A Comparative Analyses of Student Characteristics and Progression Metrics in CBE and non-CBE Programs

Unit Accumulation

Enrollment Sequences

Retention & Graduation Rates

Time to milestone

Enrollment Status

Demographics
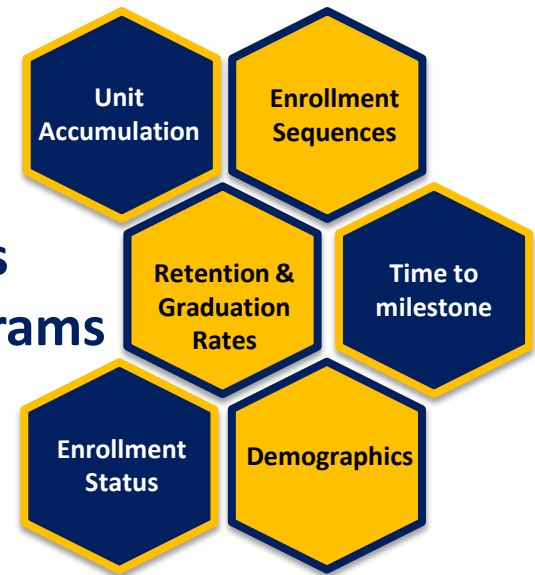
Presented By

Swagata Kundu

MS – Business Analytics
GAR – Institute for Competency Based Education

Advisors:

Carlos Rivers
Dr. Shonda Gibson
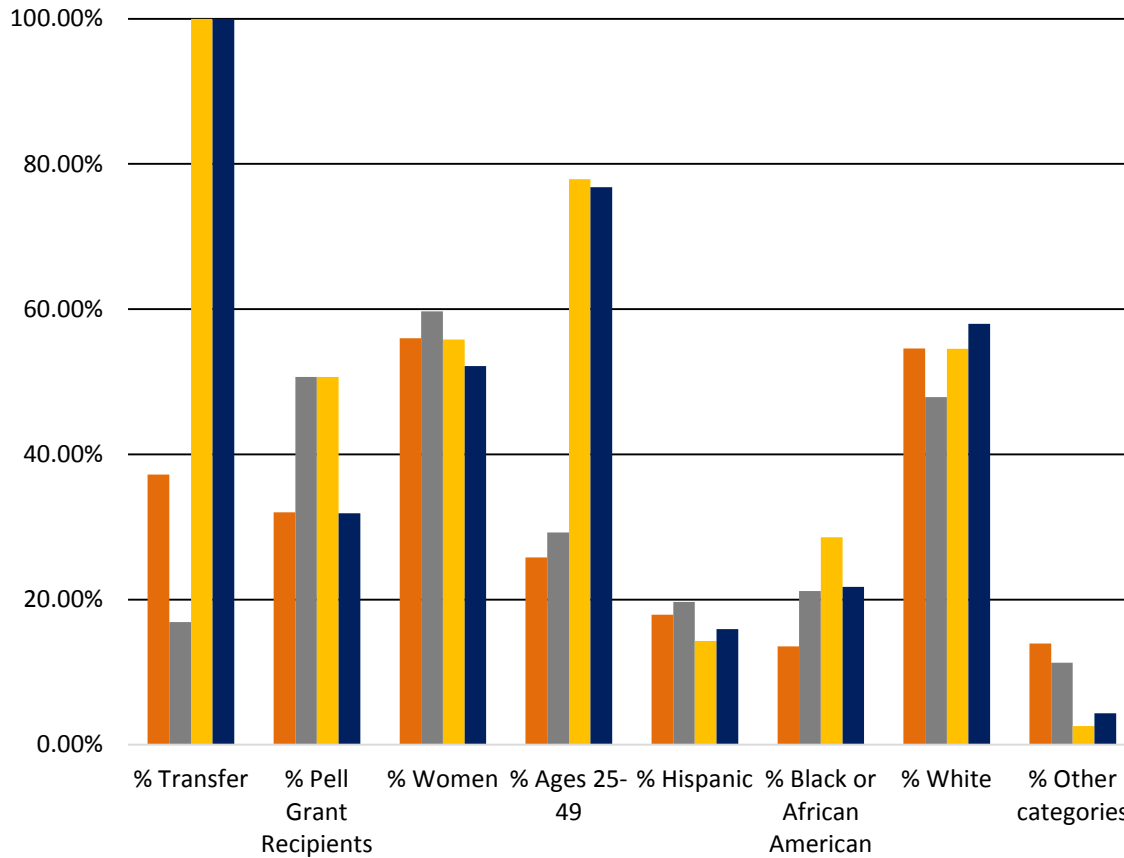
Competency-based education (CBE) allows students to advance based on their ability to master a skill or competency at a flexible pace regardless of time and place. It gives students unique options for tailoring their coursework to fit their individual needs (Mayeshiba & Brower, 2017).

