



Stony Brook University

# THE GRADUATION GENDER GAP: WHY FEWER MEN GRADUATE

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**Braden J. Hosch, Ph.D.**

**Associate Vice President for Institutional Research, Planning & Effectiveness**

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# Overview

Why do men graduate from college at lower rates than women?

- 1) Gender-specific challenges.
- 2) Women have historically been better students.

What can we do to improve equity?

# Stony Brook University Profile

**26,608**

Fall 2021 headcount enrollment

**1340**

Avg SAT 2021 Incoming Freshmen (test optional)

**94**

Avg HS GPA 2021 Incoming Freshmen

**68%** **32%**

Undergrad Graduate

**1/3**

Receive Pell Grants

**33%** **20%**

White URM

**15,365**

Fall 2021 employees including hospital

**2,866**

Fall 2021 Faculty full-time & part-time

**#93**

U.S. News & World Report Rank 2022

**3.8 Billion**

USD Annual Budget

**1957**

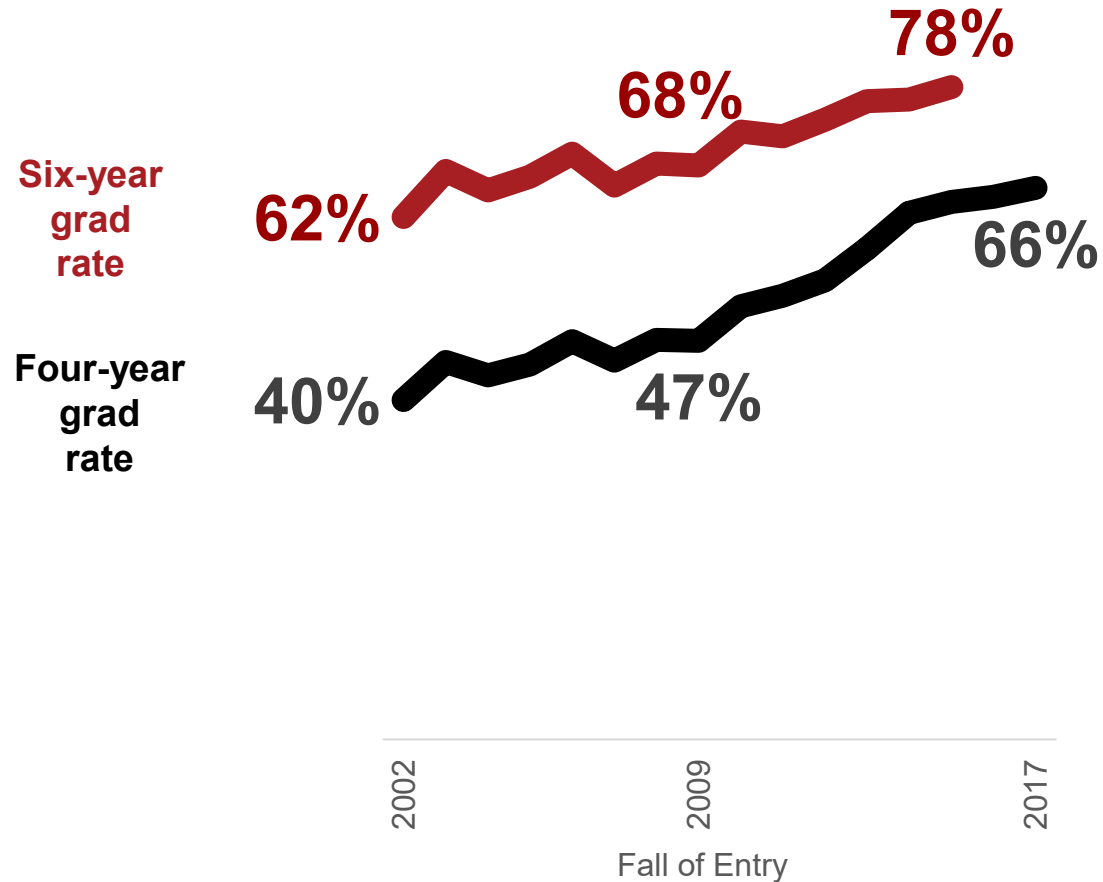
Founded

**2001**

Joined AAU



# First-time, full-time 4-year graduation rates have increased 18 percentage points in the last seven years



Over 8 years

**18** ↑  
percentage point increase  
in 4-yr grad rate

**10** ↑  
percentage point increase  
in 6-yr grad rate

## Economic benefit to students

**2,984**

additional students graduated on time

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**\$215 million**

economic benefit to students

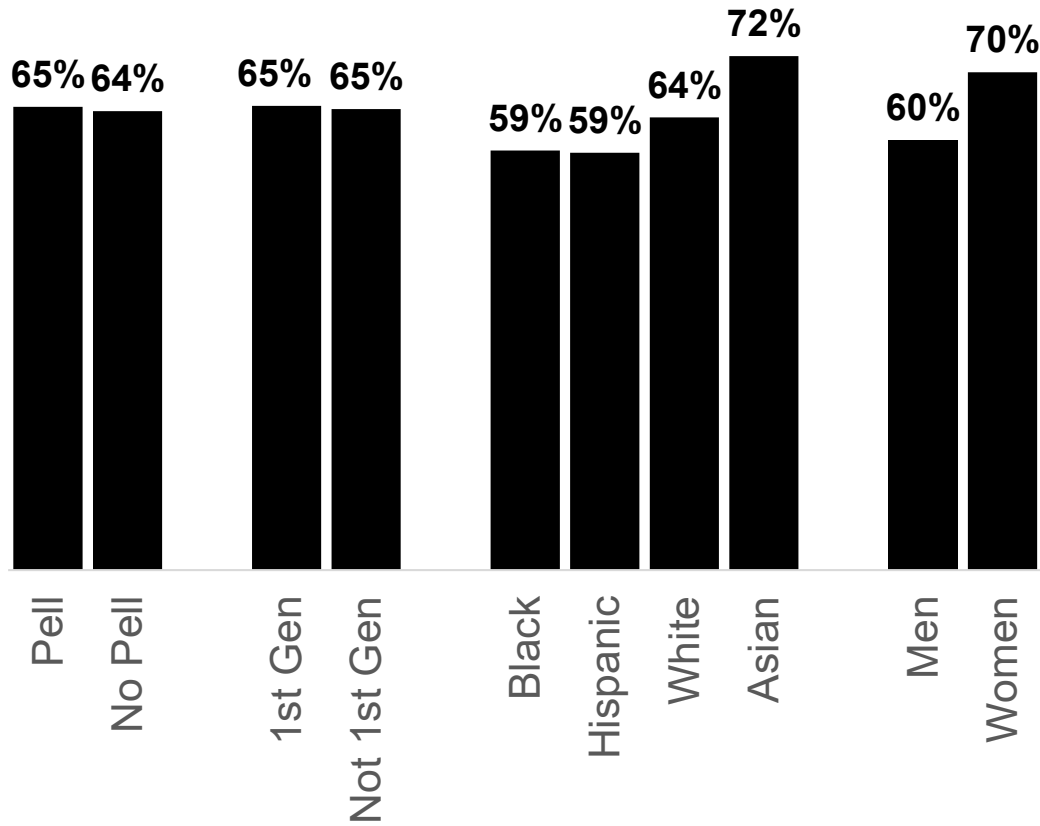
**\$41 million** saved in tuition & fees

**\$174 million** in additional earning capacity

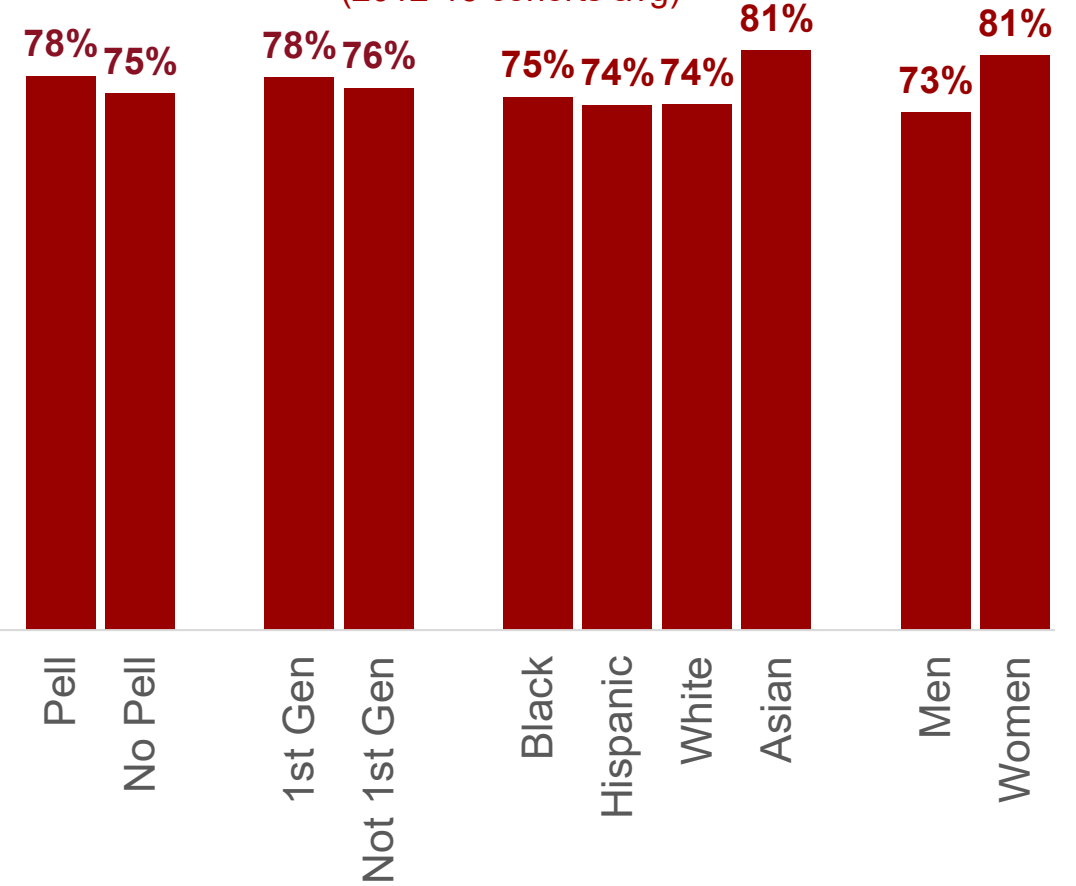


# Equity gaps in graduation rates are largely closed

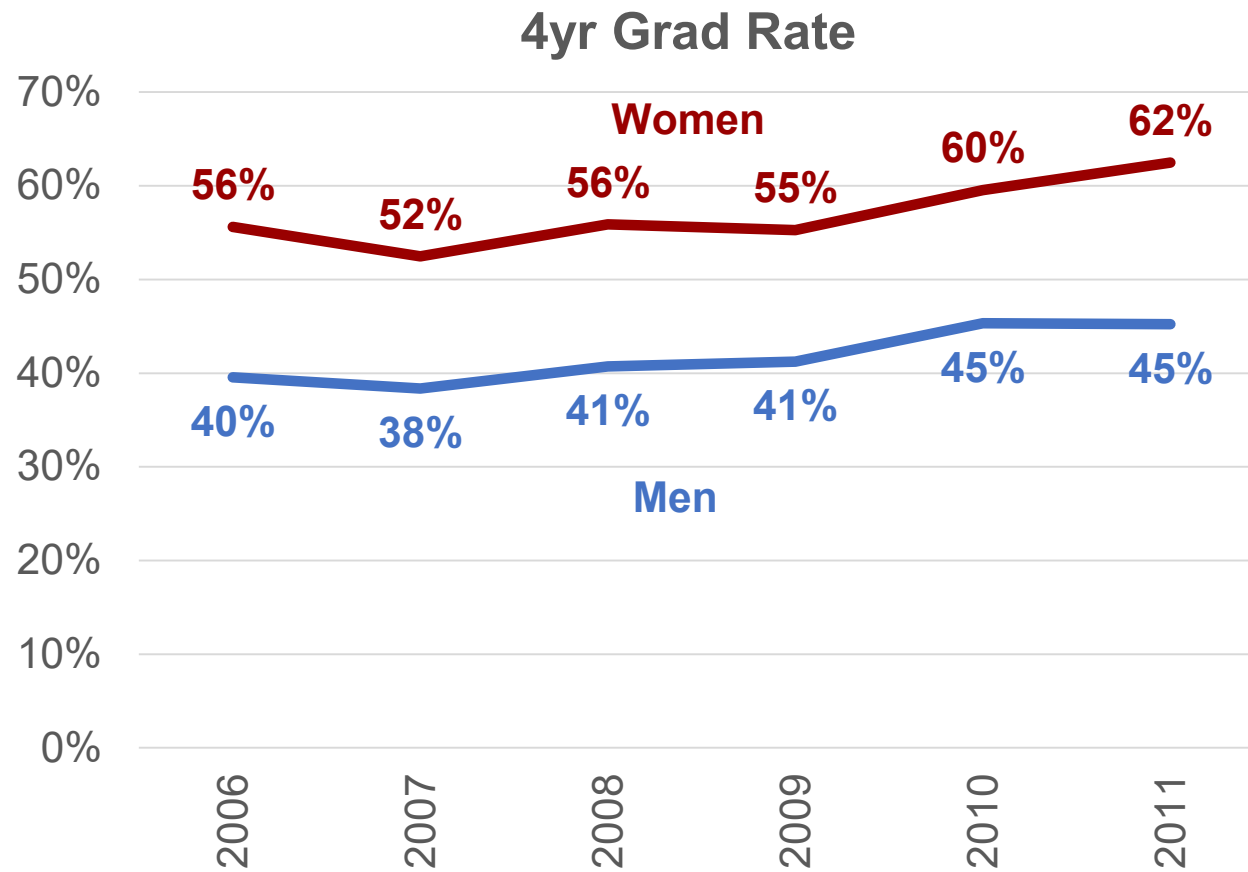
**4-year grad rate**  
(2014-17 cohorts avg)



**6-year grad rate**  
(2012-15 cohorts avg)



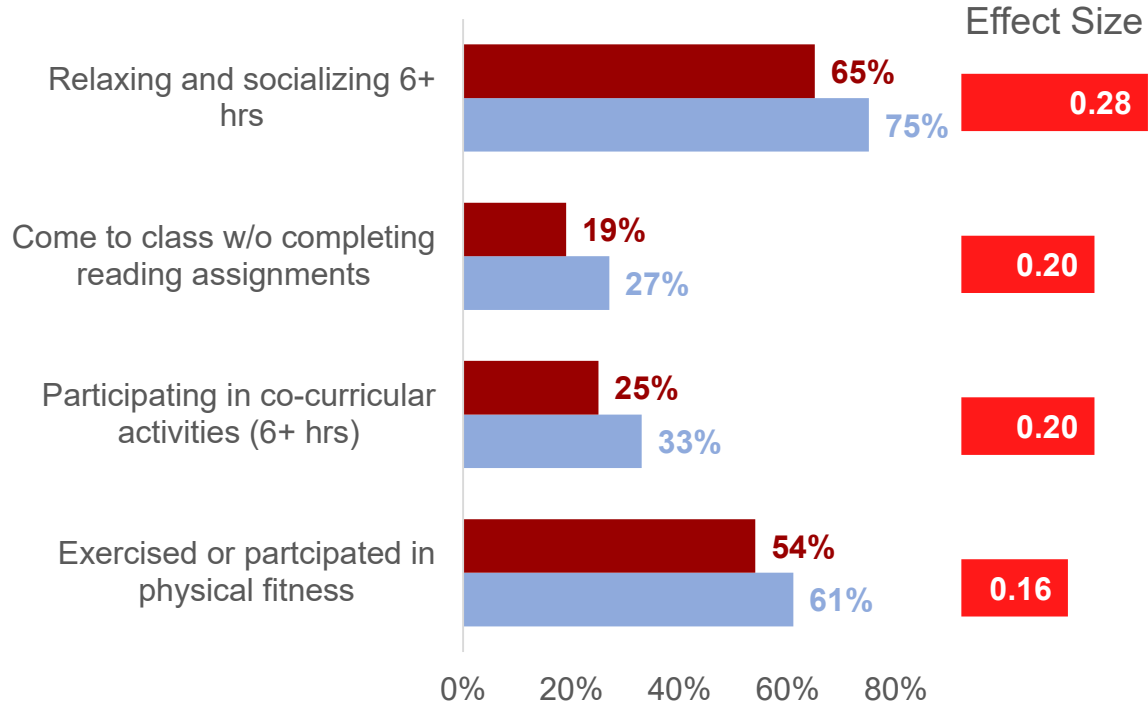
# 4-year graduation rates by gender



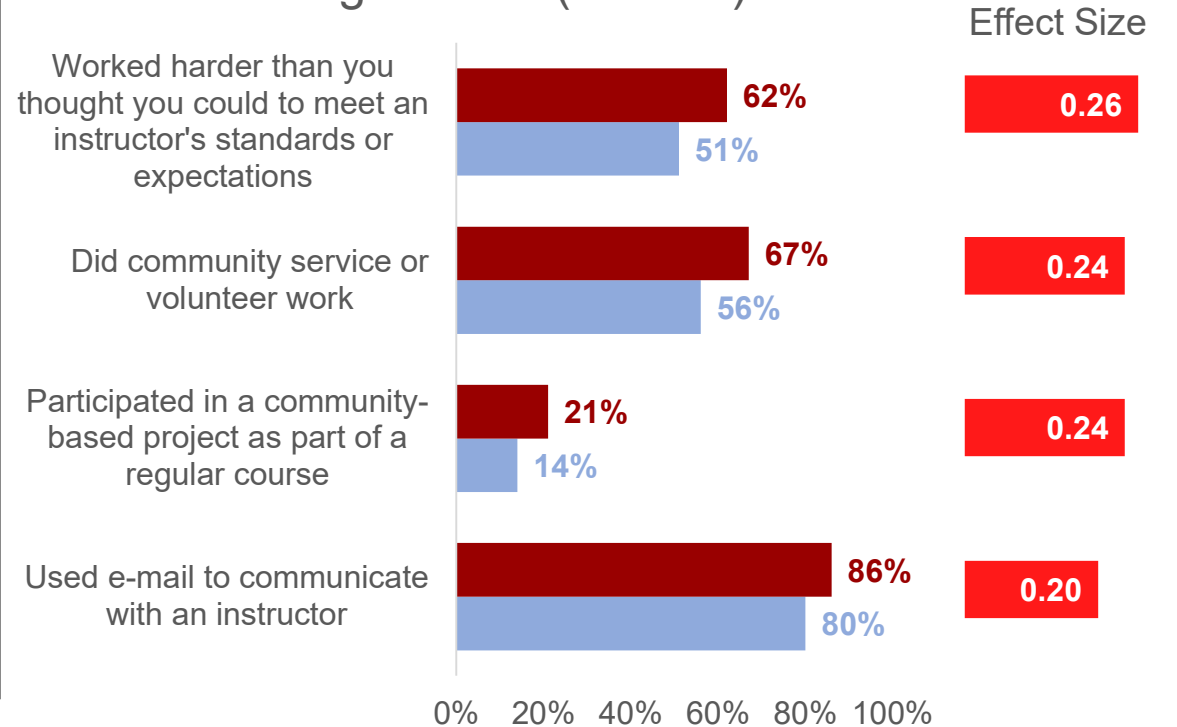
**17**  
percentage  
point gender  
gap

