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# How To Find the Data You Need

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## Overview

In this workshop, you will learn how to find data relevant to students, courses, faculty, and staff. We will cover:

- Texas State University Data
- Texas Higher Education Coordinating Board data
- U.S. Department of Education data
- Other helpful sources:
  - College Results Online
  - NCHEMS Information Center
  - Bureau of Labor and Statistics
  - Census Bureau
  - Various Salary databases

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## The Office of Institutional Research

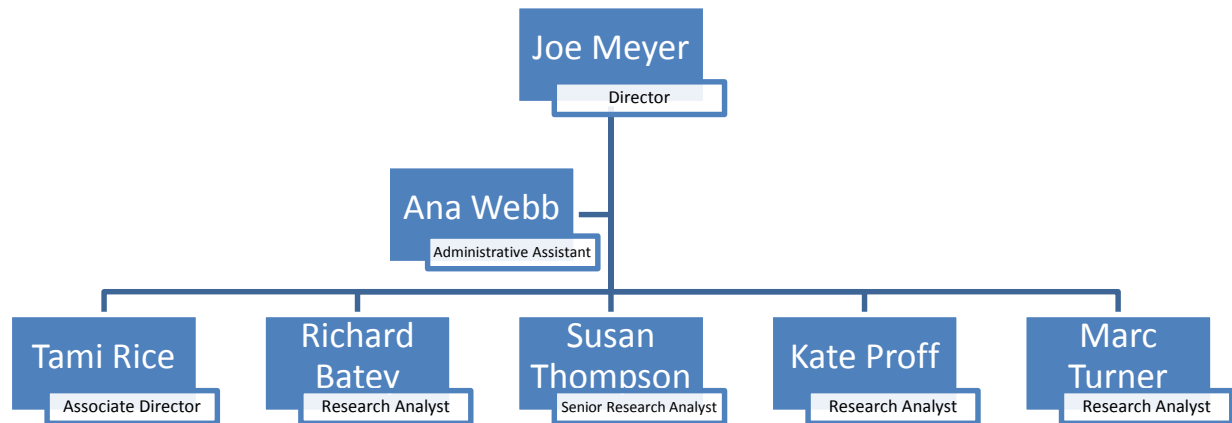
### Mission

The Office of Institutional Research serves the Texas State University community by providing data and information to advance the university mission and support administrative decision-making.

In order to accomplish our mission, the office of Institutional Research sets forth the following objectives:

- Effectively collect, analyze, and disseminate data for regular and ad hoc requests;
- Submit state and federally mandated reports;
- Ensure the accuracy of and integrity of university data and reports;
- Provide assessment and planning assistance to administrative departments

## Organizational Chart



## Texas State Data

Many common questions can be answered by using the data on the Texas State Institutional Research website

[www.ir.txstate.edu](http://www.ir.txstate.edu)

## Standard Reports

- Board of Regents Fact Sheet (<http://www.ir.txstate.edu/reports-projects/regents-fact-sheet.html>)
- Common Data Set (<http://www.ir.txstate.edu/reports-projects/common-data-set.html>)
- Administrative Survey Results (<http://www.ir.txstate.edu/survey-services/admin-survey-results.html>)
- Survey & Report Guide (<http://www.ir.txstate.edu/resources/survey-report-guide.html>)

## Fact Book Pivot Tables

The Fact Book Pivot Tables were created in an effort to make extensive student, course, and degree data available to the university community.

### Why pivot tables?

- User friendly
- Easy to update
- Flexibility
- Tables and graphs
- Single version of the truth
- More information

### What can be found in the pivot tables?

- Student data
  - Enrollment counts by college, gender, residence, etc.
- Course Section Data
  - Enrollments and semester credit hours by prefix, instruction mode, etc.
- Degree data
  - Graduates by degree, department, etc.
- Retention and Graduation data
  - Ex. How many students graduated in 4 years?

