

2011 AIMS² Program Completion Study

*Exploring Program Completion and Persistence
among AIMS² Scholars*

Mineh Sahakian and Nathan Durdella

Seventh Annual External Advisory Committee Meeting

June 7, 2018

CSUN[®]

**COLLEGE OF
ENGINEERING AND
COMPUTER SCIENCE**

Background

- Introduction
 - Longitudinal study based on the AIMS² 2011 HSI-STEM award
- Purpose
 - Investigate the overall 3-year (from transfer) program completion (graduation) rate and persistence rate of AIMS² students.
 - Understand the role of gender, major and ethnicity on completion rates of students in the AIMS² program.

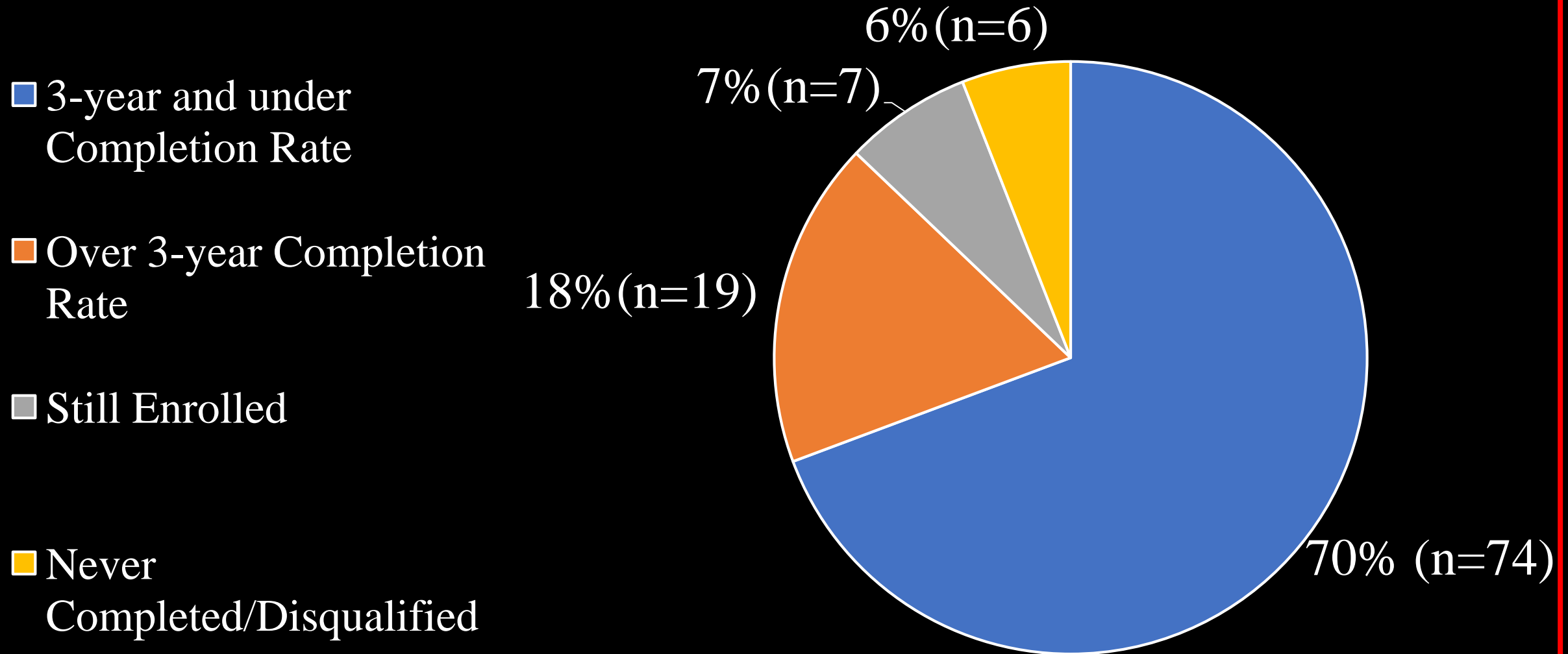
Methods

- Data sources and sample
 - AIMS² program data collected from 2011 – 2017 cohorts
 - Data updated to start-of-term Spring 2018
 - AIMS² transfer students only—primarily from Glendale Community College and College of the Canyons
 - CSUN Counts Institutional Data
- Data analysis procedures
 - Frequency analysis
 - Overall 2011-2014 cohort completion rate
 - Completion rates by gender, race/ethnicity, and major
 - Distribution of 2011-2017 cohort students still enrolled

