2018 BRINGING ADMINISTRATORS TOGETHER CONFERENCE

How to Get Started with Tableau & Sample Dashboards

April 5, 2018

1:45 PM – 2:45 PM

UIC UNIVERSITY OF ILLINOIS AT CHICAGO

Conference Sponsors: The Office of the Chancellor, Budget & Financial Administration / Human Resources, the Office of the Provost and Vice Chancellor for Academic Affairs, the Office of the Vice Chancellor for Research, and the Office of Business and Financial Services

Workshop Presenter(s)

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  Assistant Vice President for Decision Support, Administrative Information Technology Services
  dpt@uillinois.edu

Please …

- Turn off cell phones.
- Avoid side conversations.
- Raise your hand with questions at any time throughout the presentation. There will also be extra time for questions at the end.
- Sign the attendance roster.
- Complete the evaluation at the end of the workshop.

Workshop Objectives

- Understand how to get Tableau and where you can find training resources
- Learn how Tableau can benefit your college or unit
- Demonstrate how to create basic visualizations and dashboards and publish them to Tableau server
- Generate visualization ideas based on sample dashboards

Topics

- Cost
- Training
- Preparing & Importing Data
- Creating Simple Visualizations
- Creating Dashboards
- Publishing Dashboards
- Example Projects

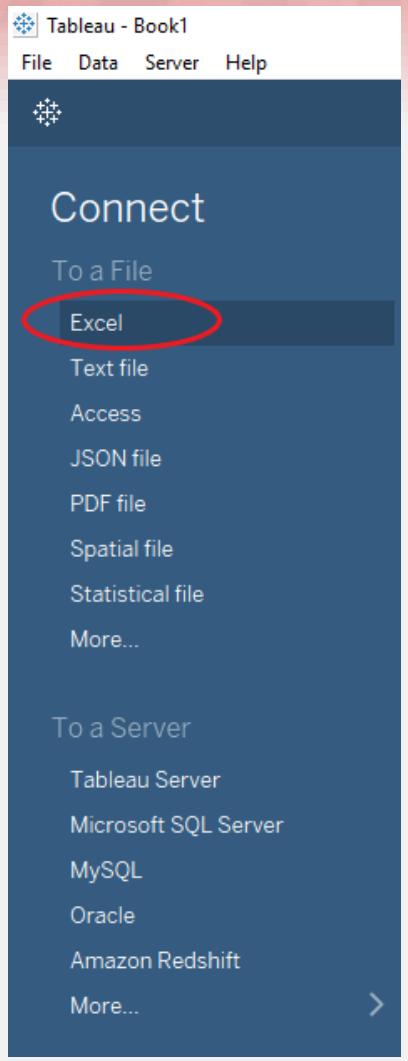
Cost

- Regular license
  - $1200 per license for Tableau Desktop Professional
  - $300 per year for maintenance (to upgrade version, etc.)
- Subscription
  - $70 user/month (Billed Annually)
- Free 14-day trial available at: https://www.tableau.com/products/desktop

Training

- Free training videos are available at: https://www.tableau.com/learn/training
- Set up your free UIC Lynda account (http://go.uic.edu/Lynda) to access Tableau training and tutorials (https://www.lynda.com/Tableau-training-tutorials/2048-0.html)
- The Illinois Higher Education Tableau User Group (led by AITS) has quarterly meetings available via webinar and an online forum: https://community.tableau.com/groups/illinois-education-tableau-user-group

Preparing & Importing Data



- Tableau can connect to many different file and server types that contain data (including directly to the EDW).
- However, Excel data is the most common and easiest to work with so that is what we will focus on here.

Preparing & Importing Data

- The easiest data to work with in Tableau is unformatted, row-oriented data without extra headers, spacing, or text.

Institution	Year	Amount	Tuition Type
Chicago State	2017	$ 23,616	In-State
Chicago State	2017	$ 35,400	Out-of-State
Chicago State	2018	$ 23,616	In-State
Chicago State	2018	$ 35,400	Out-of-State
UIC	2017	$ 24,920	In-State
UIC	2017	$ 40,360	Out-of-State
UIC	2018	$ 24,920	In-State
UIC	2018	$ 40,360	Out-of-State

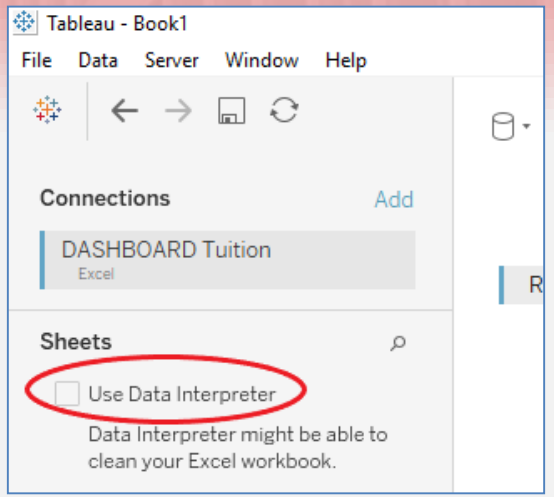
Tuition Comparison, 2017-18

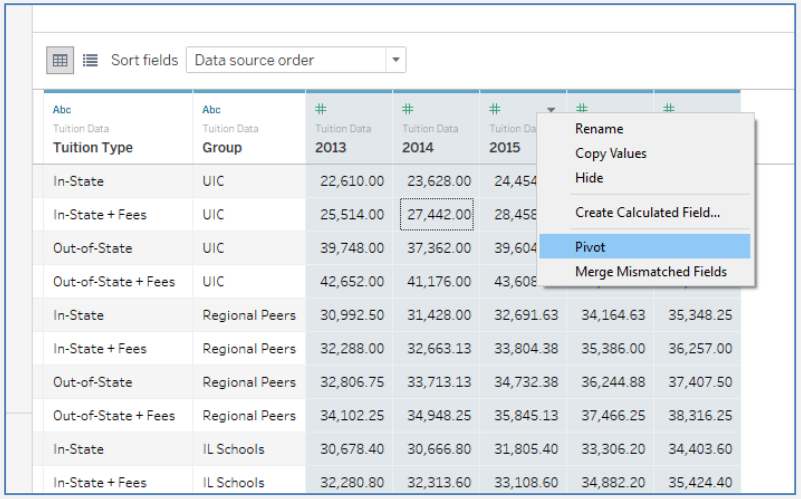
	2017		2018	
Institution	In-State	Out-of-State	In-State	Out-of-State
Chicago State	$ 23,616	$ 35,400	$ 23,616	$ 35,400
UIC	$ 24,920	$ 40,360	$ 24,920	$ 40,360

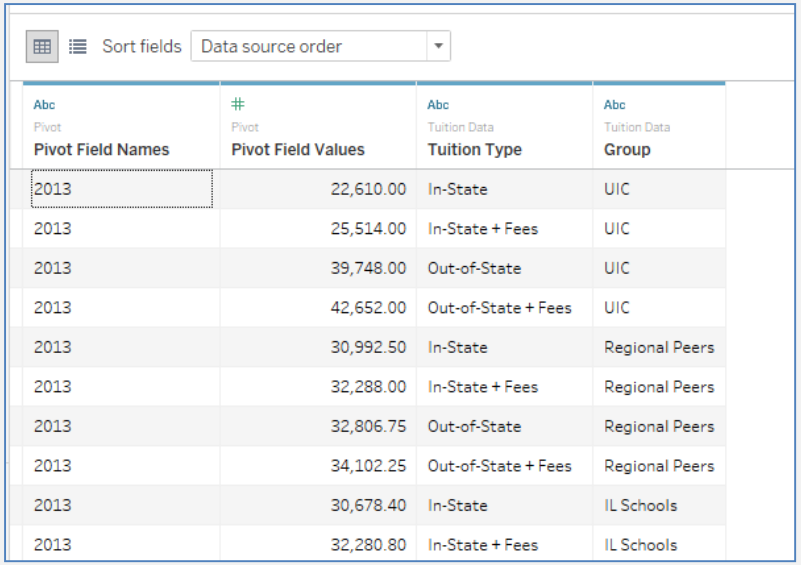
Source: https://public.tableau.com/profile/aacpdata#!/vizhome/Pharm_D_TuitionTrends/TuitionData

Preparing & Importing Data

- We have found it easiest to prepare our data in Excel so that it is formatted correctly for Tableau.
- However, Tableau has a “Data Interpreter” that can attempt to clean up your data if it contains extra headers, spacing, or text, or multiple tables in one sheet.
- You can also pivot your data within Tableau so that column-oriented data is manipulated into row-oriented data.