CREDIT-HOUR — FOCUS ON TEACHING

COMPETENCY-BASED — FOCUS ON LEARNING

TIME IS **CONSTANT,** BUT LEARNING IS **VARIABLE**

TIME IS **VARIABLE,** BUT LEARNING IS **CONSTANT**

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Mastering the skills, not the Clock!

Student Demographics across the programs

CBE and non-CBE comparable groups have **maximum transfer and adult students** than general US and University student population.

Legend:
- US
- Texas A & M University-Commerce, all undergraduate
- Texas A & M University-Commerce, non-CBE comparison group
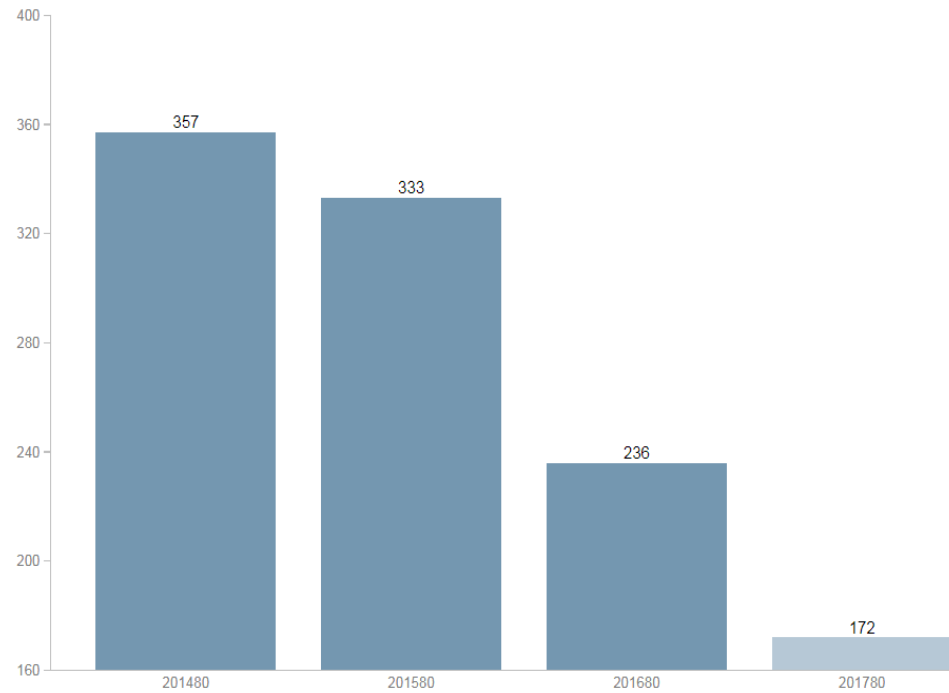- Texas A & M University-Commerce, CBE group