“Big Picture” Overall Results

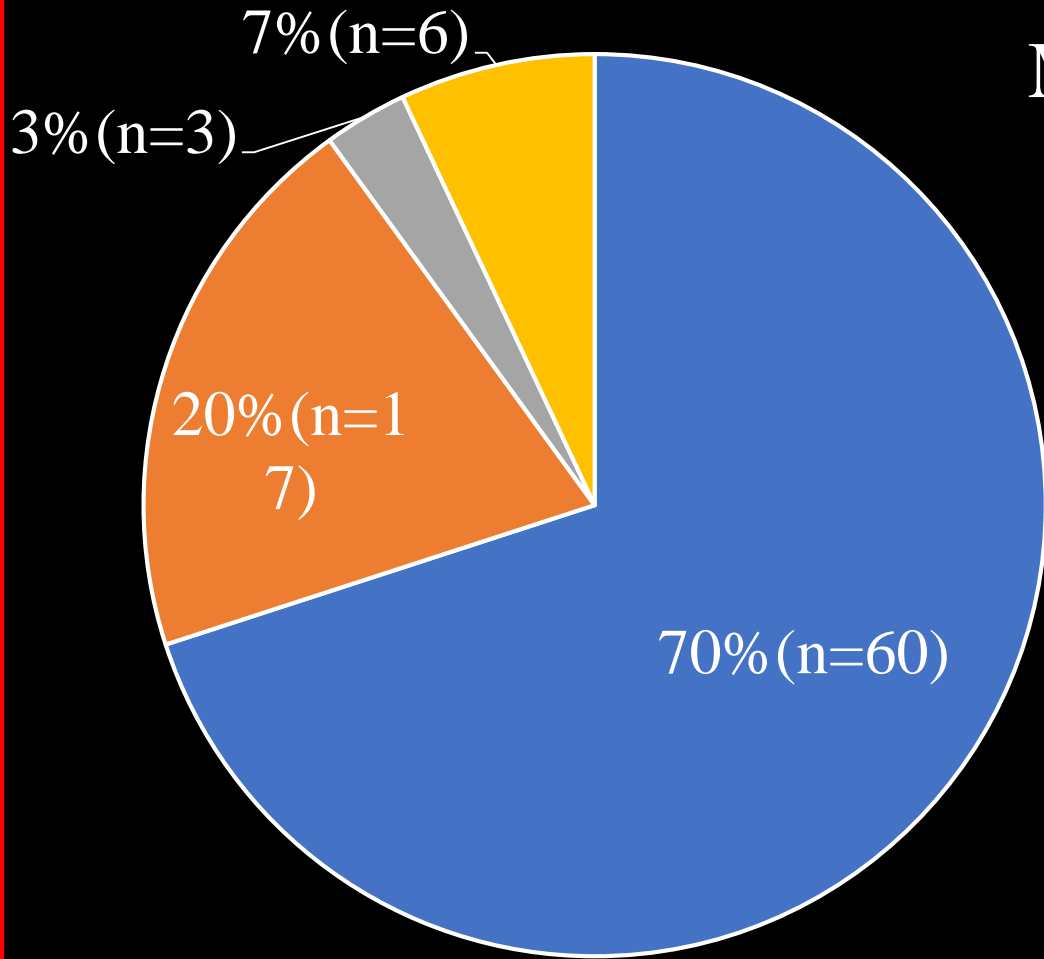
- Overall completion rate of 88% of students in 2011-2014 cohorts
 - 70% (n= 74/106) of students in cohorts 2011-2014 completed the program in 3 years or less.
 - 18% (n=19/106) of students in cohorts 2011-2014 completed in over 3 years.
- Gender
 - 70% (n=14/20) of females from cohorts 2011-2014 completed in 3 years or less.
 - 70% (n=60/86) of males from cohorts 2011-2014 completed in 3 years or less.
- Ethnicity
 - 65% (n=15/23) Hispanic students, 89% (n=24/27) White students, 75% (n=6/8) Asian students and 80% (n=4/5) non-specified students from 2011-2014 completed/3 years or less.
- Major
 - 80% (n=28/35) students from cohorts 2011-2014 majoring in Mechanical Engineering completed in 3 years or less.
 - 63% (n=10/16) students from cohorts 2011-2014 majoring in Electrical Engineering completed in 3 years or less.

AIMS² Program Completion Rate (Fall 2011 - 2014 Cohorts)



