

# OLAP cubes

Office of Institutional Research

# OLAP(Online Analytical Processing) cubes.

The OLAP cubes used in these ARGOS dashboards allow you to view your data in a pre-defined order.

However, you can reorganize your data using the provided “Dimensions” in many different ways.

With OLAP cubes you can very quickly add calculated fields called “Measures”, generate charts and download these visuals for presentation purposes.

For these more advanced features, we encourage you to attend an ARGOS training session.

An example is provided below:

The screenshot shows the 'Dimension Editor' window with three main sections: 'Available', 'Columns', and 'Rows'. The 'Available' section contains a list of dimensions: CLASS, Department, ETHNICITY, Major, and RESIDENT. The 'Columns' section contains 'Student\_Level'. The 'Rows' section contains 'ENTRY\_ACTION' and 'College'. The 'Department' and 'Major' items in the 'Available' list are highlighted in yellow. The 'ENTRY\_ACTION' and 'College' items in the 'Rows' list are also highlighted in yellow. At the bottom of the window, there are three buttons: a help button (question mark), a 'Cancel' button, and an 'Apply' button (highlighted in green).

Available	Columns	Rows
CLASS	Student_Level	ENTRY_ACTION
Department		College
ETHNICITY		
Major		
RESIDENT		

Changing how you view data in an OLAP cube.

Here, you can see the result of clicking on the dimension button on the Headcount Summary OLAP cube.

Drag Department and Major to "Available". Move Entry action before College.

Apply your changes.

ENTRY_ACTION	College	Fall 2017 Headcount	Fall 2016 Headcount	Headcount Difference	Percentage Difference	Fall 2017 Headcount	Fall 2016 Headcount
		Value	Value	Value	Value	Value	Value
+ College Readmit		26	42	-16	-38.1%	140	140
+ Continuing		1847	1429	418	29.3%	9670	9670
+ HS Concurrent		0	0	0	0.0%	734	734
+ New Adult		0	0	0	0.0%	55	55
- New First Time		365	377	-12	-3.2%	2092	2092
	Arts and Letters	26	21	5	23.8%	166	166
	Business and Innovation	56	41	15	36.6%	224	224
	Education	30	36	-6	-16.7%	55	55
	Engineering	10	8	2	25.0%	514	514
	Health and Human Service	154	158	-4	-2.5%	251	251
	Law	18	26	-8	-30.8%	0	0
	Medicine and Life Sciences	43	41	2	4.9%	0	0
	NULL	2	0	2	0.0%	0	0
	Natural Sciences and Math	6	5	1	20.0%	233	233
	Nursing	20	39	-19	-48.7%	250	250
	Pharmacy and Pharmaceut	0	2	-2	-100.0%	150	150
	University College	0	0	0	0.0%	249	249
+ New International		8	10	-2	-20.0%	39	39

Changing how you view data in an OLAP cube.

Here, you can see the result of clicking on an entry action at the topmost level. This summary is broken out by Entry Action then by College.

## Dimension Editor



### Available

ACT_COMP	⚙
DEPARTMENT	⚙
GENDER	⚙
HSGPA	⚙
RESIDENCY	⚙

### Columns

ACADEMIC_PERIOD	⚙
-----------------	---

### Rows

COLLEGE	⚙
MAJOR	⚙
ETHNIC	⚙



Create a **group** from an existing dimension

Drag ethnicity over to your Rows and then click on the gear next to Ethnic in your dimension editor.



↩ Cancel

✓ Apply

## Dimension Editor

Caption:

ETHNIC

Previous Forecasting

Forecasting Method

Next Forecasting

Simple Moving Average

+ New Group

✕ Delete Group

▼ Root

Non-resident Alien

Unknown

▼  Minority

Multi-racial

Hispanic/Latino

↩ Cancel

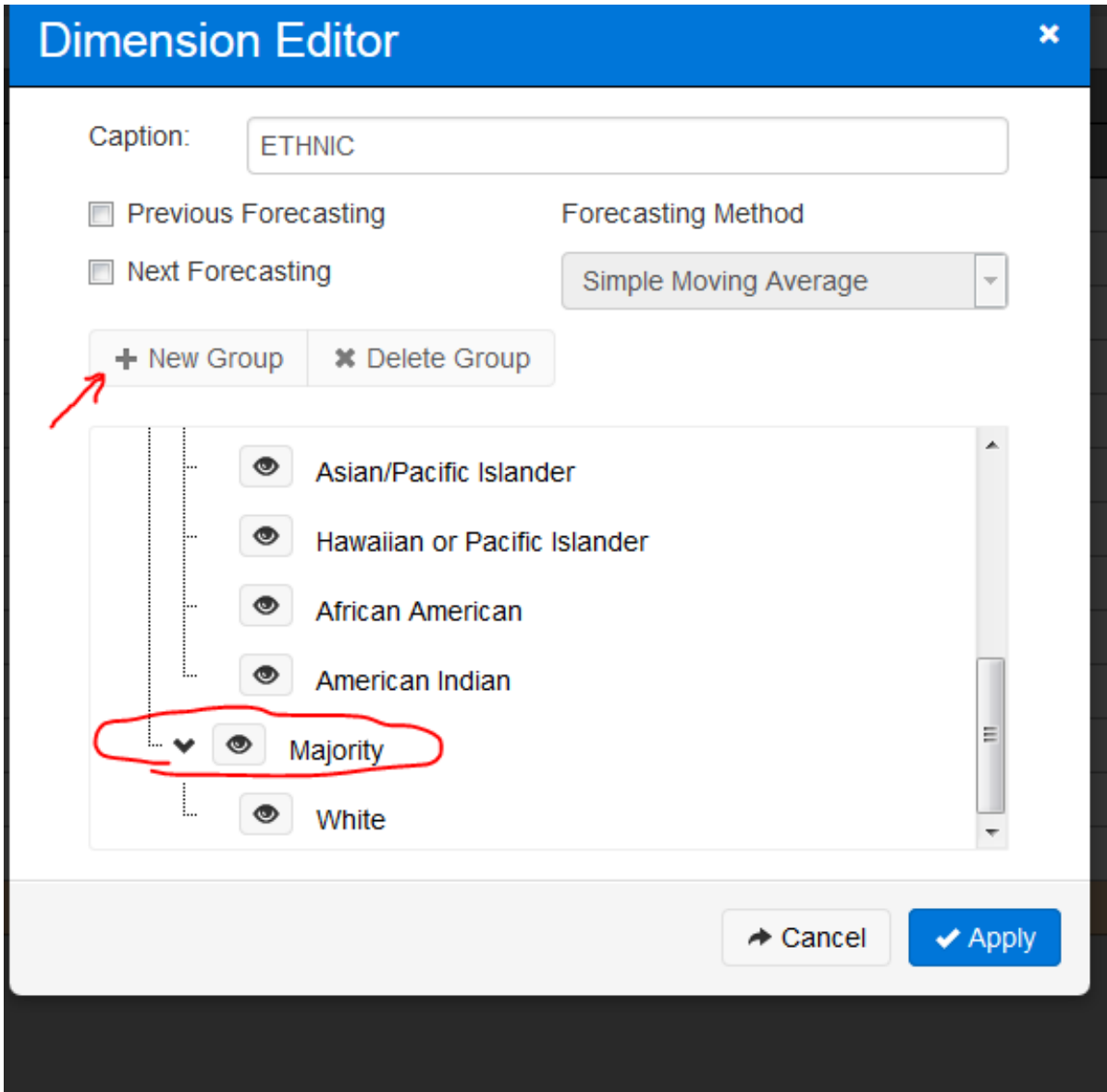
✓ Apply

Create a **group** from an existing dimension

With Root highlighted, click on New Group.

You can then edit the group and call this Minority.

Drag all the ethnicities that you want to include under minorities to this new group .



## Create a **group** from an existing dimension

With Root highlighted, click on New Group.

Similarly, create another Group "Majority" and drag all majority ethnicities to this group.

Apply your changes. And view the results

# View in OLAP with a custom group

Measures			Dimensions			OLAP Saved Settings		
ACADEMIC_PERIOD			Fall 2015			Fall 2016		
COLLEGE	MAJOR	ETHNIC	COHORT	RETENTION	Rate	COHORT	RETENTION	Rate
			Value	Value	Value	Value	Value	Value
Health & Human Services			397	282	71.0%	359	273	76.0%
Athletic Training			49	35	71.4%	33	19	57.6%
Minority			14	8	57.1%	10	4	40.0%
Majority			35	27	77.1%	21	15	71.4%
Non-resident Alien			0	0	0.0%	1	0	0.0%
Unknown			0	0	0.0%	1	0	0.0%
Criminal Justice			85	53	62.4%	80	56	70.0%
Majority			53	39	73.6%	47	38	80.9%
Minority			31	13	41.9%	29	16	55.2%
Unknown			1	1	100.0%	4	2	50.0%
Exercise Science			101	82	81.2%	99	87	87.9%
Minority			16	13	81.3%	13	10	76.9%
Majority			84	69	82.1%	78	70	89.7%
Non-resident Alien			0	0	0.0%	2	1	50.0%
Unknown			1	0	0.0%	6	6	100.0%
Health Care Administration			6	6	100.0%	11	8	72.7%