

Data Basics for Higher Education

Hana Lahr
June 18, 2024

Institutional data can help us...

...examine college performance.

...examine short- and long-term student outcomes for different populations.

...better understand the student experience.

...identify opportunities for improvement.

...set college goals.

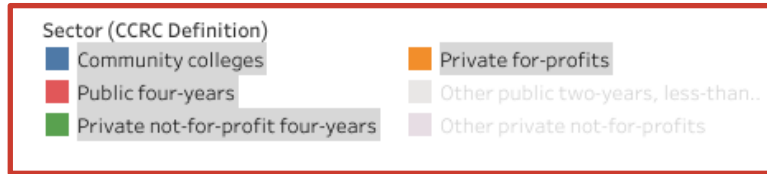
Let's look at some common data points

Fewer students are enrolling in community colleges

Undergraduate Enrollment Trends by Sector

IPEDS Data, 1996-2022

CCRC COMMUNITY COLLEGE
RESEARCH CENTER
Teachers College, Columbia University



Select a State/Territory

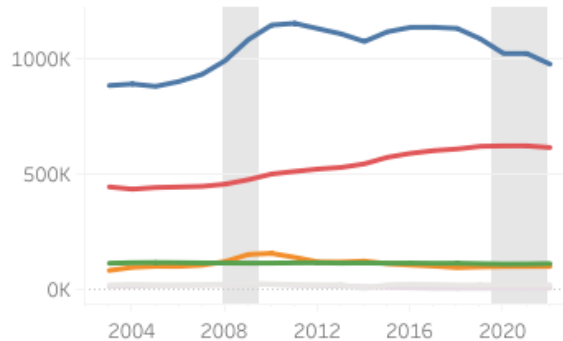
Texas

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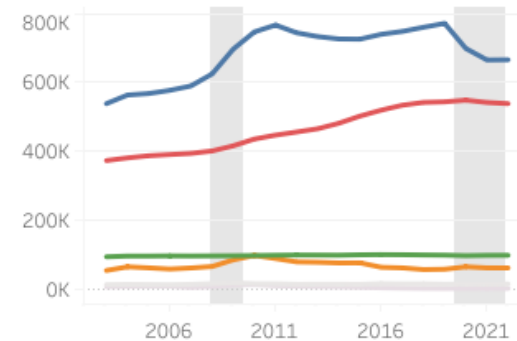
Academic Year Headcount

12-month unduplicated undergraduates



Fall Enrollments

All undergraduates



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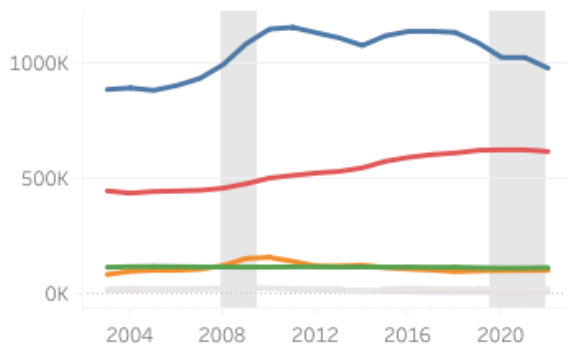
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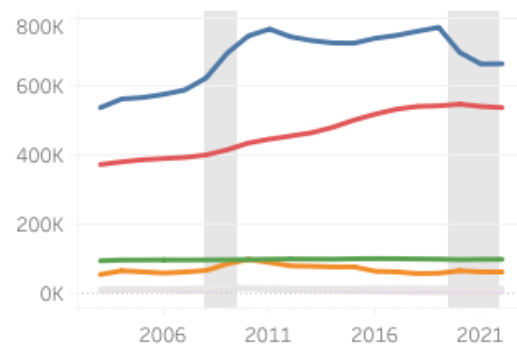
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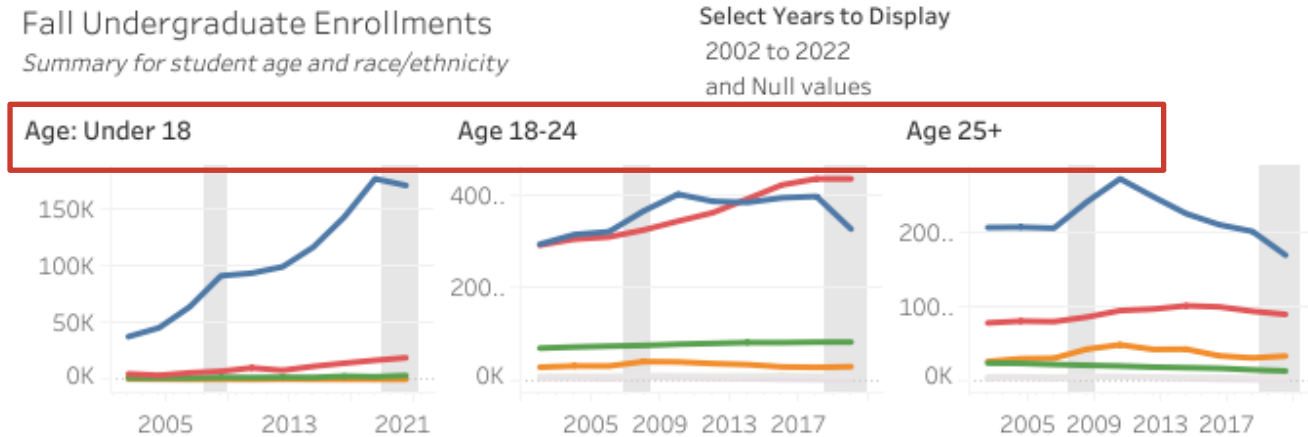


