



Your College  **Right Now**

Investigate 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 college just south of Houston

We have a Fall unduplicated enrollment of 5,000

78% of our students are part-time

We use Ellucian Colleague, Zogotech, and Tableau

Our IER office consists of 3 full-time and 1 part-time



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.

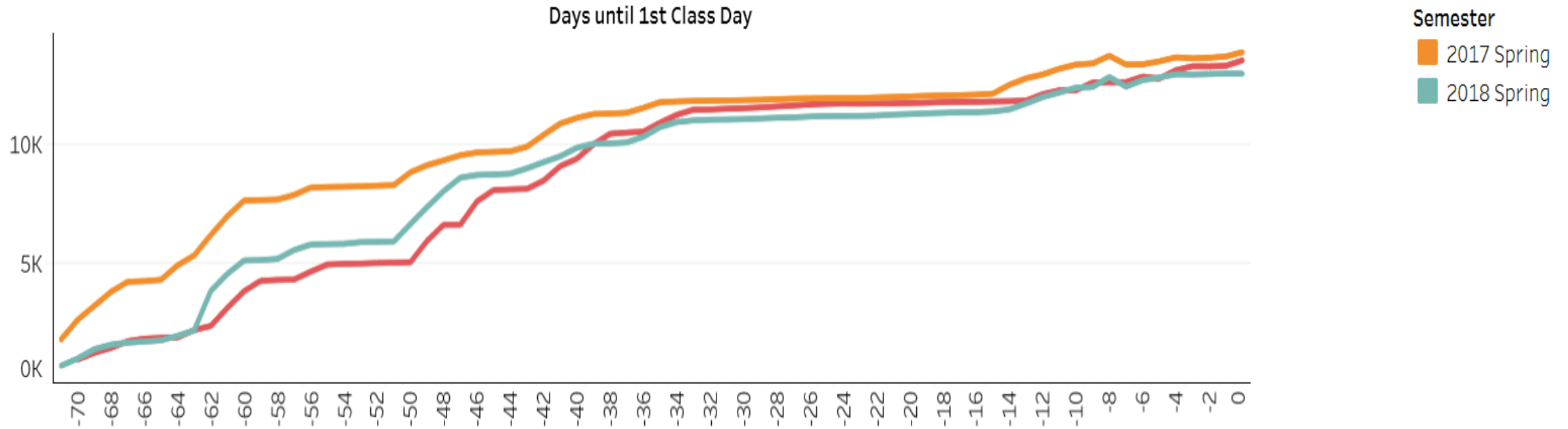
While useful, it does not provide a quick visual to help us understand if there is an upcoming enrollment “bump” or if the course is off track from prior semesters.