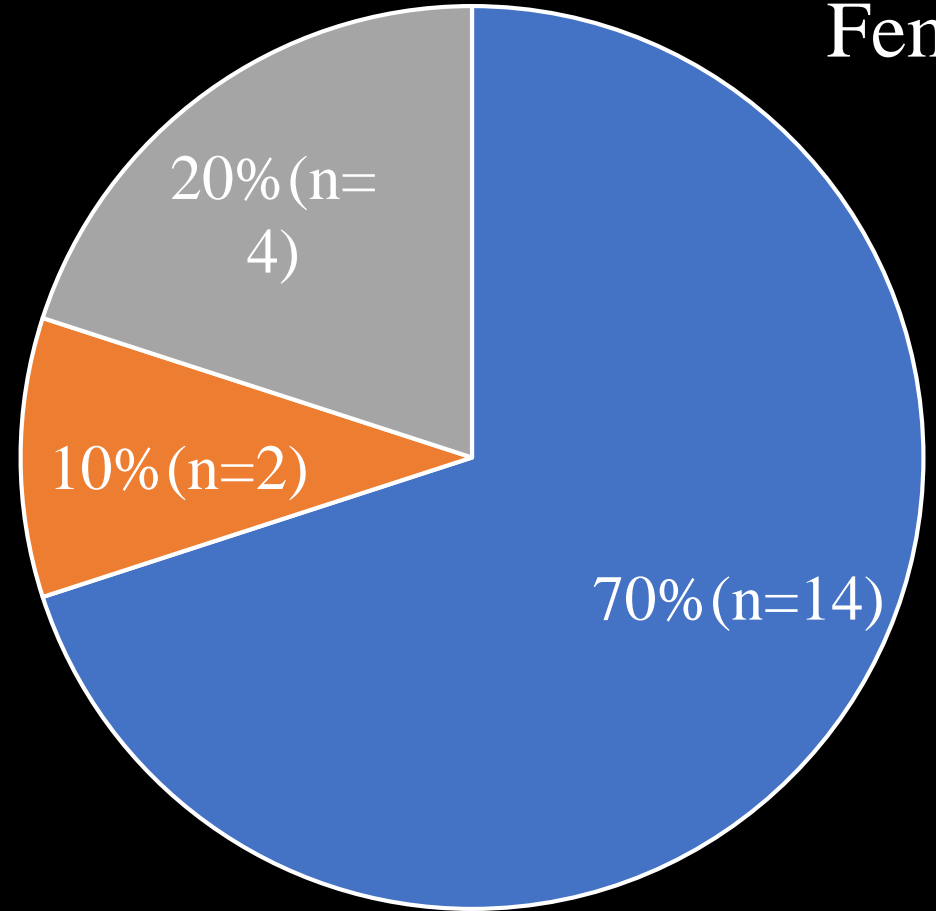
Completion Rate by Gender (Fall 2011 - 2014)

Males



- 3-year and under Completion Rate
- Over 3-year Completion Rate
- Still Enrolled
- Never Completed/Disqualified

Females



- 3-year and under Completion Rate
- Over 3-year Completion Rate
- Still Enrolled

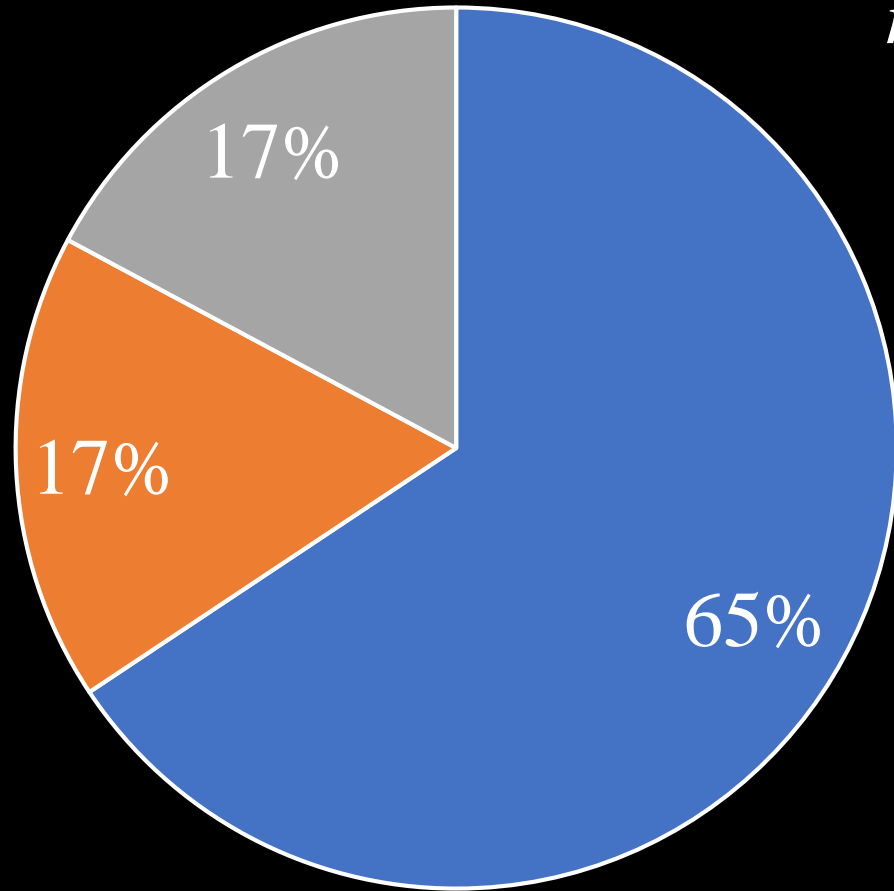
Overall 3-year Completion Rate by Ethnicity (Fall 2011 - 2014)

Ethnicity/Race	< 3-year Completion Rate	> 3-year Completion Rate	Total Completion/Non-completion Rate
Hispanic	65% (n=15/23)	17% (n=4/23)	82% (n=19/23)
White	89% (n=24/27)	4% (n=1/27)	93% (n=25/27)
Asian	75% (n=6/8)	13% (n=1/8)	88% (n=7/8)
Non-specified	80% (n=4/5)	20% (n=1/5)	100% (n=5/5)

*No reported completion rate of African American students from cohorts Fall 2011-2014