### Where are the pivot tables?

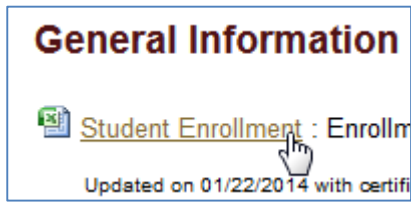
[www.ir.txstate.edu](http://www.ir.txstate.edu) > IR Self-Service > Texas State University Data

<http://www.ir.txstate.edu/ir-self-service/txstate-data.html>

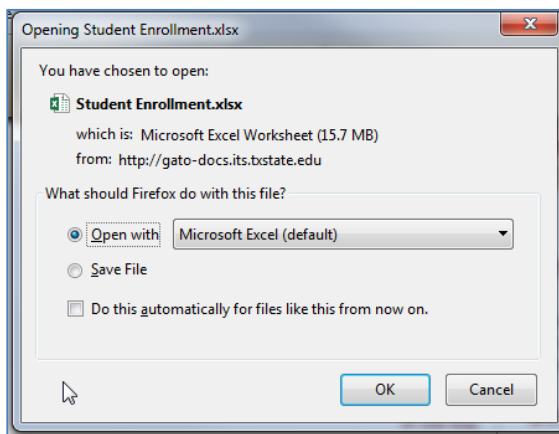


## Using the pivot tables

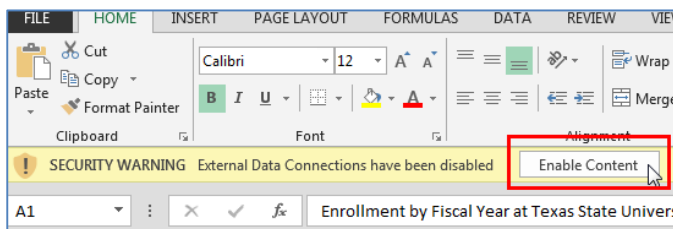
- To open a pivot table, click on the table link (let's start with Student Enrollment)



- In the Open window, select Open with Microsoft Excel
- Click OK



- The Excel file will download to your temporary internet files folder and open
  - If you receive an error, visit the troubleshooting section (pg. 14)
- In the yellow SECURITY WARNING bar, click Enable Content



- There are four worksheets (tabs at the bottom of the screen) in the file
  - Instructions – Brief overview on how to use the pivot table
  - Glossary – Contains the definitions of some variables in the pivot table
  - Table – Tabular data
  - Chart – Graphical data (based on the tabular data)
- The pivot table is divided into four sections

The screenshot shows an Excel pivot table titled "Enrollment by Fiscal Year at Texas State University-San Marcos". A red arrow points to the filter section on the left, which includes fields like College, Department, Major, Major Degree, Major Concentration, Status, Level, Class, Ethnicity, Gender, Age Group, Continent, Country, State, TX Region, County, MSA, and Admit. Category. The pivot table is structured with "TxSt. Year" as the filter, "Fall" and "Summer" as columns, and "Sum of Headcount" as the values. The data rows show fiscal years from FY2002 to FY2014 with corresponding headcount values for each semester.

Sum of Headcount	TxSt. Year	Fall	Summer
FY2002		23,517	22,482
FY2003		25,025	23,912
FY2004		26,306	24,526
FY2005		26,783	25,023
FY2006		27,129	25,519
FY2007		27	11,519
FY2008		28	11,874
FY2009		29,105	27,504
FY2010		30,803	29,275
FY2011		32,572	31,015
FY2012		34,087	31,987
FY2013		34,225	32,126
FY2014		35,546	
Grand Total		380,704	326,124

- Filters – select criteria which affects all the values in the table
- Rows – place a field to display counts in a row layout
- Columns – place a field to display counts in a column layout
- Values – counts, sums, etc. based on filters, rows, and columns (the guts of the table)
- Open the pivot table field list by
  - Click in the values section of the pivot table
  - Right-click and select Show Field List
- The pivot table field list is another way to manipulate the pivot table

***TxState FYear Cheat Sheet***

FY2014 – Fall 2013, Spring 2014, Summer 2014

FY2013 – Fall 2012, Spring 2013, Summer 2013

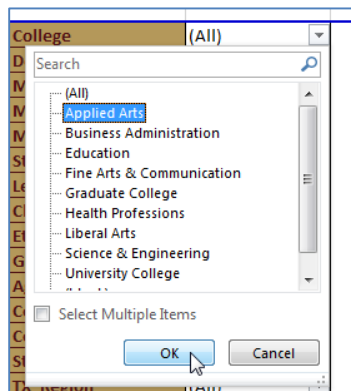
FY2012 – Fall 2011, Spring 2012, Summer 2012