# National NSSE results show that women spend more time than men on educationally enriching activities; men spend more time than women on non-academic activities

Top activities more prevalent among men (seniors)



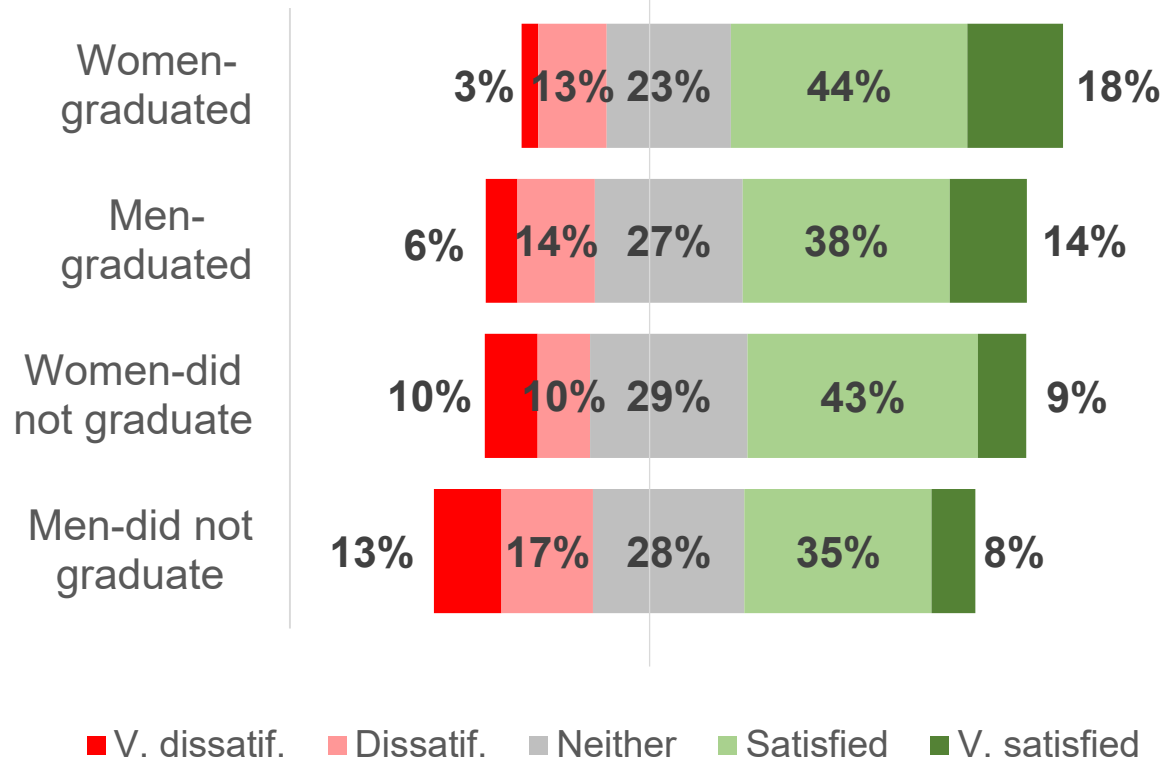
Top activities more prevalent among women (seniors)



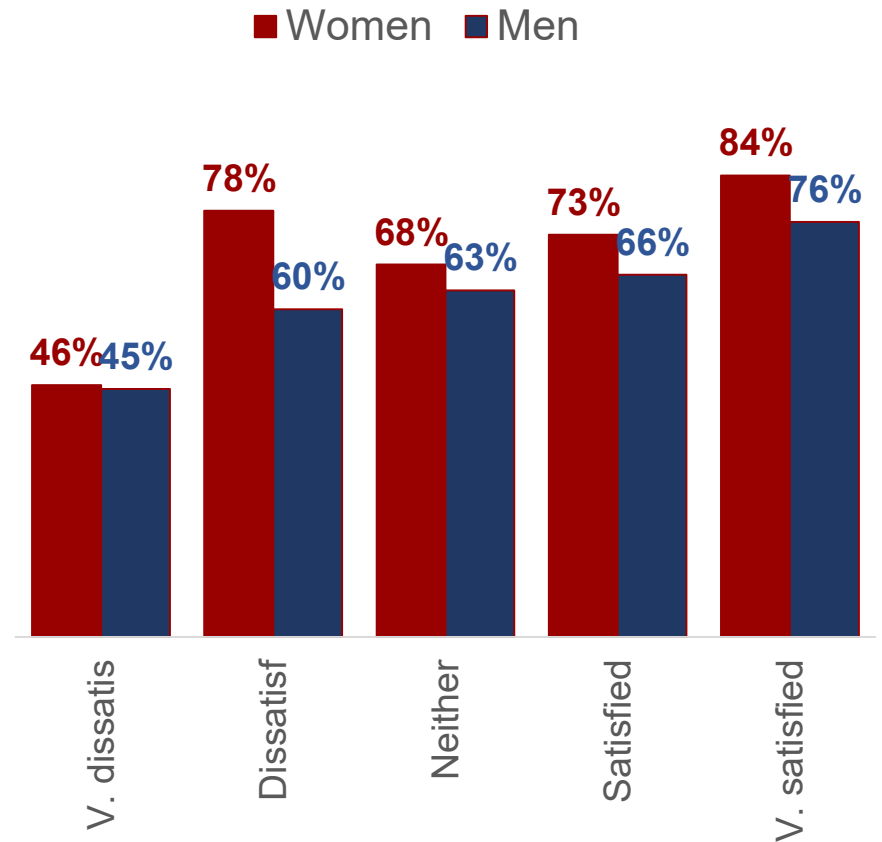


# Sense of belonging – Stony Brook Undergraduates

Rate your level of satisfaction with your sense of belonging on this campus



4-Year Grad Rate By Gender and Sense of Belonging



# Focus group findings from men at Stony Brook

## Emotional & developmental readiness

- Compared to women, men described themselves as
- Less organized
- Less resilient
- Less likely to take notes
- Less willing to ask for help, more self-reliant
- Less able to form support networks, make friends

## Alcohol & drugs

- College supposed to be best time of your life
- Parties more memorable than class
- Hard to drink in moderation
- Way to hide

## Video games

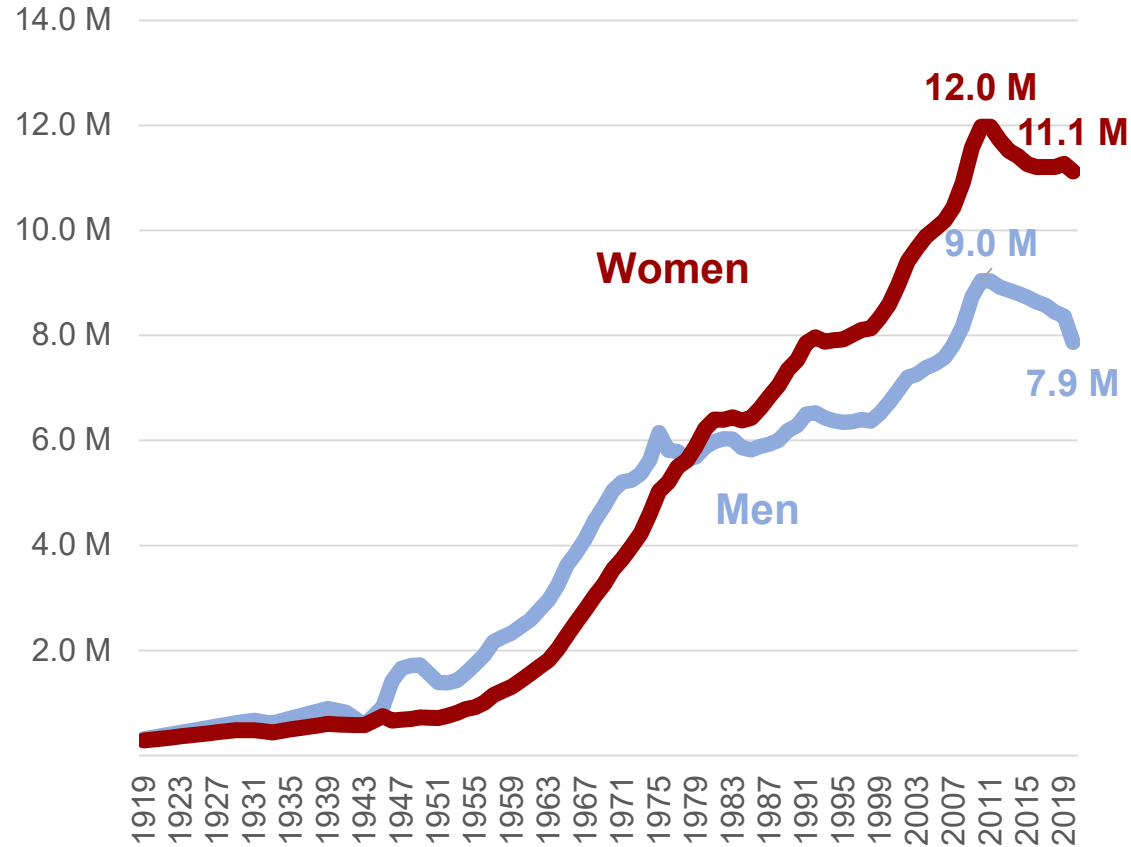
- Play games instead of sports or gym
- Outlet when you don't have anyone to talk to
- Facilitate procrastination
- Can be taken into class

## Sex & pornography

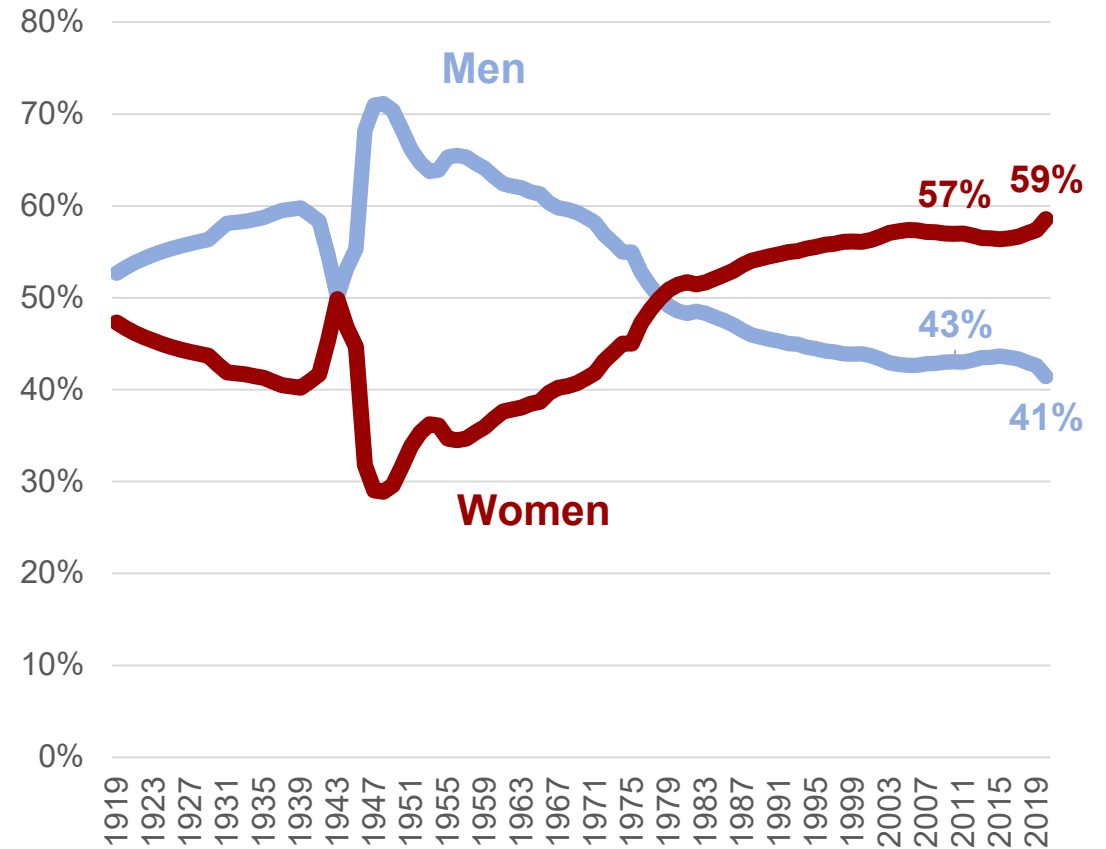
- Think about sex all the time
- College = opportunity for sexual freedom
- Stress over false accusations
- Pornography can become a black hole

