



TEXAS A&M UNIVERSITY

Engineering

HACU's PreK-12/Higher Education Collaboration Symposium

David De Sousa, Ph.D



Texas A&M Engineering Academies

Texas A&M University At A Glance

2,500+

in the Corps of Cadets,
the "Keepers of the
Aggie Spirit"

500,000+

FORMER STUDENTS

1,100+

student-led clubs and
organizations

CORE VALUES

Excellence

Loyalty

Integrity

Respect

Leadership

Selfless Service

92

DOCTORAL DEGREE
PROGRAMS

FIVE

FIRST PROFESSIONAL
DEGREE PROGRAMS

133

UNDERGRADUATE
DEGREE PROGRAMS

175

MASTER'S DEGREE
PROGRAMS

Opened in

1876

Primary Location:
College Station, Texas

69,367

TOTAL ENROLLMENT

FALL 2018

26%

of graduating seniors
participated in
undergraduate research

5,321

students studied abroad
during the 2016-2017
academic year

Texas A&M Engineering Academies

By The Numbers

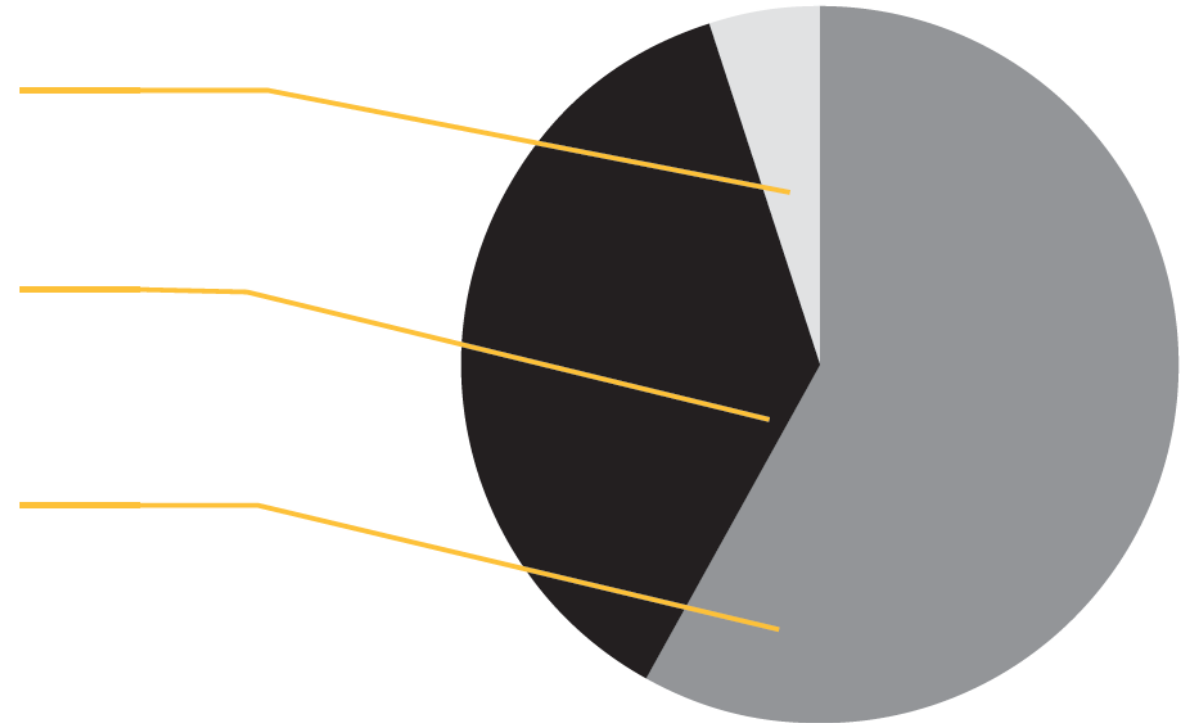
STUDENTS RETAINED AFTER
1 YEAR THAT STARTED IN
THE ACADEMY BETWEEN
2015-2017

65%

5%
BLACK

37%
HISPANIC

58%
OTHER



AVERAGE
3.1 GPA

OF STUDENTS THAT HAVE TRANSITIONED TO
TEXAS A&M FROM AN ACADEMY

17%
FEMALE



36%

OF NEW STUDENTS ENROLLED IN 2018 ARE
FIRST GENERATION COLLEGE STUDENTS



2%
VETERANS

31%

PELL ELIGIBLE
Increasing access for
students from lower
socioeconomic households



Consistently
ranked top 10



3rd in the nation in research expenditures

696



FACULTY

2.1 MILLION



SQUARE FEET OF
LEARNING SPACE

75



PROFESSORS OF PRACTICE

251



PROFESSIONAL
SOCIETY FELLOWS

27



NATIONAL & INTERNATIONAL
ACADEMY MEMBERS

100%



OF ENGINEERING CLASSES LESS
THAN 100 STUDENTS

22 majors

AEROSPACE



ARCHITECTURAL



BIOLOGICAL
& AGRICULTURAL



BIOMEDICAL



CHEMICAL



CIVIL



COMPUTER
ENGINEERING



COMPUTER
SCIENCE



COMPUTING



ENVIRONMENTAL



ELECTRICAL



ELECTRONIC SYSTEMS
ENGINEERING TECH



INDUSTRIAL
DISTRIBUTION



INDUSTRIAL



INTERDISCIPLINARY



