

Unit Load Momentum: Indicator for Successful and Timely Graduation

Sunny Moon
Yusuke Kuroki
Alan Yu

California State University, Los Angeles

CAIR Conference
November 2019



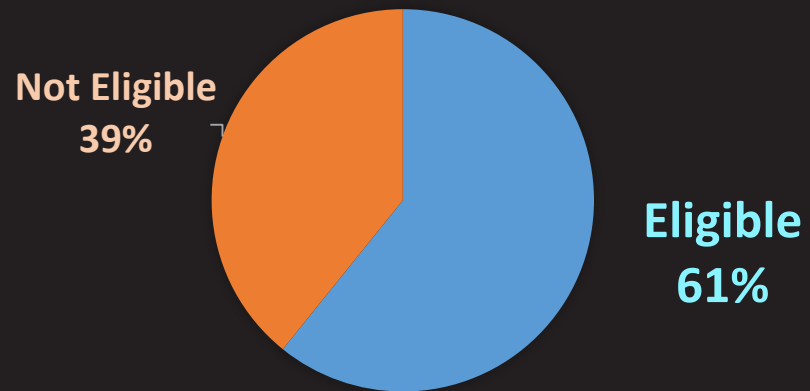
CAL STATE LA
CALIFORNIA STATE UNIVERSITY, LOS ANGELES



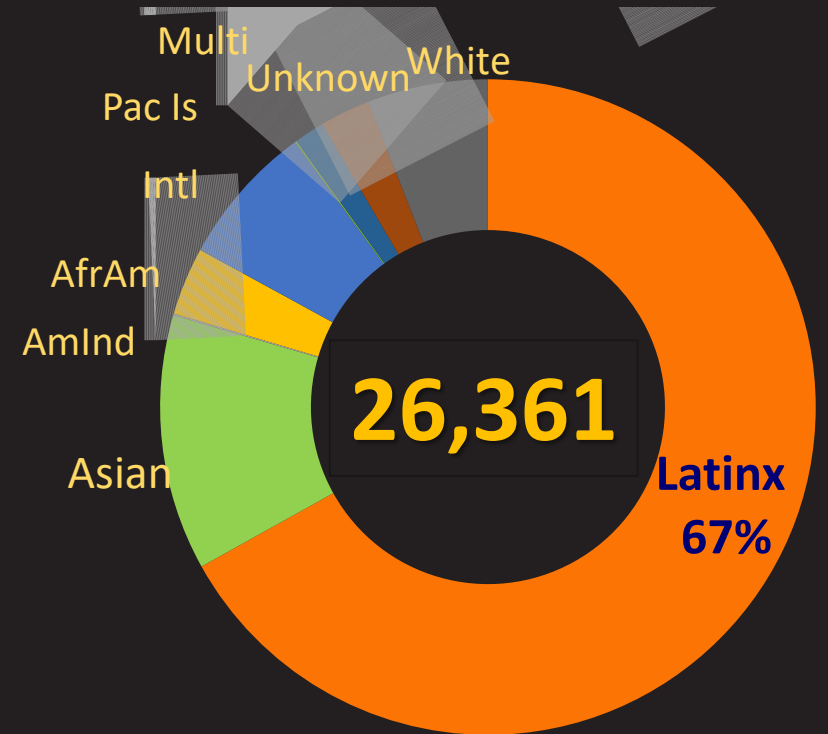
CAL STATE LA
CALIFORNIA STATE UNIVERSITY, LOS ANGELES