FY2011 – Fall 2010, Spring 2011, Summer 2011

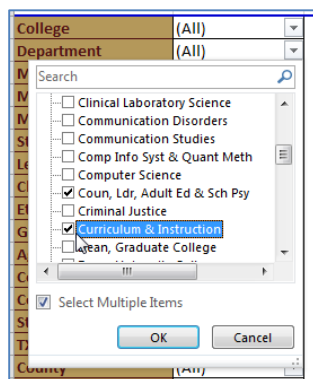
FY2010 – Fall 2009, Spring 2010, Summer 2010

**FILTERS**

- To use a filter, click on the drop-down for a field
- Select a value to filter on
- Click OK



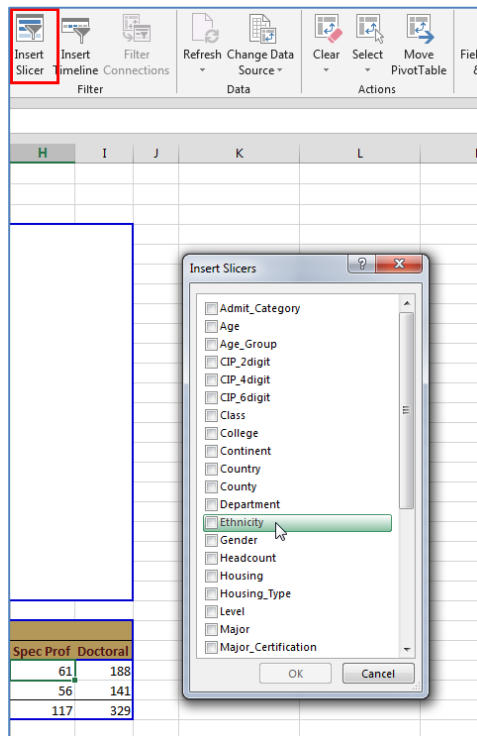
- The table now contains data only for the filtered field
- To select multiple values, check the Select Multiple Items checkbox
- Check or uncheck the items you want
- Click OK



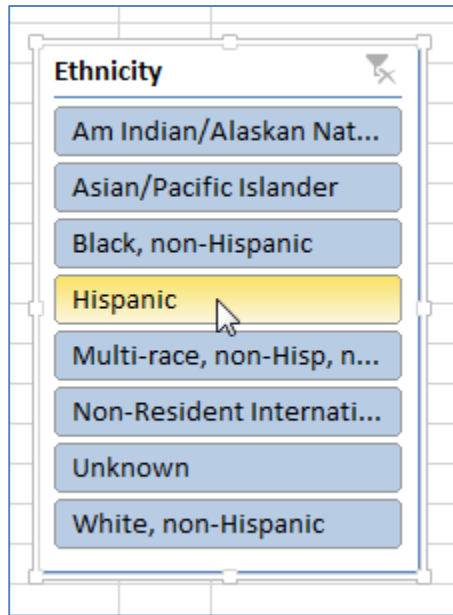
- To add a field to the filter
  - Click a field from the pivot table field list
  - Drag it to the filter section of the pivot table or the filter section of the field list
- To filter on a row or column
  - Click on the drop-down next to a column or row field
  - Select a value
  - Click OK


## SLICERS

- You can also filter using slicers
- In the Ribbon menu, go to Pivot Table Tools > Analyze > Insert Slicer
- Check an item you would like to filter
- Click OK



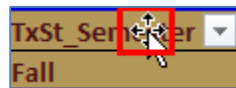
- You can now click the label to filter, and the filter will be added



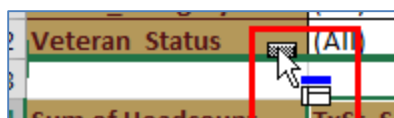
- To delete a filter, click the  button in the slicer window
- To Remove a slicer,
  - Right-click in the slicer
  - Select Remove