Completion Rate: 2011-2014 Hispanic Cohort

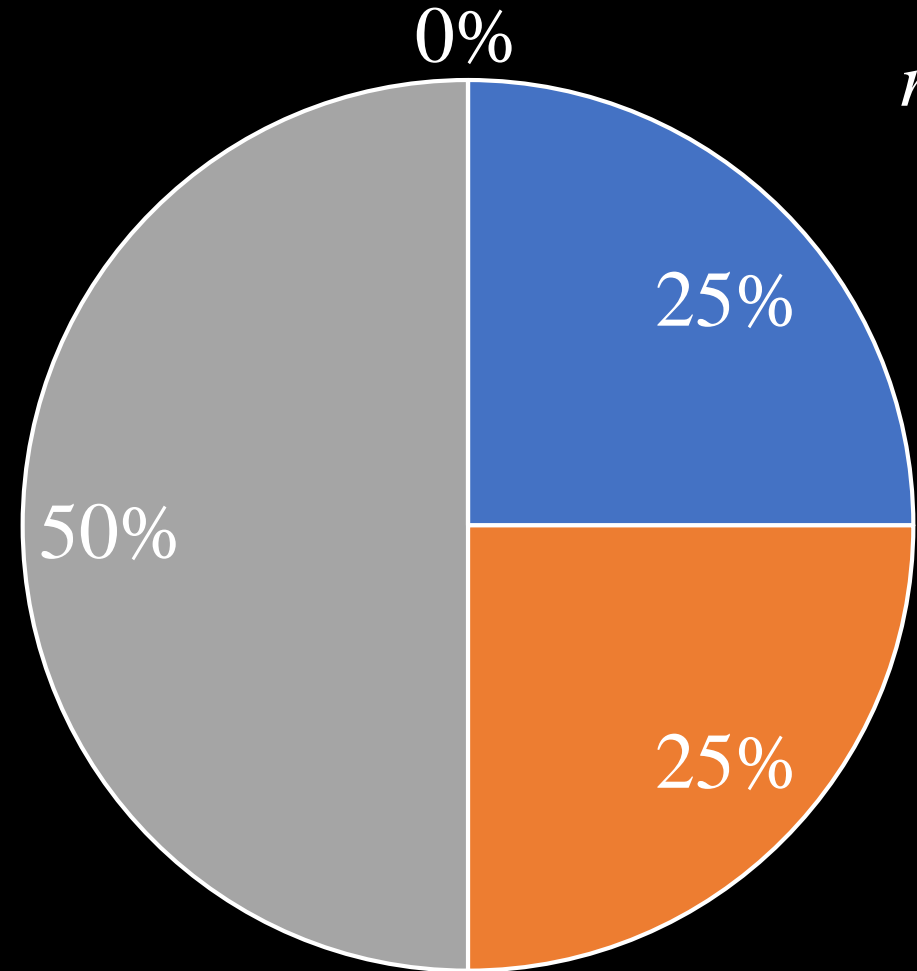
$n = 23$



- 3-year and under Completion Rate
- Over 3-year Completion Rate
- Still Enrolled

