



Student Profile Analyses

FTIC FT Student Profiles in Tableau

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Agenda

- Creating profiles for first-time, full-time degree-seeking undergraduate students
 - Conceptual framework
 - Student cohorts
 - Data
 - Methods
- From Adobe Spark created infographics to Tableau dynamic dashboard
- A collaboration between research unit and analytics unit
- Process of developing the Tableau dashboard

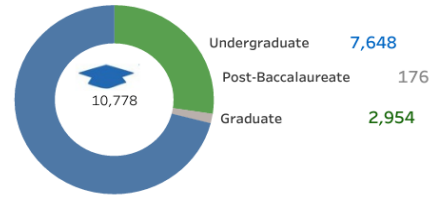
QUICK FACTS-FALL

2022

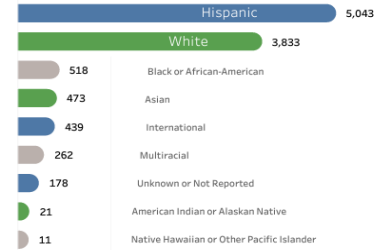
Fall Semester
2022

Download PDF

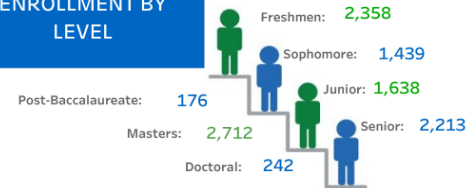
ENROLLMENT



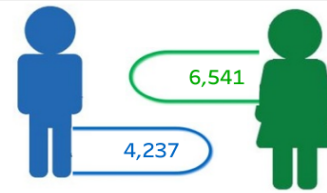
ENROLLMENT BY RACE/ETHNICITY



ENROLLMENT BY LEVEL



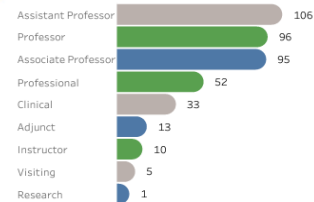
ENROLLMENT BY GENDER



FACULTY



Full-time Faculty By Rank:



RETENTION AND GRADUATION RATES

1st Year Retention Rate Fall 2021	4th-Year Graduation Rate Fall 2015	6th-Year Graduation Rate Fall 2015
PSA 32%	PSA 8%	PSA 16%
Non-PSA 68%	Non-PSA 19%	Non-PSA 38%