Enrollment Comparisons

CBE – Fall Tab Term Enrollment
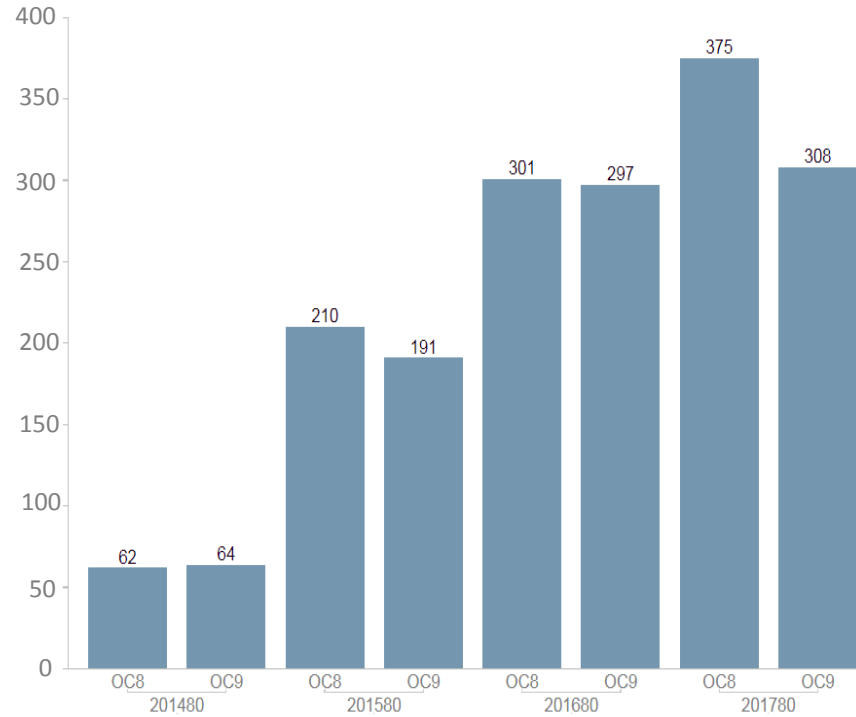
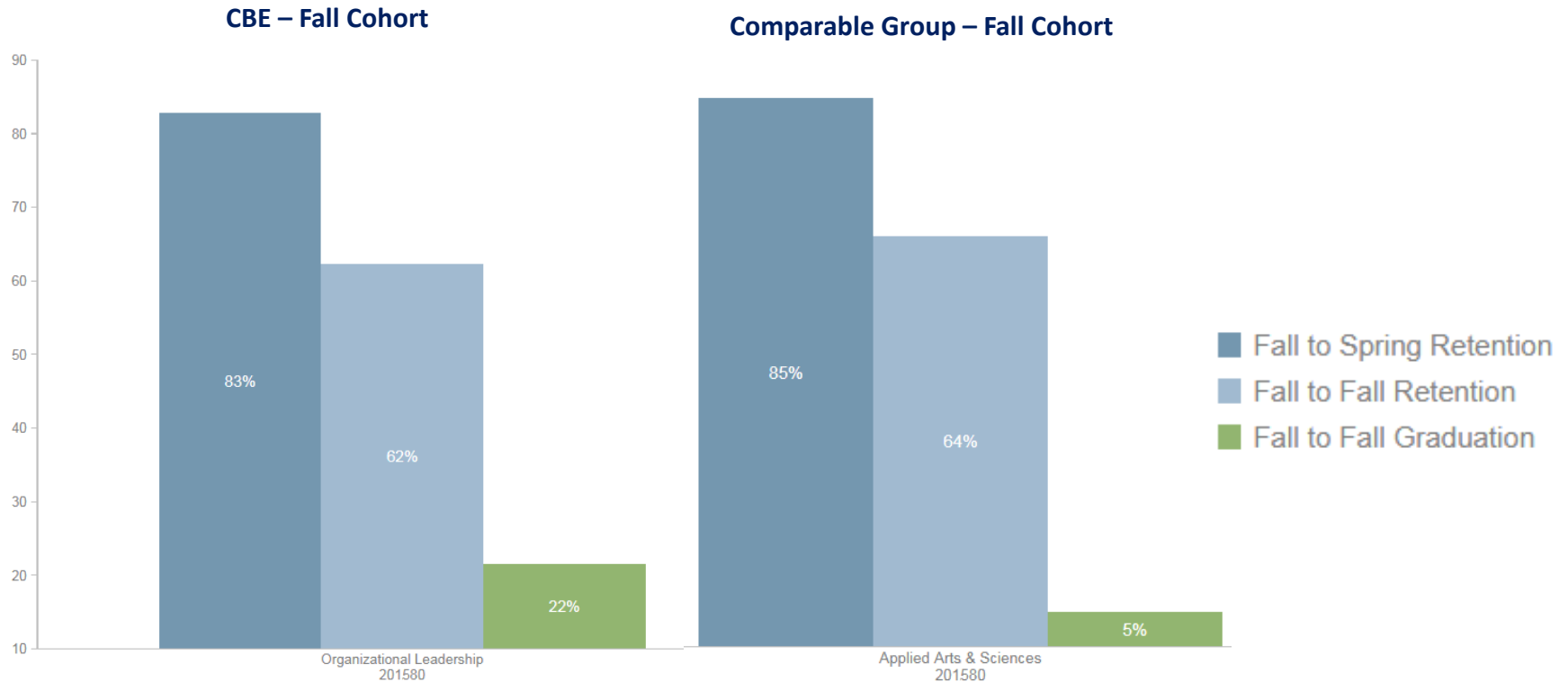
Organizational Leadership

