



UNIVERSITY OF
CENTRAL
ARKANSAS™

ACADEMIC AFFAIRS
INSTITUTIONAL RESEARCH

Course Offerings Guide

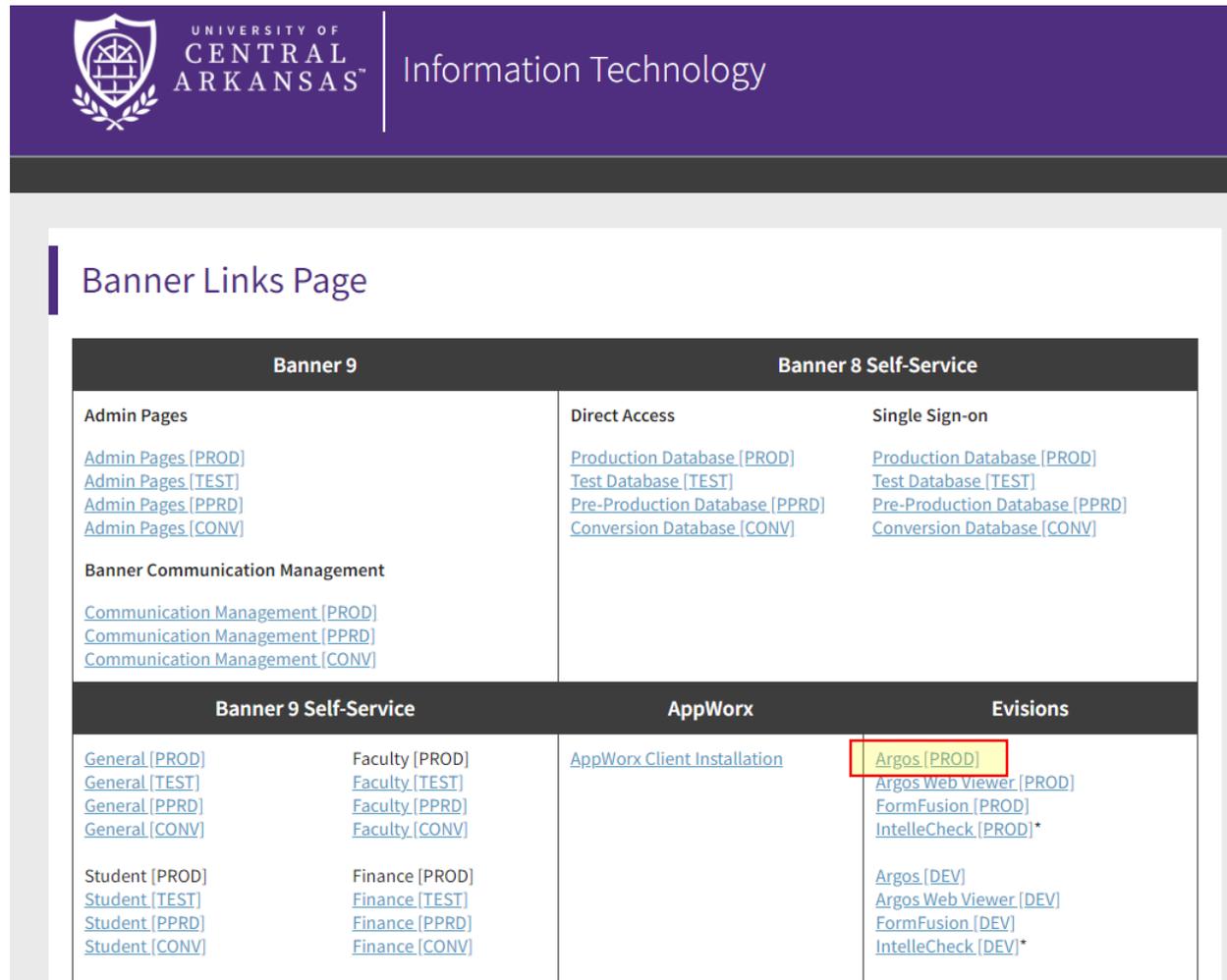
The following guide provides assistance in running and understanding the information returned by the Course Offerings dashboard in Argos. The dashboard is located through the Argos reporting tool which can be accessed here: <https://it.uca.edu/banner/>.