# U.S. Higher Education Enrollment 1919 - 2020

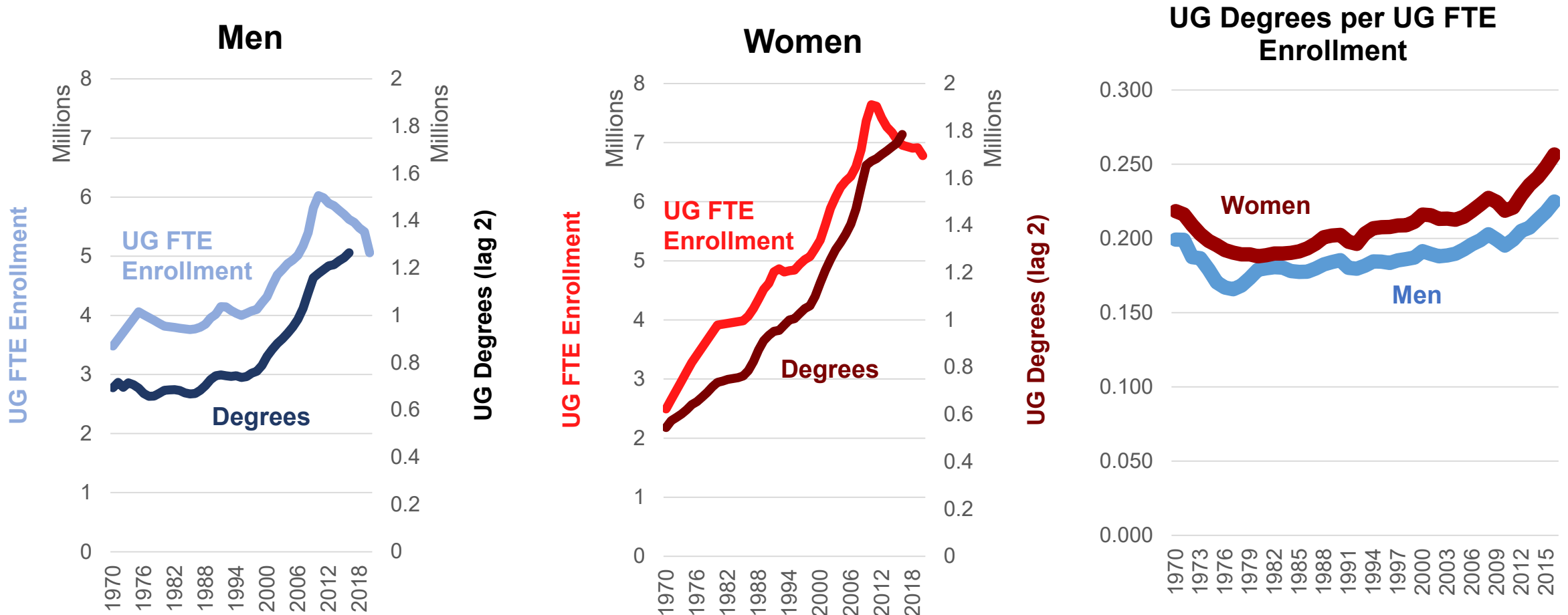
## Headcount by Gender



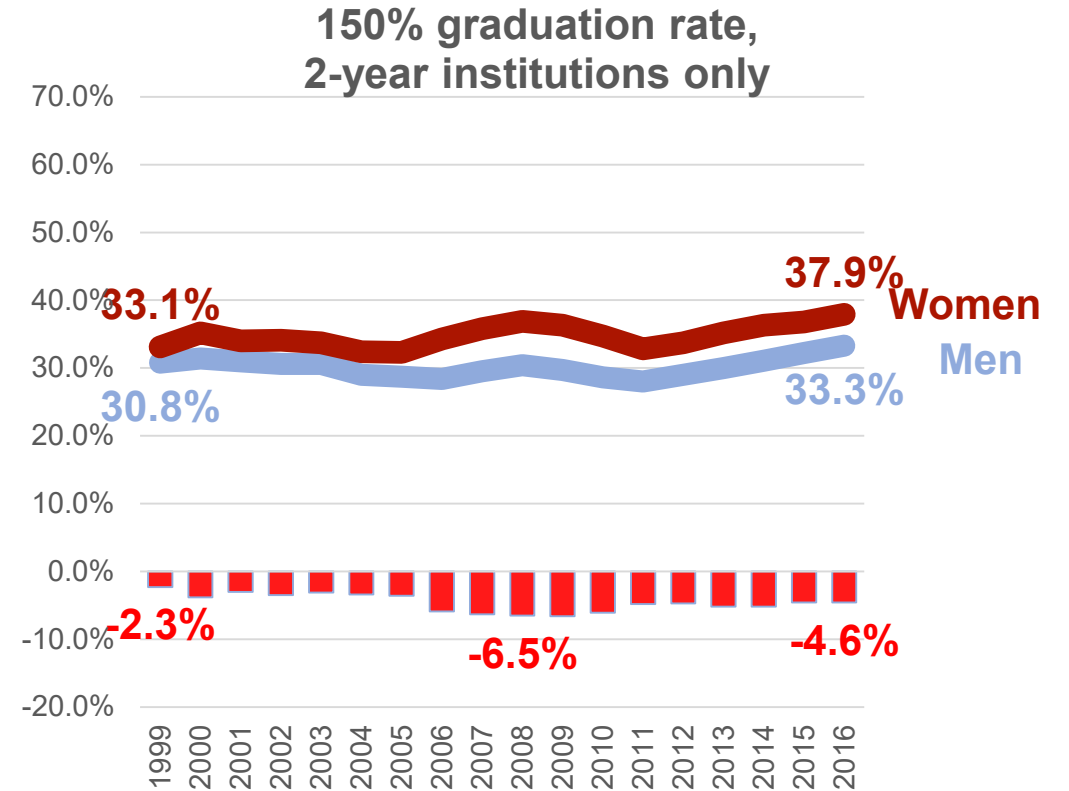
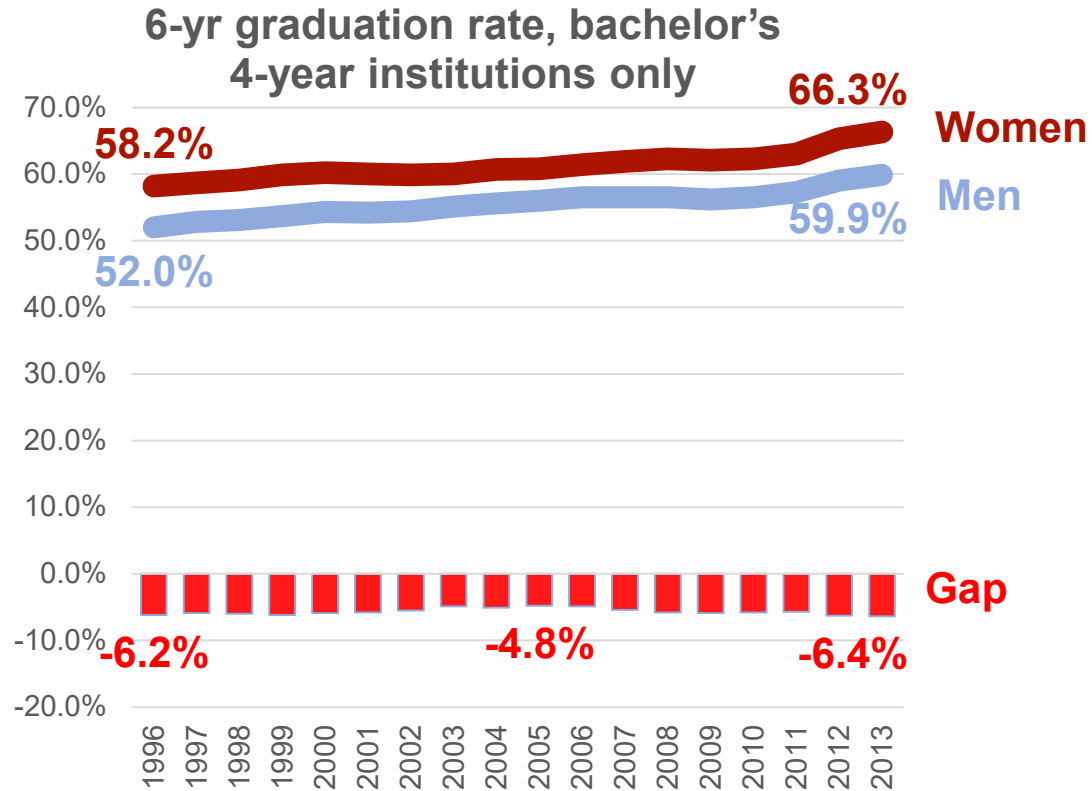
## Headcount Distribution by Gender



# UG FTE Enrollment, Degrees Awarded (lagged 2 years), and Degrees per FTE Enrollment, by Gender

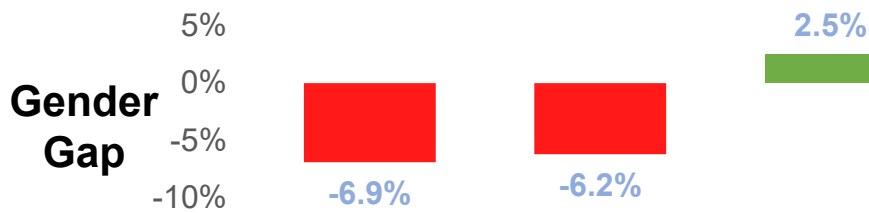
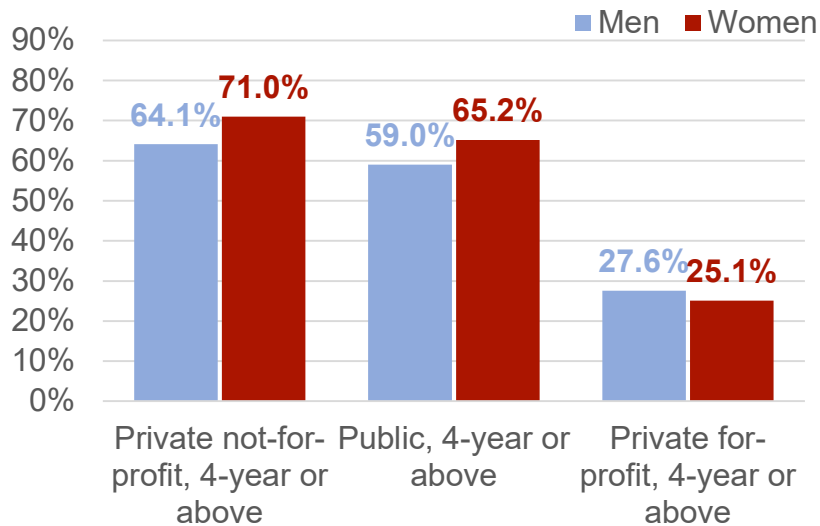


# Graduation rate gaps have been persistent through all IPEDS collections

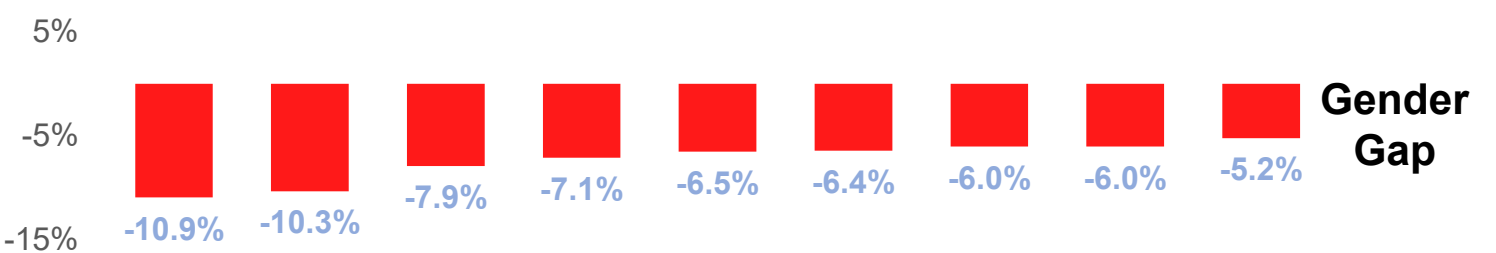
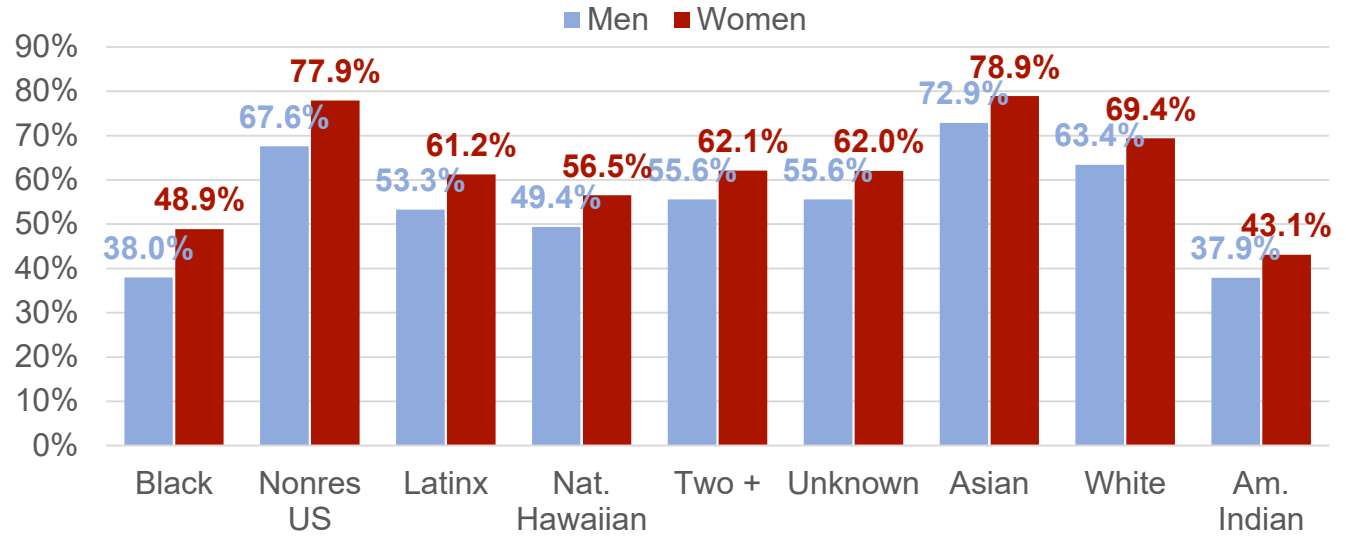