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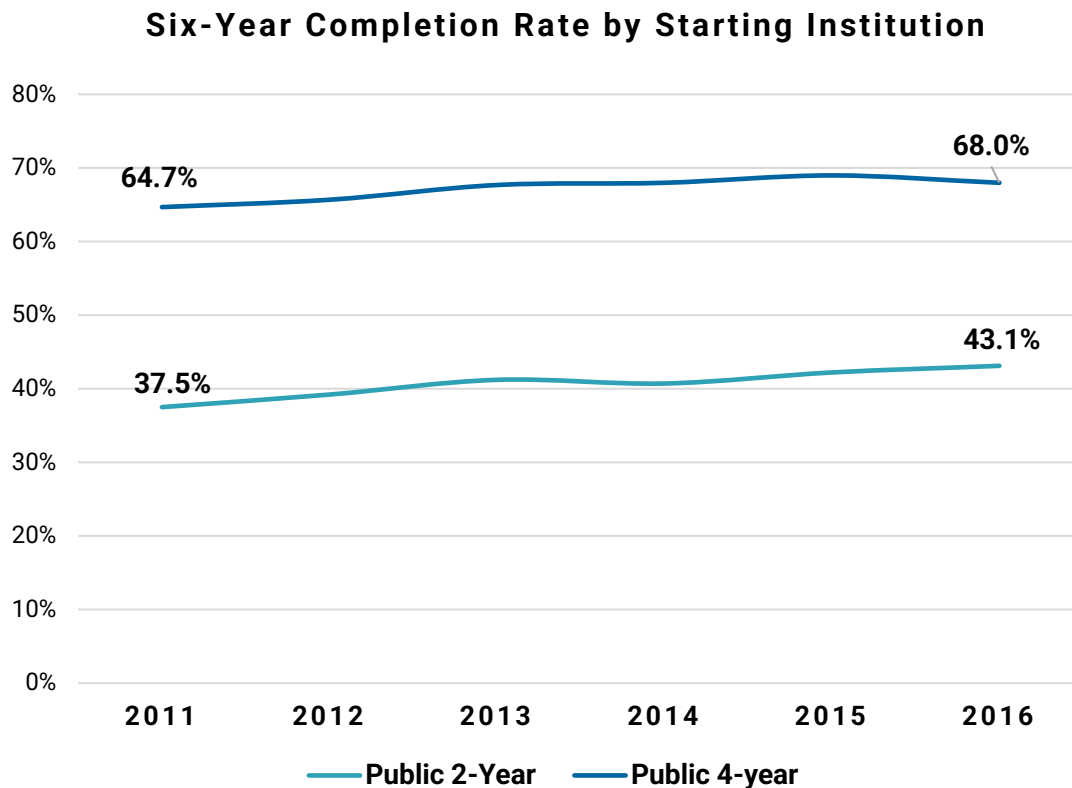
With declines among adults (25+) and traditional age students (18-24)



With HB8, Texas will fund community colleges based on completion and not enrollment.