**ROWS and COLUMNS**

- To change the look of the table, you can select different rows and columns
  - Select a field from the filter list OR pivot table field list OR within the existing pivot table
    - If in the filter list or pivot table, look for the cross-hair



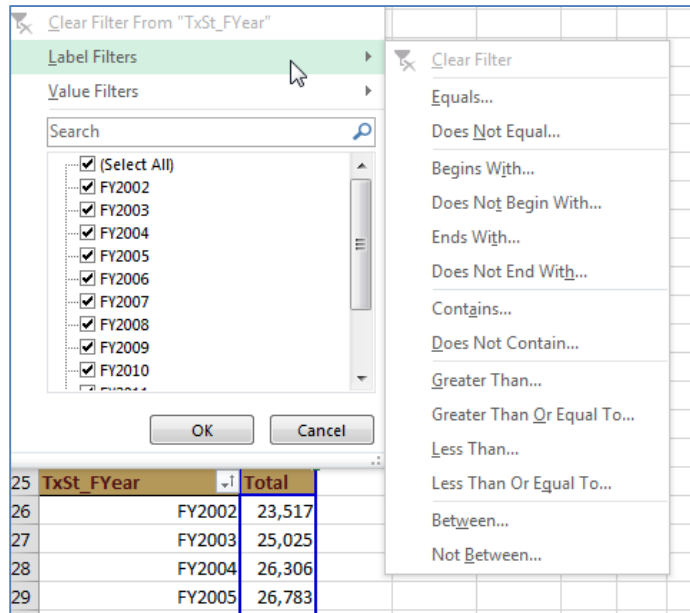
- Drag and drop the field to another section of the pivot table or field list





○ Label Filters

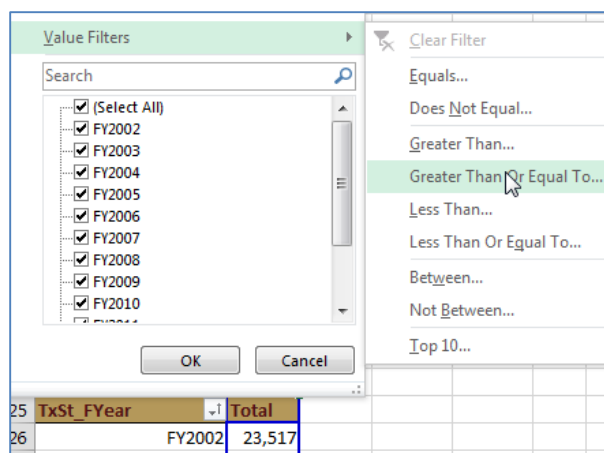
- You can filter on a label in the pivot table by selecting Label Filters from a row or column field drop-down



- This will filter the LABEL, such as “FY2014”

○ Value Filters

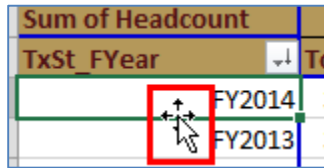
- You can filter on values in the pivot table by selecting Value Filters from a row or column field drop-down



- This will filter the values in the table, such as “enrollment greater than 30,000”

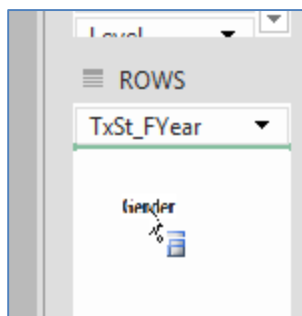
○ Sorting

- You can sort row or column labels by selecting Sort from a row or column field drop-down
- You can manually sort a row or column by dragging and dropping labels



○ Nesting rows and columns

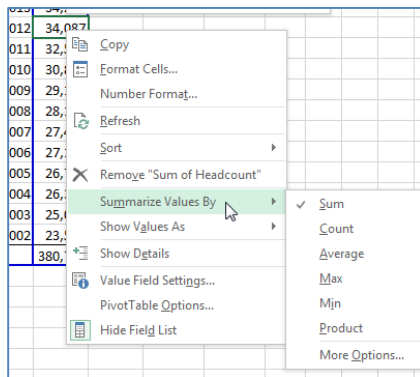
- You can have multiple fields in a row or column by nesting them
- Select a field and drag it next to an existing row or column