# Gender gaps differ by institutional sector and race/ethnicity but are pervasive across all types and groups

6-year graduation rates by institutional sector

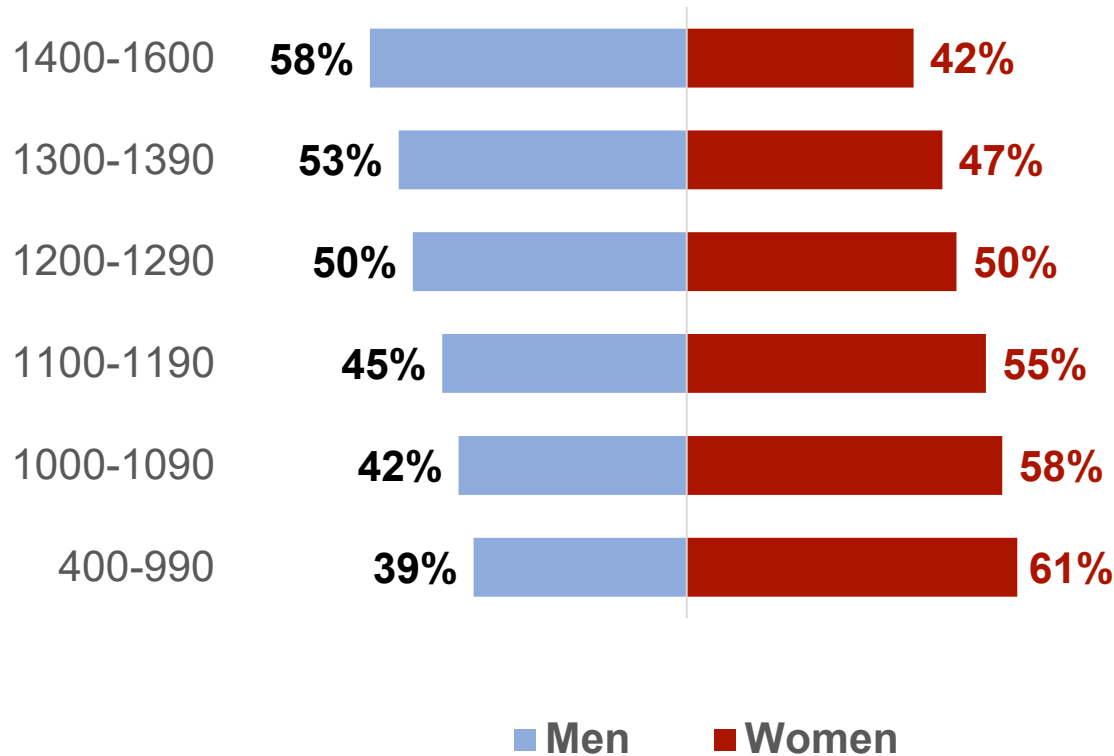


6-year graduation rates by student race/ethnicity

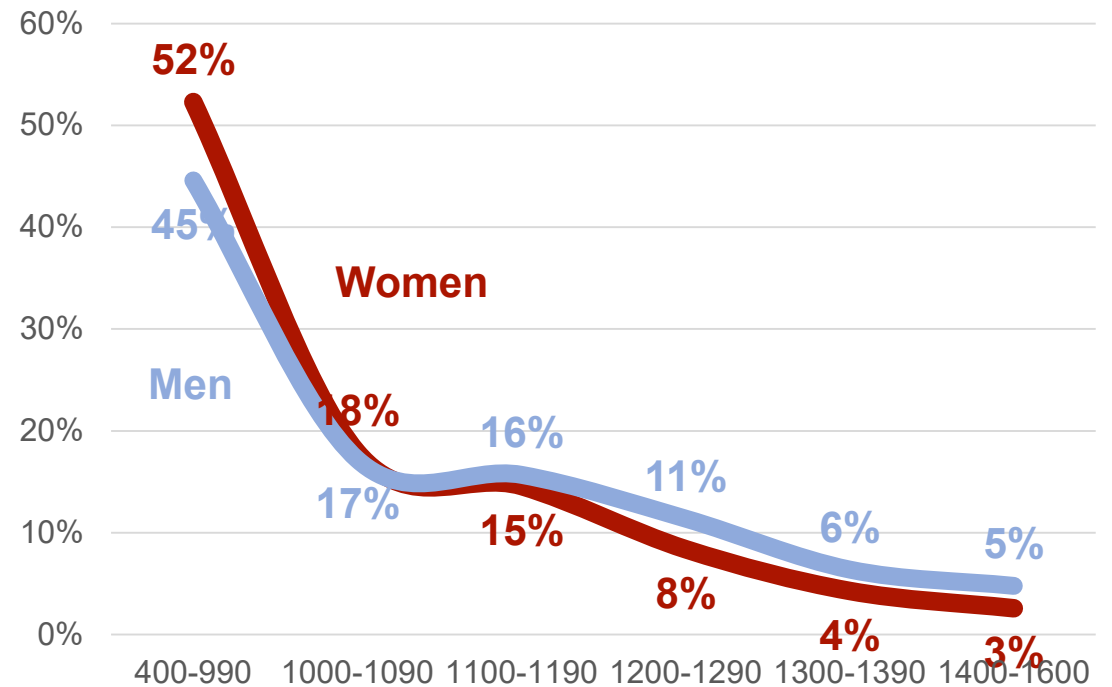


# Men in college scored higher on entry tests than women did – ALL INSTITUTIONAL TYPES

Gender Distribution of Entering College Freshmen by SAT Composite Score

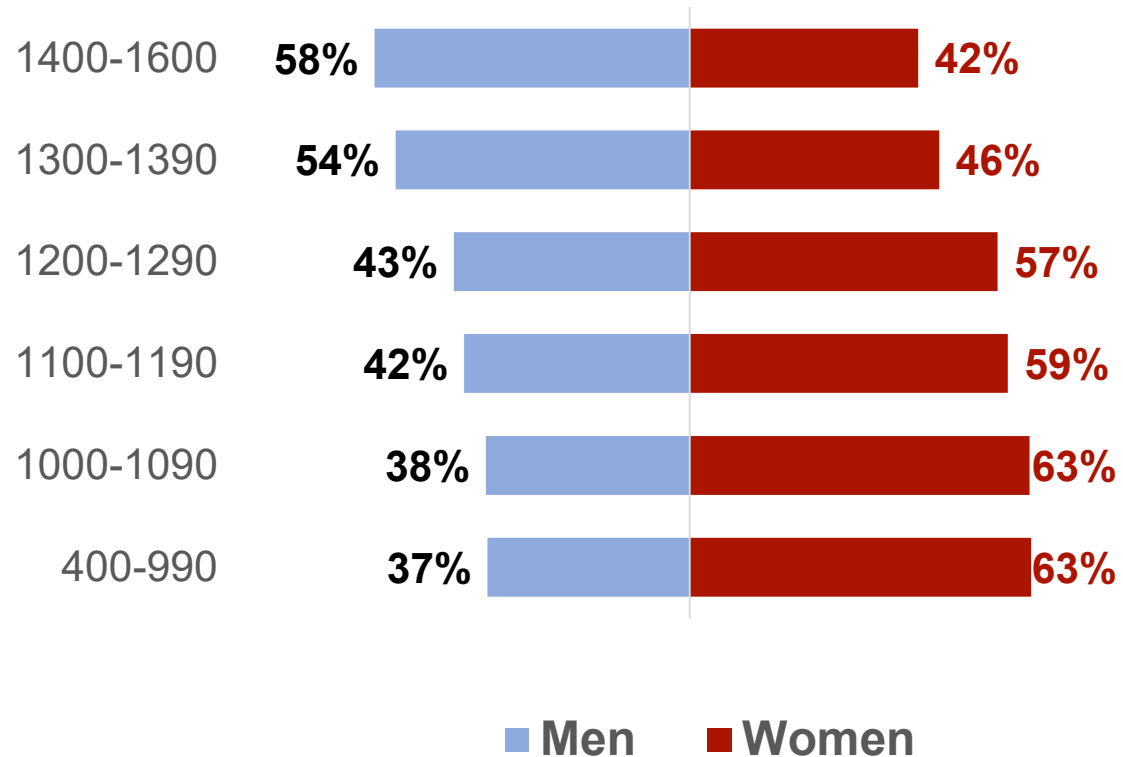


Distribution of Composite SAT Scores By Gender

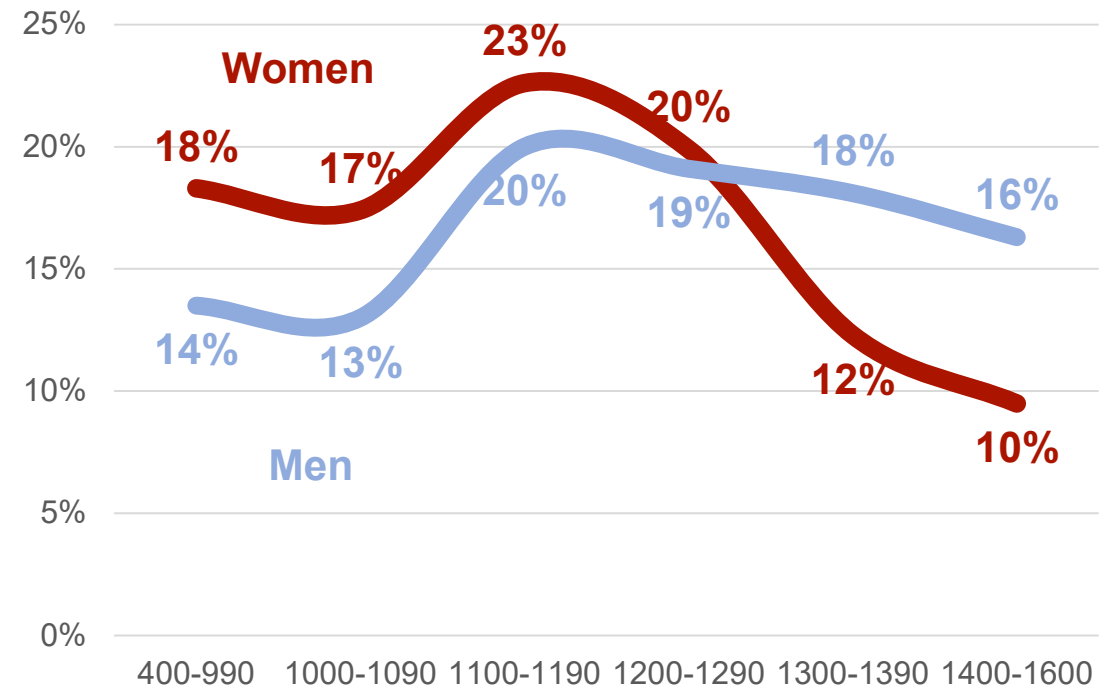


# Men in college scored higher on entry tests than women did – HIGHLY SELECTIVE INSTITUTIONS

Gender Distribution of Entering College Freshmen by SAT Composite Score



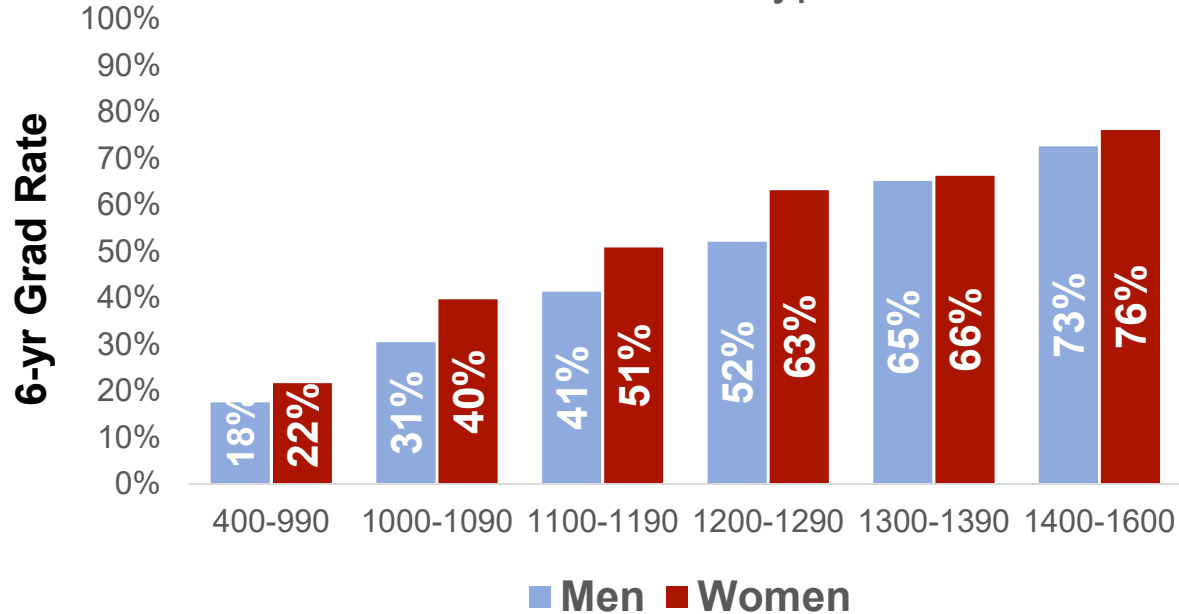
Distribution of Composite SAT Scores By Gender



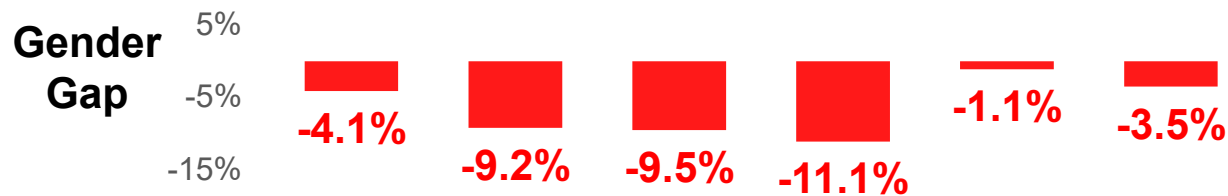
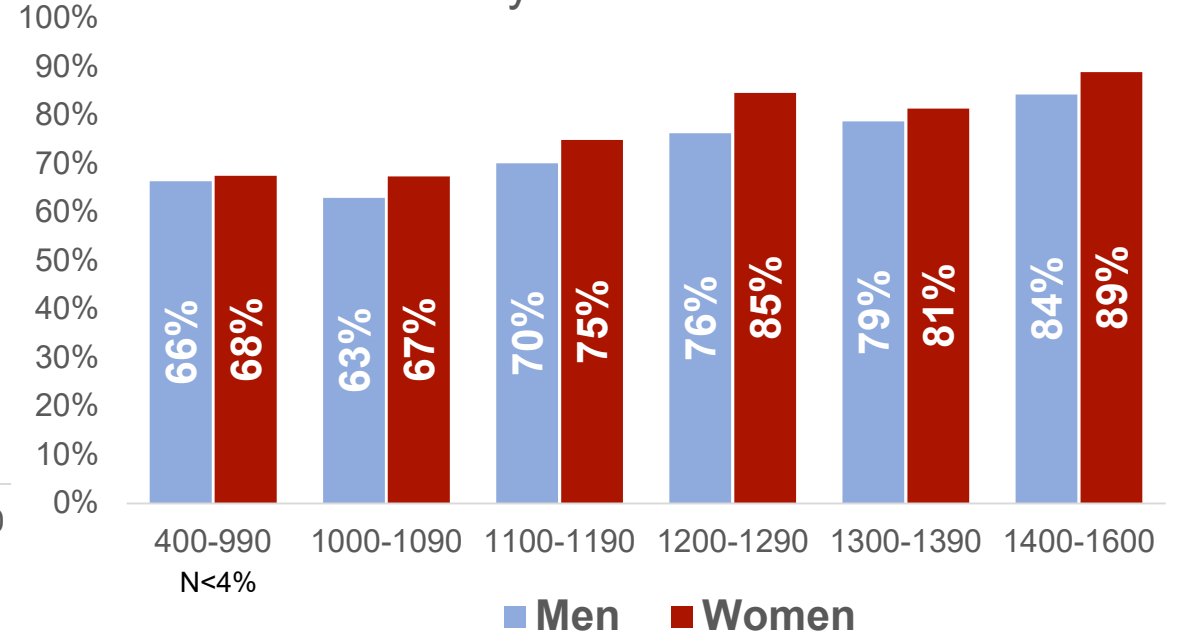


