



Your College  **Right Now**

Dashboard Course Level Enrollment Patterns with Tableau and Power BI

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Who is Alvin Community College?

Alvin Community College is a medium sized HSI college just south of Houston

We have a Fall unduplicated enrollment of around 5,600

78% of our students are part-time

Student Information System: Ellucian Colleague

Data Warehouse: Zogotech

Analysis and Dashboarding: Tableau

Our IER office consists of 5 full-time staff – 2 data focused, 2 assessment based, and a Dean



Goals

There are 2 simple goals for this session:

- Show how a visual daily enrollment dashboard can help inform decisions

- Demonstrate how to create a daily enrollment dashboard with Tableau or Power BI

In order to do this we will be going back and forth between this PPT and the software, however I will document in the PPT how to make the dashboard so you can try it at home.



Daily Enrollment Dashboards

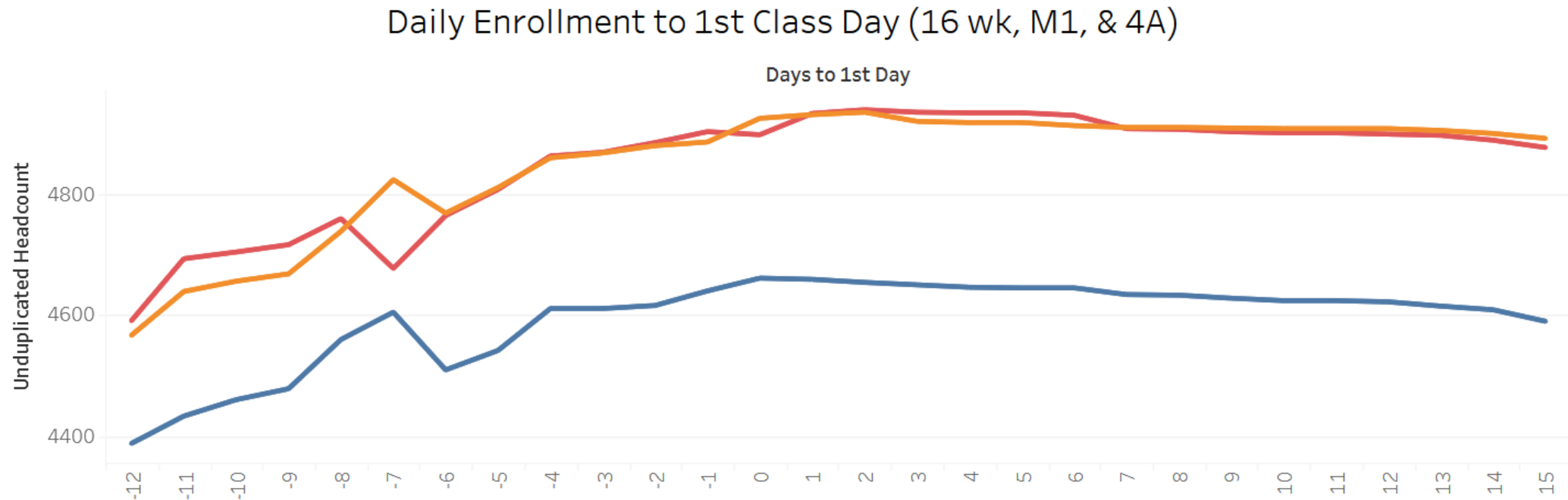
Most daily enrollment reports show what the current enrollment is as of that day with maybe a comparable equivalent to a prior day.

While useful, it does not provide a quick visual to help us understand if there is an upcoming enrollment “bump” or if the course is off track from prior semesters.

One of the benefits of the dashboard we will talk about today is that administration and faculty could now look at the patterns and have data to back up decisions about staffing and cancellations, especially useful if a course has the majority of students typically enroll only days before the start.

College Level Example

This dashboard shows aggregate enrollment of the past 3 years, by day, approaching the 1st class day for the entire college.





Technical Info

Alvin Community College is an Ellucian Colleague school and uses Zogotech as a data warehouse. We use Tableau to create dashboards for our internal stakeholders. We are currently investigating the use of Power BI as well.