DEGREES AWARDED

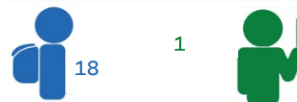
2021-22



ADMINISTRATIVE COST RATIO

7.9

STUDENT TO FACULTY RATIO

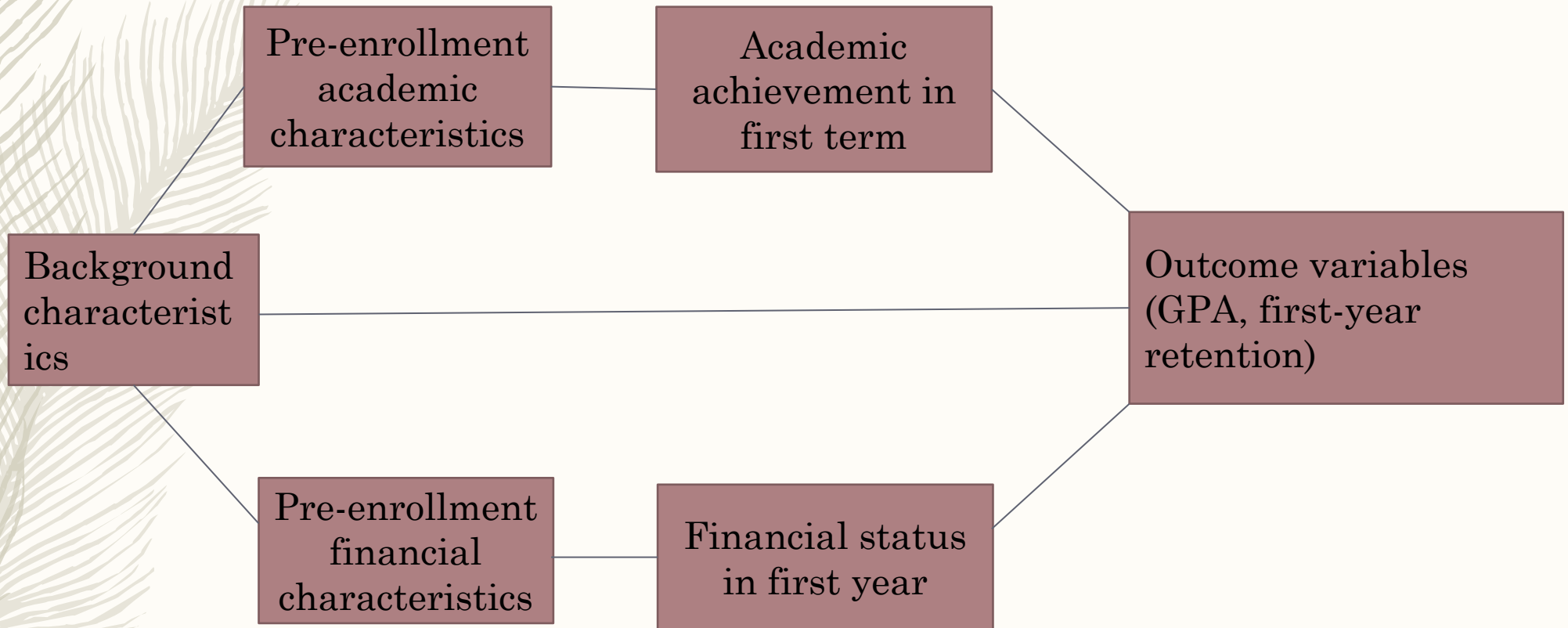


SPACE USAGE EFFICIENCY

Classroom: 84 Lab 75

Introduction of Texas A&M-Corpus Christi Fall 2022 Quick Facts

Constructs of the Student's Profile





Student Cohorts

- Fall 2016 - fall 2021
- First-time, full-time, degree-seeking undergraduate students
- Overall FTFT students vs. non-PSA students
 - A better understanding of freshmen cohort profiles without the impact of PSA program.

Program for System Admission

- Alternative admission program for selected students not offered freshman admission to Texas A&M University.
- Attend a Texas A&M University system institution with the goal of enrolling at Texas A&M in College Station after one year.
- Earned 24 credit hours and maintained at least 3.0 GPA

Data sources

CBM0C1, CBM00S

- Enrollment headcounts
- Demographic information
- College and major
- Residency
- Number of credits took in first term
- English and math courses credits in first year



Banner/Oracle

- Days between application and enrollment
- Days between registration and term start date
- Financial aid received from multiple sources
- Housing status
- PSA status
- SAT/ACT
- High school percentile
- Family income
- First-generation college student's status
- First term GPA



Methods, Processes, and Tools

Process

FTIC students vs.
FTIC non-PSA
students

Trend analysis

Methods

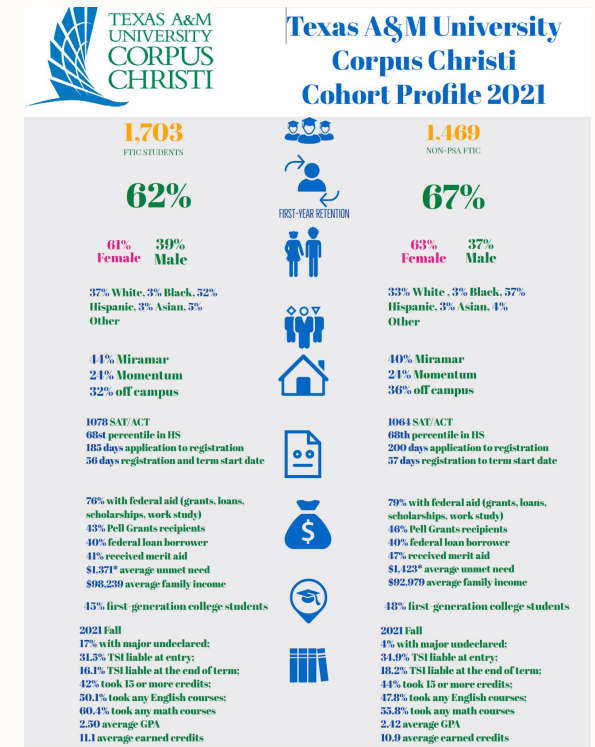
Descriptive statistics
Chi-square test
Independent Samples T-
test

Tools

SPSS
Excel
Adobe Spark
Tableau

Fall 2021 FTIC FT infographics

- Pros:
- Covers demographic, pre-enrollment, retention, housing, financial aid, academic achievement data on one page
- Easy to read
- Good for presenting and sharing





From Adobe to Tableau

Cons:

- Difficult to update in Adobe on data points for each cohort
- Time-consuming in formatting
- Text-heavy and not reader-friendly

What we want to achieve:

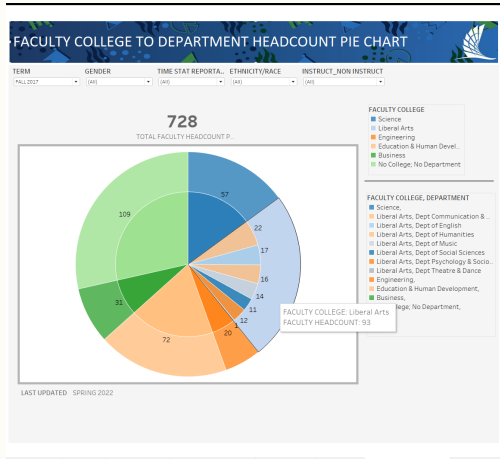
- Automated data points updates
- Six years data presented in one dashboard and organized by term filter
- Pre-designed dynamic visualizations that change with data points accordingly



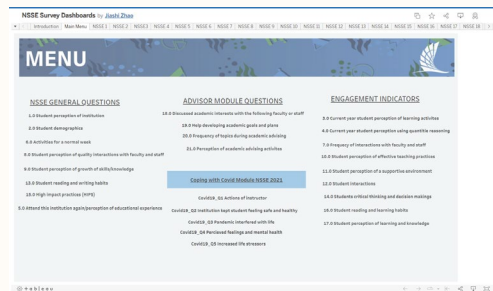
What is Tableau Software?