# The gender gap in graduation rates persists in national data when controlling for test scores

All institutional types

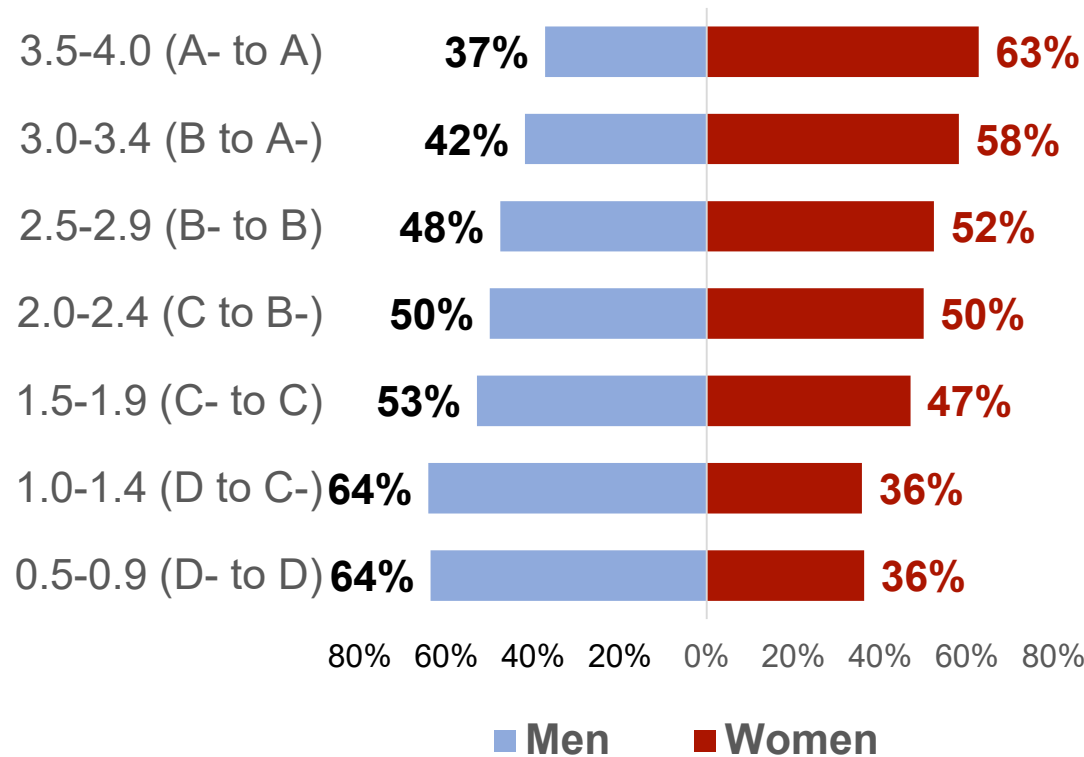


Very Selective

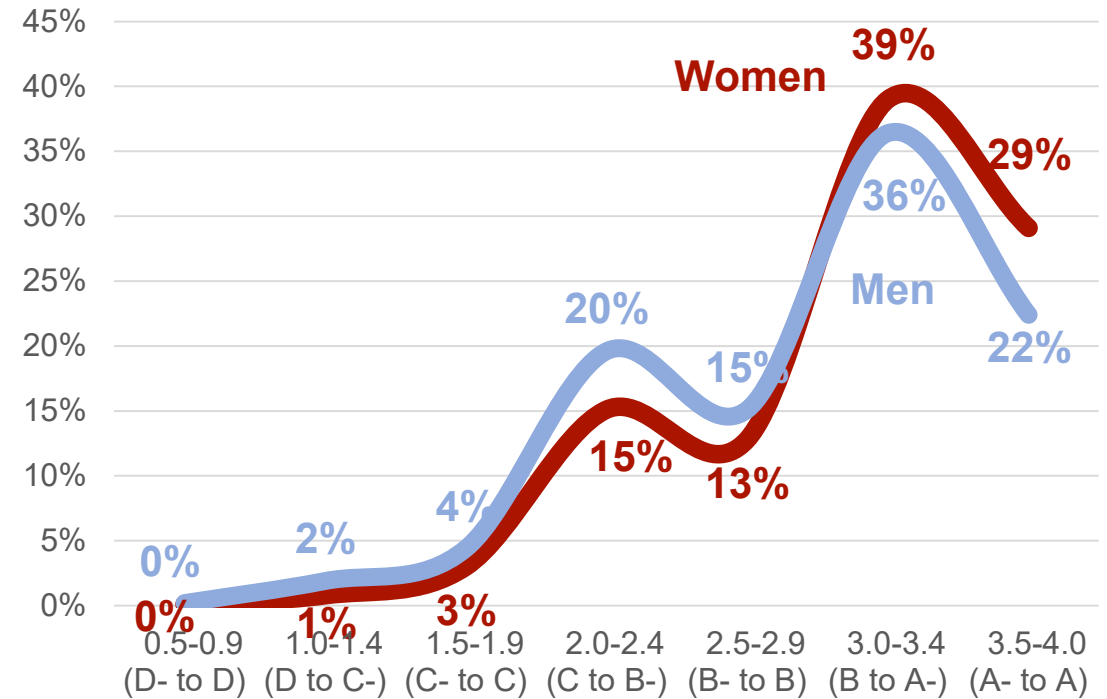


# Women in college earned higher grades in high school than men did – ALL 4-YEAR INSTITUTIONAL TYPES

Gender Distribution of Entering College Freshmen by HS GPA

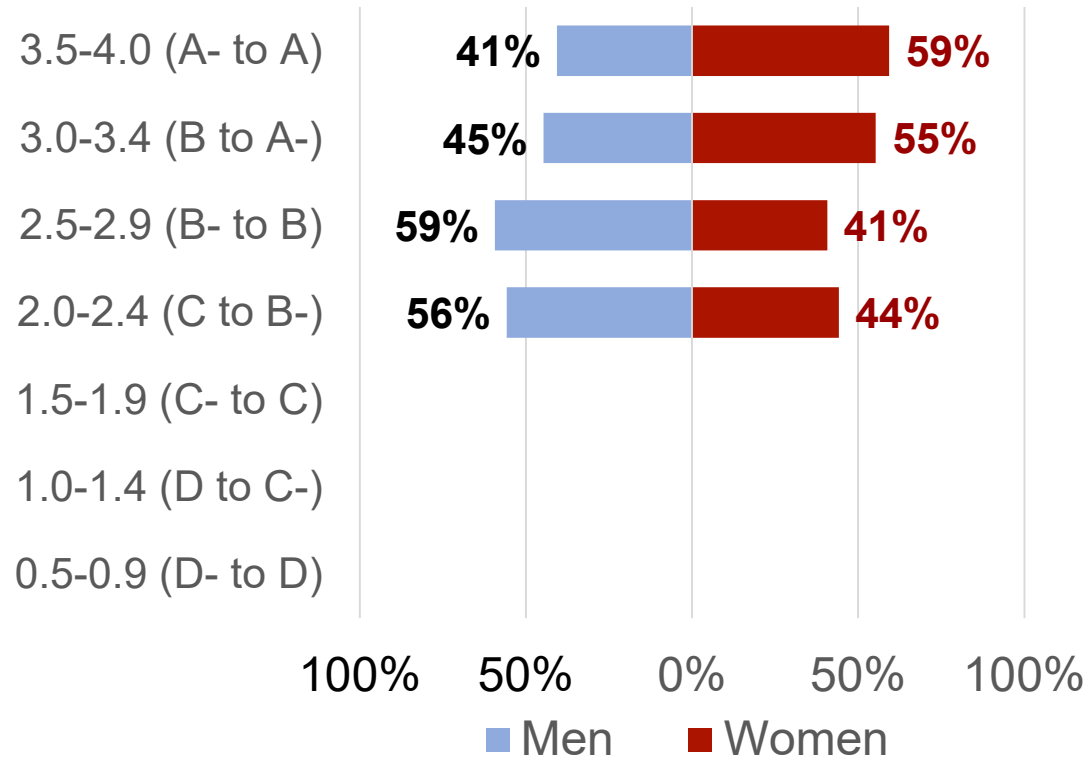


Distribution of HS GPA of Entering College Freshmen by Gender

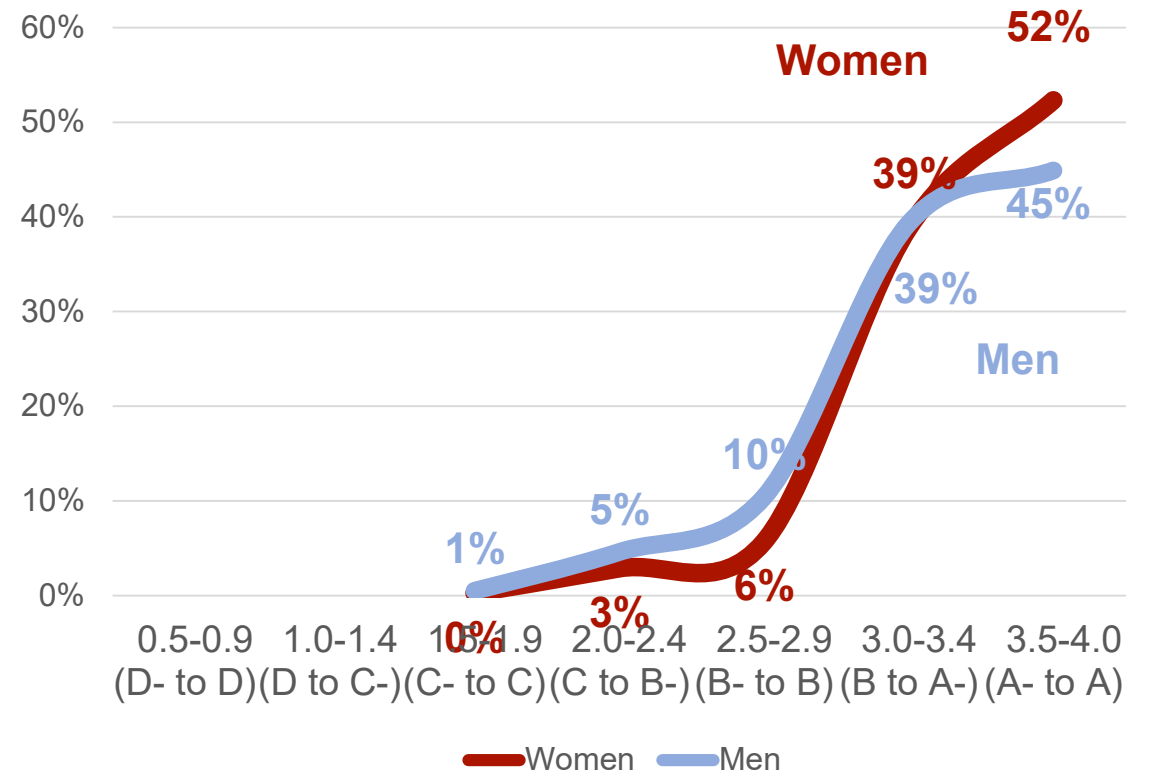


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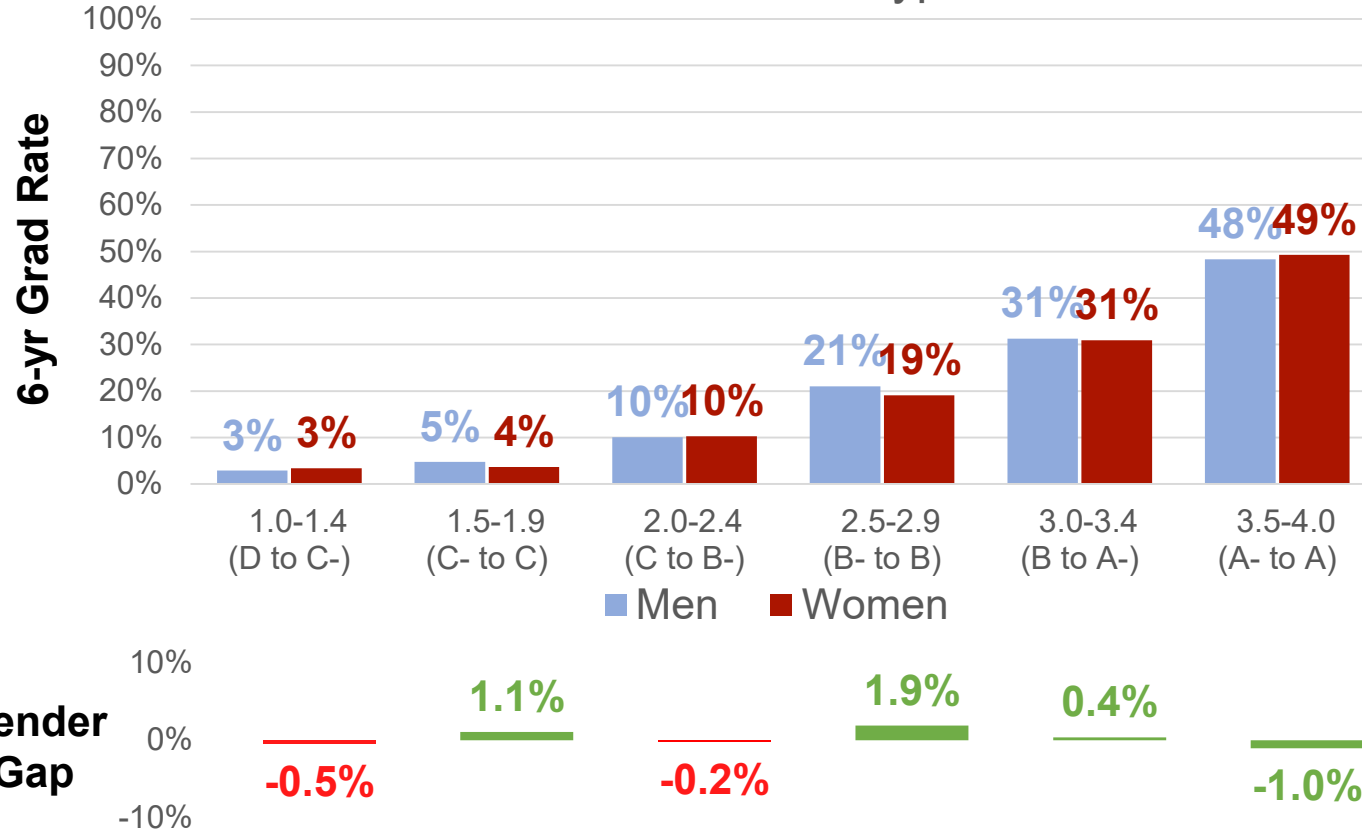


Distribution of HS GPA of Entering College Freshmen by Gender

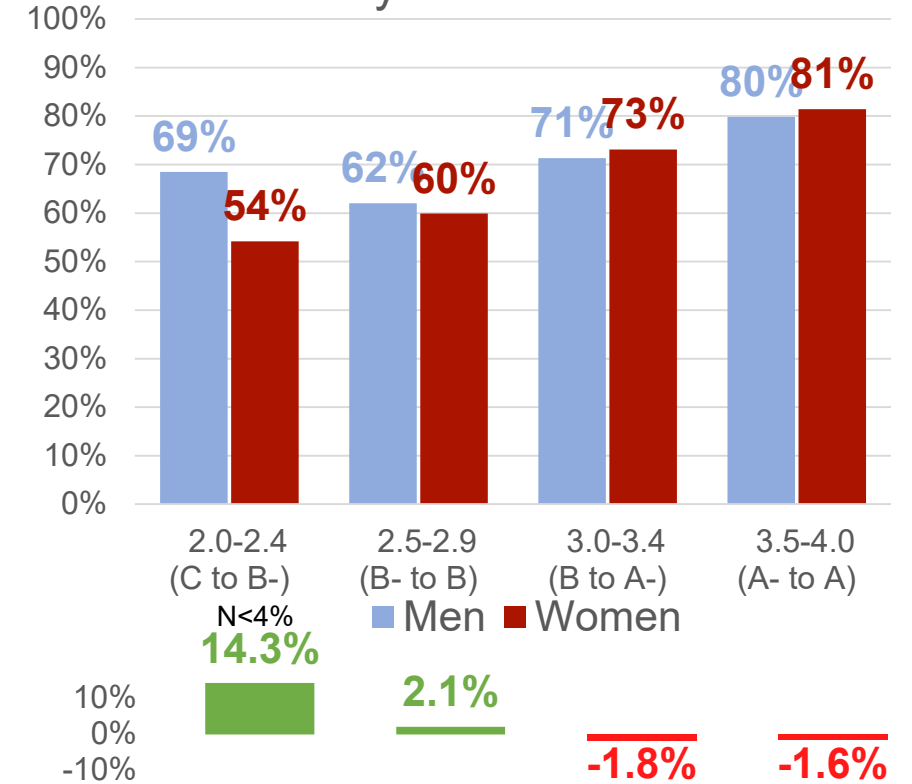


# The gender gap in graduation rates disappears in national data when controlling for HS GPA

All institutional types



Very Selective

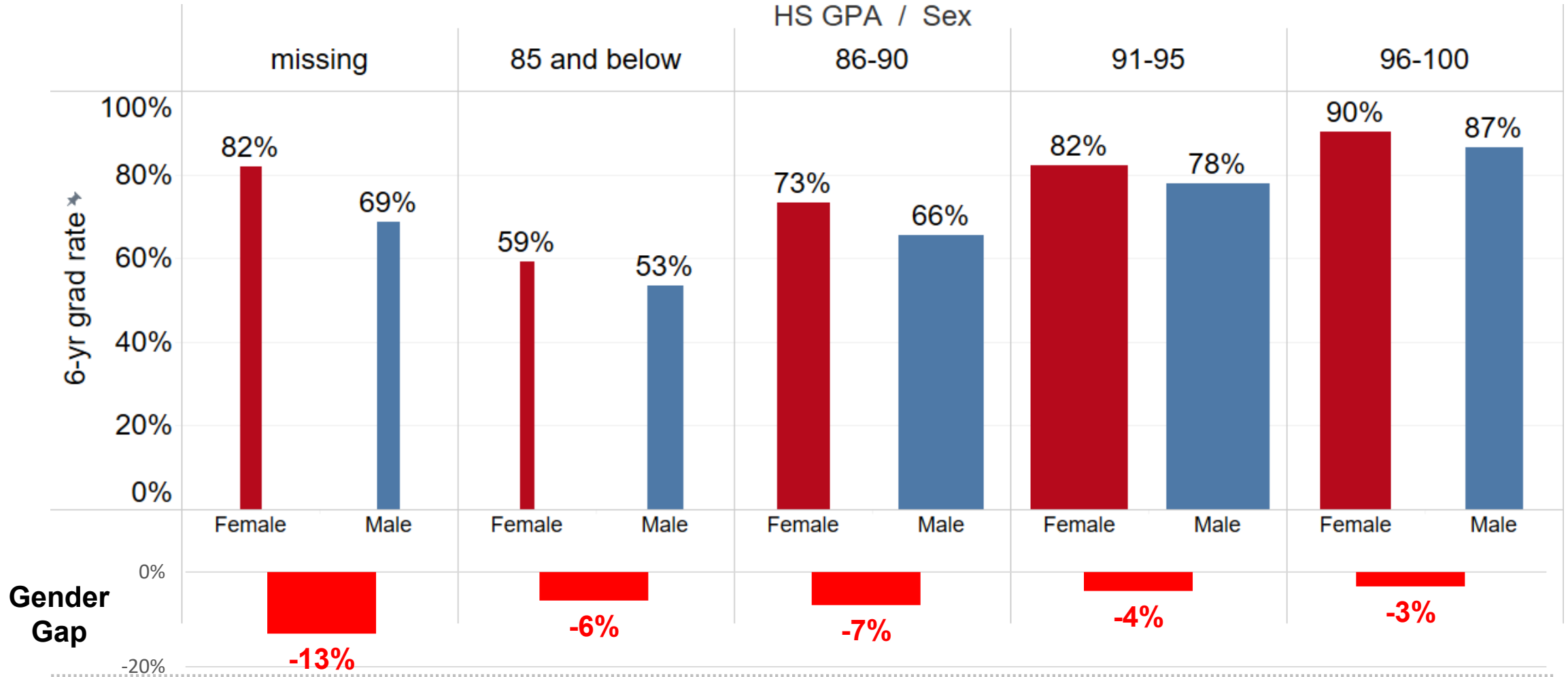


# Public system data

# Public Higher Education System Data

	Number of institutions	Number of First-Time, Full-Time Students entering in Fall 2014	6-Year Graduation Rate
Doctoral institutions excluding specialized institutions	<10	11,443	77%
Master's institutions excluding polytechs	10-15	13,350	69%
Polytechnics	5-10	5,712	35%
Total	24	30,505	66%

# Six-year graduation rates by gender & HS GPA Doctoral Institutions

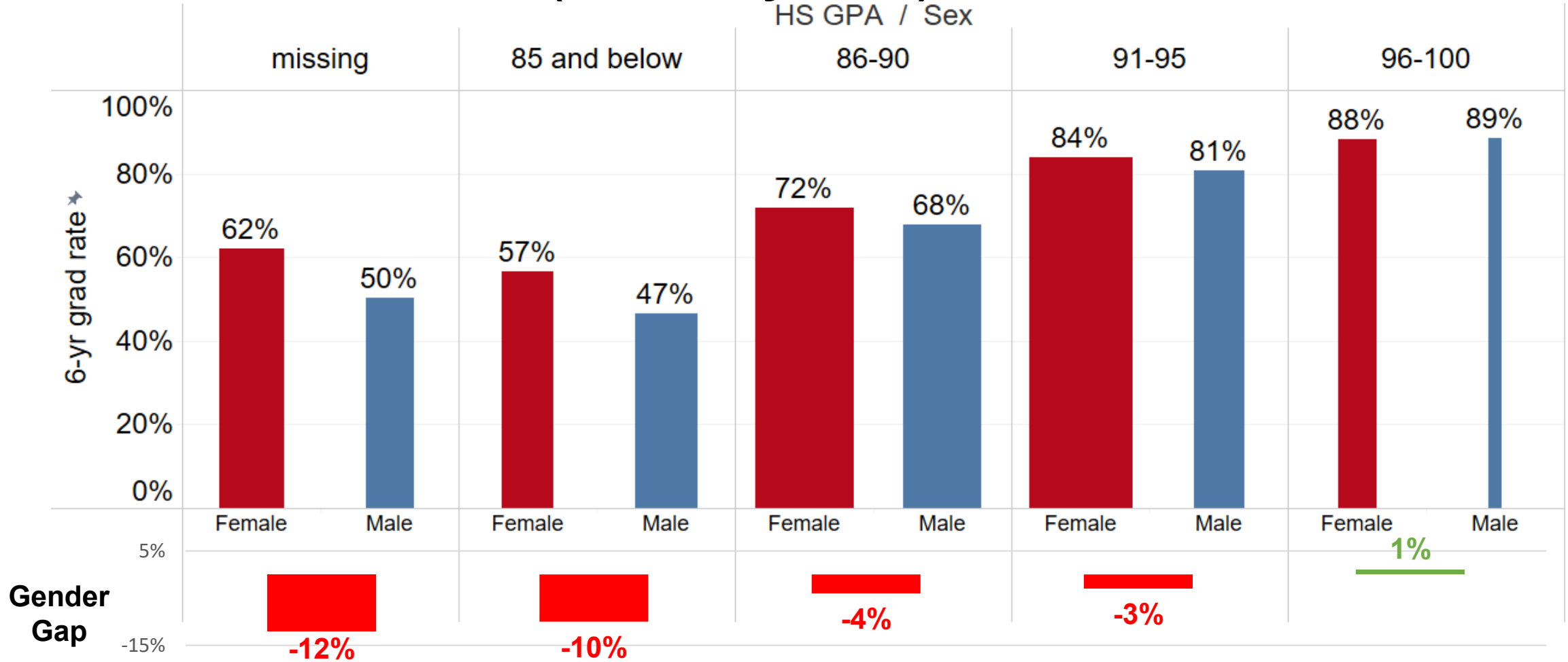


**FAR BEYOND**

Bar thickness represents size of cohort

Source: Unit records from a public higher education system, FT FT students entering in fall 2014

# Six-year graduation rates by gender & HS GPA Master's Institutions (excl. Polytechs)



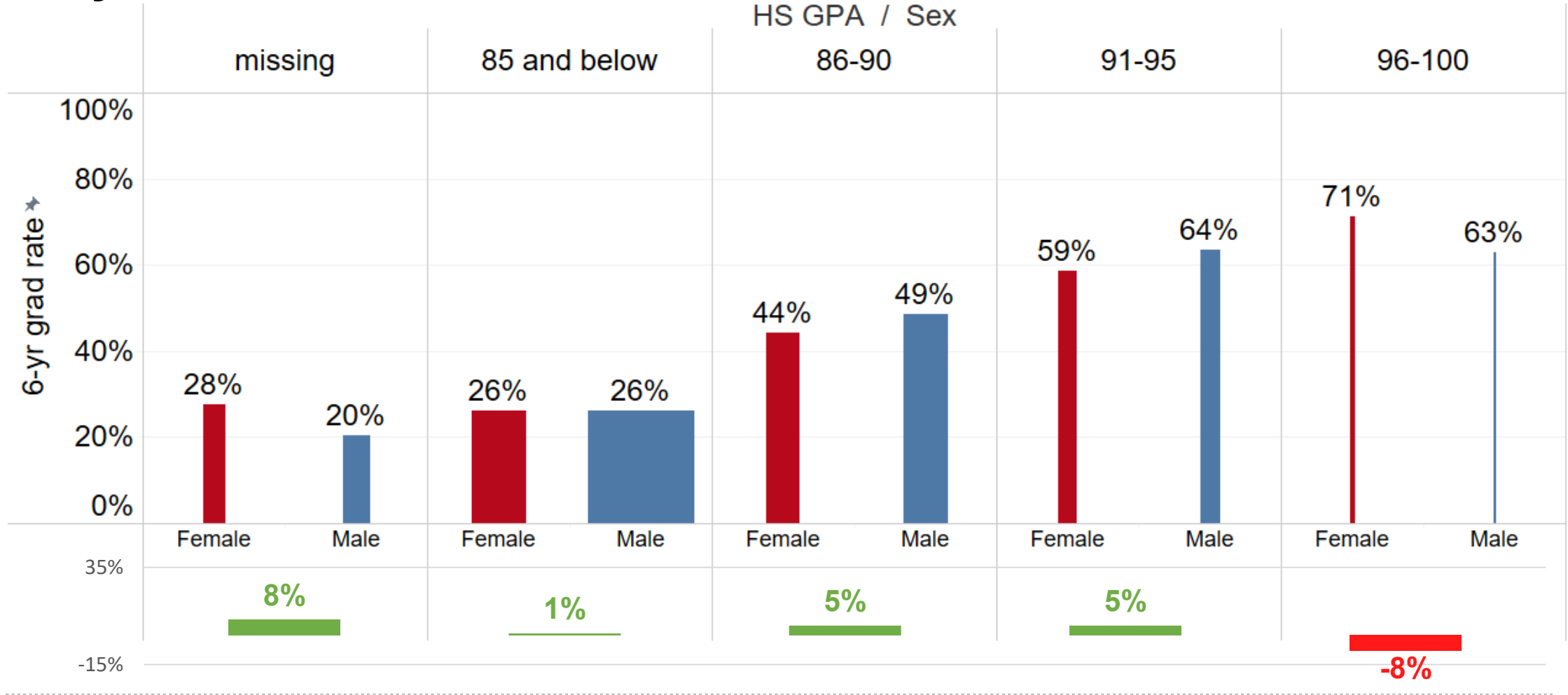
**FAR BEYOND**

Bar thickness represents size of cohort

Source: Unit records from a public higher education system, FT FT students entering in fall 2014