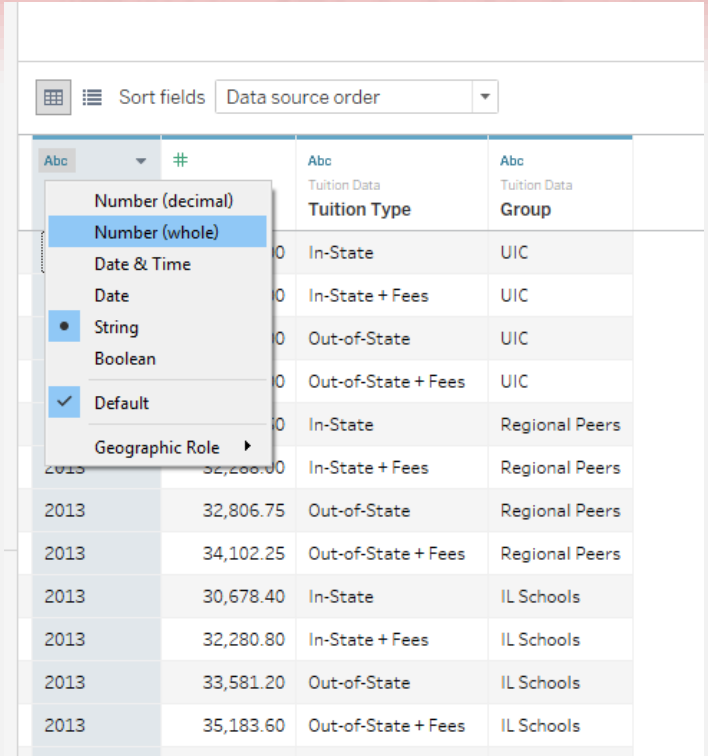






Preparing & Importing Data

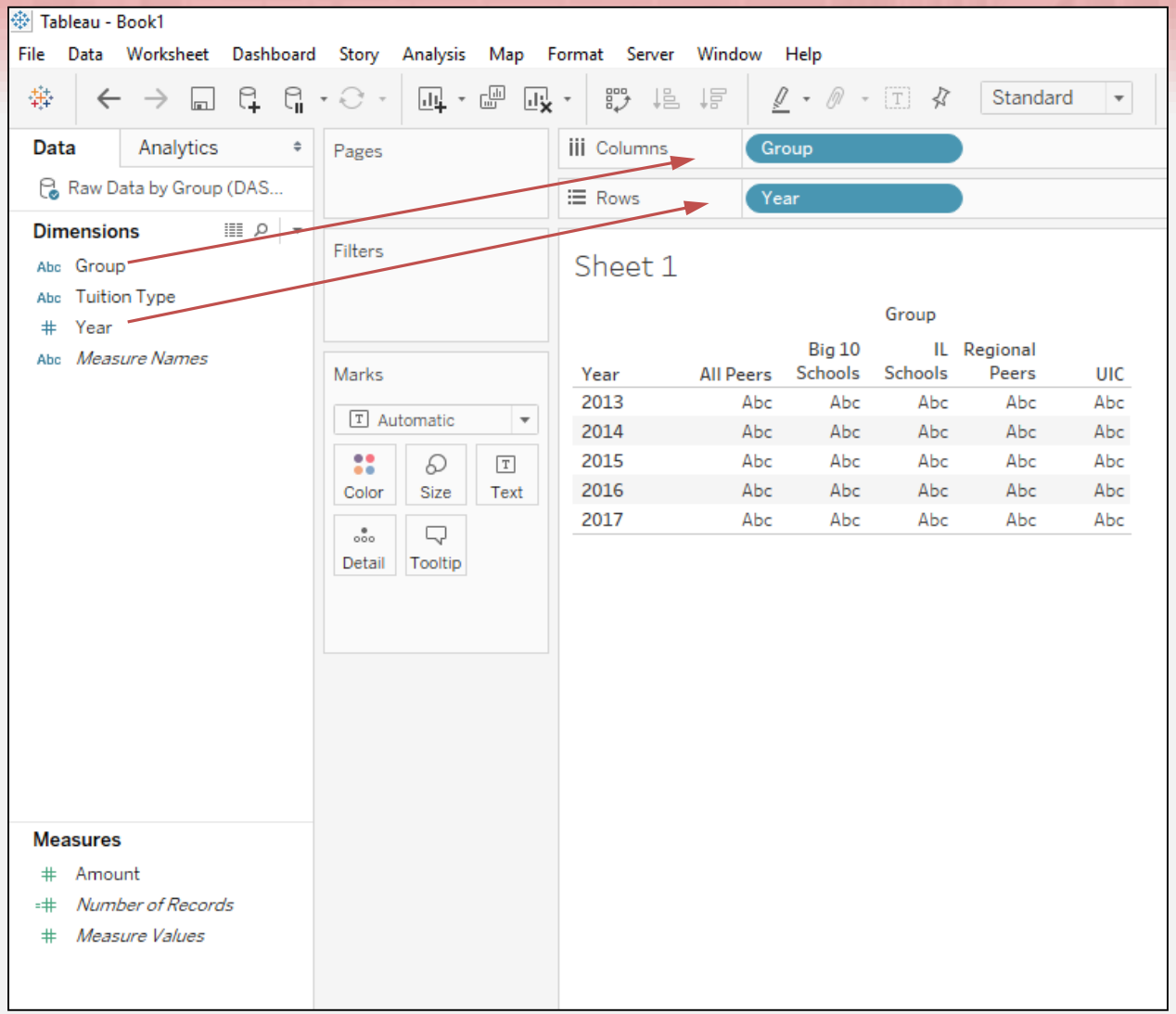
- At this step, you can also change data types (for example, from a string or text value to a number), join multiple data sources together, or filter your data sources.
- https://onlinehelp.tableau.com/current/pro/desktop/en-us/joining_tables.html
- https://onlinehelp.tableau.com/current/pro/desktop/en-us/filtering_datasource.html



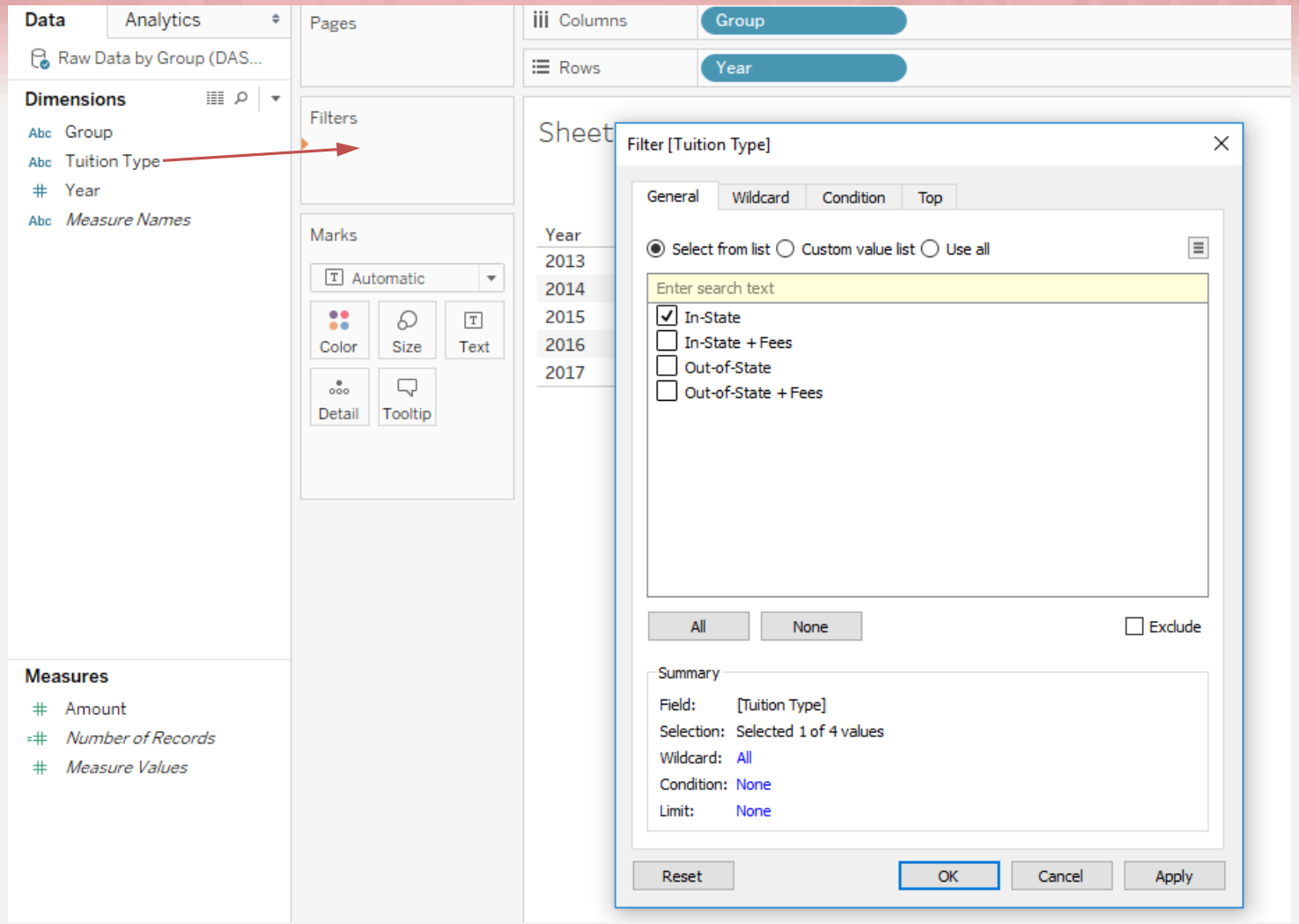
Creating Simple Visualizations

- Now that your data has been imported, creating your first visualization is as simple as drag-and-drop.
- Columns from your data are divided by Tableau into dimensions (year, category, school, etc.) and measures (price, sales, tuition amount, number of students, etc.)
- You can also create calculated fields based on your existing columns.