- Software company Founded in 2003 from Stanford research
- Intent is to bring ‘data to the people’ through easy-to-use data visualization software
- Uses VizQL translates drag and drop actions into data queries
- Would be classified as a hybrid business intelligence (BI) / analytics software company
- Used by many of the largest companies in the world
- Robust community of Tableau Users

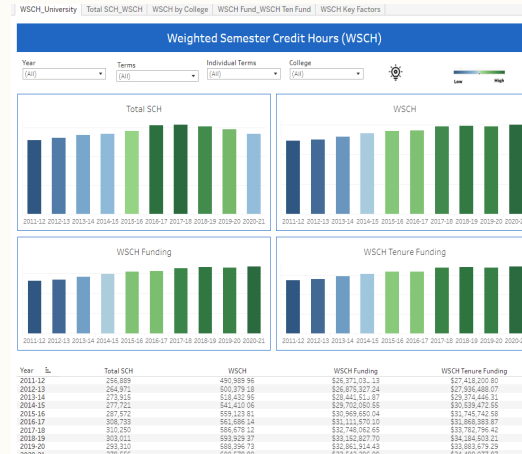
Exploding Pie Chart



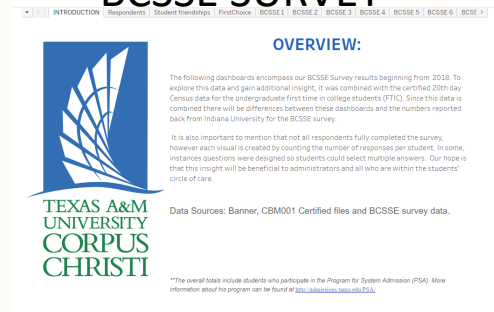
NSSE SURVEY



Weighted Credit Schedule Credit hours

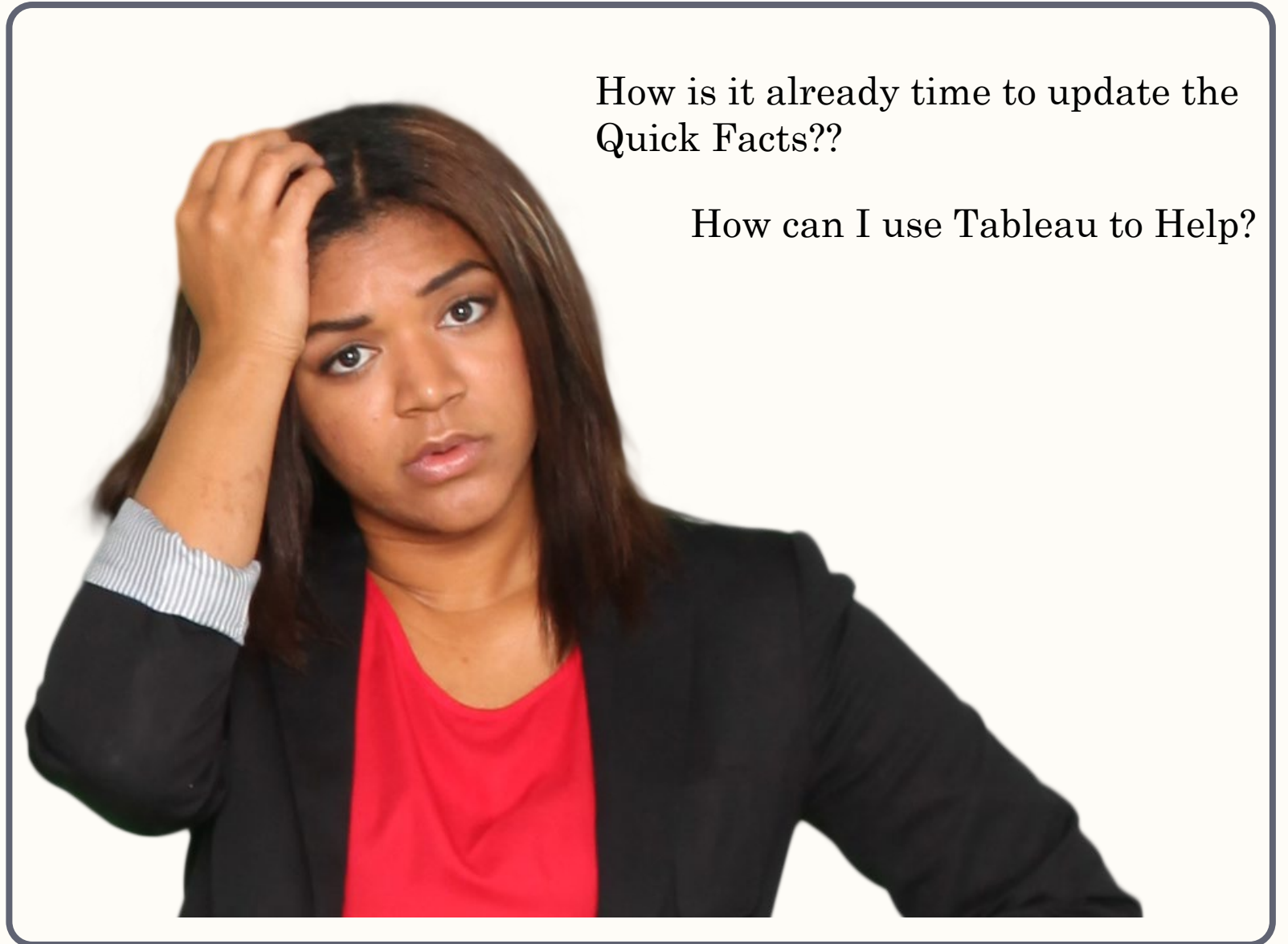


BCSSE SURVEY

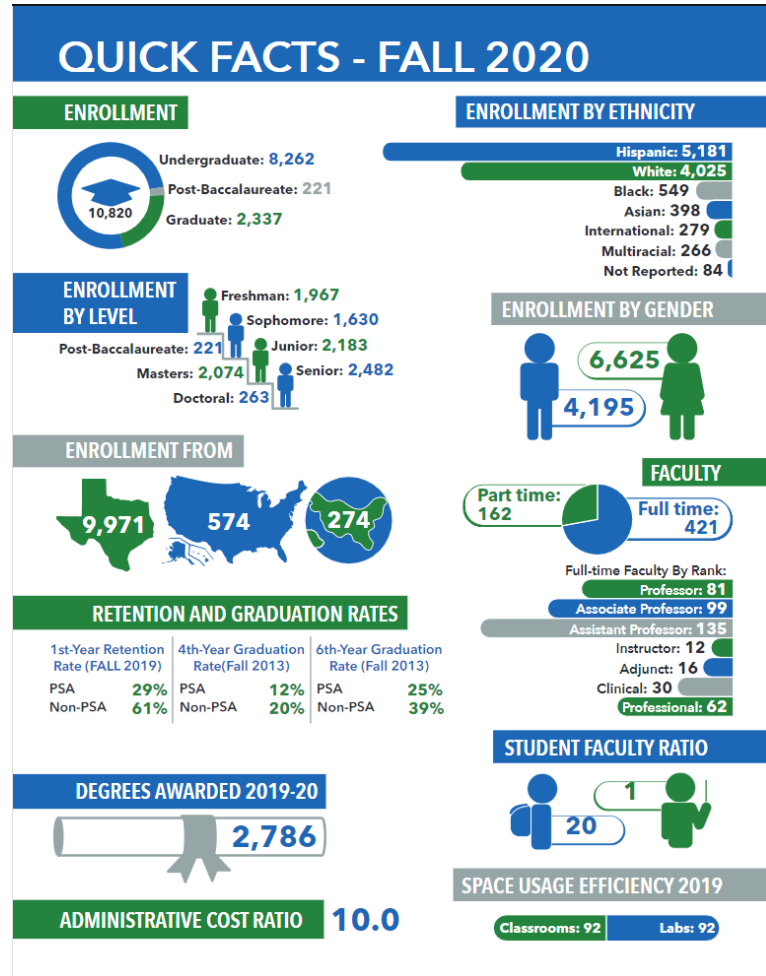


EXAMPLES

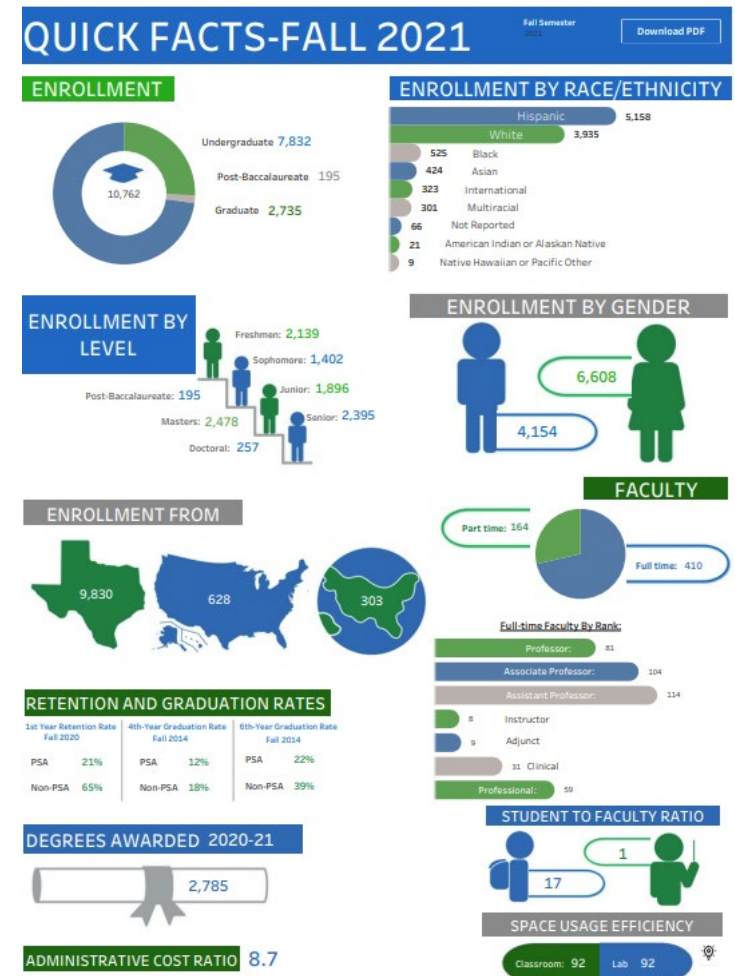
- Tableau user for 3.5 years
- Created over 20 dashboards
 - This is over 300 worksheets for all these 20 dashboards
- Here are a few examples to the left, ex
 - Exploding pie chart for Faculty
 - WSCH dashboard
 - NSSE Survey
 - BCSSE Survey