PELL ELIGIBILITY

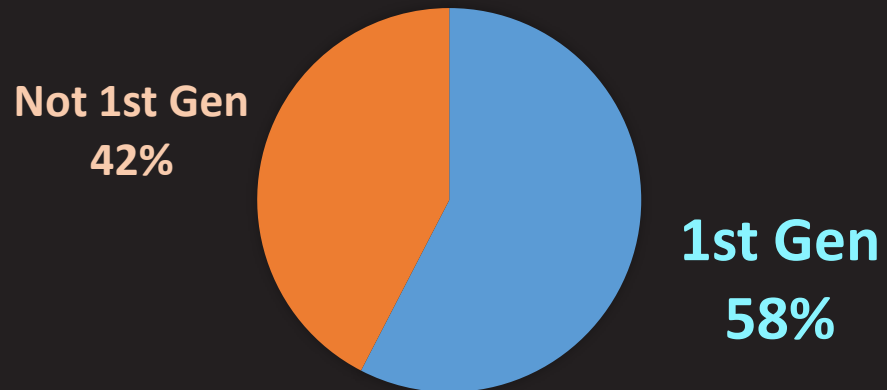
Fall 2019



ETHNICITY



1ST GENERATION



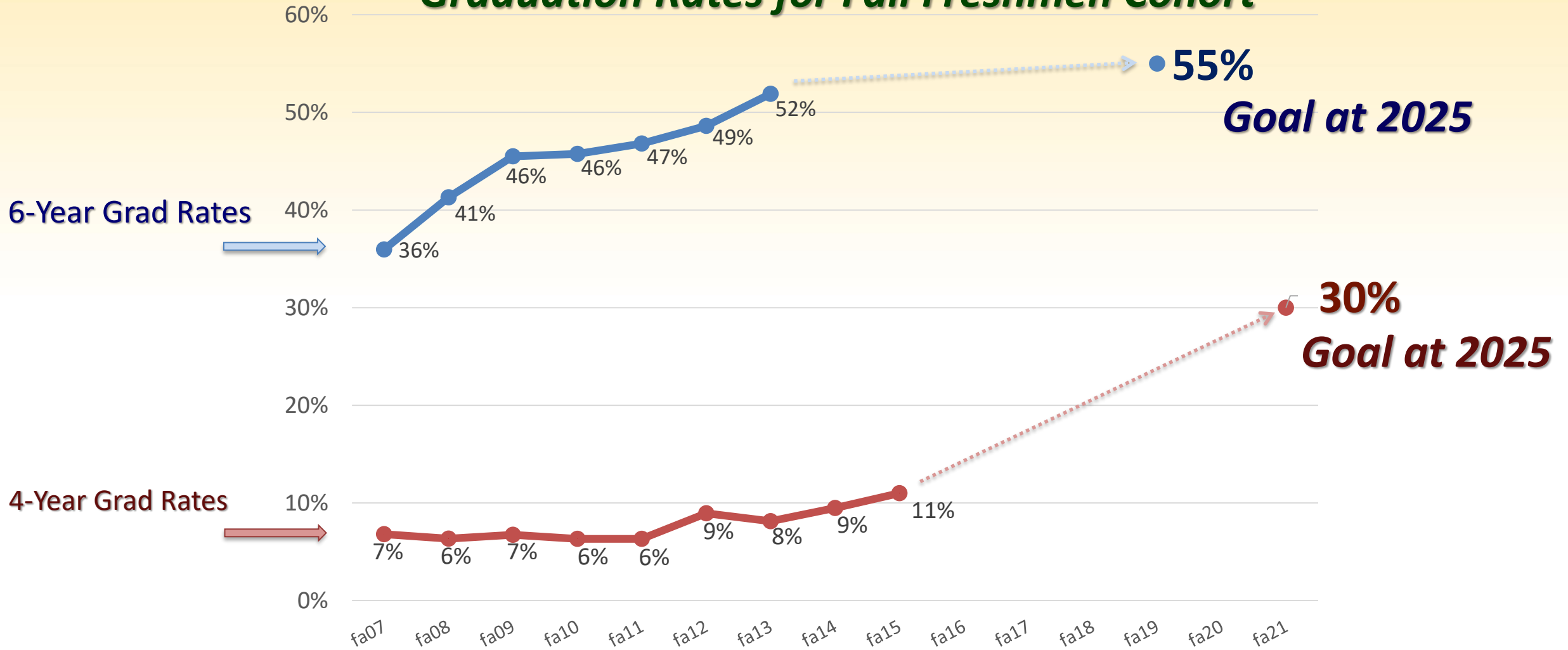
Graduation Initiative 2025: Cal State LA