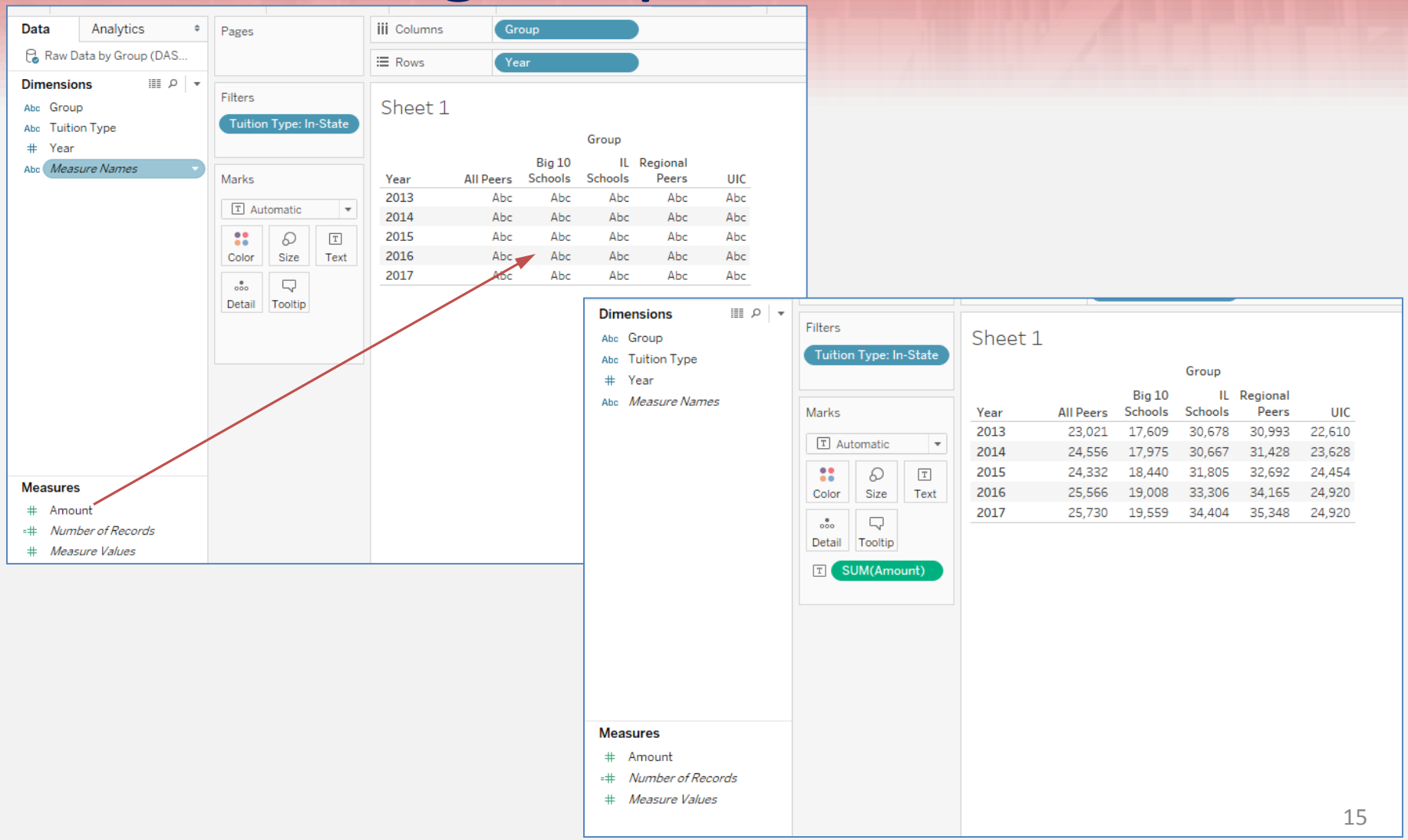
Creating Simple Visualizations



Creating Simple Visualizations

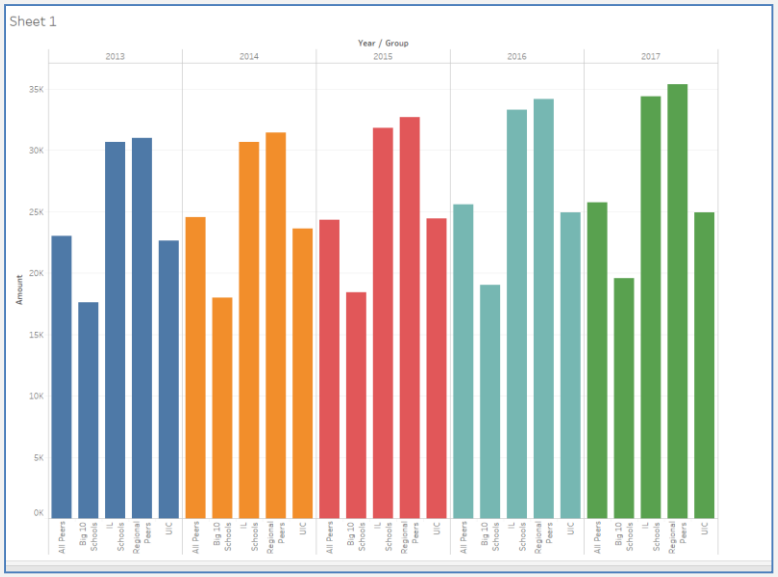


Creating Simple Visualizations

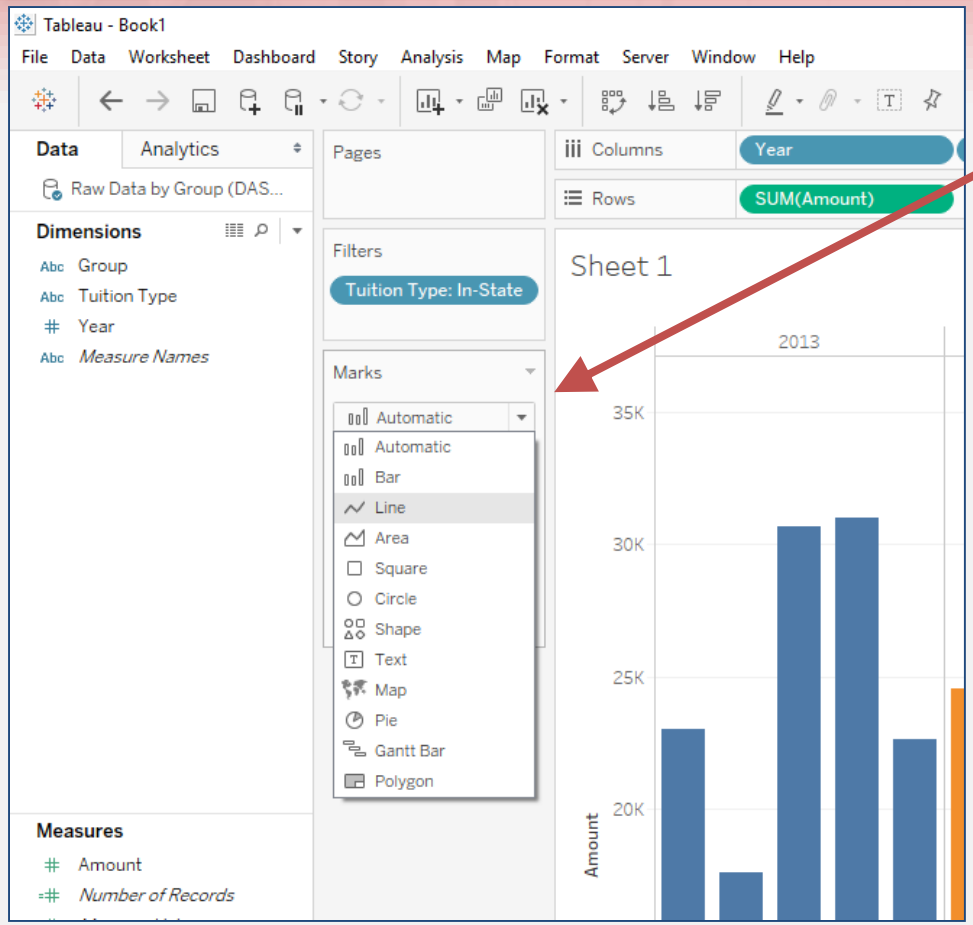


Creating Simple Visualizations

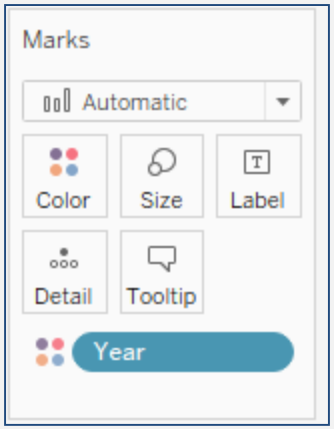
- Tableau will automatically suggest chart types based on the data types you have dragged into the view. Click one to change your data table into the selected graph type.



Creating Simple Visualizations



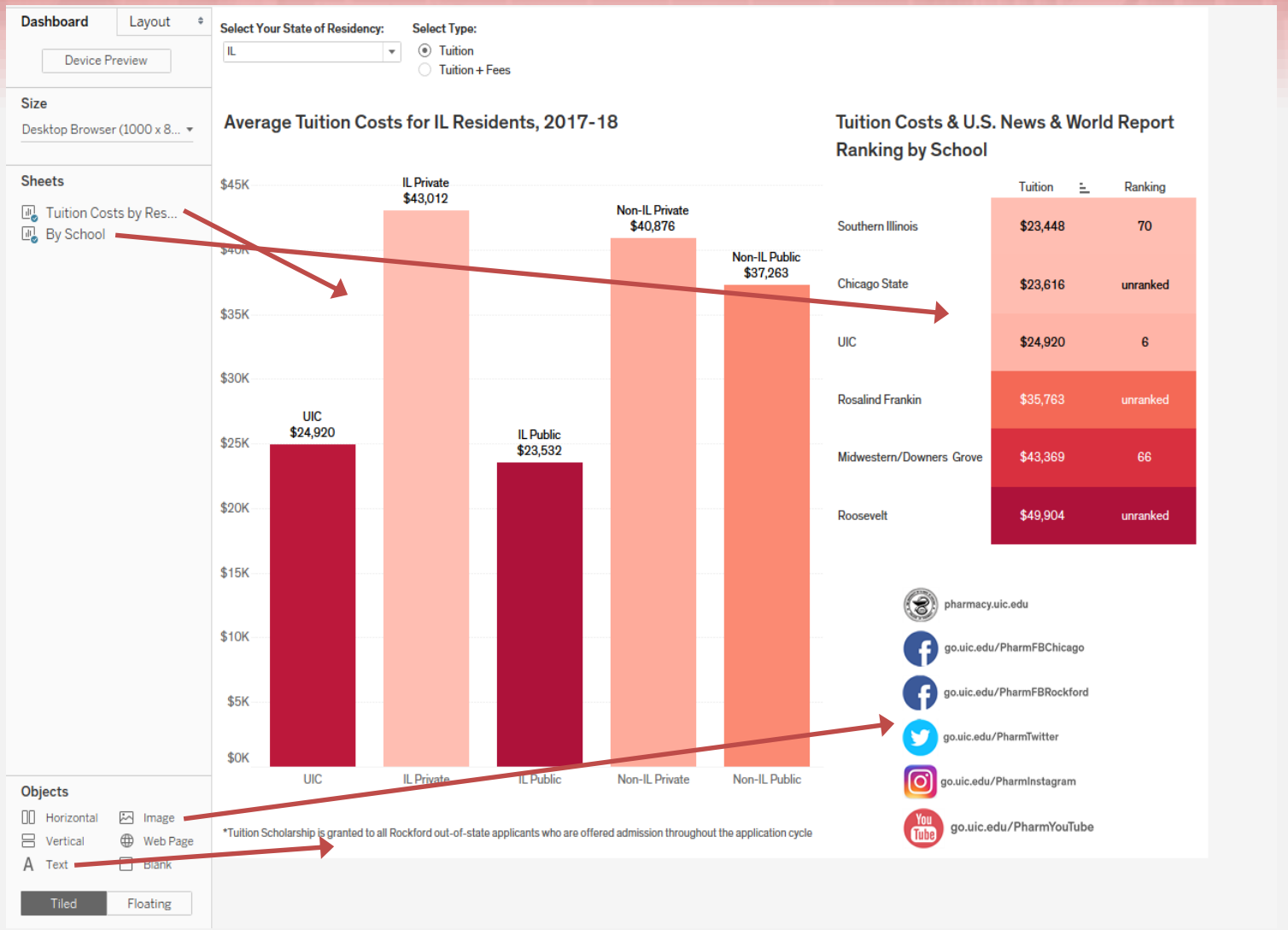
- You can also change the chart type via the marks card, as well as change colors, size, shape, add text labels, or add tooltips.