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I. Locating and Accessing the Dashboard

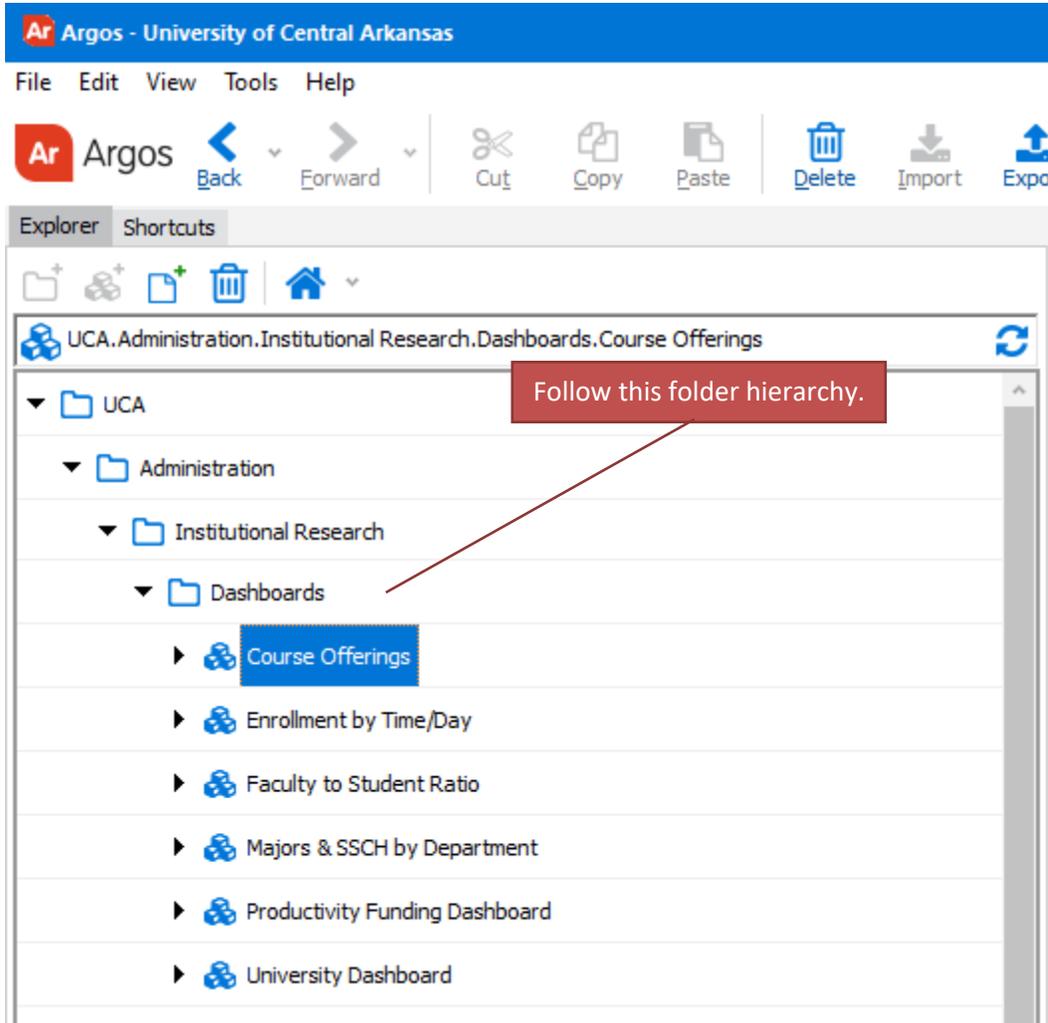
To locate the dashboard, navigate to <https://it.uca.edu/banner/>. Click the “Argos (PROD)” hyperlink as highlighted below and then log in.