Metric	2016	2017	2018	2019	2025 Goals
6-yr Grad Rates: Freshman	45.8%	46.8%	48.6%	51.7%	55%
4-yr Grad Rates: Freshman	8.9%	8.1%	9.5%	11.0%	30%
4-yr Grad Rates: Transfer	69.7%	74.4%	74.4%	75.9%	81%
2-yr Grad Rates: Transfer	33.8%	25.7%	29.9%	38.3%	36%
Gap – URM (in Freshmen 6-yr Grad Rates)	9.5%	11.3%	10.1%	10.6%	0
Gap – Pell (in Freshmen 6-yr Grad Rates)	6.2%	0.4%	6.3%	4.0%	0



Graduation Initiative 2025: Cal State LA

Graduation Rates for Fall Freshmen Cohort



Graduation Initiative 2025: Cal State LA

Graduation Rates for Fall Transfer Cohort



Opportunities for Improvement !!

4-Year Graduation Rates

URM Gap

Opportunities for Improvement !!

4-Year Graduation Rates

National Trend for Public University

State Policy

Efficiency

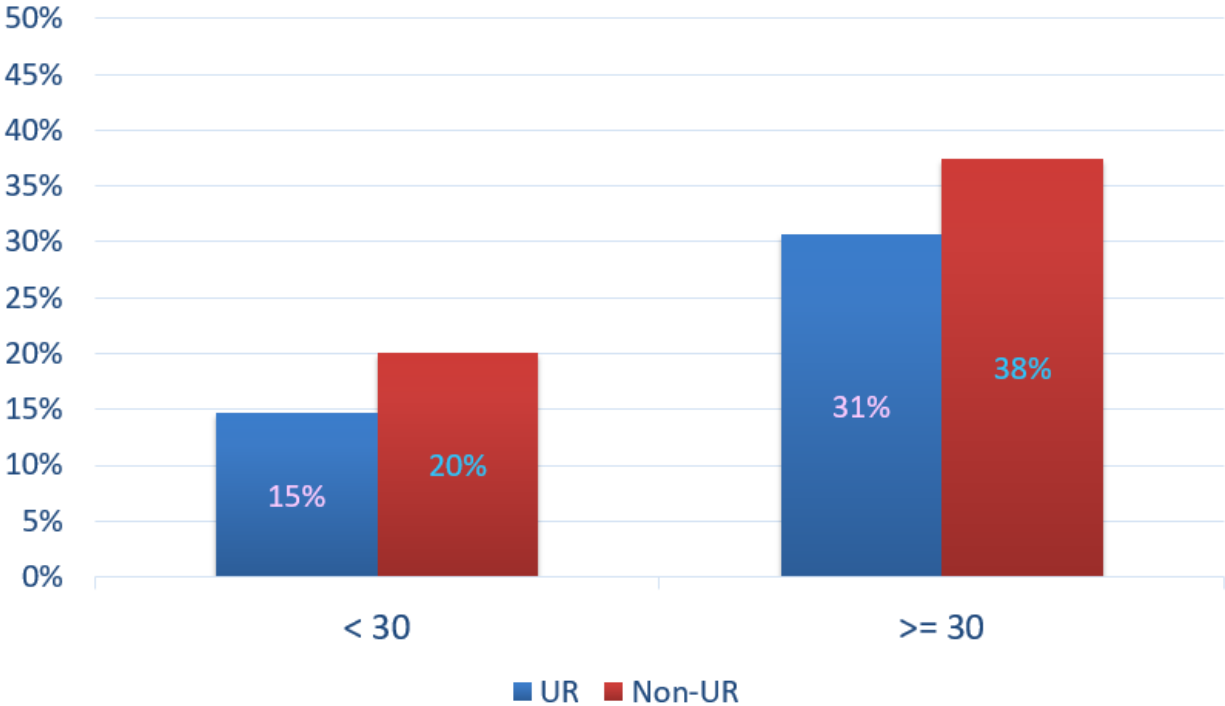
Funding

Access

30 Units Takers: URM vs. Non-URM

First-Time Freshmen 2011-2013 Cohort

4-Year Grad Rates



Source: Moon, H.S. et al, "Graduation Initiative 2025: Role of Institutional Research to support Data-Driven Decision at CSU Fullerton", California Association for Institutional Research Conference, November 2017, Concord, CA.