“The new model moves to an outcomes-based approach and rewards colleges for awarding degrees, certificates, and other ‘credentials of value’.”

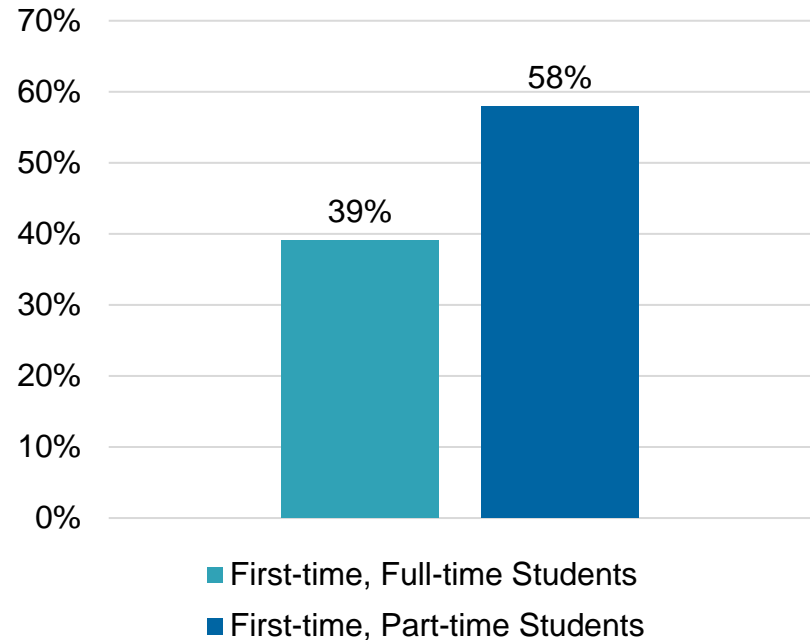
Most community college starters do not earn a credential in six years.



Many students drop out in their first year.

Retaining more students would help address community colleges' enrollment declines.

Two-Year Public Colleges Fall-to-Fall Attrition: Fall 2021 Cohort



**Using leading and lagging indicators
to motivate and measure college
improvement**

Leading indicators

- Formative assessment
- Measurable in a short time period
- Primary goal: Improvement (internal)
- Predictive of longer-term outcomes

Lagging indicators

- Summative assessment
- Takes a longer time to measure
- Primary goal: Accountability (external)
- Captures ultimate goals and outcomes

Leading indicators

First year student momentum:

- College-level credit accumulation
- Gateway course completion
- Course completion
- Persistence fall to spring and fall to fall
- Program momentum

Lagging indicators

Student outcomes:

- CC credential completion
- Transfer + BA completion
- Labor market outcomes

Metrics for improvement: Early momentum as a leading indicator



- Leading indicators are **actionable** and **timely**, and **predictive** of longer-term lagging indicators
- If leading indicators don't improve, college is unlikely to see longer-term outcomes improve.

Early momentum metrics for first-time-in-college (FTIC) students

- **Credit momentum:**
 - % of FTIC students who complete 6+, 12+ credits in term 1
 - % of FTIC students who complete 15+, 24+, 30+ credits in year 1
- **Gateway momentum:**
 - % of FTIC students who complete college-level math/English (and both) in year 1
- **Persistence:**
 - % of FTIC students who persist from fall to spring
 - % of FTIC students who persist from fall to fall