# Six-year graduation rates by gender & HS GPA Polytechnics



# Logistic regression models are not helpful with this data set

- Complete data for 24,525 cases
- Explained only about 12-15% of variance
- Correct predictions increased by only 3 percentage points
- Adding co-variates for inputs beyond HS GPA increased correct predictions by less than 1 percentage point.
- Targeting the 3,300 predicted not to graduate at 10% program effectiveness would increase the graduation rate by 0.8%
- Adding gender to the model increase the target group by only 70
- Adding race to the model did not improve predictive power

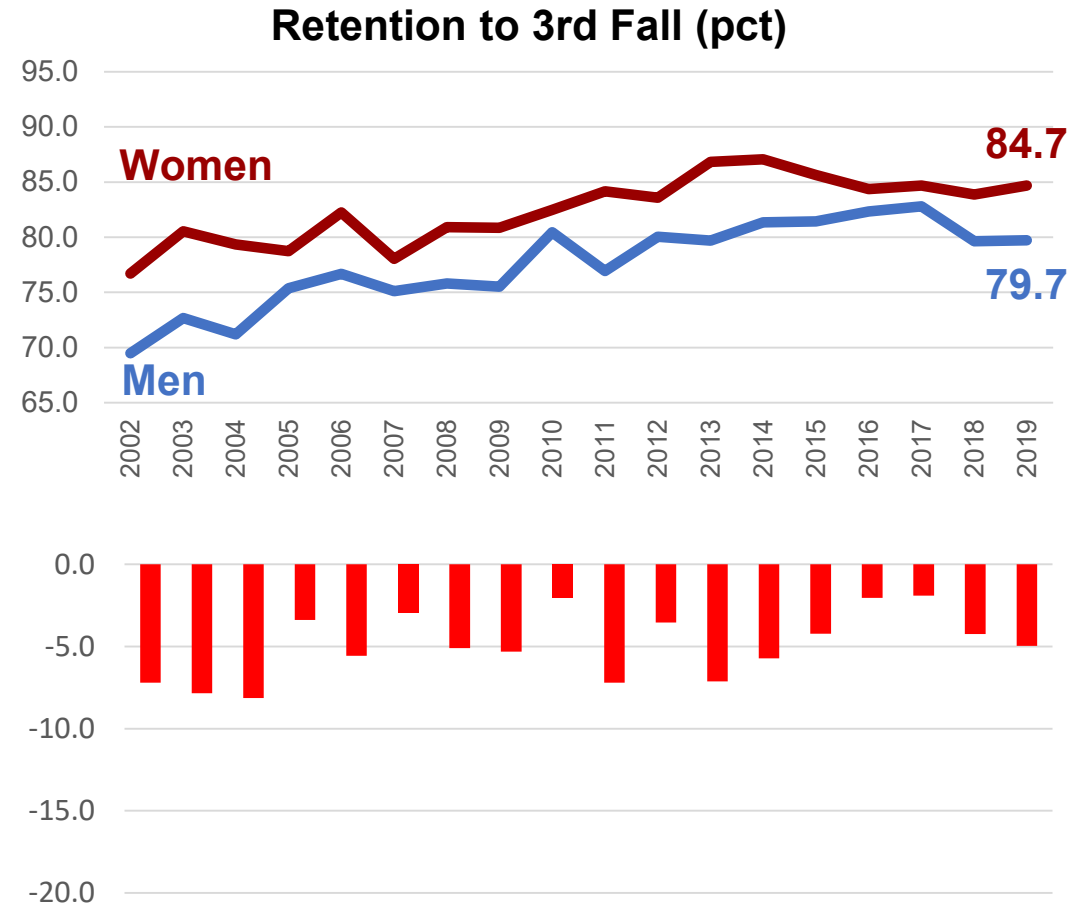
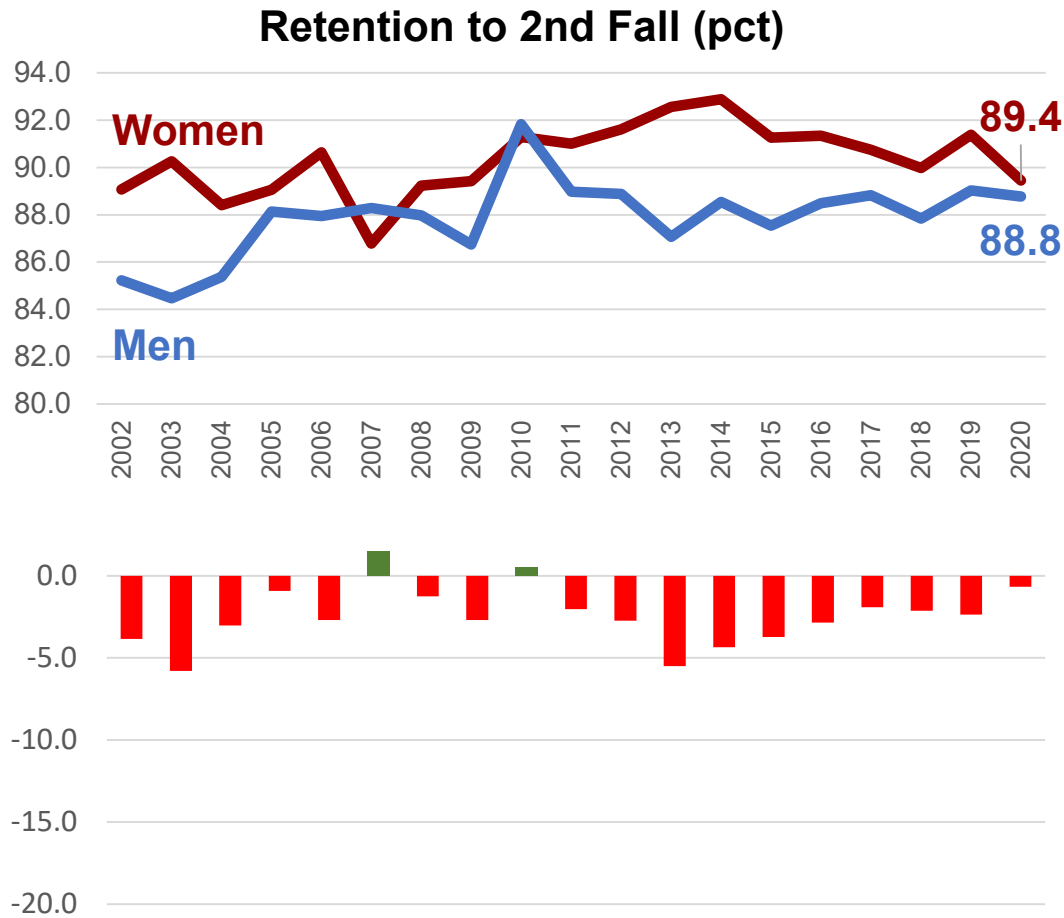
	B	S.E.	Wald	Sig.	Exp(B)
High School Average	0.141	0.003	2,226	0.000	1.151
PELL	-0.326	0.031	108	0.000	0.722
ONCAMPUS	0.472	0.035	179	0.000	1.603
INSTATE	0.532	0.053	100	0.000	1.702
Constant	-12.456	0.273	2,075	0.000	0.000

		Predicted		Pct Correct
		Predicted not to graduate	Predicted to graduate	
Observed	Did not graduate	2,011	5,315	27.5
	Graduated	1,289	15,910	92.5
Pct Correct		60.9	75.0	73.1

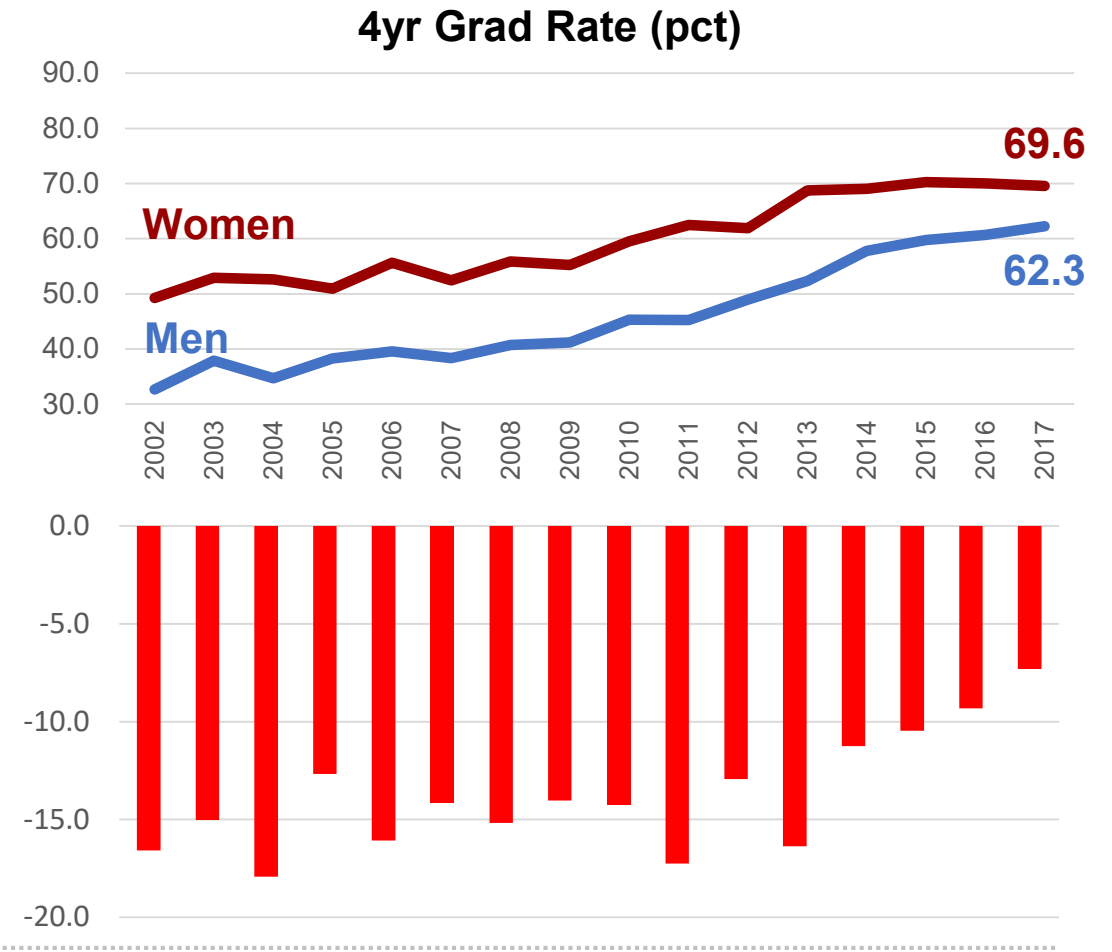
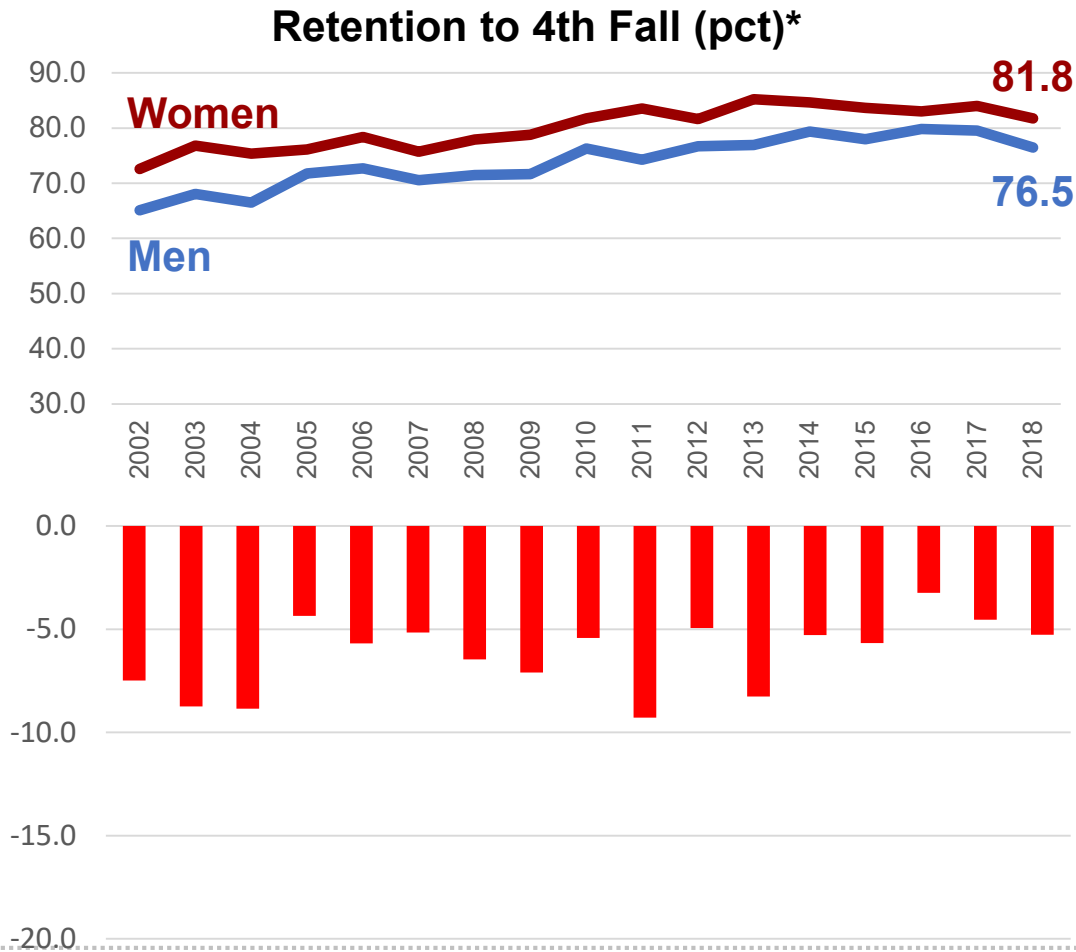
Cox & Snell R-sq = 0.123