Original created in Adobe Spark



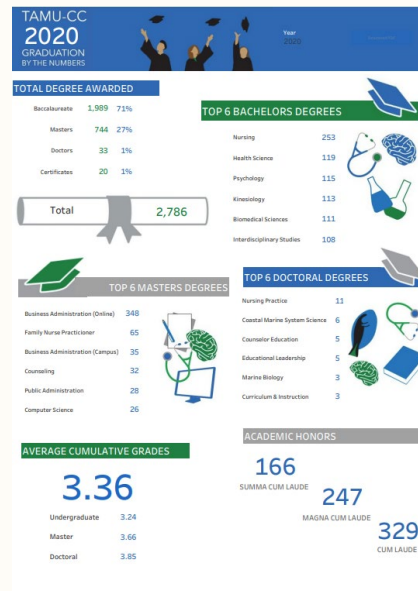
Created using Tableau



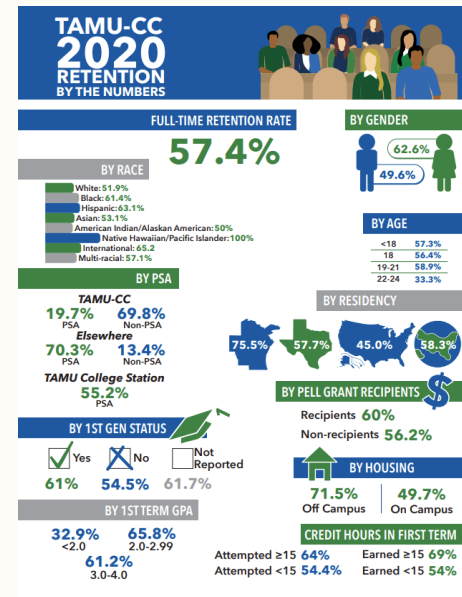
FIRST INFOGRAPHIC PROJECTS

- 1st project was to recreate our University Quick Facts

GRADUATION QF



RETENTION QF



HOW DO WE MAKE IT BETTER?



Texas A&M University Corpus Christi Cohort Profile 2021

1,703

FTIC STUDENTS

62%

61% Female **39% Male**

37% White, 3% Black, 52% Hispanic, 3% Asian, 5% Other

44% Miramar
21% Momentum
32% off campus

1078 SAT/ACT
68th percentile in HS
135 days application to registration
56 days registration and term start date

76% with federal aid (grants, loans, scholarships, work study)
43% Pell Grants recipients
40% federal loan borrower
41% received merit aid
\$1,371* average unmet need
\$98,239 average family income

45% first-generation college students

2021 Fall
17% with major undeclared;
31.5% TSI liable at entry;
16.1% TSI liable at the end of term;
42% took 15 or more credits;
50.1% took any English courses;
60.4% took any math courses
2.50 average GPA
11.1 average earned credits



1,469

NON-PSA FTIC

67%

63% Female **37% Male**

33% White, 3% Black, 57% Hispanic, 3% Asian, 4% Other

40% Miramar
21% Momentum
36% off campus

1064 SAT/ACT
68th percentile in HS
200 days application to registration
57 days registration to term start date

79% with federal aid (grants, loans, scholarships, work study)
46% Pell Grants recipients
40% federal loan borrower
47% received merit aid
\$1,423* average unmet need
\$92,979 average family income

48% first-generation college students

2021 Fall
4% with major undeclared;
34.9% TSI liable at entry;
18.2% TSI liable at the end of term;
44% took 15 or more credits;
47.8% took any English courses;
55.8% took any math courses
2.42 average GPA
10.9 average earned credits