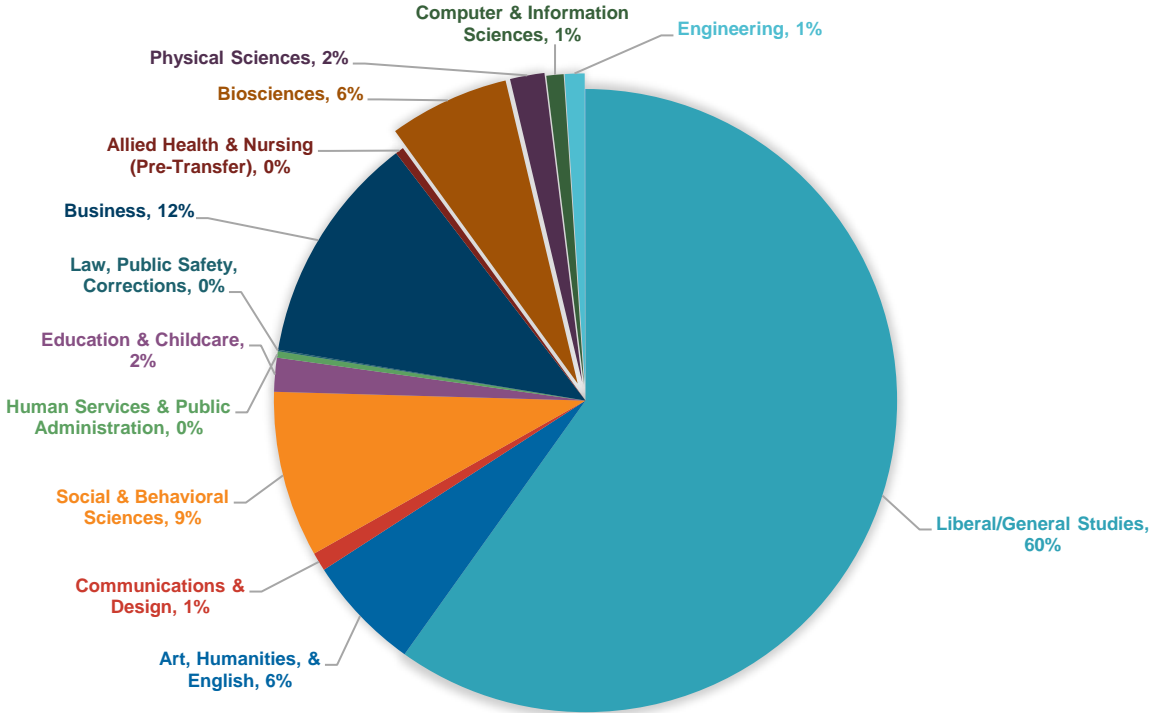
The importance of program enrollment and completion data

HB8 is focused on “credentials of value”

- The number of credentials of value awarded...that position graduates for well-paying jobs.
- Credentials of value awarded in high-demand fields where employers are looking for skilled employees.
- Successful student transfers from community colleges to four-year universities.
- Completion of a sequence of dual credit courses, which are offered to high school students and can set them on early pathways to success.

Community College Transfer Associate Degrees by Field: AY 2021-22

60% of community college transfer associate degrees are in “general or liberal studies”; only 10% are in STEM fields.



Examining program enrollment by post-completion value: Questions to guide inquiry and action

- 1) Which programs have higher value job advancement and/or transfer in student's major field of interest?
- 2) Which programs have lower or unclear post-completion value for employment or transfer?
- 3) How many students are enrolled in higher-value programs compared to lower-value programs? How many students are not in a program that has clear job or transfer outcomes?
- 4) Which student groups (by race/ethnicity, gender, socioeconomic status, age, geography and other factors) are underrepresented in high value programs?
- 5) Where are there opportunities to expand access and success in programs with high value for employment and transfer?

Qualitative data tells us about the student experience

Colleges can and should use quantitative and qualitative data, and they serve different purposes

- **Quantitative data** are most useful for:
 - identifying a problem (or opportunity) to improve student outcomes;
 - monitoring leading and lagging indicators of student progression and success to see if reforms are working.
- Quantitative data may point to **problem areas and possible solutions**, but to improve student outcomes, colleges need to change the student experience.

To understand and improve the student experience, you need qualitative analysis

- This may include talking to students about their experience.
- Mapping out practices and business processes to see where students encounter barriers.
- Setting up systems for better communication among faculty and student services to customize teaching and support to individual students or groups of students---to put in place a continuous improvement process.

Student experience data from interviews and focus groups

- Interview and focus group data will tell you – *in students' own words* – what they are experiencing.
- Students often have ideas and suggestions for improvement.
- Important to talk to a range of students across the college.
- Interview and focus group data can be more time-consuming to collect.
- Offices and departments across a college should collaborate to avoid overwhelming students with requests.