Comparable Group – Fall Enrollment
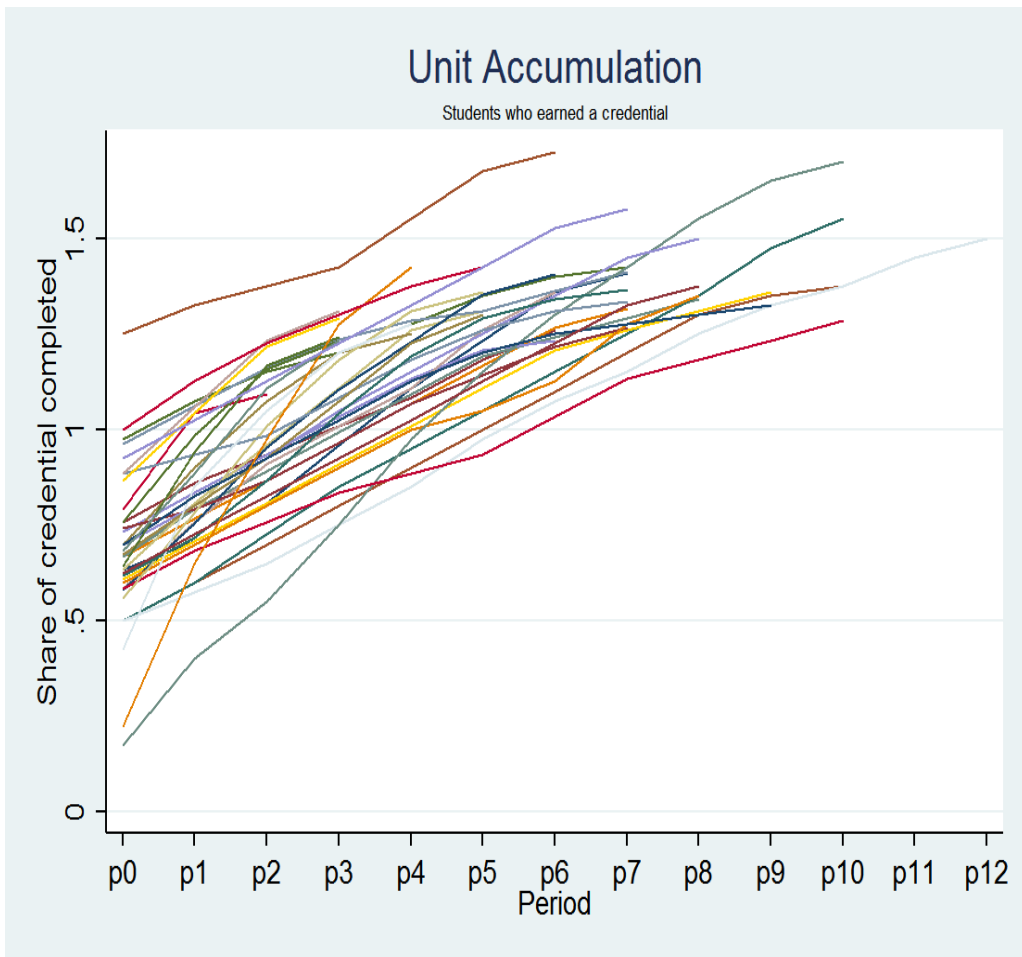

Applied Arts & Sciences

As the **CBE program increased enrollment**, the Comparable group has decreased enrollment.

Retention & Graduation Rates

CBE – Fall Cohort

Comparable Group – Fall Cohort

While the Fall to Spring retention rates is similar (CBE: 83% Non-CBE: 85%) and the Fall to Fall Retention Rate is similar (CBE: 62% Non-CBE: 85%), the Graduation Rate is much higher in that first year period for CBE students at 22% in comparison to only 5% for the Comparable program, a percentage difference of 17%, therefore **CBE students are completing at a faster pace.**

Unit Accumulation

Each line represents a student.