1st Version Created



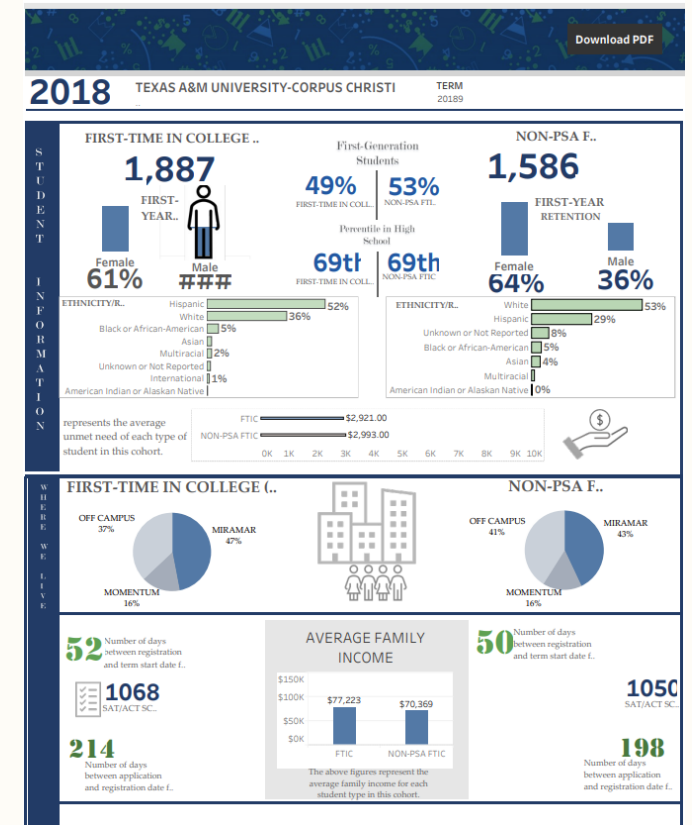
Was trying to recreate the old by using the same format as the original created by the research team.



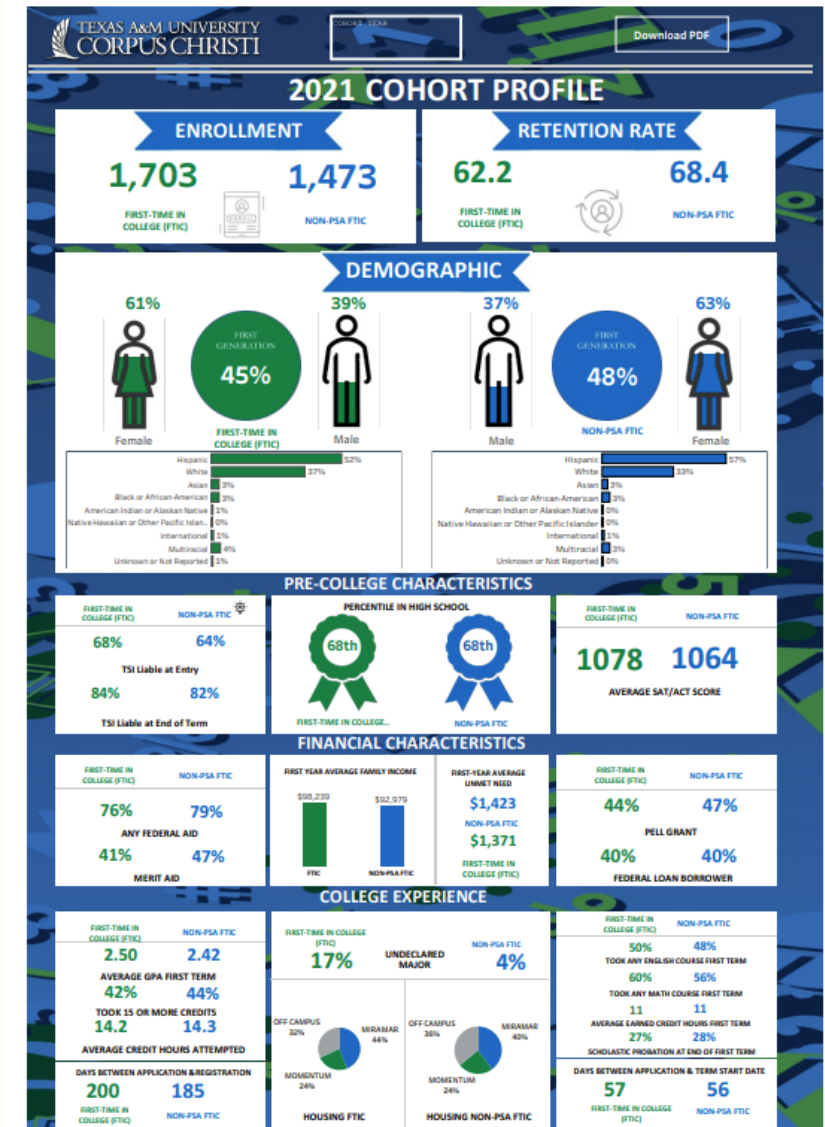
The colors were too drab



A new format was need to better communicate the comparisons of FTIC to Non-PSA FTIC