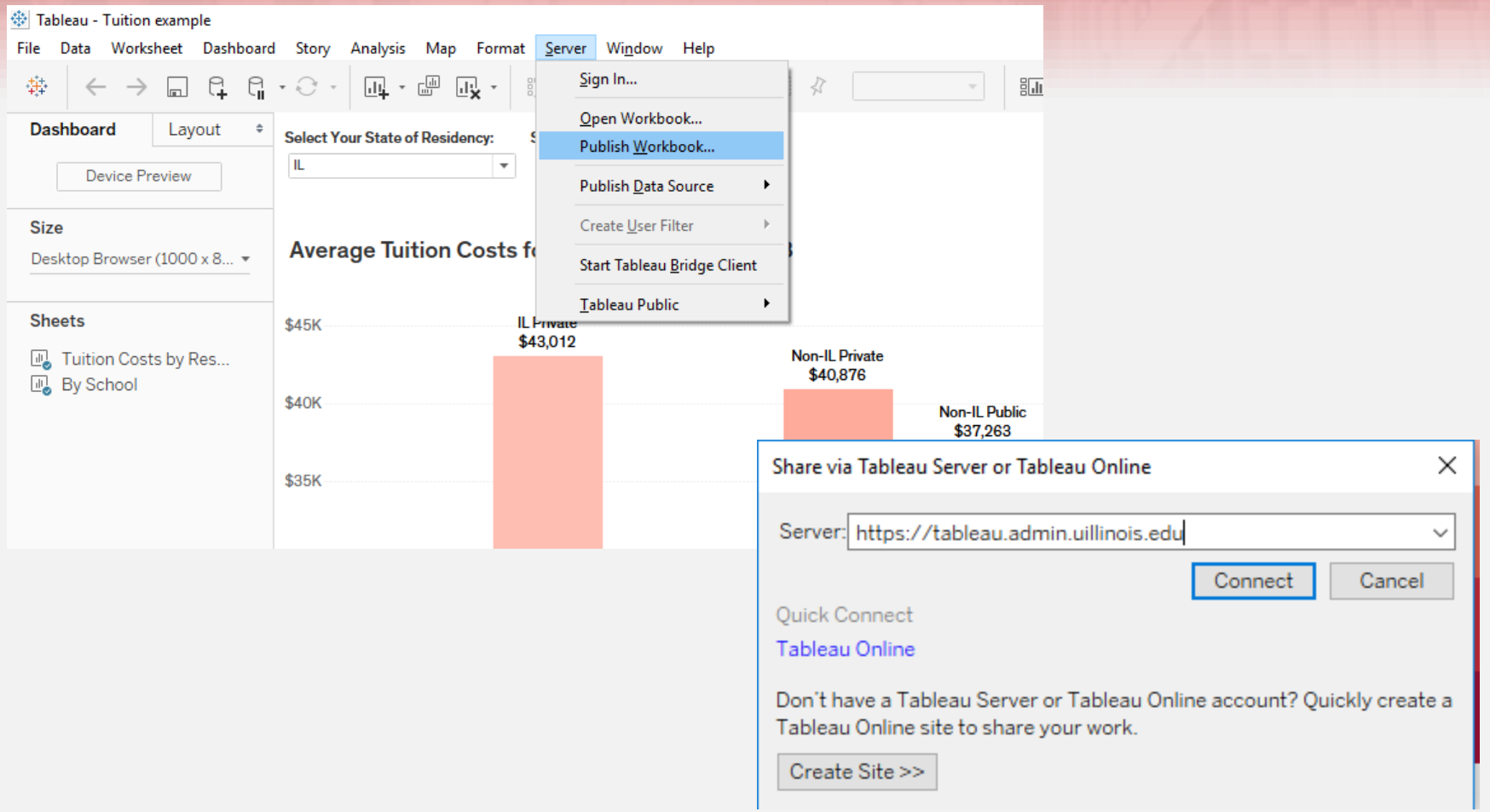
Creating Dashboards

- Dashboards can contain multiple visualizations, plus text and images.
- Again, you can simply drag & drop each item onto the dashboard.