Time to Milestone

Comparison cohort

75% ae	504
50% ae	493 / 127
25% ae	515
0% ae	473

CBE cohort

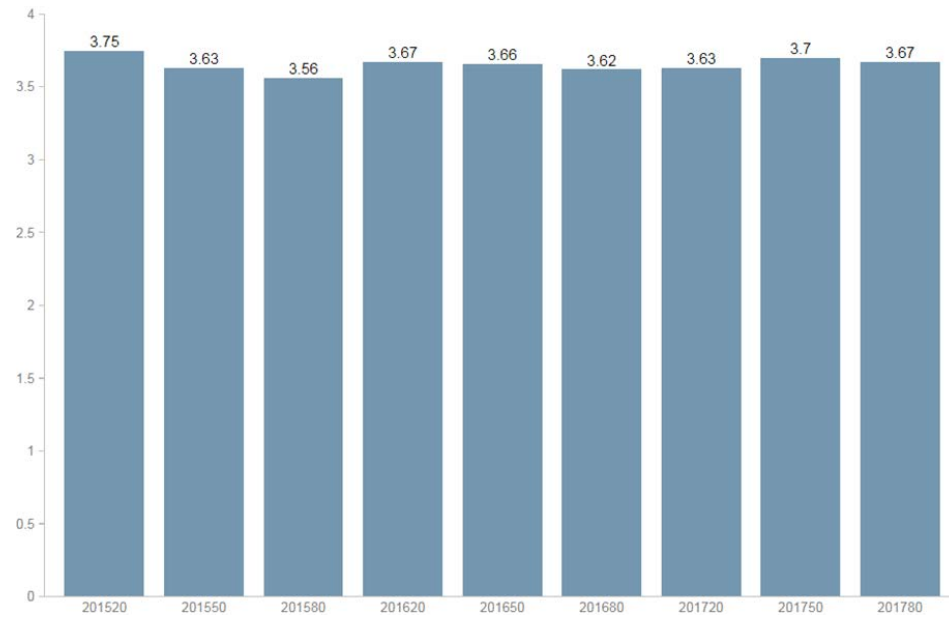|	
75% ae	294
50% ae	270 / 355
25% ae	286 / 219
0% ae	139 / 75 / 280