Final Version of Cohort Profile Analysis



POWERPOINT SCRATCH PAD

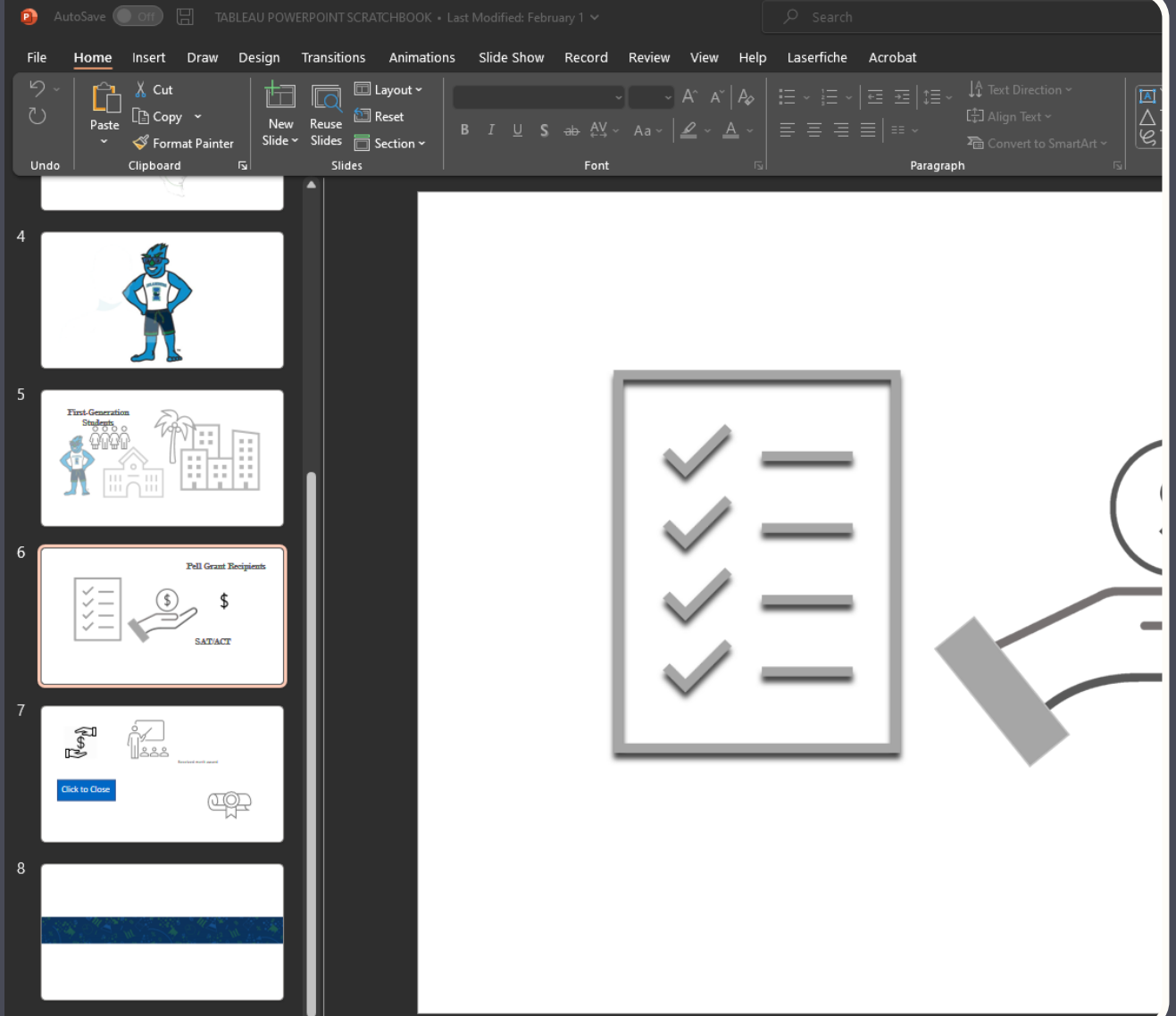




Tableau - demo tair

File Data Worksheet Dashboard Story Analysis Map Format Server

Dashboard Layout

Default

Phone

Device Preview

Size

A3 Portrait (1169 x 1654) 1

Sheets

overlay

Objects

Horizontal Vertical Text Image Web Page Data Story Blank Navigation Download Extension Ask Data Workflow