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

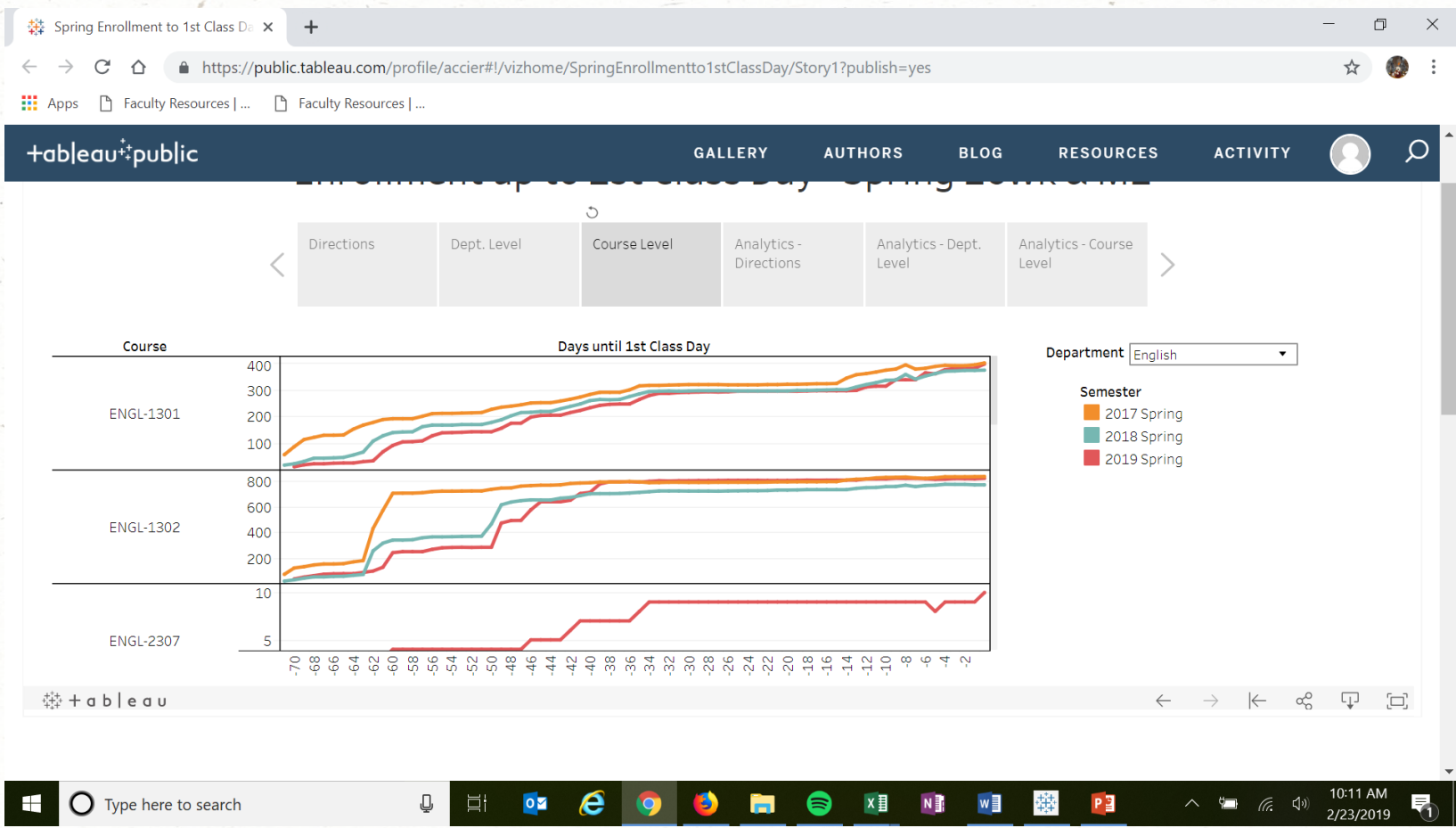
Enrollment Over Time

Department





Course Level Example





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 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 2020, 2021, 2022)

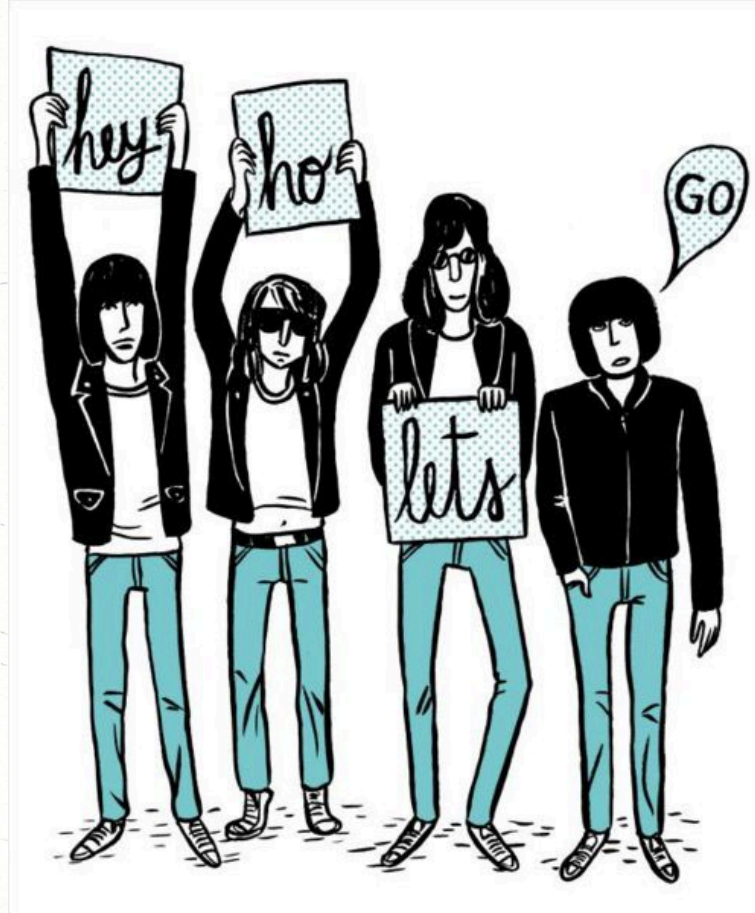
- Department

- Subject and Course

- Census Date (in this example it is a countdown to 1st class day) (30 days out to Census day)

- Headcount (in this example it is unduplicated)

Let's go to the dashboards





Any Questions?

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Manipulating the data

Currently we connect directly to Zogotech, our data warehouse, through a SQL connection.

This means just connect to the live data so that all we need to do is open the tableau file, refresh, and upload the latest version to Public.

We are currently investigating Power Bi and it's capabilities.



Let's make a dashboard!

Open Tableau

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

If you have more than one worksheet in the file you will need to pick the worksheet that has your data and drag it to the top middle of the screen (our worksheet is called TAIR)

The screenshot shows the Tableau interface. At the top, it says "TAIR (data sample)" and "Connection: Live". Below that, there's a "TAIR" box and a "Need more data?" prompt. At the bottom, there's a preview table with 5 fields and 69178 rows.

Name	TAIR	TAIR	TAIR	TAIR		
Field Name	Physica...	Rem...	Main Term	Department	Subject and Course Nu...	Census Date
TAIR	TAIR	Main T...	2020 Spring	Accounting	ACCT-2301	-30
		Depar...	2020 Spring	Accounting	ACCT-2301	-29
		Subje...	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



Let's make a dashboard!

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

- 1) Drag Census Date to Dimensions, then to Columns
- 2) Drag Subject and Course number to Rows
- 3) Drag Headcount (from the Measures) to Rows after Course
- 4) Drag Main Term and drop it onto the Color option in the Marks Card
- 5) Drag Department into the Filters Card (Choose a Department or all)
- 6) Anything in a filters card will be able to be used as a filter in the dashboard
- 7) We also need to right-click on Date and Sort it Descending (otherwise it goes from 1st day out)



Let's make a dashboard!

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 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 – Much simpler in some ways

Connect to the data

Choose the visualization (line graph)

Resize the visualization spot

AXIS: drag Census date here

Values: drag Headcount here

Legend: drag Main Term here

Add to Filters on this Page section in the “add data fields here”

Department and Subject and Course

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