**What should you look for in
institutional data?**

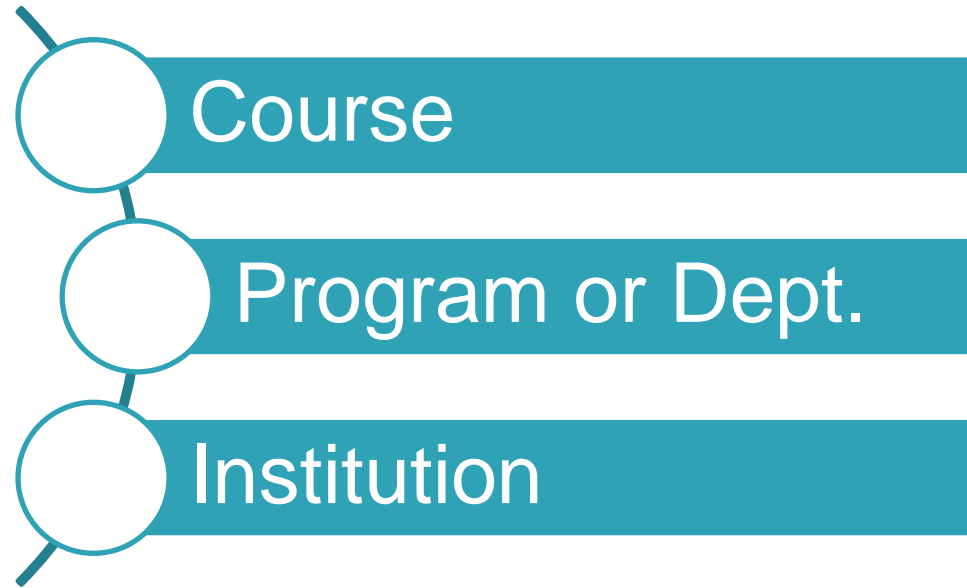


Data don't lie....

**But no one data point
will tell you the full story**



**Data can
provide
information
about multiple
“levels” of the
institution**





Questions to ask when evaluating institutional data

1. What is the student **cohort**? Which students are included in these data? Which students are not included?
 - Are these new students? Returning students? Adult students? Dual credit students? Full-time and/or part-time students? Transfer or workforce students? Credit or non-credit students?
2. What **year** are these from?
 1. If the data are from a single year, is it possible to collect trend data to see how the data are changing year over year?
3. Are the data **disaggregated**? By race, age, income, gender, first-generation status, full-time/part-time status, etc.?



Questions to ask when evaluating institutional data

1. How are these data connected to our **institutional priorities**?
2. What do these data tell us about the **student experience** at our college?
3. What **additional questions** do these data raise?
 - What additional data do we need to answer these questions?
 - Do we need to collect qualitative data (focus groups, interviews, etc.) to better understand what students experience?