Tiled Floating

Show dashboard title

Data Source Dashboard1 overlay

Dashboard Layout 3

Selected item

Vertical

Show title

Floating

Control visibility using value

Position

x y

8 8

Size

w h

1,153 1,638

Border

None

Background

100%

Outer Padding

0 0 0 0 4

Inner Padding

0 0 0 0

Item hierarchy

Dashboard 1

woman1.png

Picture9_MALE.png

female

Blank

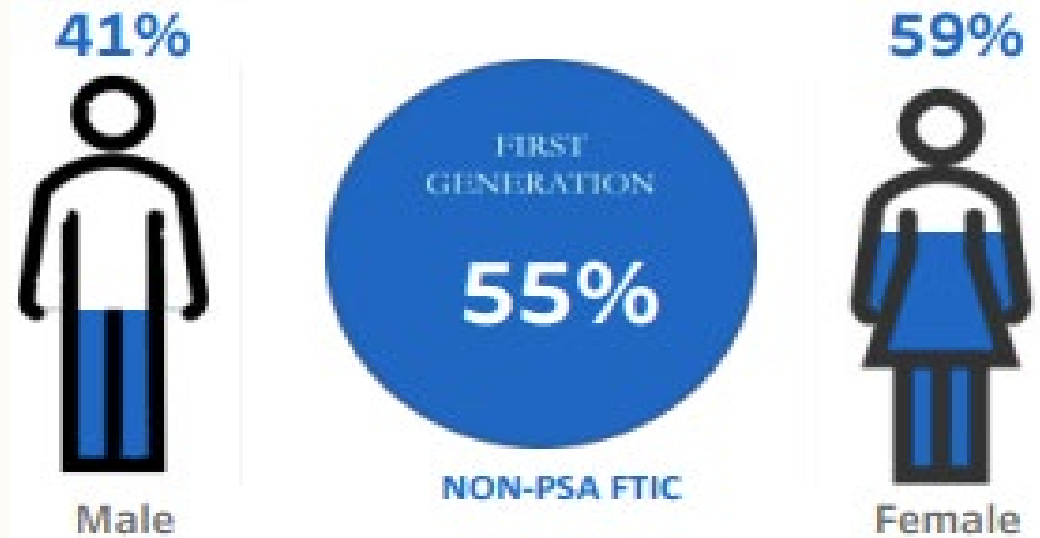
Blank

Tiled

5

BEHIND THE CURTAIN

SHARE HOW I CREATED THE MALE AND FEMALE CHARTS FOR THE FTIC STUDENT PROFILE ANALYSIS INFOGRAPHIC.

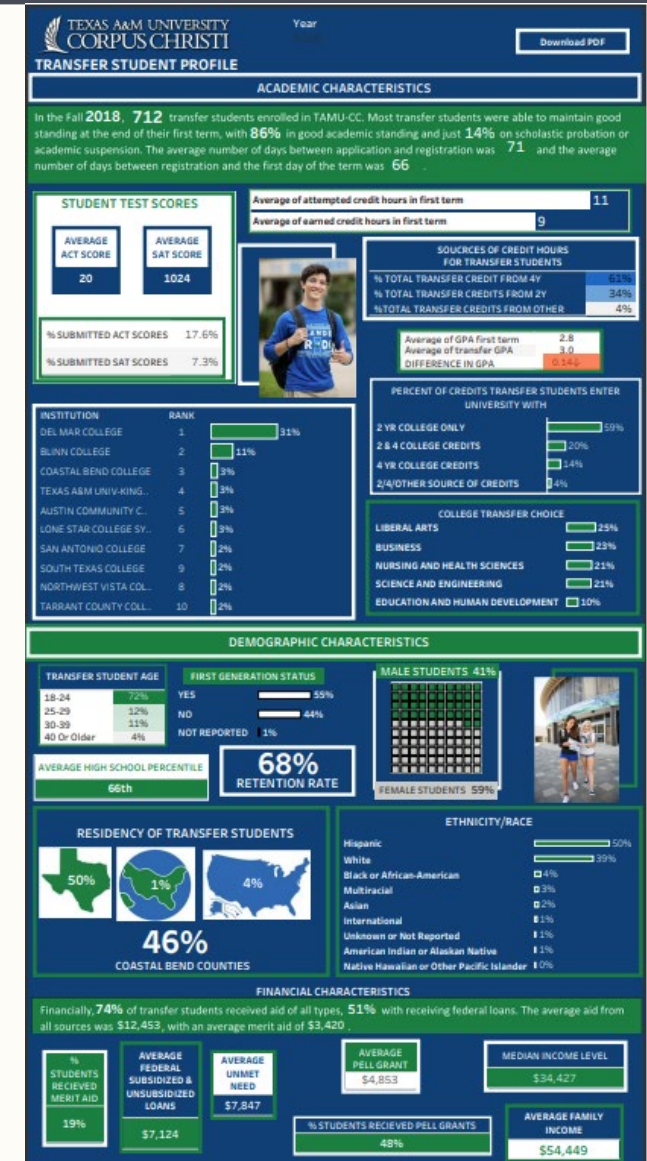




Tips and Tricks

- Spacebar + ‘G’ to make the graph appear
- The Layout Tab is your Friend.
 - Use this to ensure your images are level and the same size
- Floating containers and floating order are helpful
- Using a blank container to a height of 2 and colored background will allow you to create lines
- PowerPoint to create transparent images
- Format, then more formatting

Latest Project: Transfer Student Profile





Q & A

Contact Info:

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References

- <https://us-east-1.online.tableau.com/#/site/tamuccpir/views/RESEARCHINFORGRAPHIC/COHORTPROFILEANALYSIS?:iid=2>
- <https://www.flerlagetwins.com/>
- <https://community.tableau.com/s/>