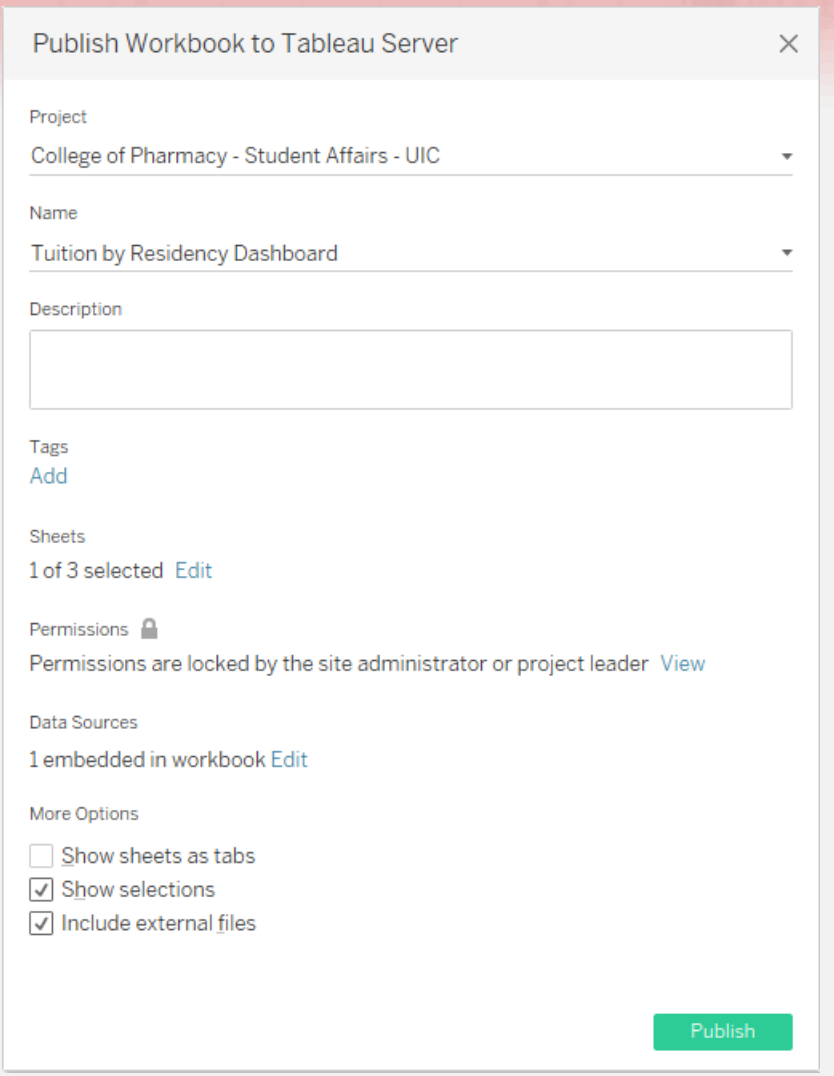
Creating Dashboards



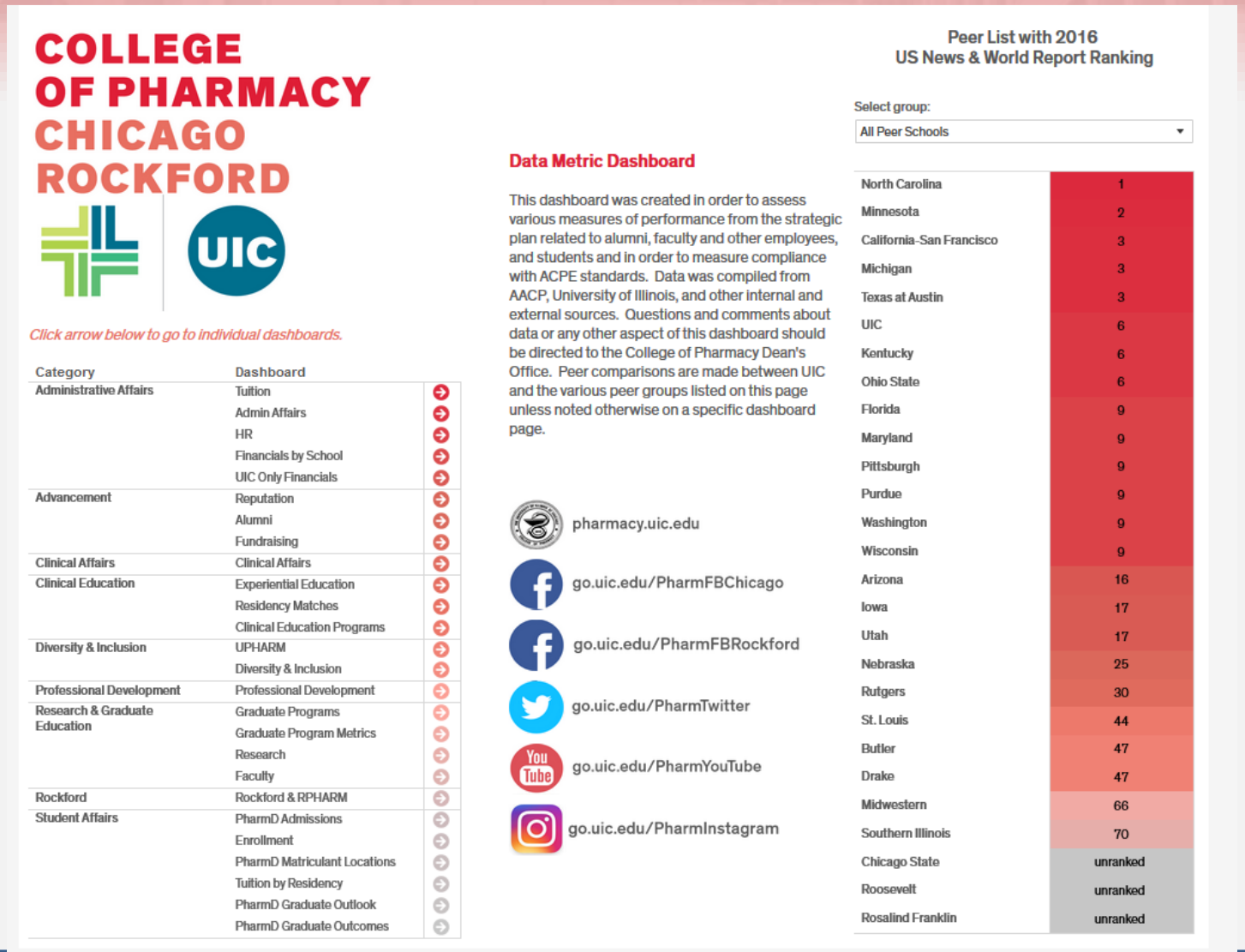
Publishing Dashboards



Publishing Dashboards



Example Dashboards



COLLEGE OF PHARMACY CHICAGO ROCKFORD

UIC

Click arrow below to go to individual dashboards.

Category	Dashboard
Administrative Affairs	Tuition
	Admin Affairs
	HR
	Financials by School
	UIC Only Financials
Advancement	Reputation
	Alumni
	Fundraising
Clinical Affairs	Clinical Affairs
Clinical Education	Experiential Education
	Residency Matches
	Clinical Education Programs
Diversity & Inclusion	UPHARM
	Diversity & Inclusion
Professional Development	Professional Development
Research & Graduate Education	Graduate Programs
	Graduate Program Metrics
	Research
	Faculty
Rockford	Rockford & RPHARM
Student Affairs	PharmD Admissions
	Enrollment
	PharmD Matriculant Locations
	Tuition by Residency
	PharmD Graduate Outlook
	PharmD Graduate Outcomes

Data Metric Dashboard

This dashboard was created in order to assess various measures of performance from the strategic plan related to alumni, faculty and other employees, and students and in order to measure compliance with ACPE standards. Data was compiled from AACP, University of Illinois, and other internal and external sources. Questions and comments about data or any other aspect of this dashboard should be directed to the College of Pharmacy Dean's Office. Peer comparisons are made between UIC and the various peer groups listed on this page unless noted otherwise on a specific dashboard page.

pharmacy.uic.edu

go.uic.edu/PharmFBChicago

go.uic.edu/PharmFBRockford

go.uic.edu/PharmTwitter

go.uic.edu/PharmYouTube

go.uic.edu/PharmInstagram

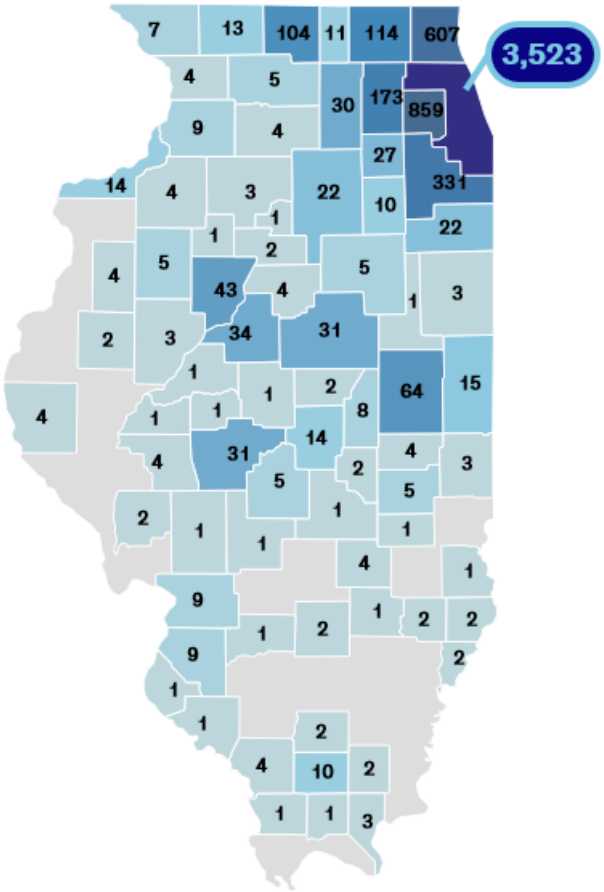
Peer List with 2016 US News & World Report Ranking

Select group: All Peer Schools

North Carolina	1
Minnesota	2
California-San Francisco	3
Michigan	3
Texas at Austin	3
UIC	6
Kentucky	6
Ohio State	6
Florida	9
Maryland	9
Pittsburgh	9
Purdue	9
Washington	9
Wisconsin	9
Arizona	16
Iowa	17
Utah	17
Nebraska	25
Rutgers	30
St. Louis	44
Butler	47
Drake	47
Midwestern	66
Southern Illinois	70
Chicago State	unranked
Roosevelt	unranked
Rosalind Franklin	unranked

Office of Advancement and Alumni Affairs

Alumni Count by Illinois County



Navigate to: Introduction

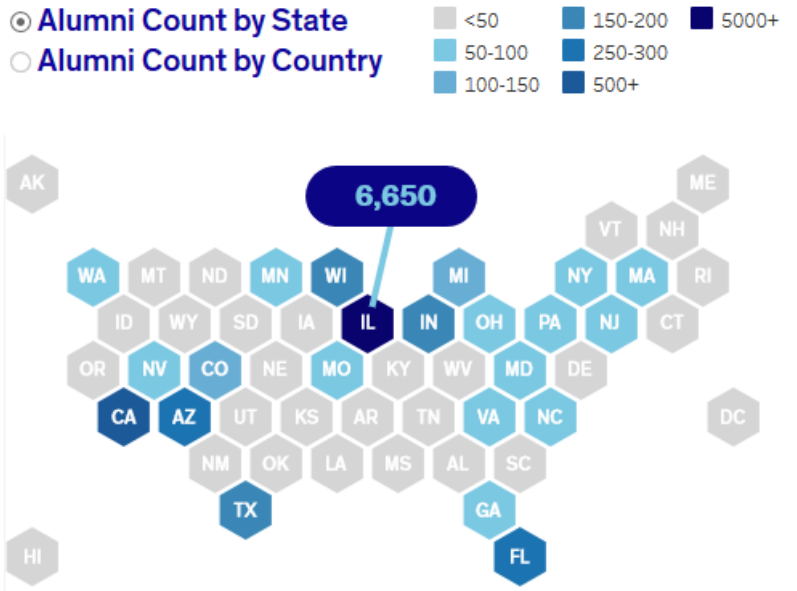
UIC alumni are among the largest alumni body of any COP in the nation. Our over

9,500

living alumni are making an impact in Illinois and throughout the world. Our alumni are well-placed in almost any major chain, pharmaceutical company, or government agency including:

60	23	29
Company Presidents	Company VPs	C-Suite Executives

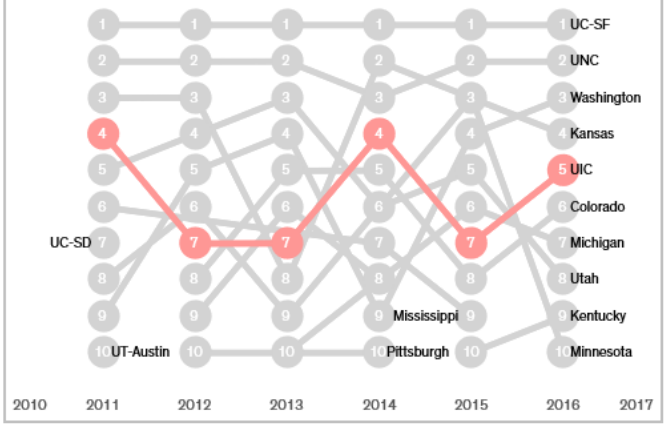
Alumni Count by State
Alumni Count by Country



