling into.

The hierarchies that are available as of 8/22/2012 are:

1. CSW – Student Profile – Census subject area
   a. **Budget Organization Hierarchy**
      i. Budget Organization Total
      ii. Campus
      iii. College
      iv. Department

2. CSW – Student Profile – All Academic Plans – Census subject area
   a. **Budget Organization Hierarchy (same as above)**
   b. **Academic Plans Hierarchy**
      i. Academic Plans Total
      ii. Academic Plan

Additional hierarchies may be added to other subject areas and types of subject areas in the future.

Creating an Analysis with Hierarchies

When you drop a hierarchical column into an analysis, the Analytics system will automatically create a pivot table for you. Hierarchies are not allowed in two-dimensional tables.

You can use hierarchies in any analysis from the noted subject areas and, in general, they work like any other column. You cannot, however, create a filter based on the hierarchy. You can only filter on measures or facts.
Working with Hierarchies

Once you’ve added a hierarchy to an analysis, the functionality becomes immediately apparent.

Here’s a simple student census analysis which includes the Budget Organization Hierarchy. The only filter in this analysis is limiting the data to the past five academic years:

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Budget Organization Hierarchy</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Budget Organization Total</td>
<td>39117</td>
</tr>
<tr>
<td>2009</td>
<td>Budget Organization Total</td>
<td>40036</td>
</tr>
<tr>
<td>2010</td>
<td>Budget Organization Total</td>
<td>40680</td>
</tr>
<tr>
<td>2011</td>
<td>Budget Organization Total</td>
<td>40869</td>
</tr>
<tr>
<td>2012</td>
<td>Budget Organization Total</td>
<td>41000</td>
</tr>
</tbody>
</table>

In this first image, you can see just the top-level data, giving the enrollment numbers for the entire campus for the identified academic years.

In this image, you’re seeing the same analysis with the levels expanded.

The Budget Organization Total level for the 2009 Academic Year has been expanded to reveal the Campus Level.

The Campus level for Main Campus has been expanded to reveal the College Level.

The College level for Education has been expanded to reveal the Department Level.

There are several things to note here:

- Each level retains its own totals
- Each level must be expanded independently
- In the third image, you see that you can right-click on an expanded column or level to see a menu which provides several collapse options
- There is no option to expand all levels