Tableau and Power BI can connect to a huge number of data sources, including Microsoft Analysis Services and SQL server, which is what Zogotech uses.

We use Tableau Public for publishing our data. We do not include any personally identifiable information on any dashboard and we hide the dashboard in Tableau Public.



Dataset

We are using a simple excel data file that is representative of data you might have. It has the following characteristics/fields:

- Semester (Spring 2022, 2023, 2024)

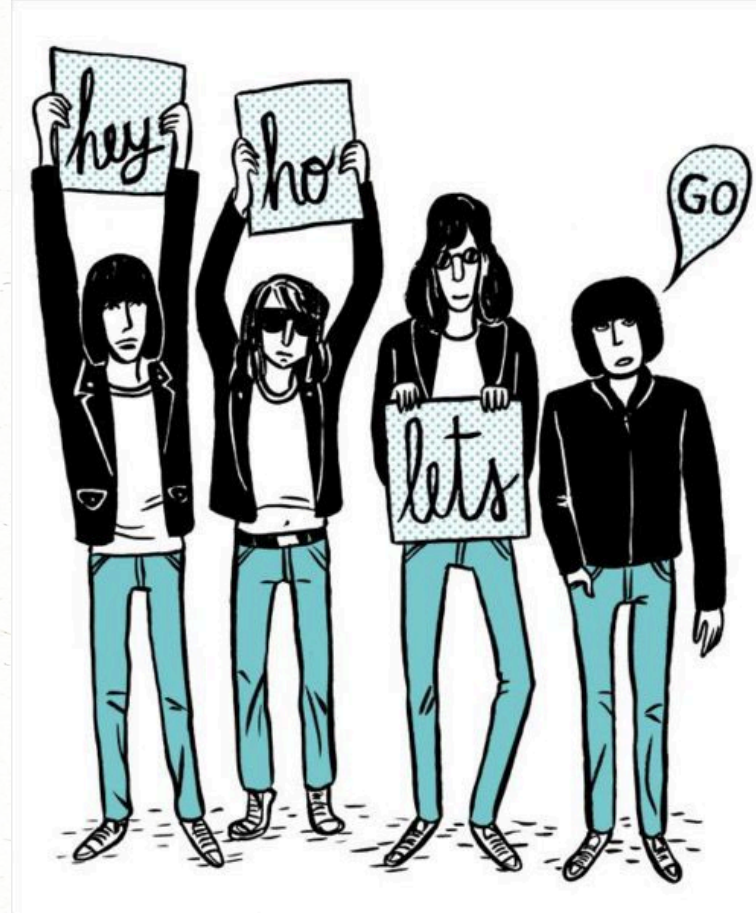
- Department

- Subject and Course

- Start Date (a countdown from 30 to 1st day so 0 = 1st day)

- Headcount (in this example it is duplicated)

Let's go to the dashboards





Any Questions?