Research Ranking by Source

Select Group: National

Select Source: All

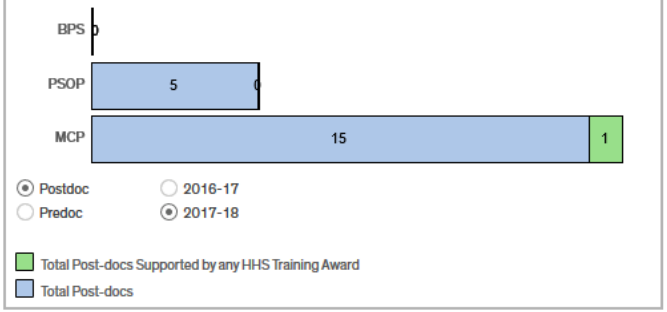


UIC Ranking by Department

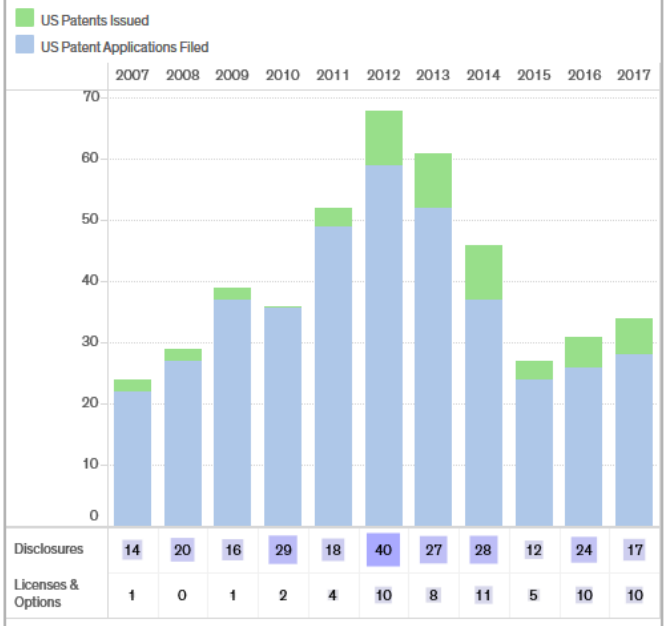
Select Fiscal Year: 2017

Department	Rank	Amount	Avg H-Index
Medicinal Chemistry/Pharmacognosy	8	$7.098M	27.38
Center for Biomolecular Sciences	31	$2.266M	43.00
Pharmacy Practice	34	$2.051M	16.17
Pharmacy Syst, Outcomes & Policy	45	$1.305M	21.36
Biopharmaceutical Sciences	48	$1.017M	22.18
Institute for Tuberculosis Research	53	$0.843M	49.00
Office of the Dean	114	$0.008M	23.00
Chicago Drug Discovery & Development	121	$0.000M	

Postdoc Support by Department



Research Metrics by Year



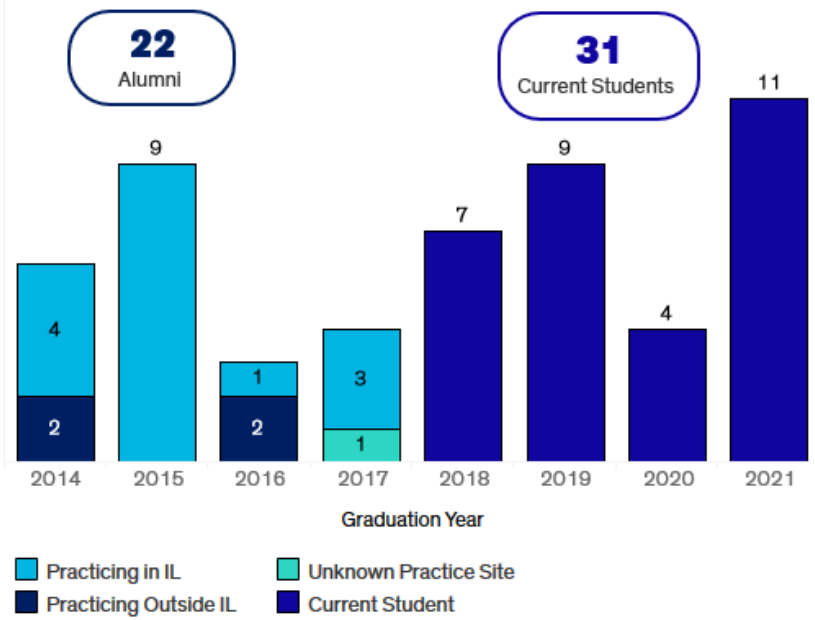
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Disclosures	14	20	16	29	18	40	27	28	12	24	17
Licenses & Options	1	0	1	2	4	10	8	11	5	10	10

ILLINOIS RPHARM

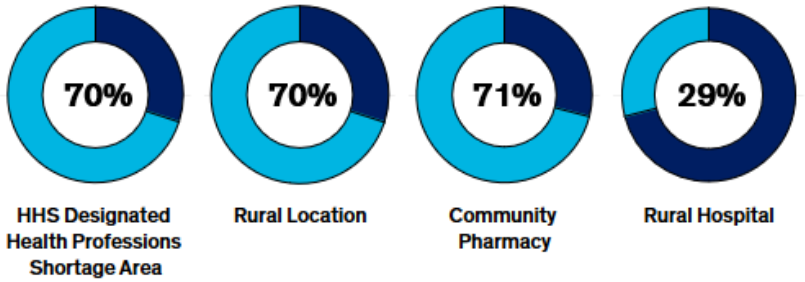
The concentration in rural pharmacy services, **RPHARM**, uniquely prepares individuals who enjoy small-town life for a satisfying, service-oriented rural pharmacy career. Students who choose **RPHARM** receive education and mentoring focused on the healthcare needs of small communities.

Graduates serve as leaders in their local communities, becoming involved in the town, school and business communities. Rural pharmacists are vital, respected members of the local healthcare delivery team. They choose rural pharmacy to make a difference in their patients' lives.

How many students are in the program?

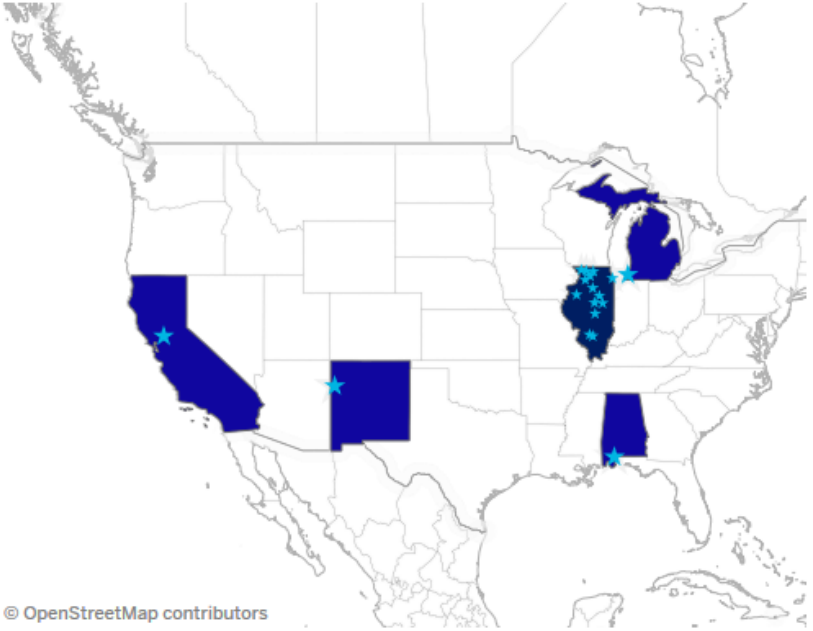


Where are our alumni practicing?



Map of Alumni Practice Locations

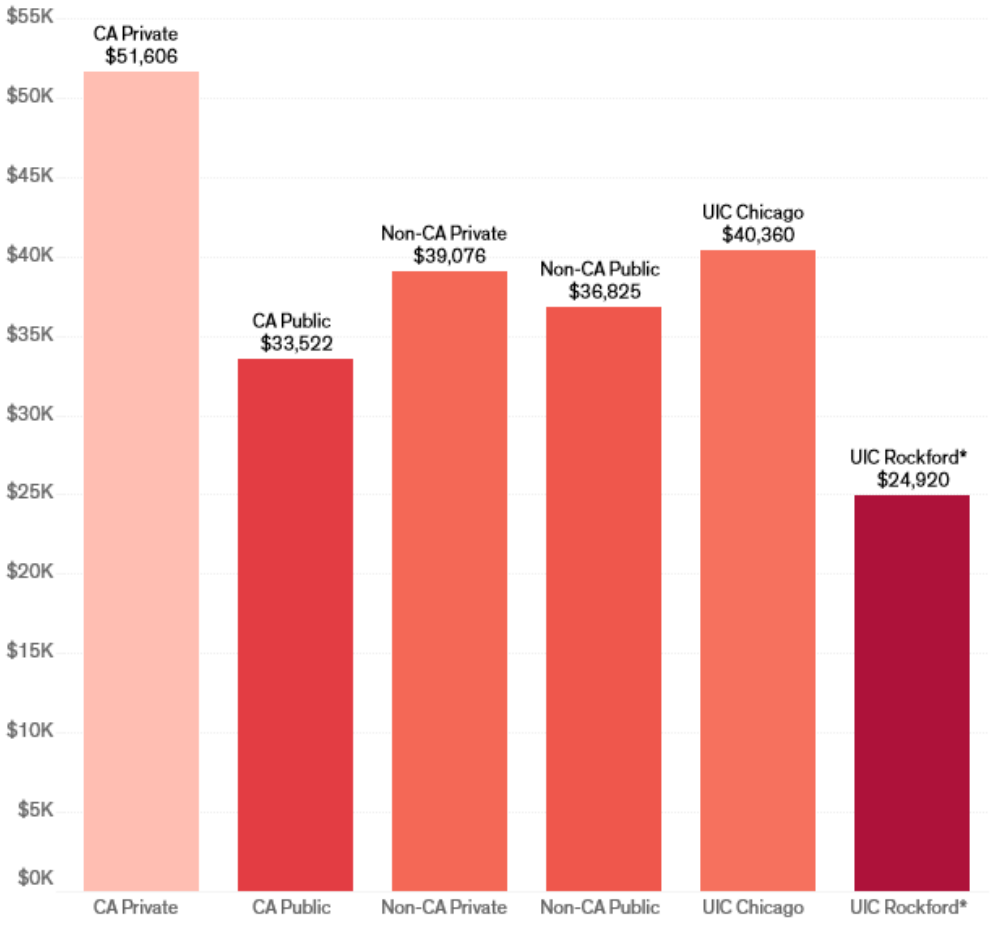
Map of Matriculant Locations



Select Your State of Residency: CA

Select Type: (•) Tuition ( ) Tuition + Fees

Average Tuition Costs for CA Residents, 2017-18



*Tuition Scholarship is granted to all Rockford out-of-state applicants who are offered admission throughout the application cycle