Distribution of Students Still Enrolled by 2011-2014 Cohort: Hispanic

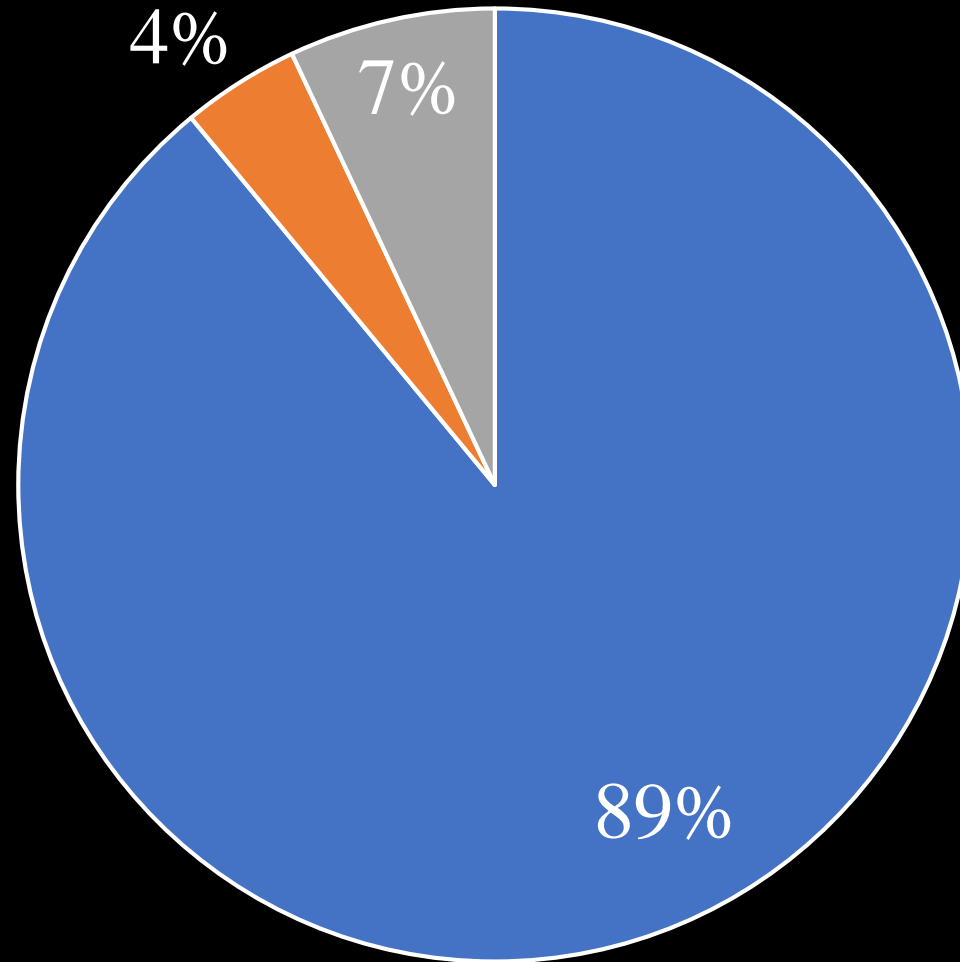
$n = 4$



- Fall 2011
- Fall 2012
- Fall 2013
- Fall 2014

Completion Rate: 2011-2014 White Cohort

- 3-year and under
Completion Rate
- Over 3-year
Completion Rate
- Still Enrolled