# Stony Brook data and interventions

# Retention rates to 2<sup>nd</sup> and 3<sup>rd</sup> fall by gender

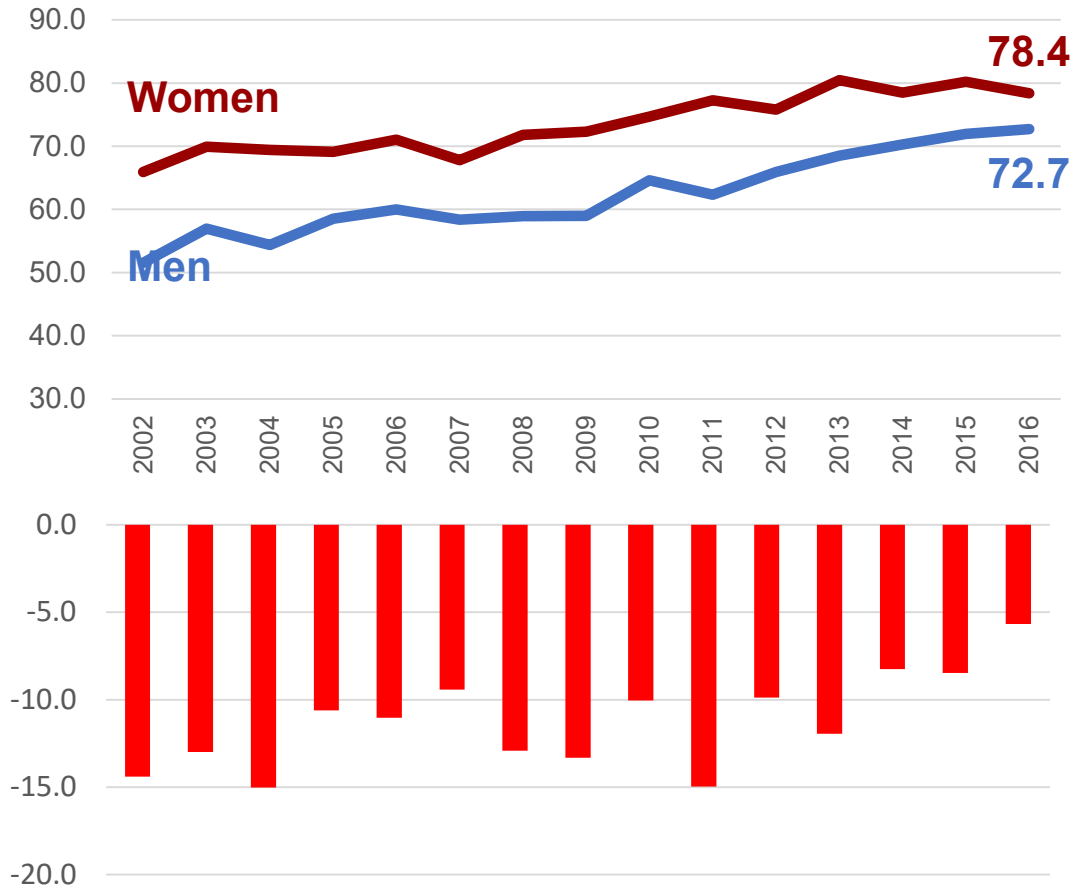


# Retention to 4<sup>th</sup> fall & 4yr grad rates by gender

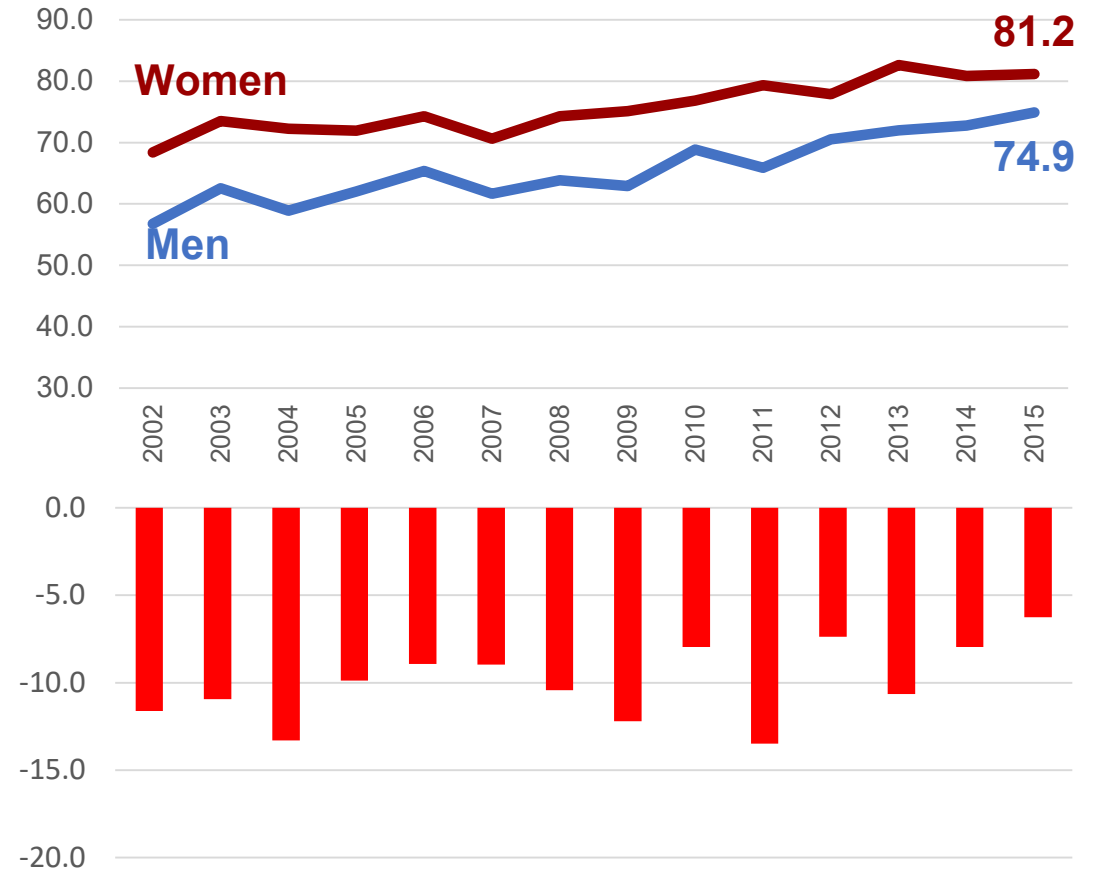


# 5 and 6 year graduation rates by gender

5yr Grad Rate (pct)\*

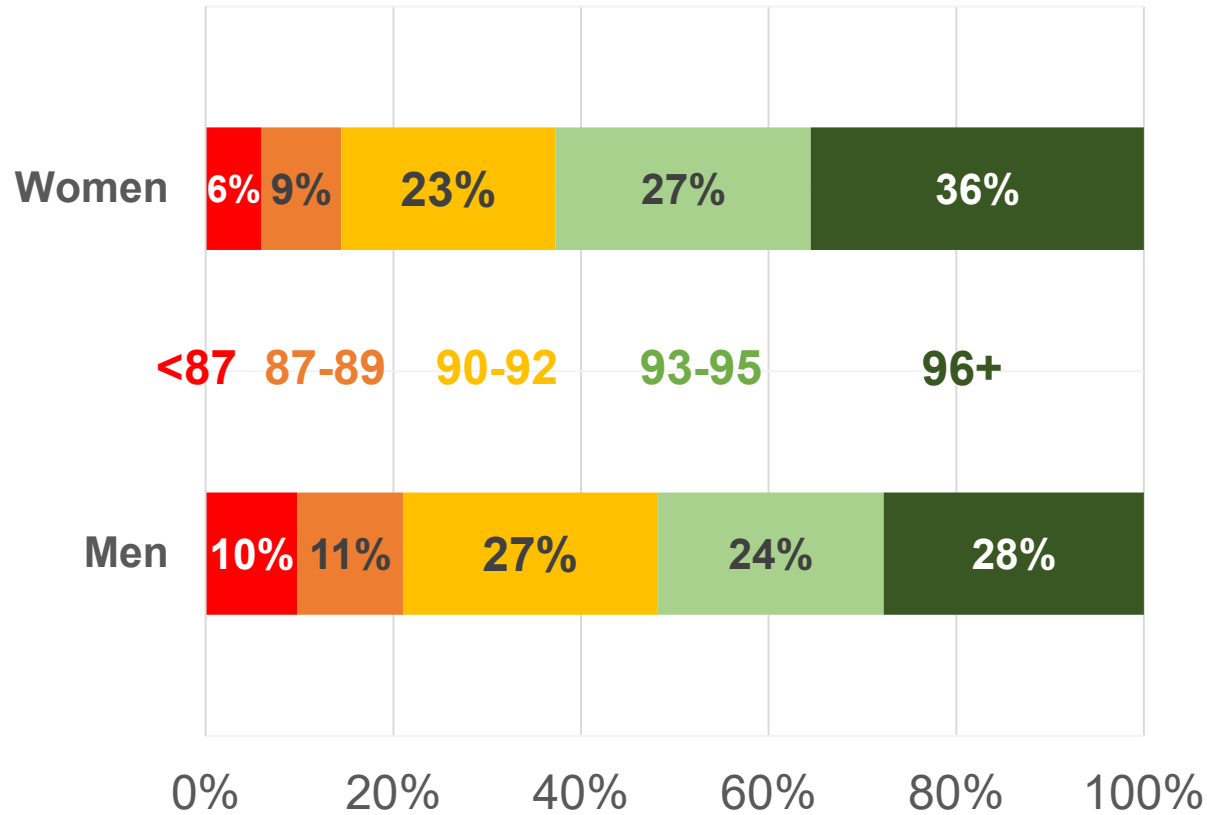


6yr Grad Rate (pct)