15 Units / Term



30 Units / Year



Effects of Freshmen Full Load (≥ 15 Units) in 1st Term and 1st Year

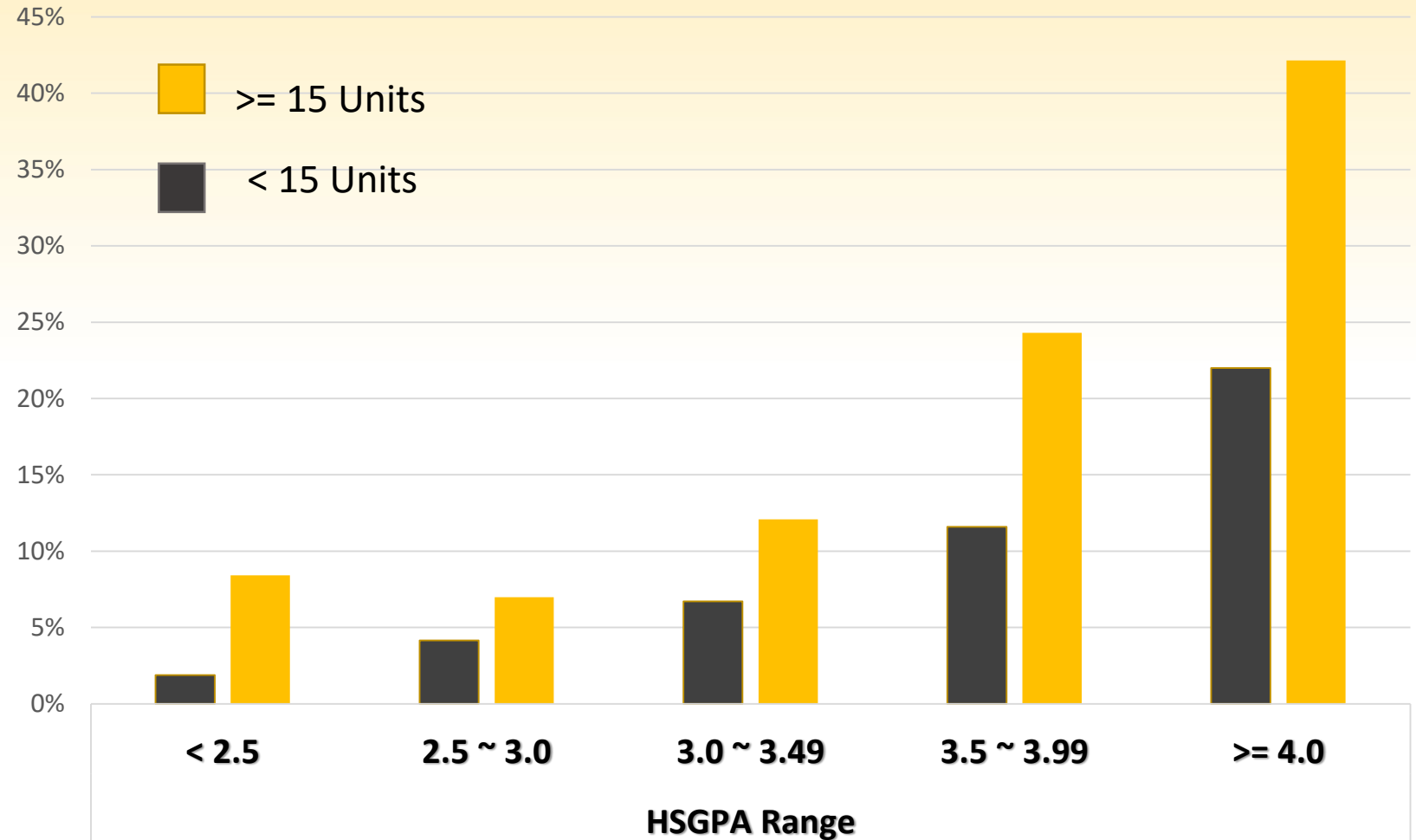
- 
- (1) 4-Year Graduation Rates**
 - (2) 1-Year Retention Rates**
 - (3) Completion Rates**
(Units Passed / Units Attempted)



Concern #1. Freshmen with Low High School GPA ?