MANUFACTURING
& MECHANICAL
ENGINEERING TECH



MATERIALS
SCIENCE &
ENGINEERING



MECHANICAL



MULTIDISCIPLINARY
ENGINEERING TECH



NUCLEAR



OCEAN



PETROLEUM




Aggie Engineering Opportunities

- General engineering at College Station campus
- Engineering at Galveston
- Engineering at McAllen
- Engineering Academy at Blinn-Bryan
- Remote Engineering Academies



Workforce Needs


Office of Science and Technology Policy



President's Council on
Science and Technology
Report to the President:

**1 million more
STEM degrees
needed in the next
decade**

JOBS COUNCIL
PRESIDENT'S COUNCIL
ON JOBS AND COMPETITIVENESS



President's Council
on Jobs and
Competitiveness
“...goal to graduate
**10,000 more
engineering
students** from U.S.
colleges and universities
each year...”



Projected need for
engineers entering
the workforce in
Texas:

**53,000 more by
2024**

an increase of 18%



- Texas A&M Engineering Academies launched in 2015
- First Engineering Transition Program of its kind in the United States
- Students are co-enrolled with Texas A&M University and one of 7 partner CC across the state
- After one to two years, students transition to TAMU to complete their degree – they are not transfer students nor do they have to submit another transfer application since they were already admitted to TAMU
- Industry partners: Chevron Corporation and Concho Resources

Texas A&M Engineering Academies



ACCESS

Partnering with community colleges enabling students to progress toward an engineering degree



AFFORDABILITY

Maximizing student services to make education more equitable



COMPLETION

Integrating student success programs to increase completion rates.



save up to
{ \$4,100
PER SEMESTER

Save as much as **\$4,100** a semester compared to taking 15 credit hours at Texas A&M—a total savings up to **\$16,400** over two years.