n = 2 from Fall 2014
are still enrolled

n = 27

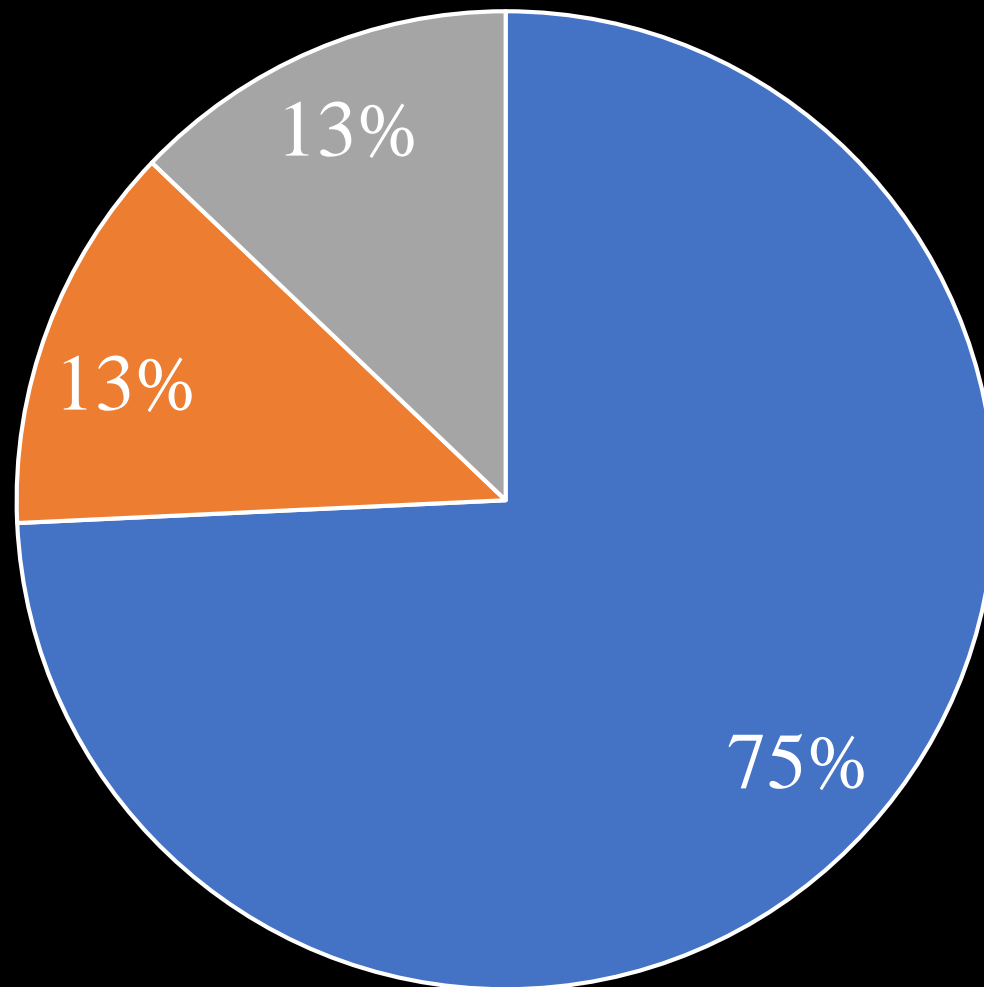
Completion Rate: 2011-2014 Asian Cohort

■ 3-year and under
Completion Rate

■ Over 3-year
Completion Rate

■ Still Enrolled

$n = 1$ from Fall
2013 is still enrolled

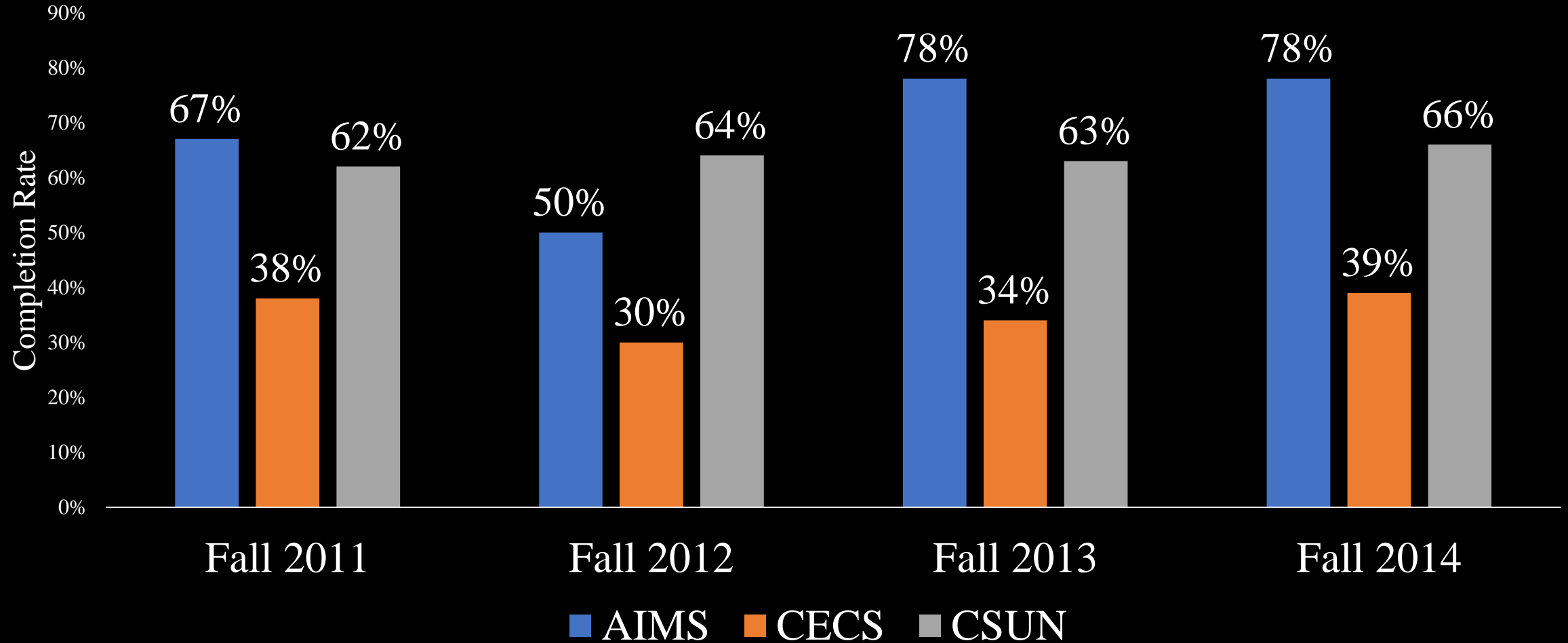


$n = 8$

3-year Completion Rate by CECS Major (Fall 2011 - 2014)

Major	< 3-year Completion Rate	> 3-year Completion Rate	Total Completion/Non-completion Rate
Mechanical Engineering	80% (n=28/35)	14% (n=5/35)	94% n=(33/35)
Computer Science	44% (n=4/9)	22% (n=2/9)	66% (n=7/9)
Civil Engineering	56% (n=9/16)	25% (n=4/16)	81% (n=13/16)
Electrical Engineering	63% (n=10/16)	19% (n=3/16)	82% (n=13/16)
Manufacturing Systems Engineering	100% (n=3/3)	0% (n=0/3)	100% (n=3/3)
Computer Engineering	60% (n=3/5)	20% (n=1/5)	80% (n=4/5)
Computer Info. Tech.	80% (n=4/5)	20% (n=1/5)	100% (n=5/5)
Construction Management	67% (n=6/9)	33% (n=3/9)	100% (n=9/9)
Computer Science & Applied Math	100% (n=1/1)	0% (n=0/1)	100% (n=1/1)
Engineering Management	100% (n=1/1)	0% (n=0/1)	100% (n=1/1)