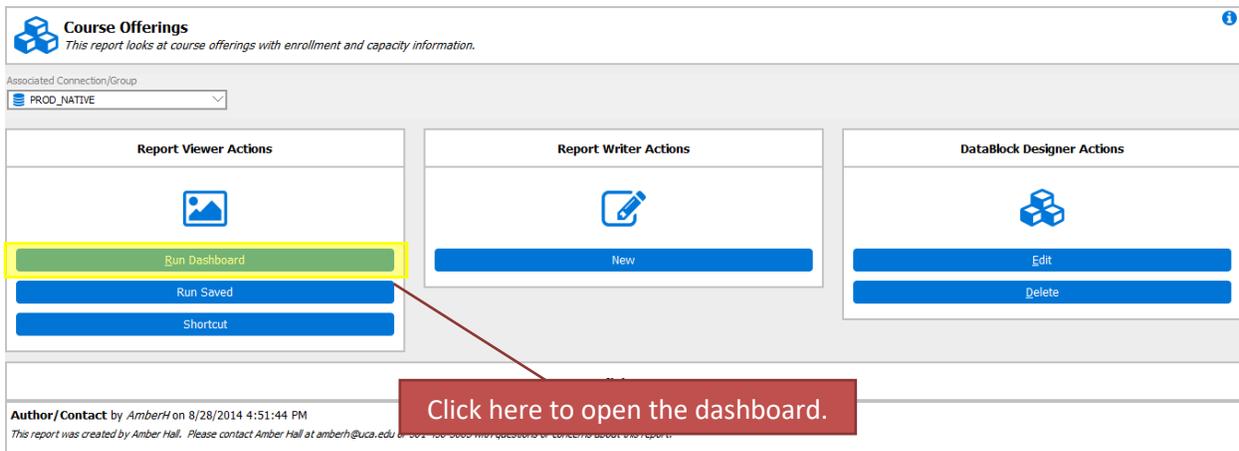
The image shows the Banner Links Page for the University of Central Arkansas Information Technology. The page is divided into several sections: Banner 9, Banner 8 Self-Service, Banner 9 Self-Service, AppWorx, and Evisions. The 'Argos [PROD]' link in the Evisions section is highlighted with a red box.

Banner 9		Banner 8 Self-Service	
Admin Pages Admin Pages [PROD] Admin Pages [TEST] Admin Pages [PPRD] Admin Pages [CONV]	Banner Communication Management Communication Management [PROD] Communication Management [PPRD] Communication Management [CONV]	Direct Access Production Database [PROD] Test Database [TEST] Pre-Production Database [PPRD] Conversion Database [CONV]	Single Sign-on Production Database [PROD] Test Database [TEST] Pre-Production Database [PPRD] Conversion Database [CONV]
Banner 9 Self-Service		AppWorx	Evisions
General [PROD] General [TEST] General [PPRD] General [CONV]	Faculty [PROD] Faculty [TEST] Faculty [PPRD] Faculty [CONV]	AppWorx Client Installation	Argos [PROD] Argos Web Viewer [PROD] FormFusion [PROD] IntelleCheck [PROD]* Argos [DEV] Argos Web Viewer [DEV] FormFusion [DEV] IntelleCheck [DEV]*
Student [PROD] Student [TEST] Student [PPRD] Student [CONV]	Finance [PROD] Finance [TEST] Finance [PPRD] Finance [CONV]		

The dashboard is located at *UCA.Administration.Institutional Research.Dashboards.Course Offerings*. Navigate through the folder hierarchy to find the dashboard.



The following screen will appear to the right of the navigation tree. Click the “Run Dashboard” button to view the dashboard.



II. Running the Dashboard

After clicking the “Run Dashboard” button, the dashboard’s main page will appear.

The screenshot shows the main page of the Course Offerings Dashboard. At the top, there are navigation tabs for 'Academic Year', 'Fall Term', and 'Spring Term'. Below the tabs, the page displays the University of Central Arkansas logo and the title 'Course Offerings by Department'. A message prompts the user to click on buttons to view specified data. Three buttons are visible: 'Academic Year', 'Fall Term', and 'Spring Term'. On the right side, there is contact information for Rebecca Agyei and Kristin Heffington, including their respective departments and email addresses.

Clicking on a button will take you to the specific page. You can also click on the tabs at the top of the page. The page will show course offerings by academic year: fall to summer semesters.

This screenshot shows the dashboard interface with four red callout boxes providing instructions:

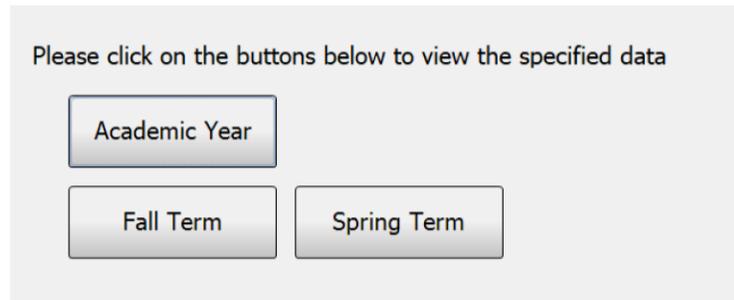
- 1.) Use this dropdown to select the year.** Points to the 'Academic Year' dropdown menu.
- 2.) Use this dropdown to select the college.** Points to the 'College' dropdown menu.
- 3.) Use this box to select department or unit. Multiple departments can be selected.** Points to the 'Department' selection box.
- 4.) Click the “Run Query” button to run the dashboard** Points to the 'Run Query' button.