VALUES

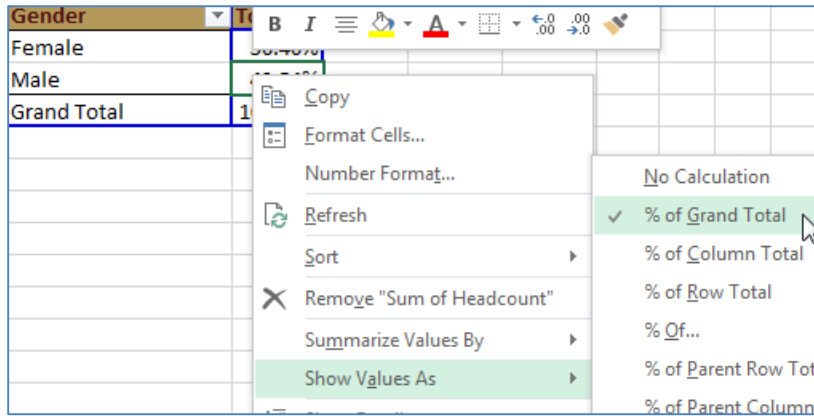
○ To change the calculation on the values,

- Right-click in the values section



- Select Summarize Values By and select a calculation

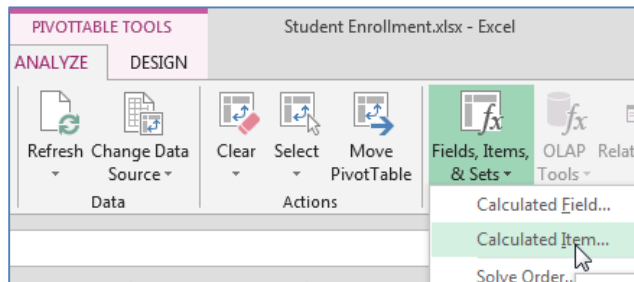
- To change the way values are shown,
  - Right-click in the values section



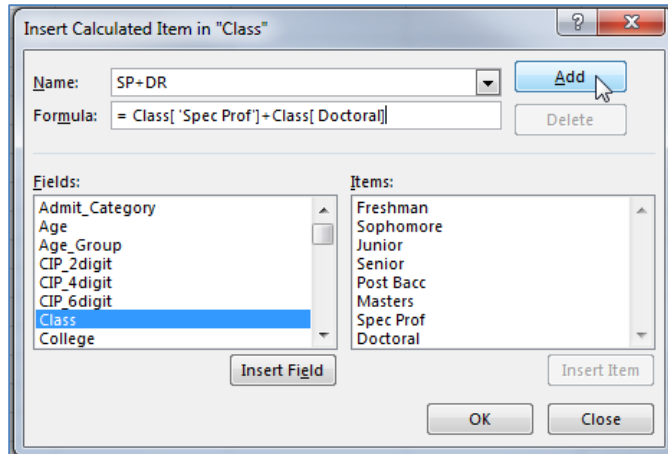
- Select Show Values As and select an option

**CALCULATED ITEMS**

- You can create special calculations with calculated items
- Select an item in field
- In the Ribbon menu, under Pivot Table Tools, go to Analyze > Fields, Items, & Sets > Calculated Item



- Name your formula
- Select the items you want to include in your formula



- Click Add
- Click OK
- The new item appears in the table

	Post Bacc	Masters	Spec Prof	Doctoral	SP+DR
44	2,228	61	188	249	
46	1,277	56	141	197	
				0	
90	3,505	117	329	446	