Navigate to: Introduction

Tuition Costs & U.S. News & World Report Ranking by School

	Tuition	Ranking
UIC Rockford*	$24,920	6
California-San Francisco	$32,958	3
California-San Diego	$34,086	25
UIC Chicago	$40,360	6
West Coast	$41,160	unranked
Loma Linda	$43,500	88
California Health Sciences	$45,000	unranked
Touro-CA	$45,800	unranked
Keck Graduate Institute (K..	$46,600	unranked
Marshall B. Ketchum	$47,530	unranked
California Northstate	$48,310	unranked
Western	$48,665	70
Southern California	$54,924	9
Chapman	$72,465	unranked
Pacific-CA	$73,716	60

pharmacy.uic.edu

go.uic.edu/PharmFBChicago

go.uic.edu/PharmFBRockford

go.uic.edu/PharmTwitter

go.uic.edu/PharmInstagram

go.uic.edu/PharmYouTube

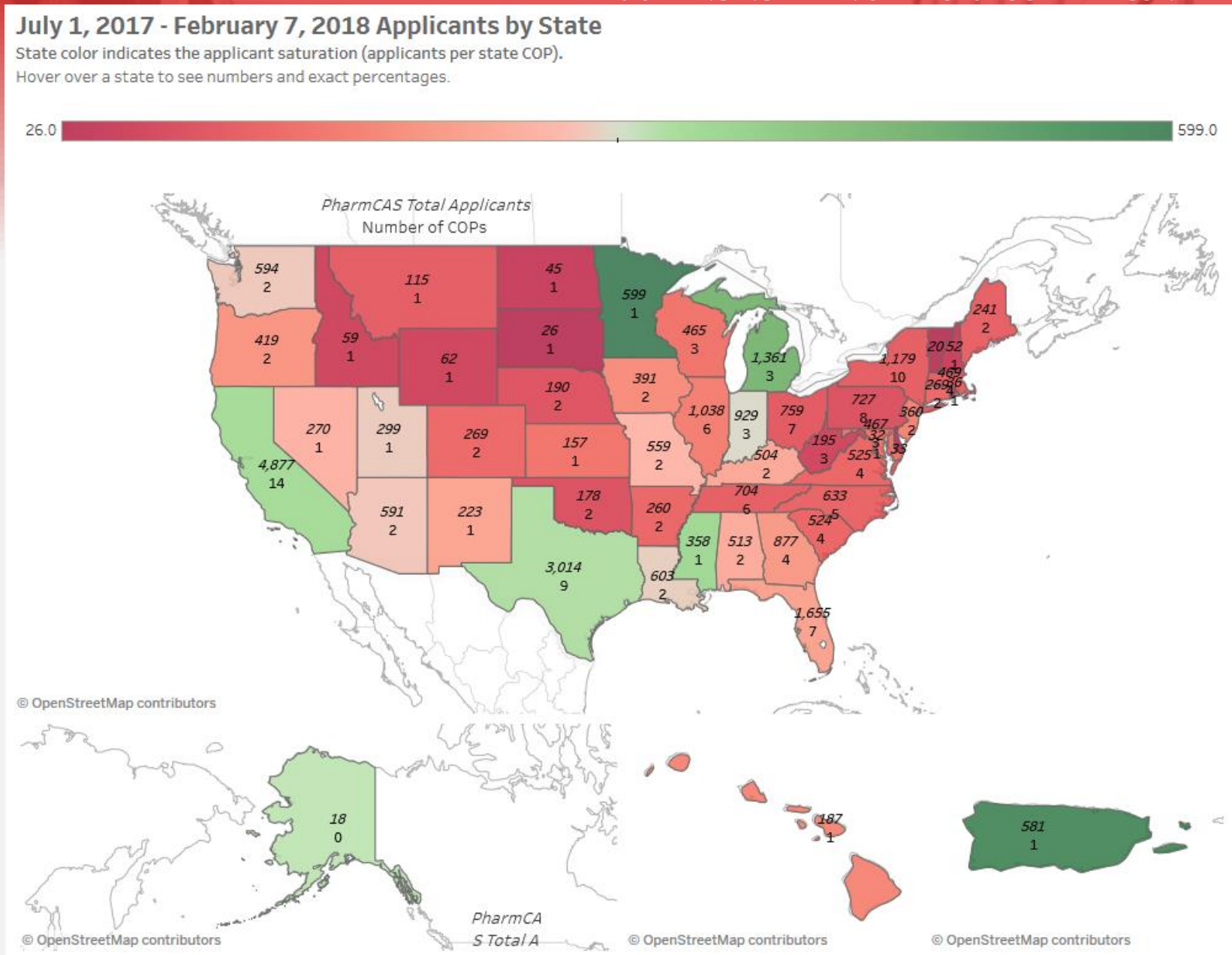

July 1, 2017 - February 7, 2018 Applicants by State
State color indicates the applicant saturation (applicants per state COP).
Hover over a state to see numbers and exact percentages.
26.0
599.0
PharmCAS Total Applicants
Number of COPs
594 2
115 1
45 1
599 1
241 2
419 2
59 1
62 1
26 1
465 3
1,361 3
1,179 10
20 52 1
391 2
190 2
1,038 6
929 3
759 7
727 8
360 2
270 1
299 1
269 2
157 1
559 2
504 2
195 3
525 4
4,877 14
591 2
223 1
178 2
260 2
704 6
633 5
524 4
358 1
513 2
877 4
3,014 9
603 2
1,655 7
18 0
187 1
581 1
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Tableau Server - Service

https://www.aits.uillinois.edu/services/reports_and_data/Tableau_Server_service

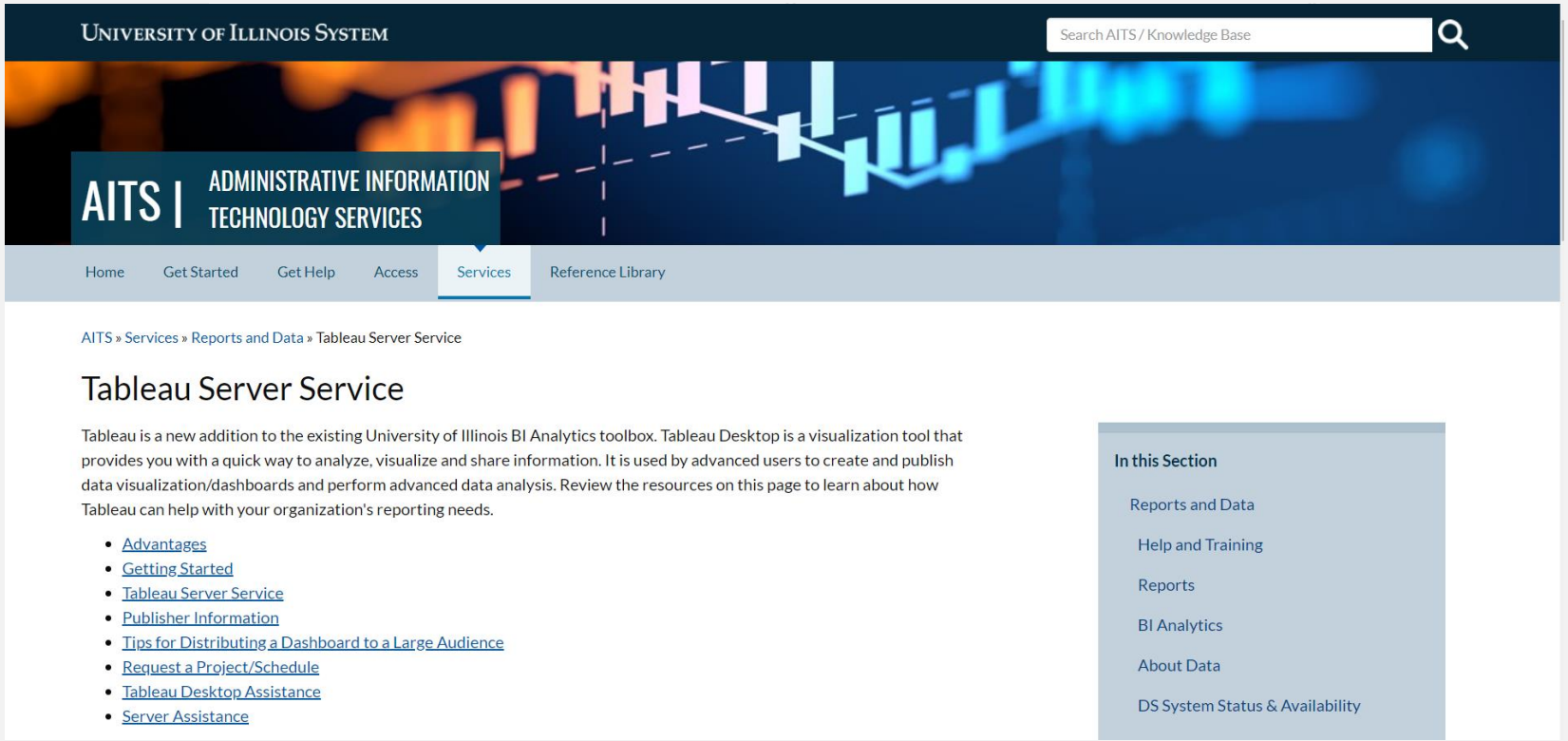


Tableau Server - Environments

- Two servers
  - PRODUCTION
    - tableau.admin.uillinois.edu
      - Make visualizations available to your clients or public
  - QA/TEST
    - tableau-test.admin.uillinois.edu
      - Test your visualization in a server environment (sharing, embedding, etc.)