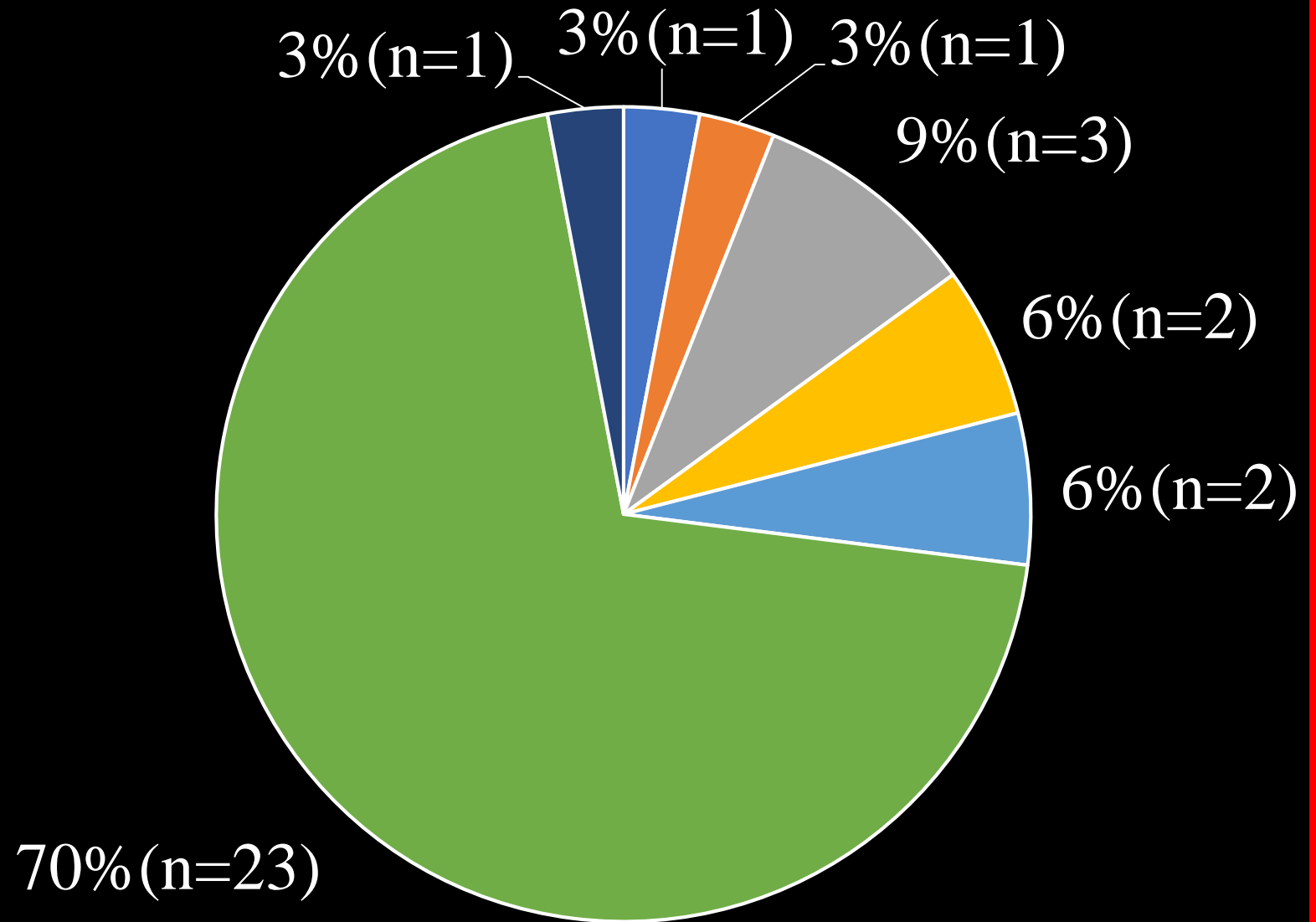
3-year Completion Rate by AIMS² Cohort, CECS & CSUN (Fall 2011 – 2014)



*Data source: CSUN Counts
Pell Grant recipients, Transfer students

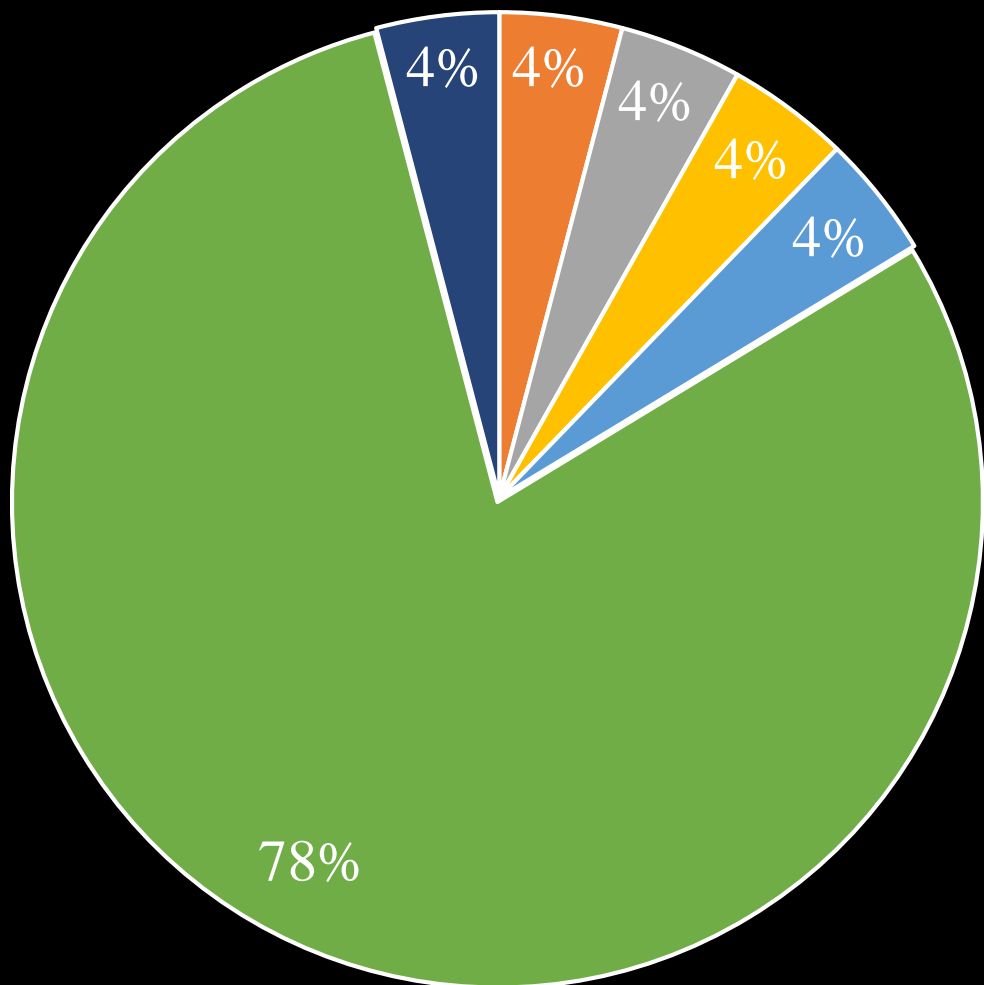
Distribution of AIMS² Students Still Enrolled (Fall 2011 - 2017 Cohorts)