Legend: ttm_25, ttm_50, ttm_75, ttm_100, tt_cred
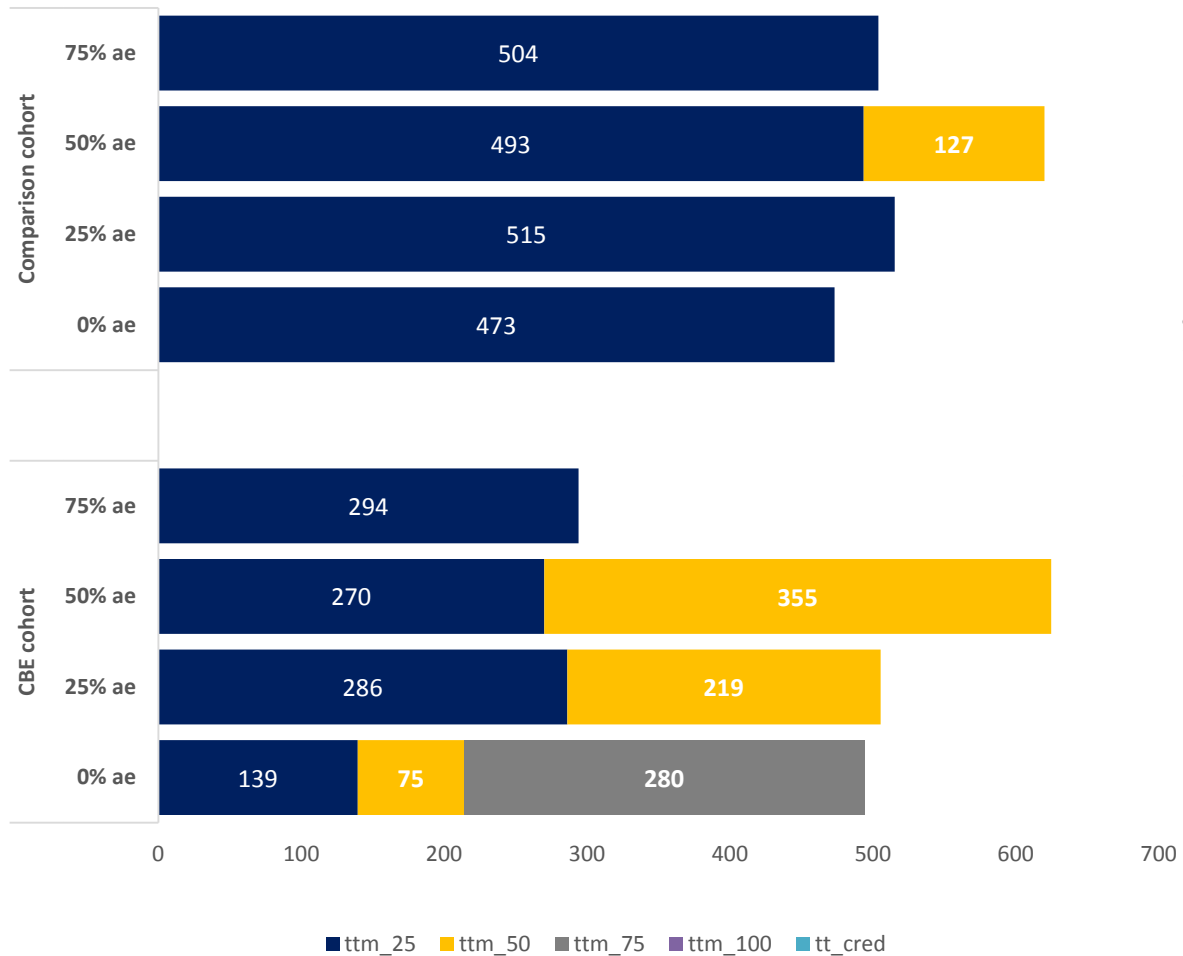
CBE students, who come with large credit loads, **tend to graduate in less than one year**, while the same type of student in the non-CBE comparable group takes almost two years to complete their degrees.
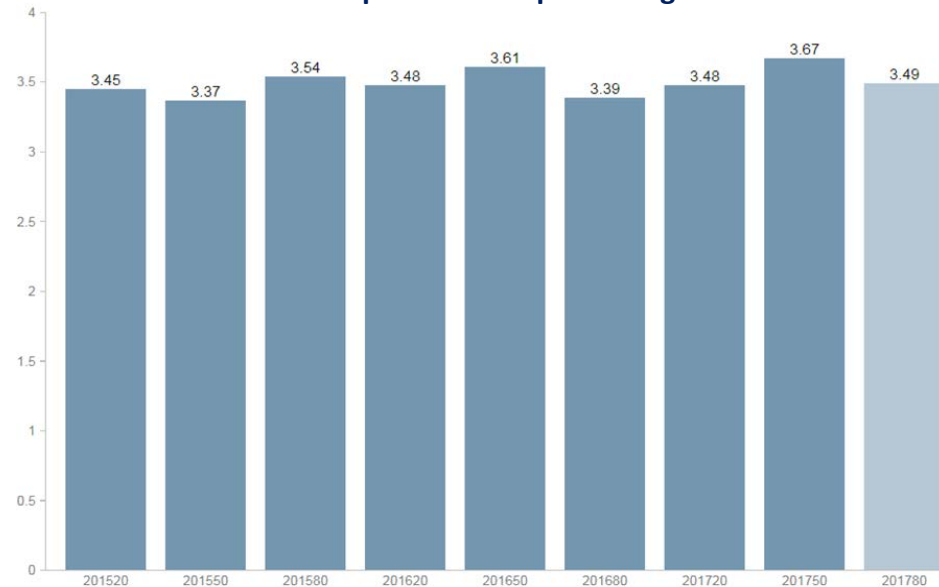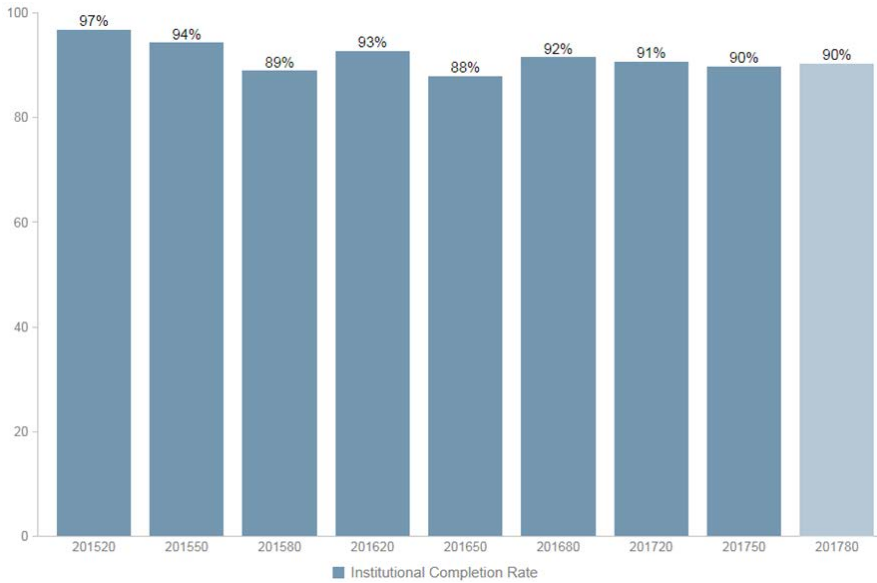
Graduates Average GPA