Tableau Server – Requesting a Project

Request a Project/Schedule

Submit a Tableau Project Request Form.

Tableau Requests

Use this form to:

- **request a new Tableau project**
  A project allows you to publish Tableau workbooks and dashboards to a defined group of users
- **request a new schedule**
  A schedule determines when the data for the workbook or dashboard is refreshed
- **modify an existing project**
  Change the properties of an existing project

Tableau Environment:*

- ○ Test
- ○ Production

Request Type:*

- ○ New Project
- ○ New Schedule
- ○ Modifiy Existing Project

Click the Save button to continue.

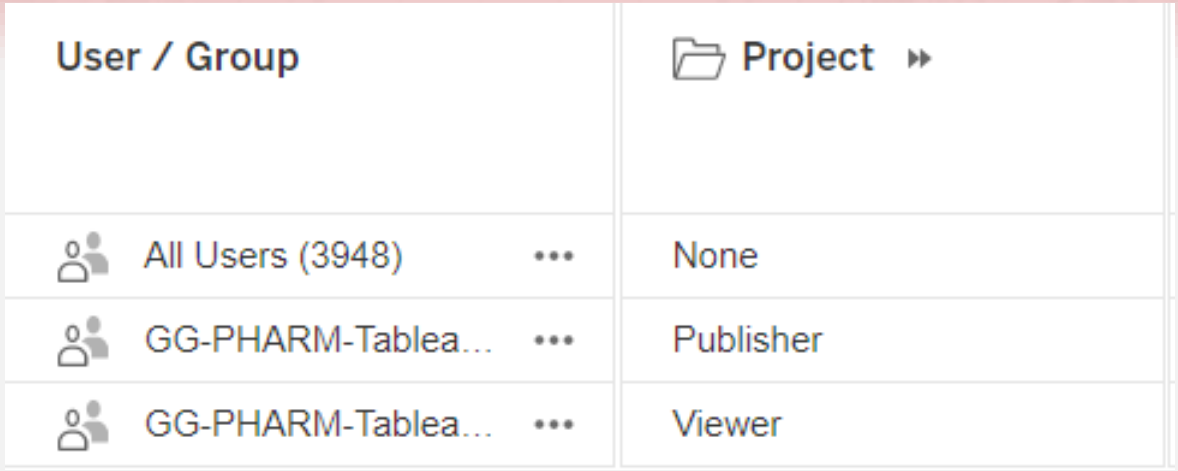
Save

Tableau Server – Requesting a Project

Fields currently in the form. *required

- Requesting Unit's Campus:*
- Requesting Unit's Name:*
- Project Name:*
- Project Description:
- Publishers Active Directory Group(s):*
- Viewers Active Directory Group(s):
- Request non-default viewer permissions
- Additional notes:

Tableau Server – Security/Access



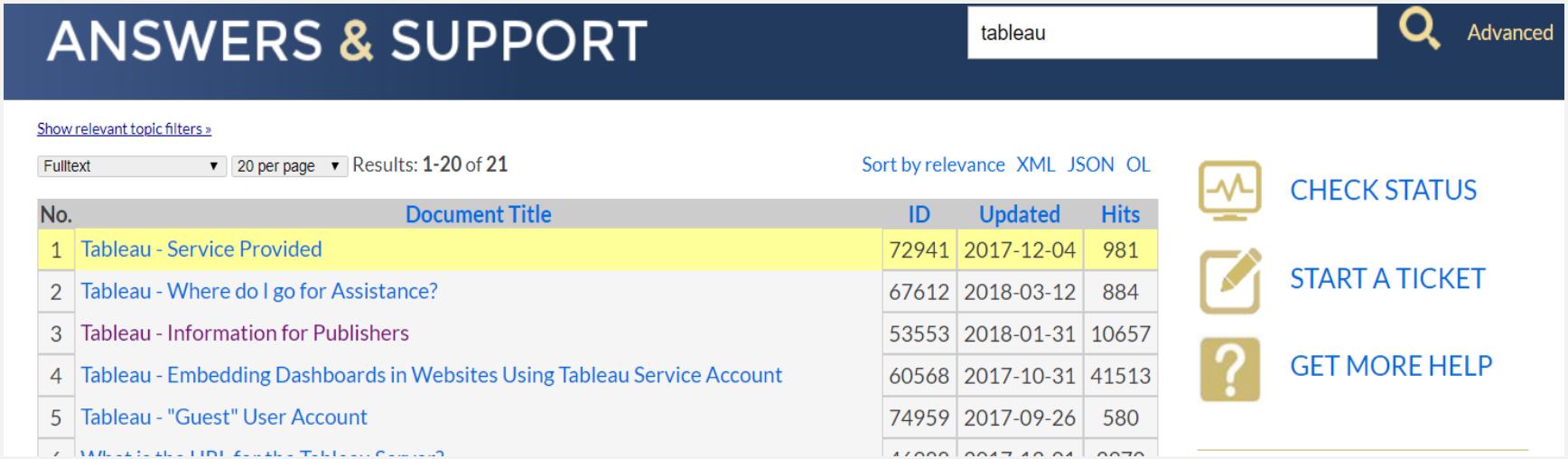
Viewers can view workbooks/sheets in the project

Publishers can publish, edit and view workbooks/sheets in the project

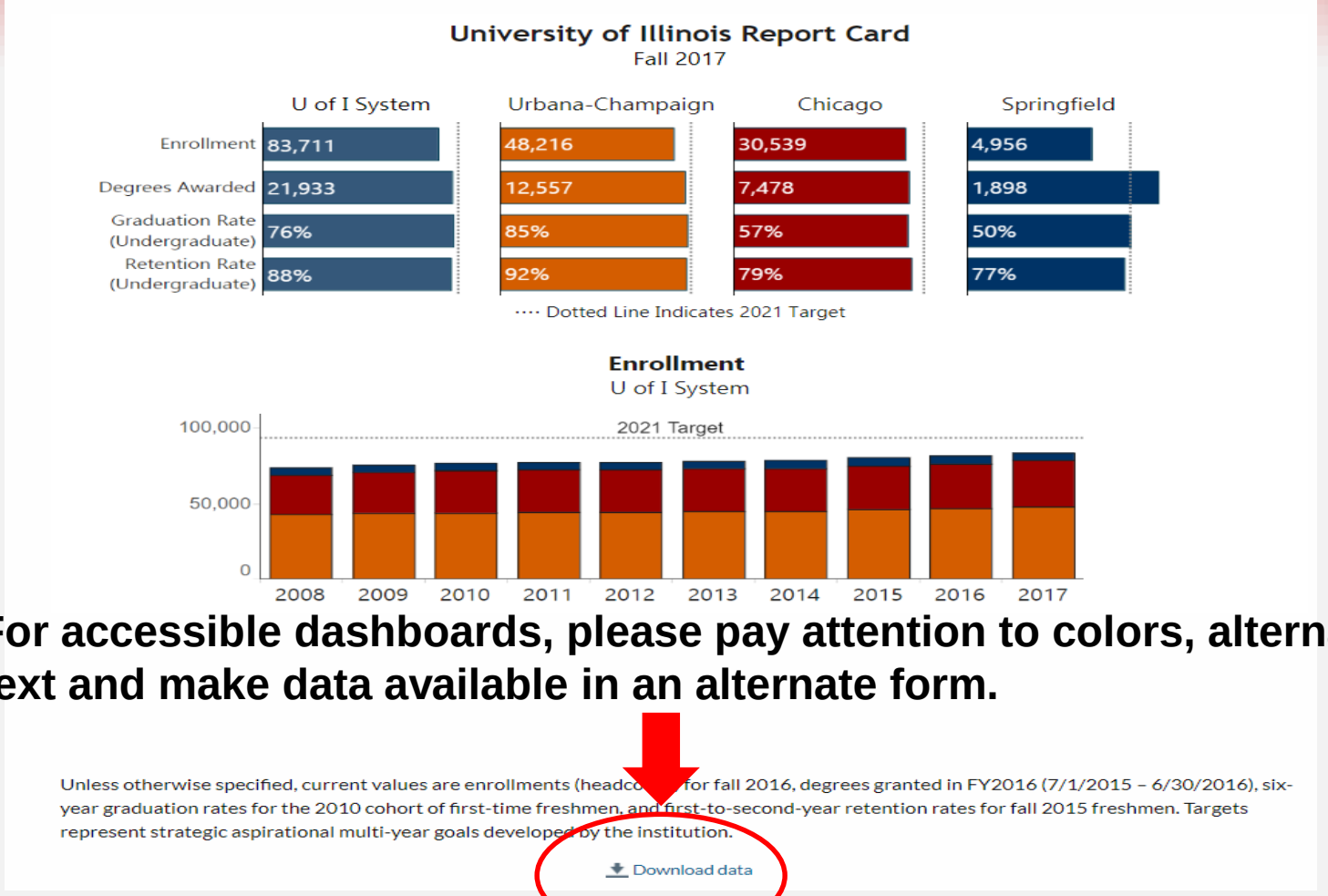
- Accepts responsibility that any workbooks/sheets published to this project will not share confidential and sensitive information with anyone, including colleagues, unless there is a business reason and they are an authorized viewer of the data.

More Resources and Answers

https://answers.uillinois.edu/ua/search.php?q=tableau



Accessibility



For accessible dashboards, please pay attention to colors, alternate text and make data available in an alternate form.

Workshop Summary

- Tableau is an intuitive drag-and-drop data visualization tool that can provide new and innovative ways to explore and share your financial, HR, alumni, student, or research data. We hope after this workshop you have a framework to quickly get started with Tableau and some ideas on how to visualize and share your data.

Thank you…

Any Questions?