The dashboard also displays a table with columns for 'Academic Year' and 'Terms Displayed'. On the right side, there is a summary section with the following information:

- SSCH:** Total SSCH generated by this course.
- Section Count:** Number of sections that the university had.
- Total Enrollment:** Total enrollment of the course.
- Avg Enrollment:** Average enrollment of each section for the course.
- Capacity is defined as enrollment divided by max enrollment.**
- Q1 Capacity (25th percentile):** Q1 gives us the first quartile of the capacity of the sections for that course. This is also known as the 25th percentile, so this is value is where 25% of the sections lie below.
- Median Capacity (50th percentile):** The median capacity of the sections for that course. This is also known as the 50th percentile, so this is value is where 50% of the sections lie below.
- Q3 Capacity (75th percentile):**

III. Interpreting the Dashboard

Each of the dashboard tabs show 3 years of information. Each tab will show you the information for the time period selected for by going to that specific tab: academic year, fall term, or spring term.



Academic Year: 2021-2022 [Run Query]

College: Education

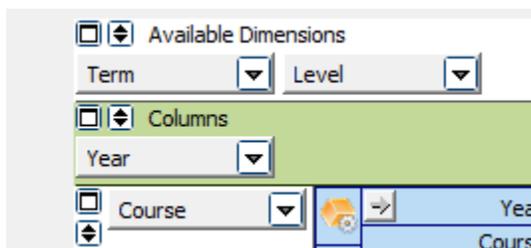
Department: College of Education
Elementary/Literacy/Special Ed
Leadership Studies
Teaching & Learning

(To select multiple departments, Hold the Ctrl key while making selections)

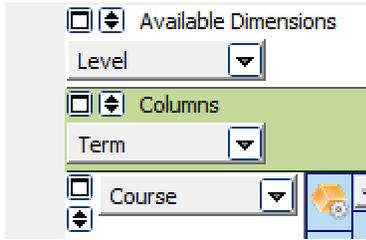
Refer to the purple text to determine the terms displayed

Academic Year	Terms Displayed
2021-2022	202210 202220 202230
2020-2021	202110 202120 202130
2020-2020	202010 202020 202030

The academic year dashboard has the following dimensions which you can use to manipulate the OLAP cube.



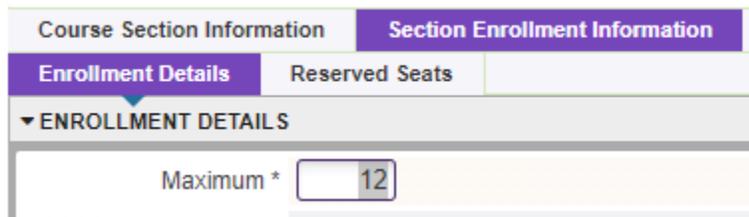
The term dashboards have the following dimensions which you can use to manipulate the OLAP cube.



For each course, the following variables are shown:

Variable	Description
SSCH	Total SSCH generated by this course.
FTE	For undergraduate courses, you take the total SSCH and divide by 15. For graduate courses, you take the total SSCH and divide by 12. <i>(This variable is only available in the Fall Term and Spring Term tabs.)</i>
Section Count	Number of sections that the university had.
Total Enrollment	Total enrollment of the course.
Avg Enrollment	Average enrollment of each section for the course.
<i>Capacity is defined as enrollment divided by max enrollment.</i>	
Q1 Capacity (25th percentile)	Q1 gives us the first quartile of the capacity of the sections for that course. This is also known as the 25th percentile, so this value is where 25% of the sections lie below.
Median Capacity (50th percentile)	The median capacity of the sections for that course. This is also known as the 50th percentile, so this value is where 50% of the sections lie below.
Q3 Capacity (75th percentile)	Q3 gives us the third quartile of the capacity of the sections for that course. This is also known as the 75th percentile, so this value is where 75% of the sections lie below.