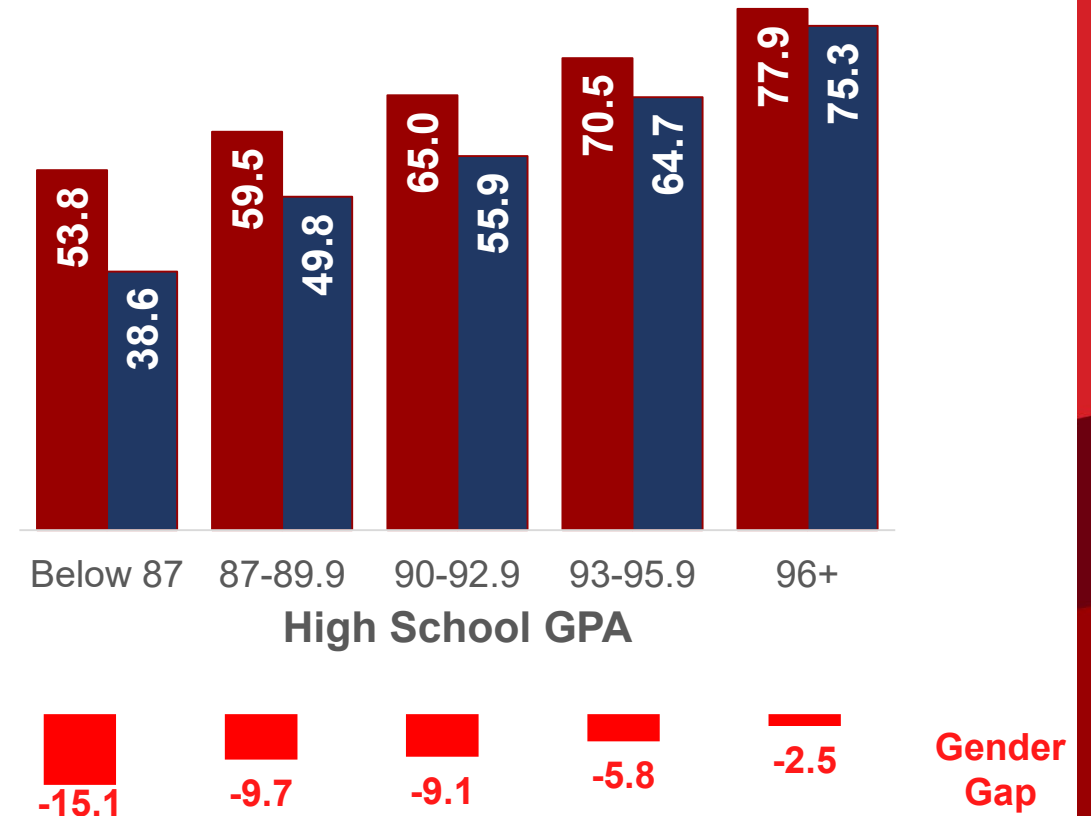


# The gender gap narrows as high school GPA increases

Distribution by high school GPA

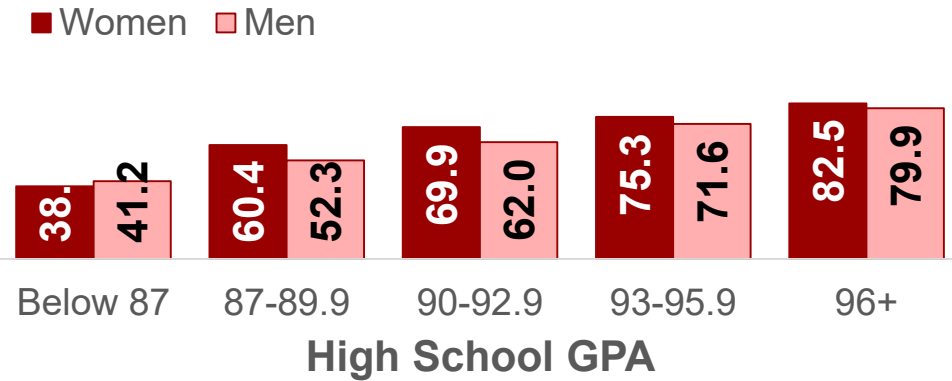


4-year grad rate

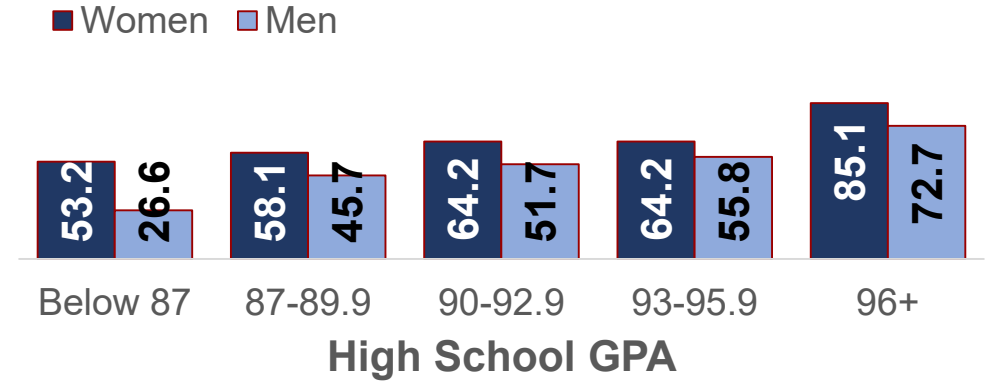


# 4-Year Grad Rate By HS GPA and Gender By Race/Ethnicity Groups (5-yr averages)

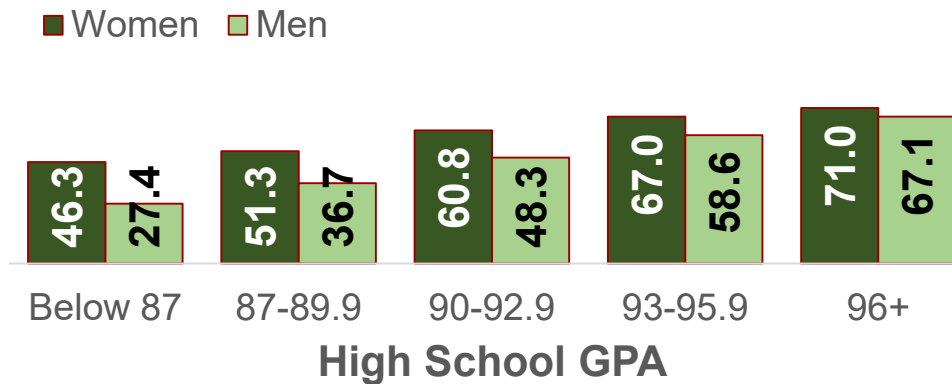
## Asian



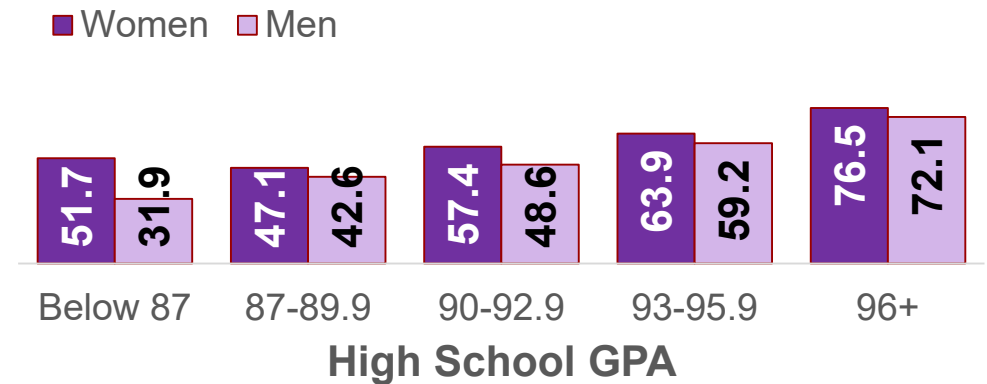
## Black



## Latinx



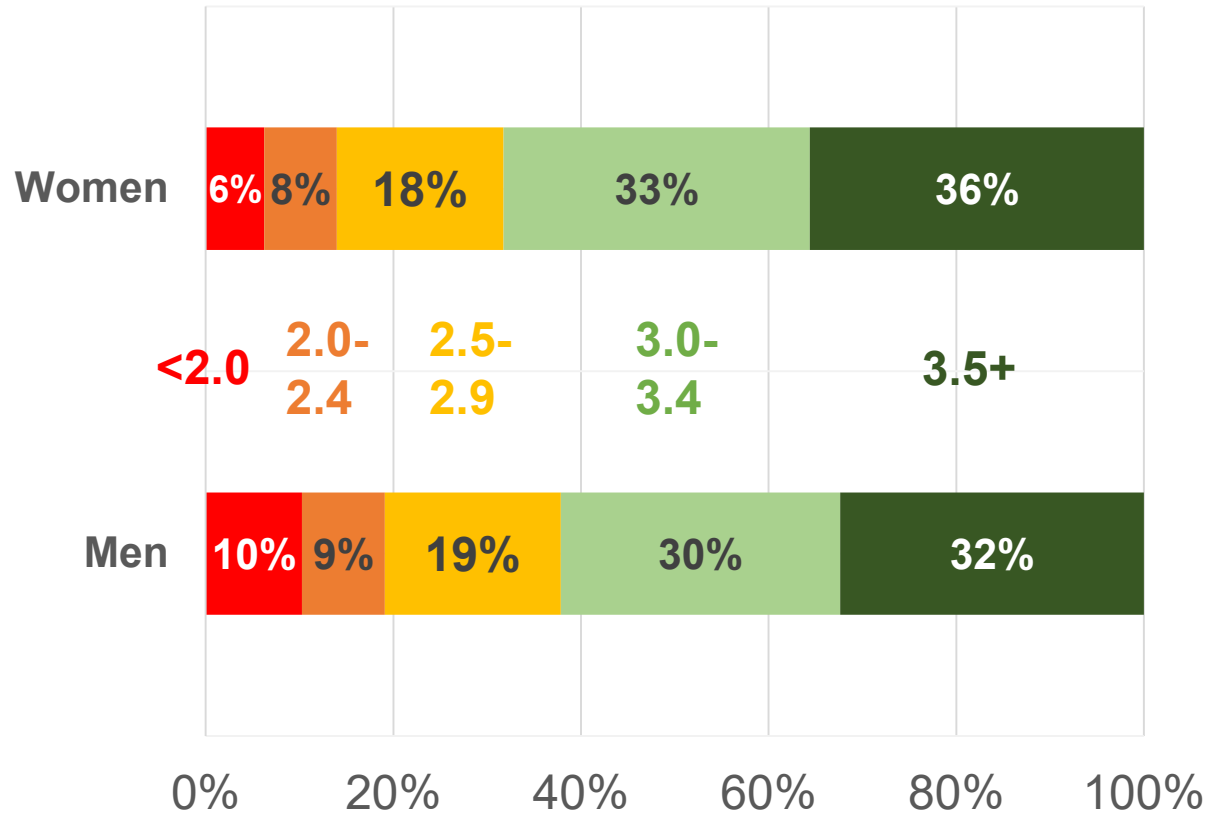
## White



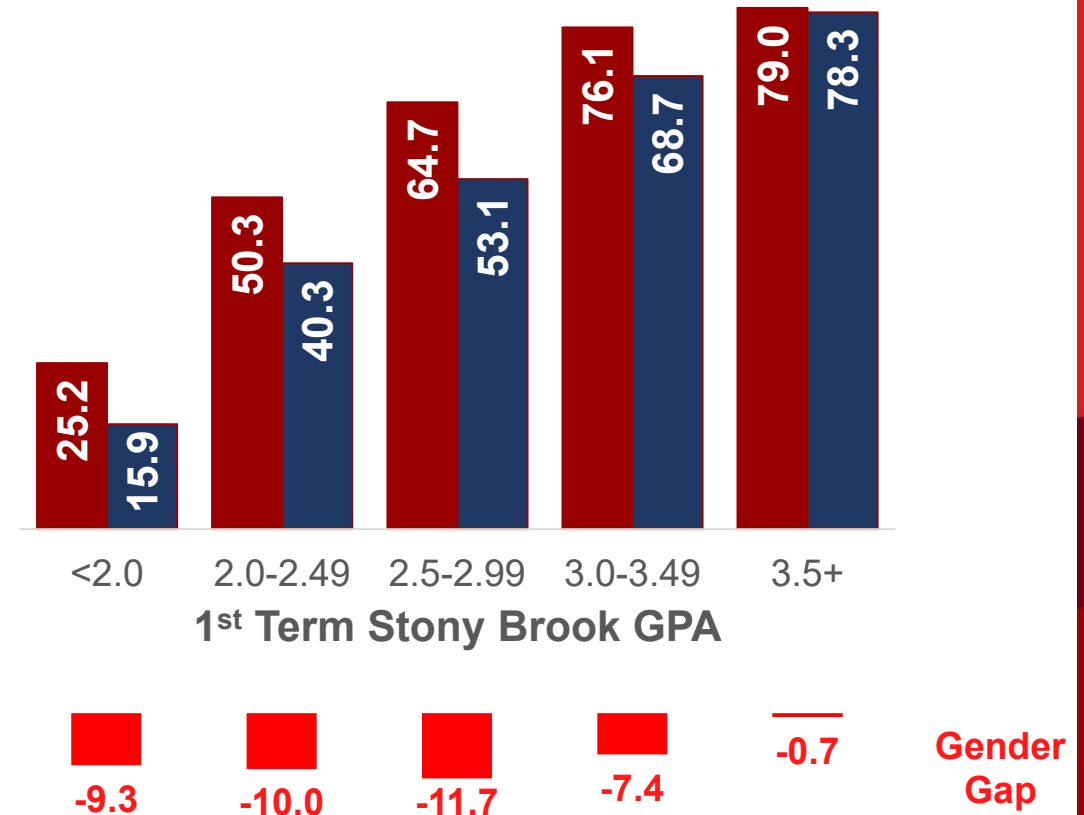


# The gender gap disappears at the highest level of first term college GPA

Distribution by 1<sup>st</sup> term Stony Brook GPA

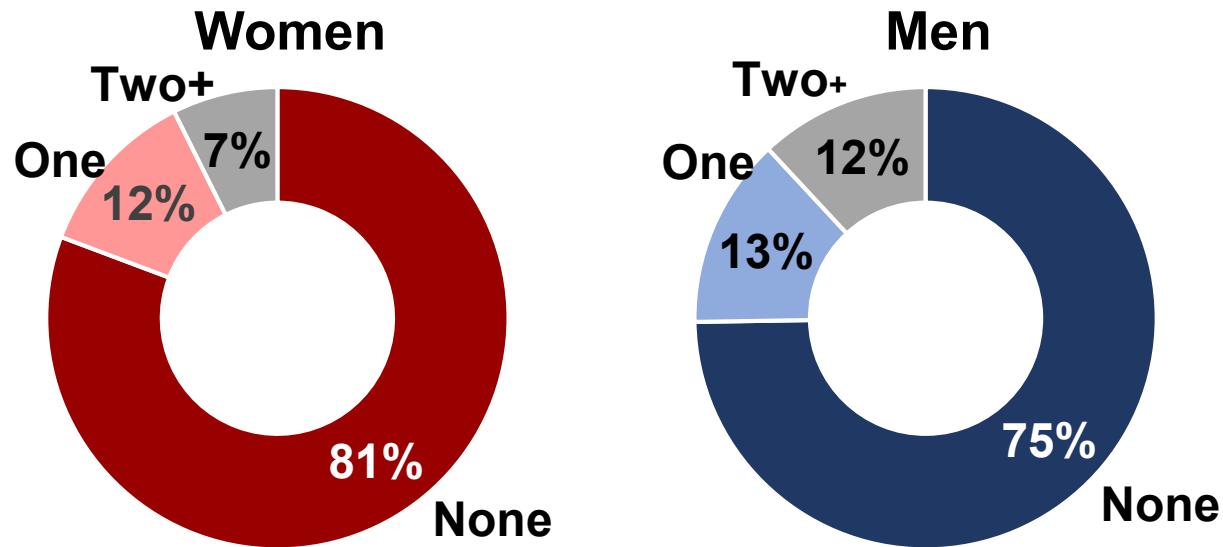


4-year grad rate

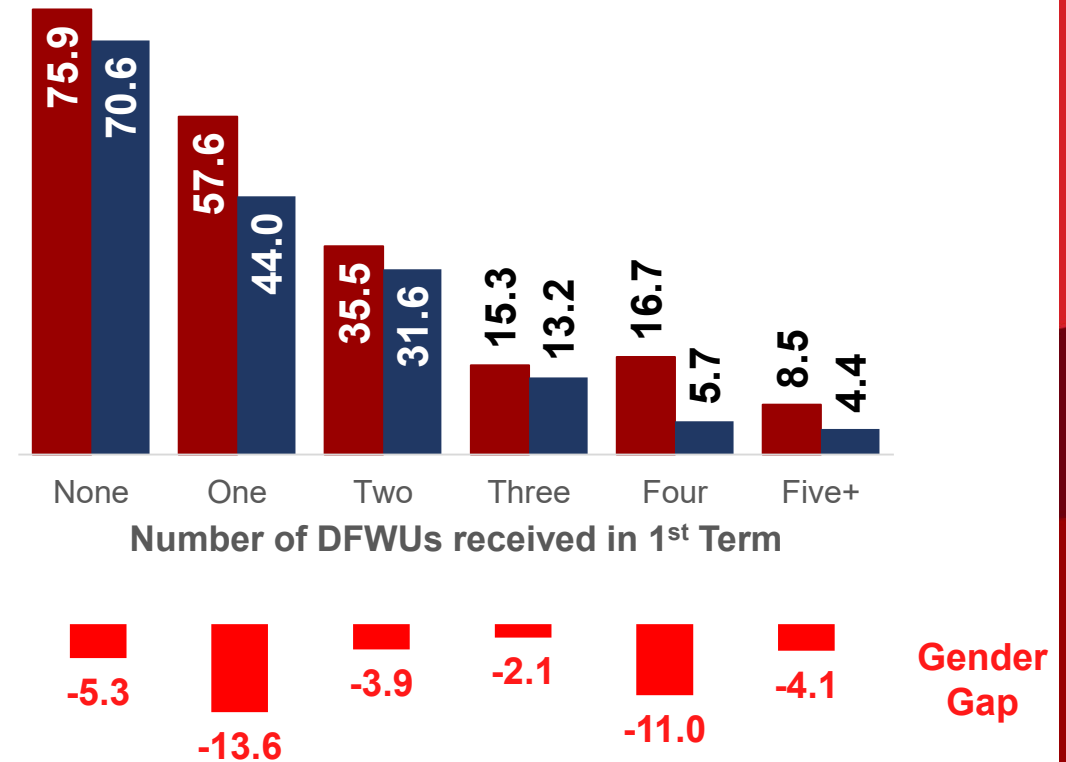


# Number of course grades of “D” “F” “W” or “U” in first term

Distribution of DFWU grades in first term



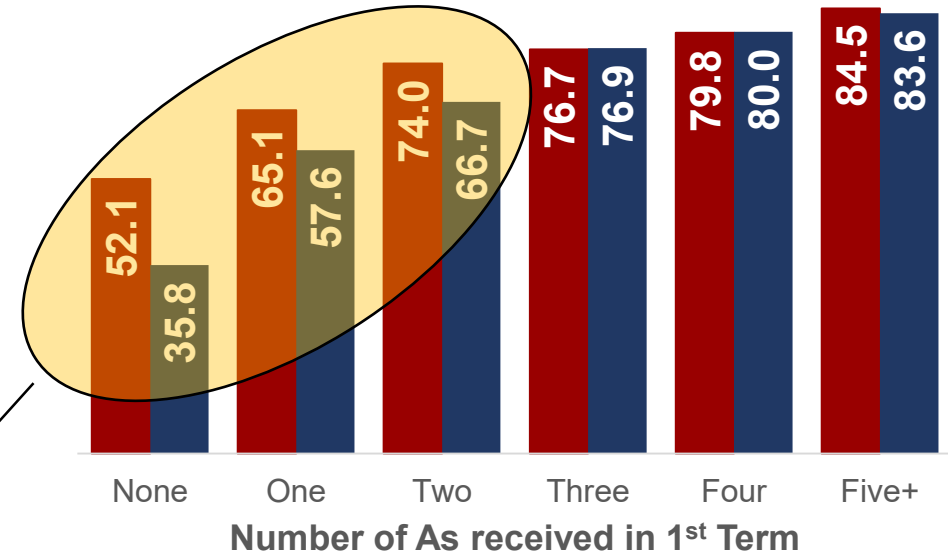
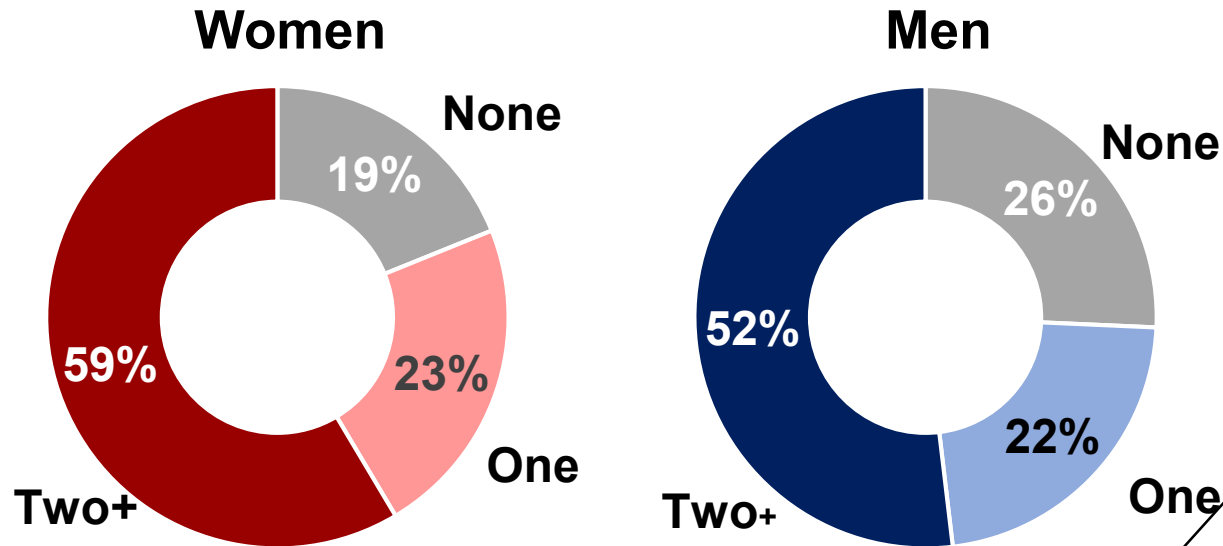
4-year grad rate



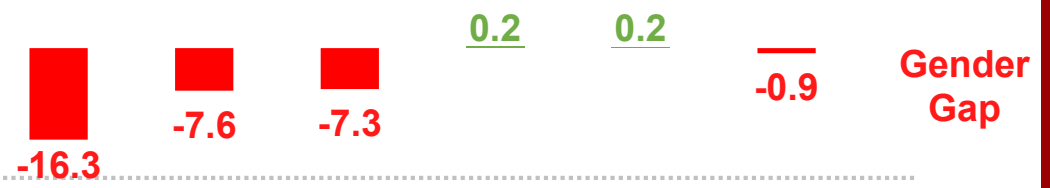
# Number of course grades of “A” in first term

Distribution of A course grades in first term

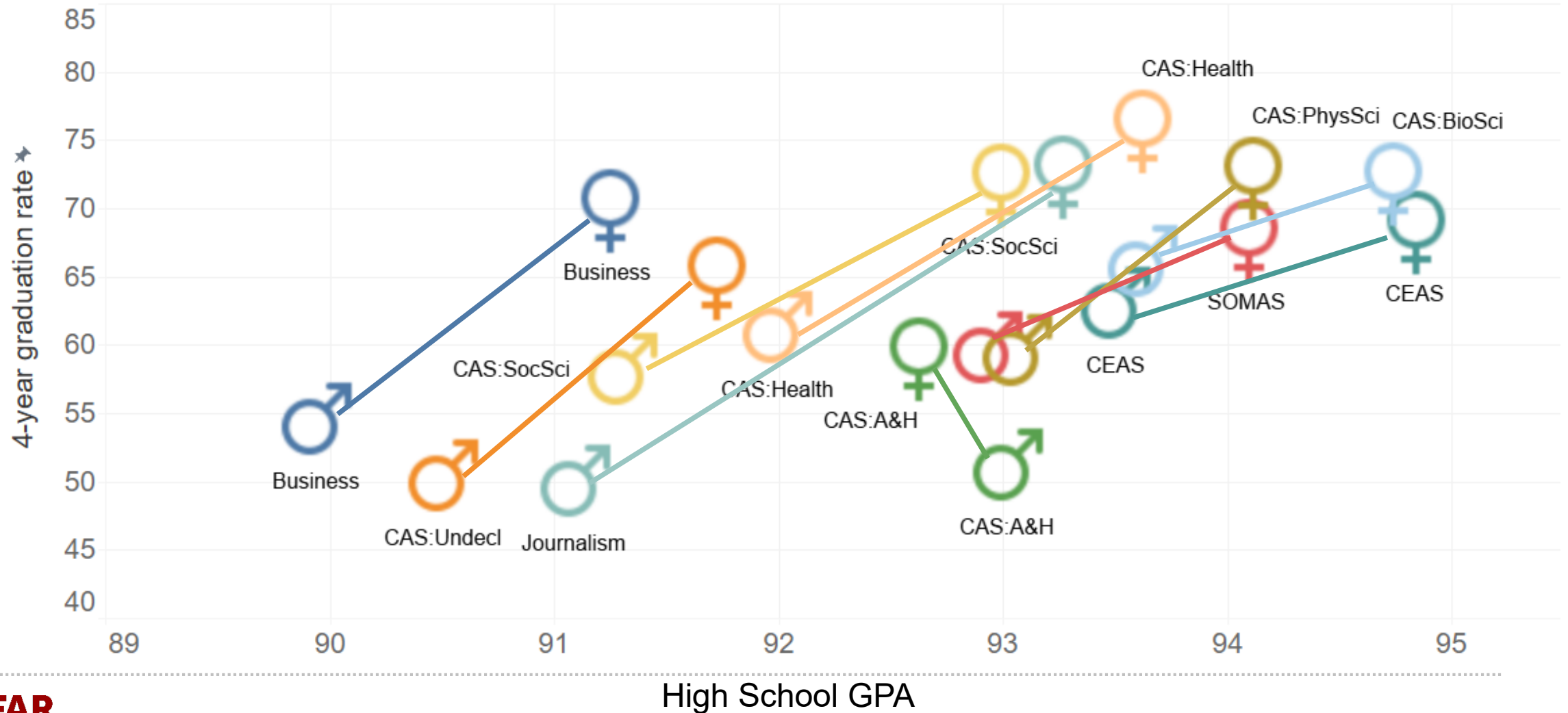
4-year grad rate



Men are more likely to depart than women when they do not earn high grades



# 4-year graduation rates by avg. HS GPA and College/Division of first major



# Interventions are targeted based on performance. Men disproportionately receive attention

## Finish in Four Advising Team

Team of 2 and now 5 advisors dedicated to working with students who are not on track to graduate in four years. Four out of five have academic training in social work or counseling.

### Behind in credits (15 SCH/term)

- Focus on sophomores and juniors
- Adjust schedules
- Add appropriate intersession courses
- Funding ~\$300k/yr

### Graduation denials

- Quicker review of graduation apps
- Immediate outreach
- Course planning for intersession

### Schedule reviews

- 7,500 schedules reviewed per year
- Correct major courses
- Train grad students to read
- Outreach
  - Put self-serve action in email
  - Recommend appointment

### Nudge emails

- Not advance registered
- Not in a major
- Subject lines with questions
- “Why are you not advance registered?”
- Personalized

### Faculty Progress Reports

- Coordinate reports from faculty for students struggling in class
- Contact students to determine issue and connect with appropriate services

# Final Thoughts

- Standardized test scores
  - helped get more men into college
  - misinterpreted to mean men are just as good as women at taking classes
- Support services targeted on behavior, not identity
  - Has closed gap to national average
  - Will it continue to work?
- Addressing issue complicated because women face discrimination and sexual violence that also need to be addressed