

## 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:

**Five-Year Student Census Analysis**

Academic Year	Budget Organization Hierarchy	Enrollment
2008	⊕ Budget Organization Total	39117
2009	⊕ Budget Organization Total	40036
2010	⊕ Budget Organization Total	40680
2011	⊕ Budget Organization Total	40869
2012	⊕ Budget Organization Total	41000

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.

**Five-Year Student Census Analysis**

Academic Year	Budget Organization Hierarchy	Enrollment
2008	⊕ Budget Organization Total	39117
2009	⊖ Budget Organization Total	40036
	⊖ Arizona Health Sciences	3338
	⊖ Main Campus	37071
	⊕ Agriculture/Life Sciences	3404
	⊕ Architecture/Landscape Archite	562
	⊕ Colleges Letters Arts/Sci Div	4653
	⊖ Education	2151
	Disability/Psychoeduc Studies	342
	Education-Deans Office	757
	Educational Psychology	64
	Educatnl Policy Studies/Pract	193
	Teachg/Learning/Sociocult Stds	898
	⊕ Eller College of Management	6435
	⊕ Engineering	3159
	⊕ Fine Arts	2044
	⊕ Graduate College	1398
	⊕ Humanities	2308
	⊕ James E Rogers College of Law	512
	⊕ Optical Sciences	259
	⊕ Research Division	102
	⊕ Science	6848
	⊕ Social/Behavioral Sciences	6606
	⊕ UA Outreach College	85
	⊕ University of Arizona South	229

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.

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

**Five-Year Student Census Analysis**

Academic Year	Budget Organization Hierarchy	Enrollment
2008	⊕ Budget Organization Total	39117
2009	⊖ Budget Organization Total	40036
	⊖ Arizona H	
	⊖ Medicin	
	Admin	
	COM A	
	Cellular	
	Immun	
	Pharmacology	

Collapse

Collapse all items for this column

Collapse all items in view

Exclude column

Move >