CBE – Average GPA 3.65

Comparable Group – Average GPA 3.50

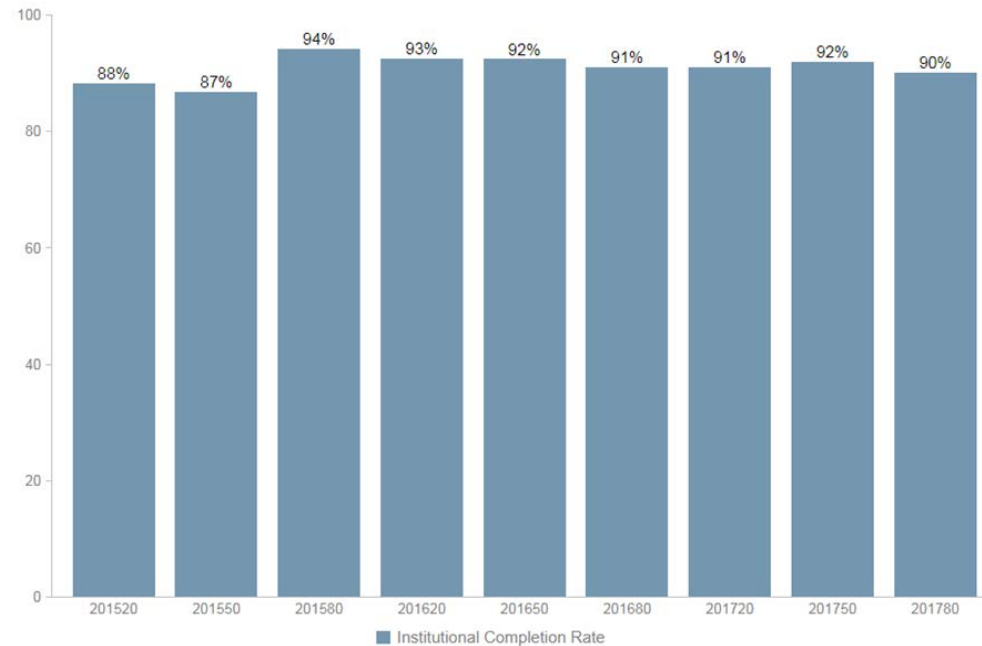This shows that CBE students GPA have **comparable grades** than those that graduate from a traditional similar program.
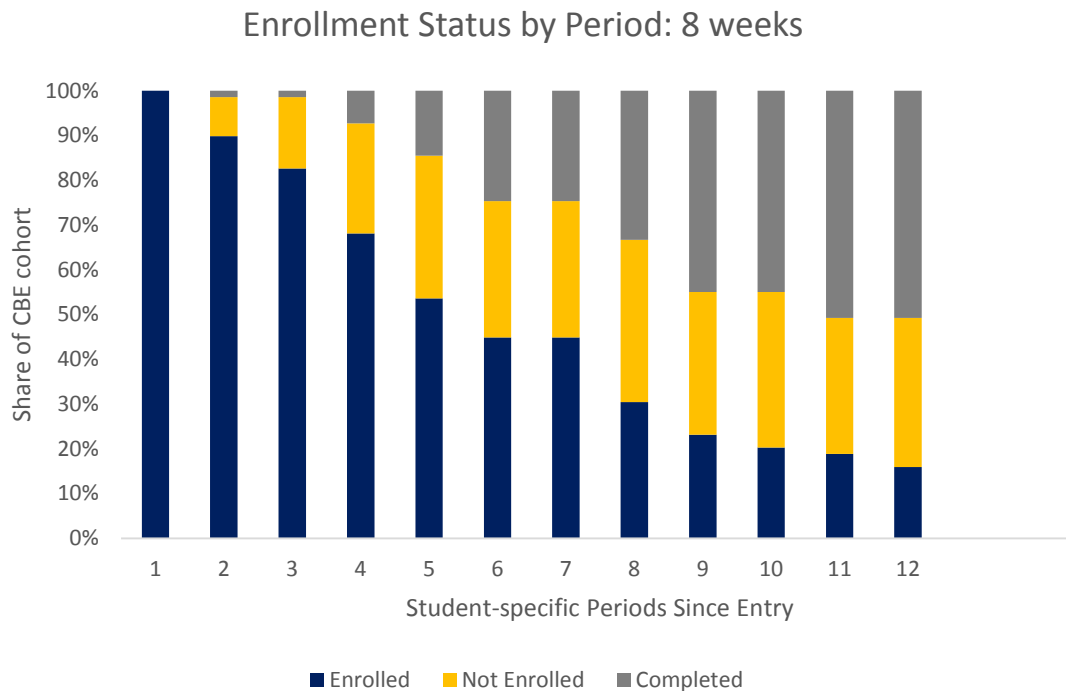
Graduates - SCH Completion Rate

CBE

This shows that CBE students are completing SCH at an **average rate of 90% similar** to comparable group.