- Fall 2011
- Fall 2012
- Fall 2013
- Fall 2014
- Fall 2015
- Fall 2016
- Fall 2017



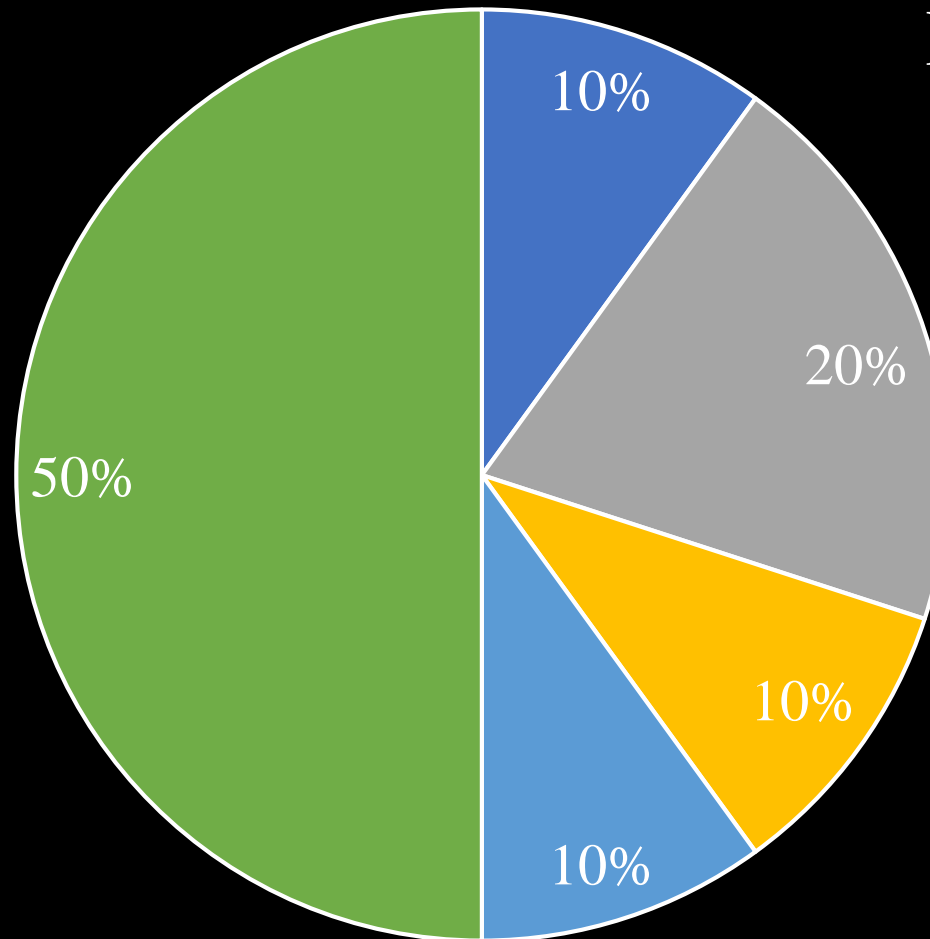
Distribution of AIMS² Students Still Enrolled by Gender (Fall 2011 - 2017 Cohorts)

Males



- Fall 2012
- Fall 2013
- Fall 2014
- Fall 2015
- Fall 2016
- Fall 2017

Females



- Fall 2011
- Fall 2013
- Fall 2014
- Fall 2015
- Fall 2016

Discussion and Limitations

- Overall, 88% of AIMS² students from Fall 2011-2014 cohorts completed the program, and 70% of students from these cohorts completed the program in 3 or fewer years.
- Slightly lower completion rates for female students—but still enrolled!
- Generally high completion rates of students by race/ethnicity with lower overall rates for Hispanic students.
- 3-year completion rates in the AIMS² program were higher than completion rates in the College of Engineering and Computer Science.
- Limitations
 - Scope of study's focus on completion rates of AIMS² students.
 - Lack of understanding of influencing factors that impact completion.