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**PIVOT TABLE OPTIONS**

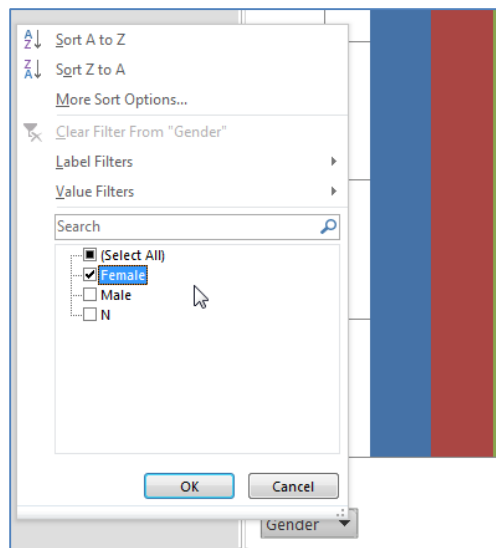
- You can also change the appearance of the table through Pivot Table Options
  - Right-click in the values section
  - Select Pivot Table Options
- Grand Totals
  - Under Totals & Filters
  - Check or uncheck grand totals options

## DRILL-DOWN

- To view the data that makes up a total, you can “drill-down” in an item
- Select any value (except a calculated item) in the pivot table values section
- Double-click the cell
- A new worksheet opens which contains the data behind that value
- To return to the pivot table, click the Table worksheet (tab at the bottom)

## CHARTS

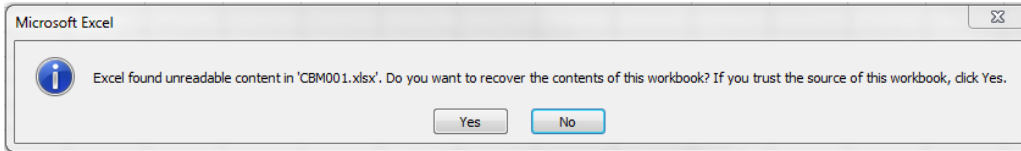
- The Chart worksheet will reflect whatever data is displayed in the Table tab
- You can filter and manipulate the chart by selecting the items just as you would the table



## TROUBLESHOOTING

You will not break a pivot table! Don't be afraid to move things around. If you get to a point that you feel uncomfortable, close the file and start again.

- If you receive this error on open,



- Clear your browsers cache
- Internet Explorer
  - Go to Tools > Internet Options > Browsing History
  - Click Delete
  - Then, go to Tools > Internet Options > Browsing History Settings
  - Set "Disk space to use" to at least 500
- Firefox
  - Go to Tools > Options > Advanced > Network
  - Click Clear Cache Now in "Cached Web Content"
  - Then, go to Tools > Options > Advanced > Network
  - Uncheck "Override automatic cache management"

## EXERCISES

- How many full-time, minority math majors were enrolled in Fall 2012?
- In what year and semester did Hispanic enrollment first reach at least 25% of total enrollment?
- In Spring 2010, were there more first-time students or transfer students in the 30-34 years old age range?
- Which department had the greatest enrollment of internet course in Fall 2013?
- Which prefix generated the most Semester Credit Hours on in Summer 2010?
- How many doctoral degrees have been granted since 2000?
- What is the one-year retention rate for Black students?
- Which college has the highest graduation rate?
- Which instruction-mode had the highest number of Withdrawn grades in Fall 2012?

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## State of Texas Data Sources

- Texas Higher Education Data - <http://www.txhighereddata.org/>
- Texas Guaranteed - <http://www.tgslc.org/factsheets/schools/parameters.cfm>
- Texas Almanac - <http://www.texasalmanac.com/>
- Texas State Data Center - <http://txsdc.utsa.edu/>
- Texas Workforce Commission - <http://www.twc.state.tx.us/>
- Texas Tribune Salaries - <http://www.texastribune.org/library/data/government-employee-salaries/>

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## National Data Sources

- U.S. Department of Education - <http://nces.ed.gov/ipeds/datacenter/>
- College Results Online - <http://www.collegeresults.org/>
- National Center for HE Management Systems - <http://www.higheredinfo.org/>
- U.S. Census Bureau - <http://www.census.gov/>
- U. S. Bureau of Labor and Statistics - <http://www.bls.gov/>
- American Association of University Professors - <http://www.aaup.org/>
- The Chronicle of Higher Education - <http://chronicle.com/section/Facts-Figures/58/>
- College of University Professional Association - <http://www.cupahr.org/>
  - <http://www.hr.txstate.edu/univpayplan/FacultyCompensation.html>