For capacity, we use the enrollment of a course on the census day. Max enrollment is recorded in SSASECT in the field shown below in Banner.



Example: Enrollment on the census day is 10 and max enrollment is 12, so capacity if $10/12 = 83\%$.

IV. Manipulating OLAP Cubes

OLAP stands for Online Analytical Processing. OLAP cubes are data structures that allow the end user to configure (“slice and dice”) the same data into many different views. They are designed to aid in decision-making and better understanding of information. Similar to pivot tables within Excel, the end user can add/remove variables (dimensions) as well as filter and sort the data to drill down into the details or generalize to see the big picture.

Note:

For a more comprehensive explanation of OLAP Cubes please refer to the Argos In-Product Help Guide:
http://webhelp.evisions.com/HelpFiles/Argos/5.3/en/Default.htm#Report%20Viewer%20Guide/OLAP.htm%3FTocPath%3DUser%2520Guides%7CReport%2520Viewer%2520Guide%7COLAP%2520Data%2520Cubes%7C_0

A. Sorting

The screenshot shows an OLAP report interface. At the top, there is a dropdown menu for "Select a Term" set to "Fall 2016" and a "Run Query" button. Below this, there are sections for "Available Dimensions" (Department, Level, Classification, Minority, College) and "Columns" (ADHE_Term, Gender). The main data table has columns for "Race", "Gender", and years from "Fall 2012" to "Fall 2016", plus a "Total by ROWS" column. The rows list various racial categories like "American Indian/Alaskan Native", "Asian", "Black", etc. Two callout boxes provide instructions: a purple box points to the +/- symbols in the column headers, and a red box points to the vertical and horizontal arrows in the "Race" column header.

Hit the +/- symbol to expand/contract the information

Click the vertical or horizontal arrows to sort the rows/columns ascending or descending

Race	ADHE_Term	Gender	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Total by ROWS		
			Female	Male	Students	Students	Students	Students		
			Students	Students	Students	Students	Students	Students		
			Value	Value	Value	Value	Value	Value		
American Indian/Alaskan Native			67	47	20	63	55	59	58	302
Asian			170	84	86	160	185	194	218	927
Black			1,942	2,011	1,913	1,788	1,788	1,788	1,788	9,451
Hispanic			373	452	484	540	540	540	540	2,174
NR Alien			489	575	606	630	630	630	630	2,828
Native Hawaiian/Pacific Islander			14	11	12	12	9	9	9	58
Two or more races			284	352	372	372	368	368	368	1,591
Unknown			317	142	117	117	75	75	75	998
White			7,892	7,915	7,997	7,997	7,801	7,801	7,801	39,251
Total by COLUMNS			1,534	11,698	11,754	11,754	11,487	11,487	11,487	57,580

B. Adding/Removing Dimensions

Editing the dimensions of the OLAP cube allows the user to view the data grouped in different ways. In the following example, the OLAP cube first displays enrollment data by Fall term. Dragging and dropping the necessary dimensions edits the OLAP cube to display the enrollment data split out by race/ethnicity and gender for each Fall term.

Select a Term: Fall 2016 Run Query Main Page

Available Dimensions: Department, Level, Classification, Gender, Minority

Columns: ADHE_Term

	Fall 2012	Fall 2013	Fall 2014
Students			
Value	11,107	11,534	11,698

Drag and drop dimensions from the available dimensions area to the columns or rows area to add dimensions.

Drag and drop dimensions from the columns or rows area to the available dimensions area to remove dimensions.

This is what the OLAP cube looks like after moving the gender and race dimensions:

Select a Term: Fall 2016 Run Query Main Page

Available Dimensions: Department, Level, Classification, Minority, College

Columns: ADHE_Term, Gender

Race

Race	Fall 2012			Fall 2013			Fall 2014		
	Female	Male	Students	Female	Male	Students	Female	Male	Students
American Indian/Alaskan Native	67	47	20	63	55	59	58		302
Asian	170	84	86	160	185	194	218		927
Black	1,797	1,101	696	1,942	2,011	1,913	1,788		9,451
Hispanic						484	540		2,174
NR Alien						606	630		2,828
Native Hawaiian/Pacific Islander						12	9		58
Two or more races						372	368		1,591
Unknown						117	75		998
White						7,997	7,801		39,251
Total by COLUMNS						11,754	11,487		57,580

With the Gender dimension in the column area, the different gender categories are displayed horizontal along the top of the OLAP cube

With the Race dimension in the row area, the different race categories are displayed vertically along the left side of the OLAP cube

C. Filtering

Dimensions can be filtered to show only the user's chosen categories. A dimension **does not** need to be in the column and row areas to be filtered; it can be filtered from the available dimension area as well. For example, the user can click on the department dimension in the available dimensions area and filter it to show only enrollment for their department.