Pat Sanger

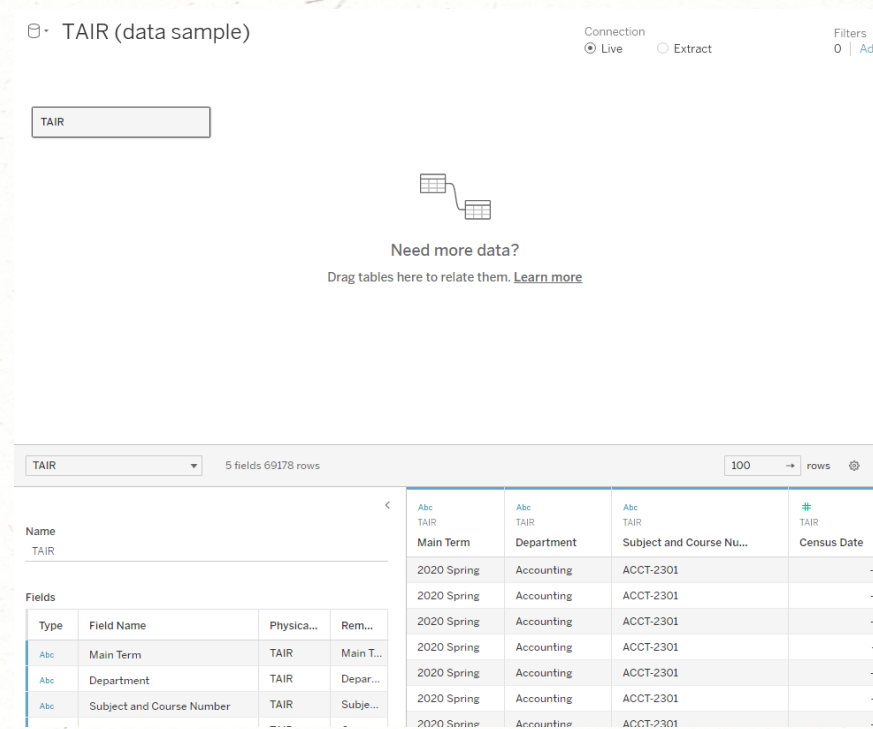
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How to make a dashboard! - Tableau

Open Tableau

Connect to your file (in this case it is an excel file)



TAIR (data sample)

Connection: Live Extract

Filters: 0 | Add

TAIR

Need more data?
Drag tables here to relate them. [Learn more](#)

TAIR 5 fields 69178 rows 100 rows

Name	Abc TAIR	Abc TAIR	Abc TAIR	# TAIR
TAIR	Main Term	Department	Subject and Course Nu...	Census Date
	2020 Spring	Accounting	ACCT-2301	-30
	2020 Spring	Accounting	ACCT-2301	-29
	2020 Spring	Accounting	ACCT-2301	-28
	2020 Spring	Accounting	ACCT-2301	-27
	2020 Spring	Accounting	ACCT-2301	-26
	2020 Spring	Accounting	ACCT-2301	-25
	2020 Spring	Accounting	ACCT-2301	-24

Type	Field Name	Physica...	Rem...
Abc	Main Term	TAIR	Main T...
Abc	Department	TAIR	Depar...
Abc	Subject and Course Number	TAIR	Subje...



Let's make a dashboard! Tableau

Go to Sheet 1 (it's a default name Tableau uses)

- 1) Drag Start Date to Dimensions, then to drag it to Columns
- 2) Drag Subject and Course number to Rows
- 3) Drag Headcount (from the Measures) to Rows
- 4) Change marks to a line graph
- 5) Drag Main Term and drop it onto the Color option in the Marks Card
- 6) Drag Department into the Filters Card (Choose a Department or all)
- 7) Anything in a filters card will be able to be used as a filter in the dashboard
- 8) You may need to right-click on Date and Sort it Descending (if it is not going in the correct order)



Let's make a dashboard! Tableau

Let's put this sheet in a Dashboard!

Click Dashboard – New Dashboard

You'll see the sheet listed on the left – drag sheet 1 over

This will put the courses on the page – click the courses block and use the down arrow at the edge of the courses and choose FIT – Fit Width.

Then use the arrow again to open the filters and choose Department. This adds a Department filter.

Click on Department and use the arrow to change it to Single Value dropdown (my preference)

I also added a filter for Subject and Courses and make it use “only relevant values”

I also changed the Title of the sheet to Enrollment to 1st Day



Tableau Finishing Up

Now you can publish these to Tableau Public!

You may find that you want to mess with the size of the Dashboard (it has width and height options).

When you go to publish it will have few steps – such as having you run an extract (Data – extract data). Any time you update your data source you will need to run this again.

You can just append any new data to the data file, open Tableau, run the extract, check everything is showing, and then publish it again.



Power BI – Simpler in some ways

New Report

Connect to the data (import from excel, choose name and load it)

Choose the visualization (line graph)

Resize the visualization spot

AXIS: drag Start date here

Click on headcount so it fills the screen

Legend: drag Main Term here

Click on the slicer in the vizualiations and add Department and Subject and Course

File -> Publish to your Power Bi space to see what it is like