Comparable Group
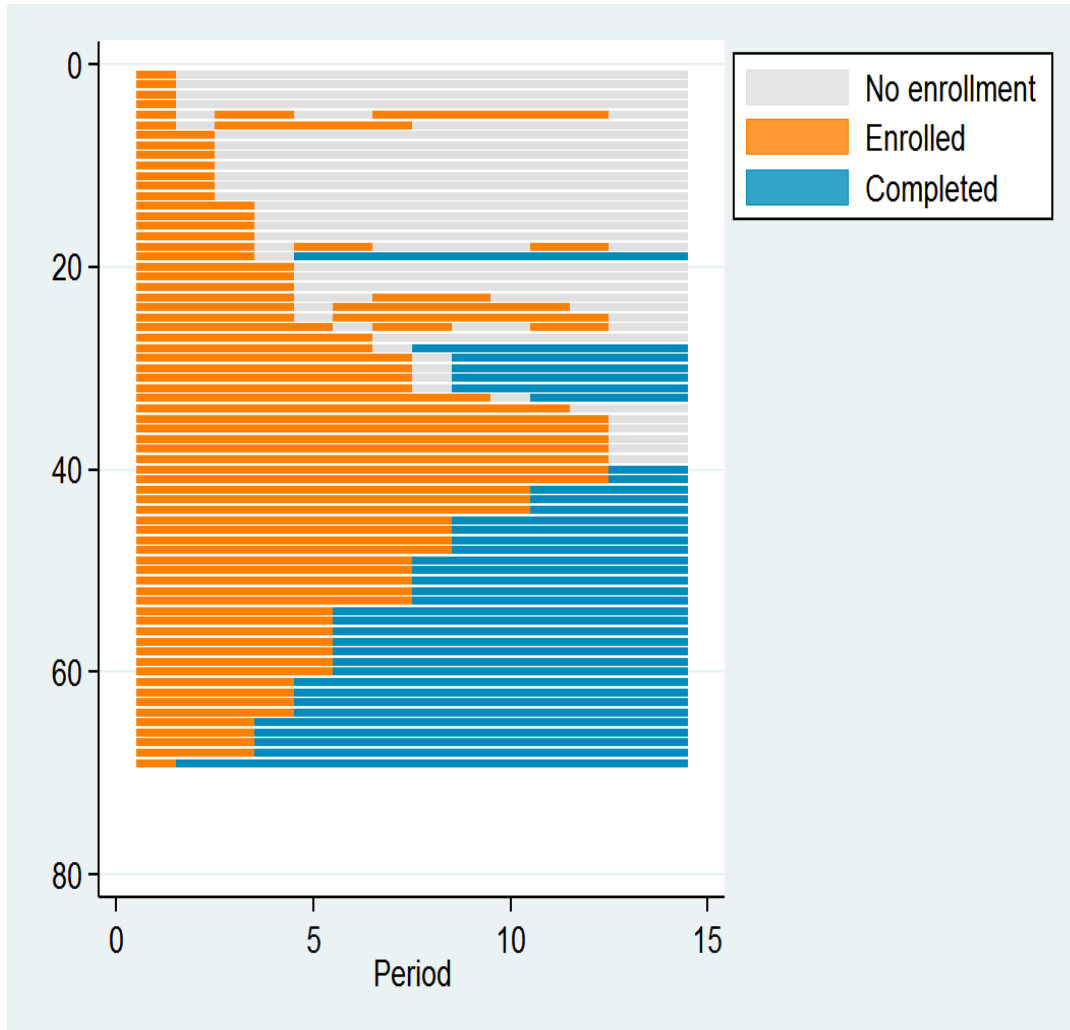
Enrollment Status by Period: 8 weeks

CBE students are accumulating credits at a faster pace and maximum students in a cohort graduate within 8 weeks period.

Each student's distinct enrollment status experience using the following three statuses:
  -Not Enrolled (no enrollment or completion observed during period)
  -Enrolled (any enrollment observed during period)
  -Completed (any credential award observed during period; supersedes all other statuses)

Student enrollment sequences among CBE students show that most program graduates enroll and reenroll in consecutive terms without any gaps and tends to graduate within a year, whereas non-returning **students mostly drop out before 5th period.**

Each line represents a student

Conclusion

We can conclude that CBE students perform as well or better than those in comparable program students.

While further research is needed, these analyses provide a starting point to understand student behavior in a CBE modality as compared to non-CBE students and also suggest possible best data collection and analysis practices for this unique modality.

Thank You *for your time and consideration!*

I would be happy to take your Questions.