In the following example, the College dimension is being filtered (the dimension has changed from a gray box to a red box). Within the dimension editor:

- The Graduate School category has been removed (red crossed circle to the left of the category).
 - This category will not be visible in the OLAP cube nor will it be displayed in the totals.
- The Undeclared category has been changed to invisible (blue eye to the left of the category) in the dimension editor.
 - This category will not be visible in the OLAP cube but it *will* be displayed in the totals.
- All other categories were left with the default visible option (green eye to the left of the category) in the dimension editor.
 - These categories will be visible in the OLAP cube and will be displayed in the totals.

Select a Term: Fall 2016 Run Query Main Page

Available Dimensions: Department, Level, Classification, Gender, Minor

Columns: ADHE_Term

College	ADHE_Term	Fall 2012	Fall 2013
	Students	Value	Value
Business		522	1
Education		778	
Fine Arts and Communication		893	
Health and Behavioral Sciences		2,640	2
Liberal Arts		723	
Natural Sciences and Mathematics		1,163	1
Undergraduate Studies		20	
Total by COLUMNS		11,073	11

Dimension editor: College

Caption: College

Enable prev. forecast value Forecasting method: Triple Exponential S

Enable next forecast value

- Business
- Education
- Fine Arts and Communication
- Graduate School
- Health and Behavioral Sciences
- Liberal Arts
- Natural Sciences and Mathematics
- Undeclared
- Undergraduate Studies

Items count: 9

1) Click the down arrow next to the dimension to bring up the Dimension Editor menu

2) Click the green checkmark to save your selection

The green eye means that category is visible and included in the totals

The red crossed circle means that the category is not visible and not included in the totals

The blue eye means that category is not visible but is included in the totals

To see examples of filtering an OLAP refer to Argos YouTube videos:

<https://youtu.be/kYwXgRRcAuM>

<https://youtu.be/ALmaNsYlk7M> (starting at minute 1:30)

D. Exporting to Excel

After manipulating an OLAP cube, the data can be extracted to an Excel file for further manipulation or for adding into a report.

Select a Term:

Available Dimensions: Level, Classification, Race, College, ADHE_Term

Columns: Minority, Gender

Department	Minority			Non-Minority			Total by ROWS
	Students	Female	Male	Students	Female	Male	Students
Biology	200	124	76	596	353	243	796
Chemistry	53	32	21	159	92	67	212
Computer Science	75	14	61	270	30	240	345
Geography	9	3	6	69	20	49	78
Mathematics	23	16	7	107	42	65	130
Physics & Astronomy	14	2	12	70	11	59	84
Total by COLUMNS	374	191	183	1,271	548	723	1,645

Right click anywhere within the OLAP cube to display the options menu. Choose Export to Excel (OLE)

- Export to Excel
- Saved OLAP Settings
- Undo (Ctrl+Z)
- Cut (Ctrl+X)
- Copy (Ctrl+C)
- Paste (Ctrl+V)
- Print ...
- Select All (Ctrl+A)

The OLAP cube data will display in Excel exactly as it was displayed in the OLAP cube within Argos. The OLAP cube does not import as an image but as a general data format so that it can be manipulated further in Excel as needed.

Minority	Minority			Non-Minority			Total by ROWS
Gender	Female	Male	Female	Male	Female	Male	Students
Department	Students	Students	Students	Students	Students	Students	Students
	Value	Value	Value	Value	Value	Value	Value
Biology	200	124	76	596	353	243	796
Chemistry	53	32	21	159	92	67	212
Computer Science	75	14	61	270	30	240	345
Geography	9	3	6	69	20	49	78
Mathematics	23	16	7	107	42	65	130
Physics & Astronomy	14	2	12	70	11	59	84
Total by COLUMNS	374	191	183	1,271	548	723	1,645