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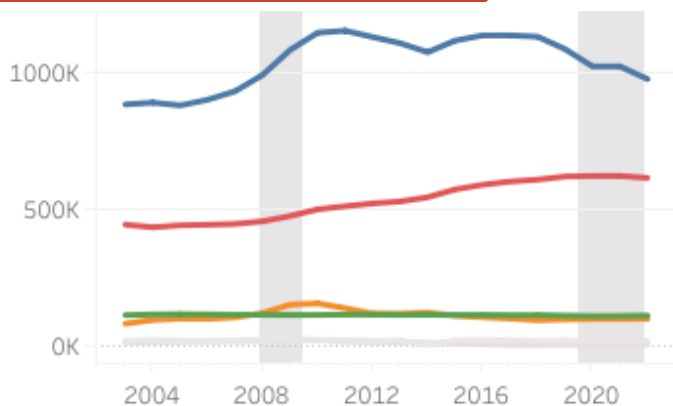
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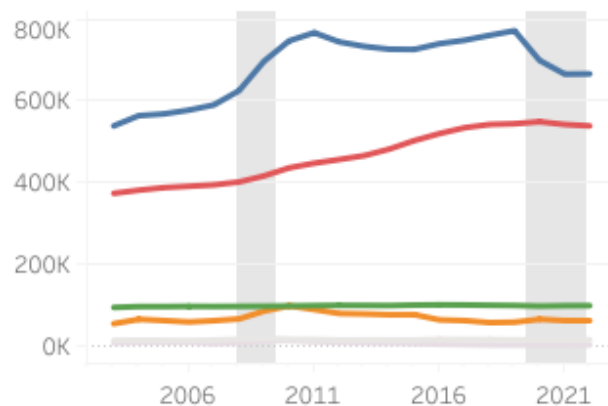
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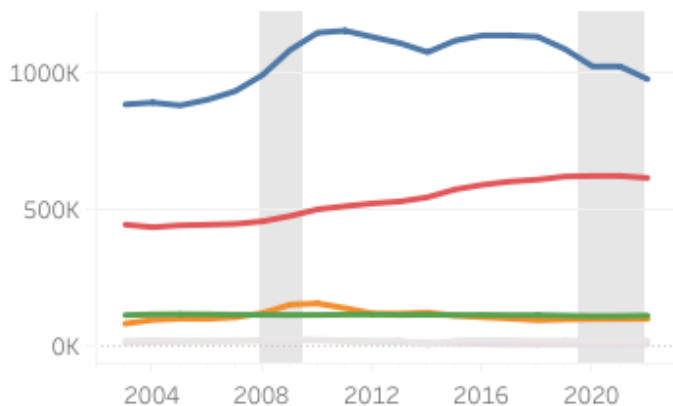
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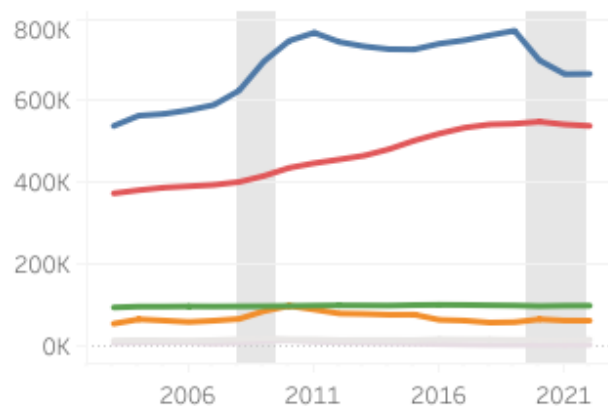
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Fall Undergraduate Enrollments

Summary for student age and race/ethnicity

Select Years to Display

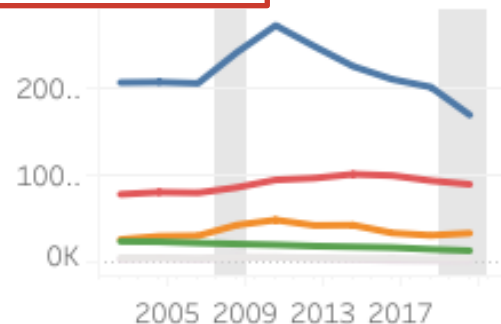
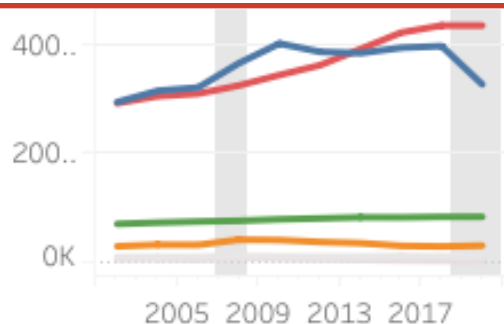
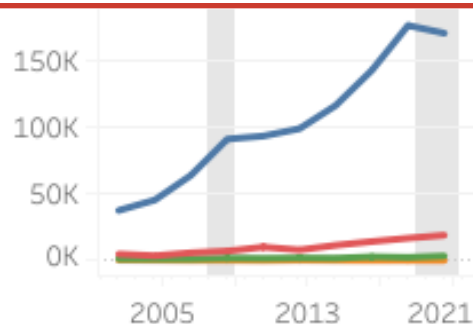
2002 to 2022

and Null values

Age: Under 18

Age 18-24

Age 25+



Q&A



Thank you!

Hana Lahr, lahr@tc.edu