SMALLER class sizes

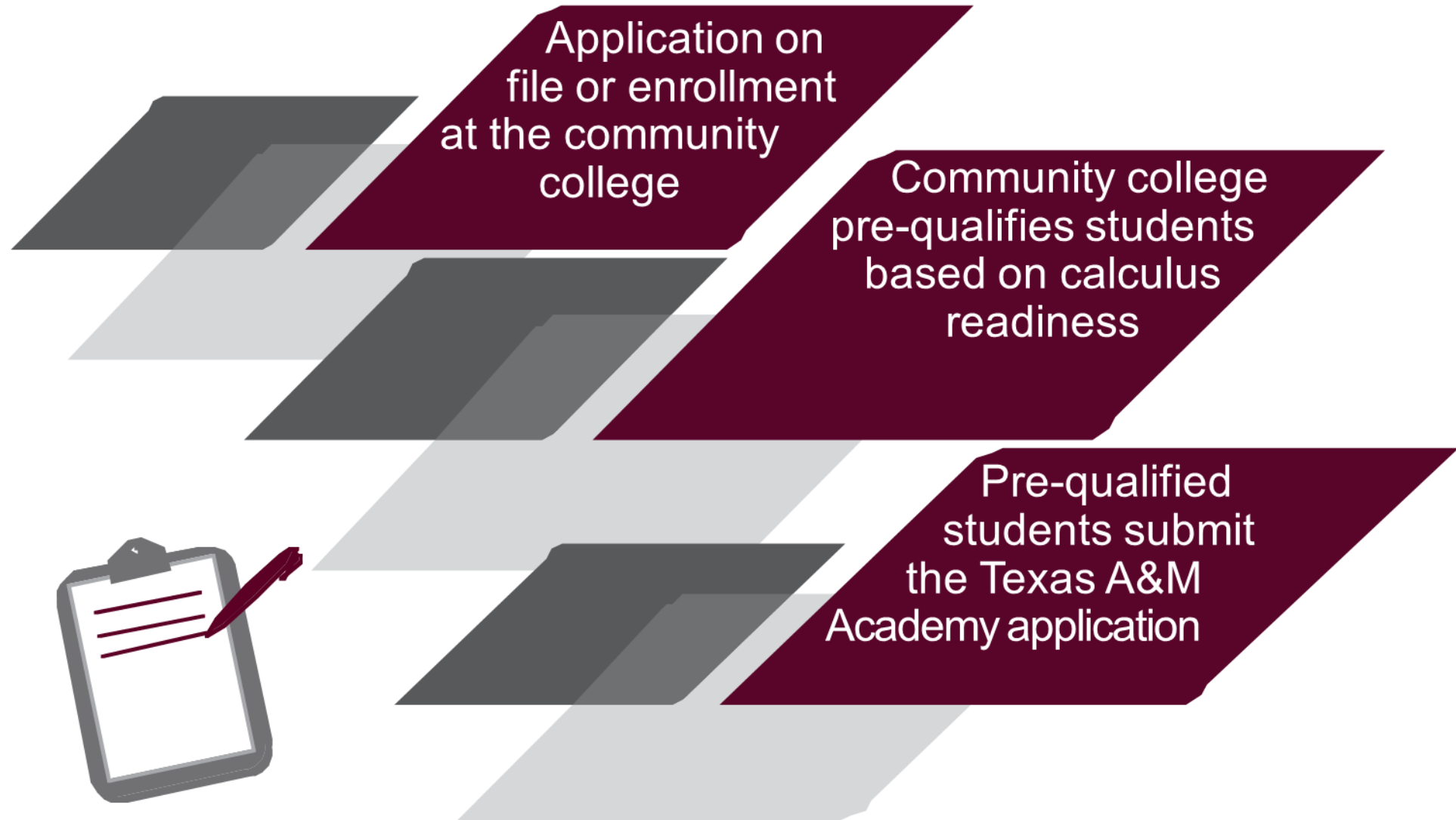


Experience smaller class sizes during your **co-enrollment**.

GRADUATE FROM
Texas A&M University



Application Process



Enrollment Process



Sample First Year Schedule

Fall	Spring
Texas A&M – ENGR 102 (2 cr.)	Texas A&M – ENGR 216 (2 cr.)
CC – Science course (4 cr.)	CC – Science course (4 cr.)
CC – Math course (4 cr.)	CC – Math course (4 cr.)
CC – Core curriculum (3 cr.)* Ex. English, American History, Government, Psychology, Economics, Music, etc.	CC – Core curriculum (3 cr.)* Ex. English, American History, Government, Psychology, Economics, Music, etc.

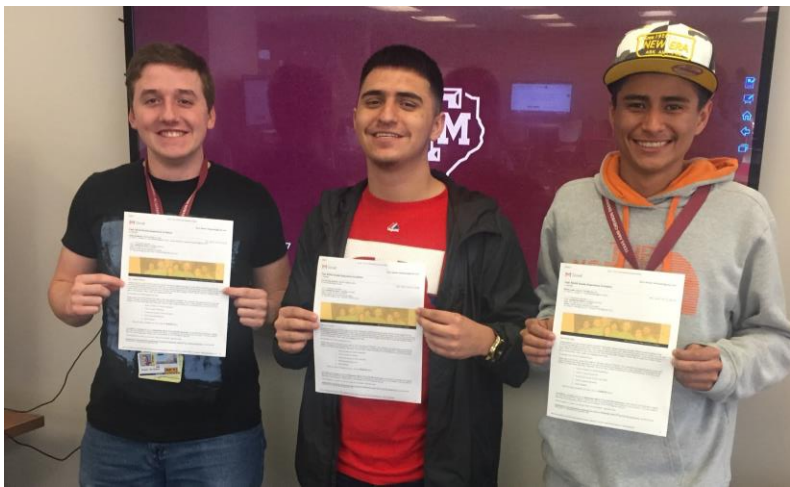
***AP/IB/Dual Credits taken into consideration when providing suggested courses.**



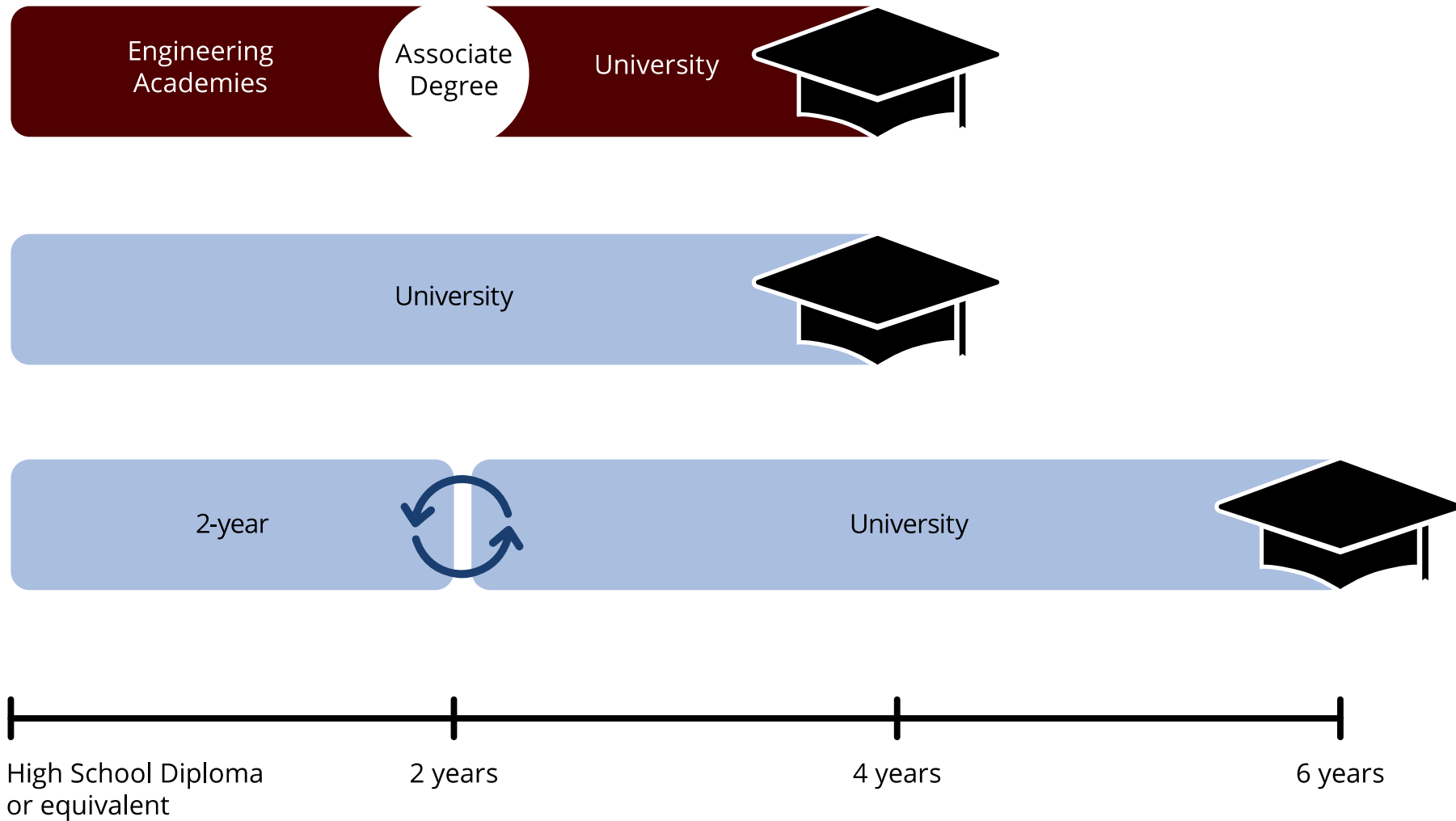
Student Experiences



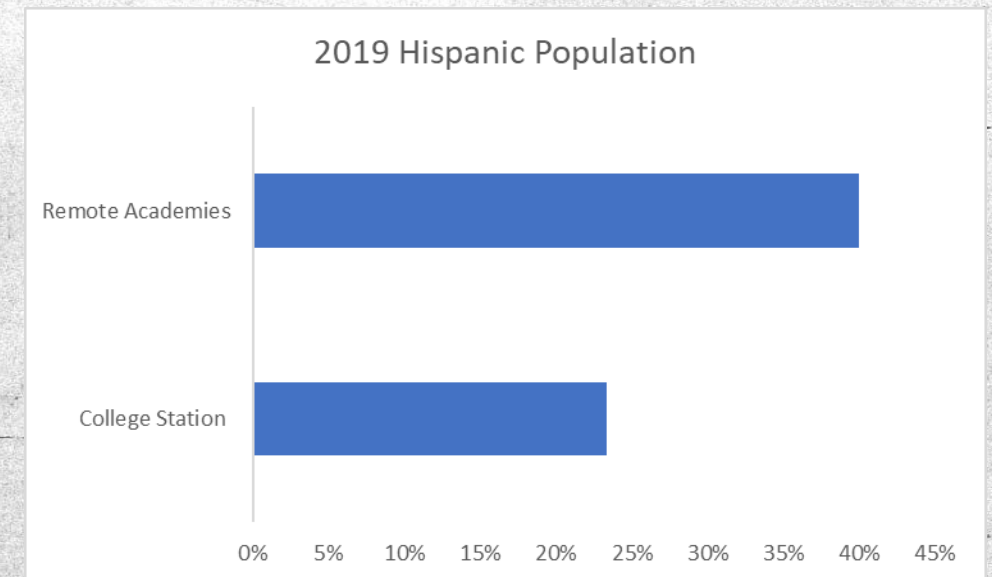
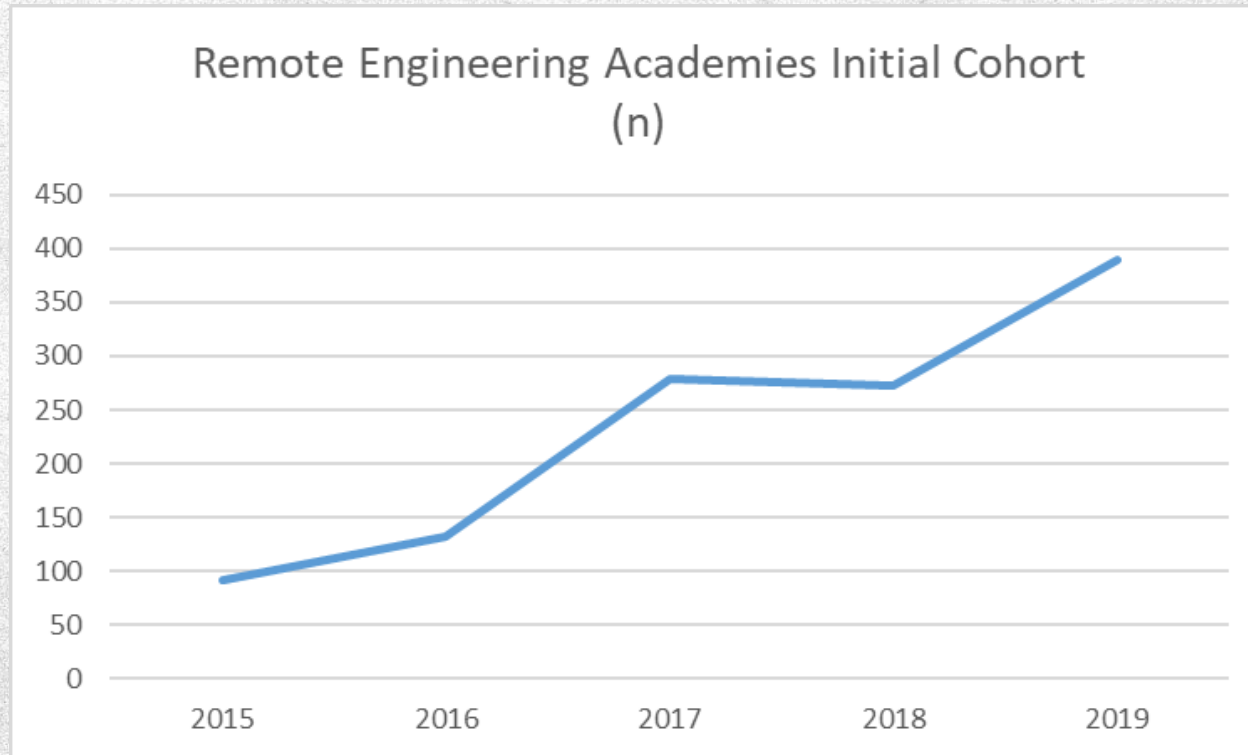
Global Programs • Career Fair • Aggie Football Game & Tailgate • Aggies Invent • Internships



Time to Degree



Initial Cohort Enrollment





TEXAS A&M UNIVERSITY
Engineering

THANK YOU!



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