15 Units
in 1st Term

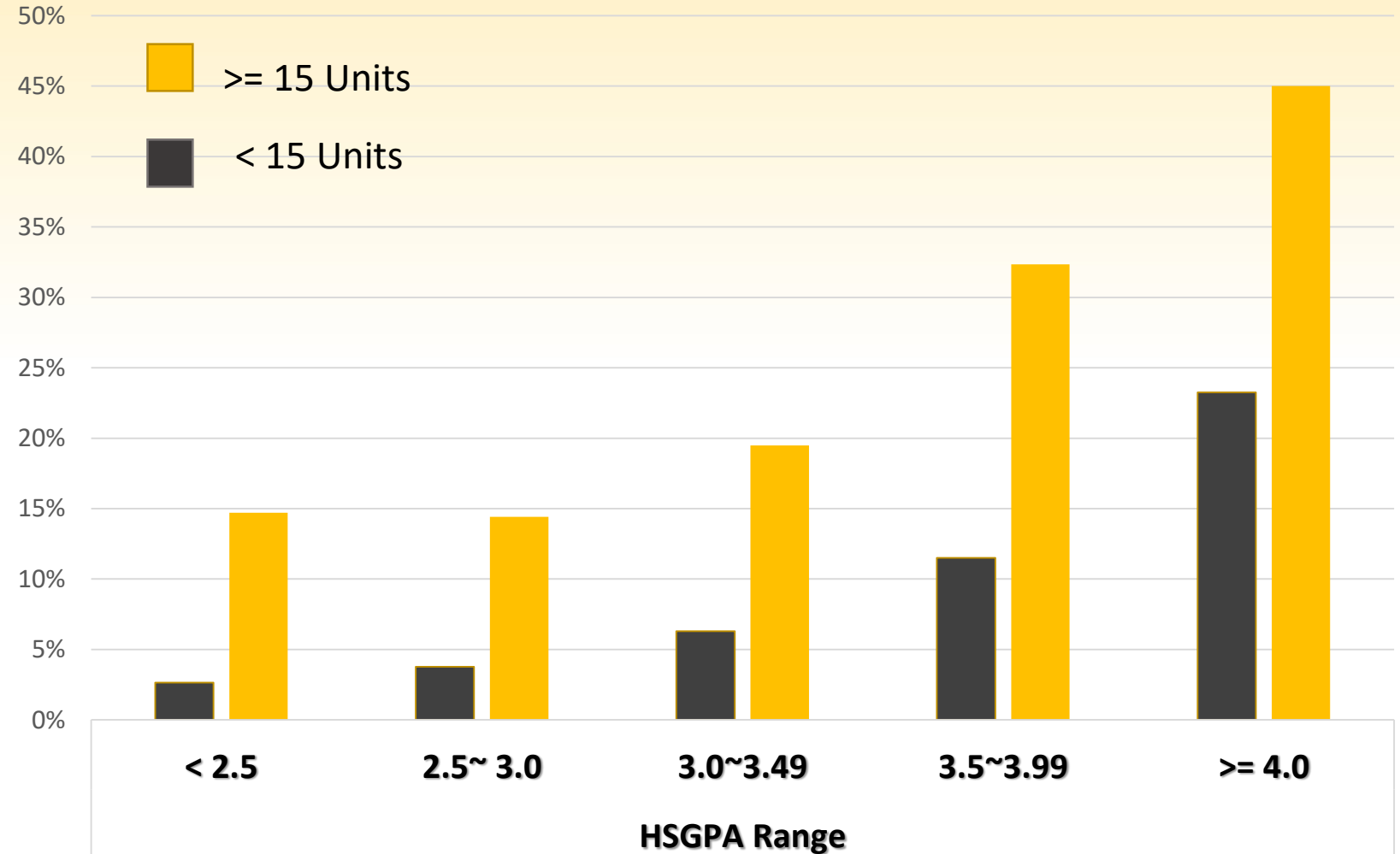
4-Year Grad Rates x HSGPA



Concern #1. Freshmen with Low High School GPA ?

30 Units
in 1st Year

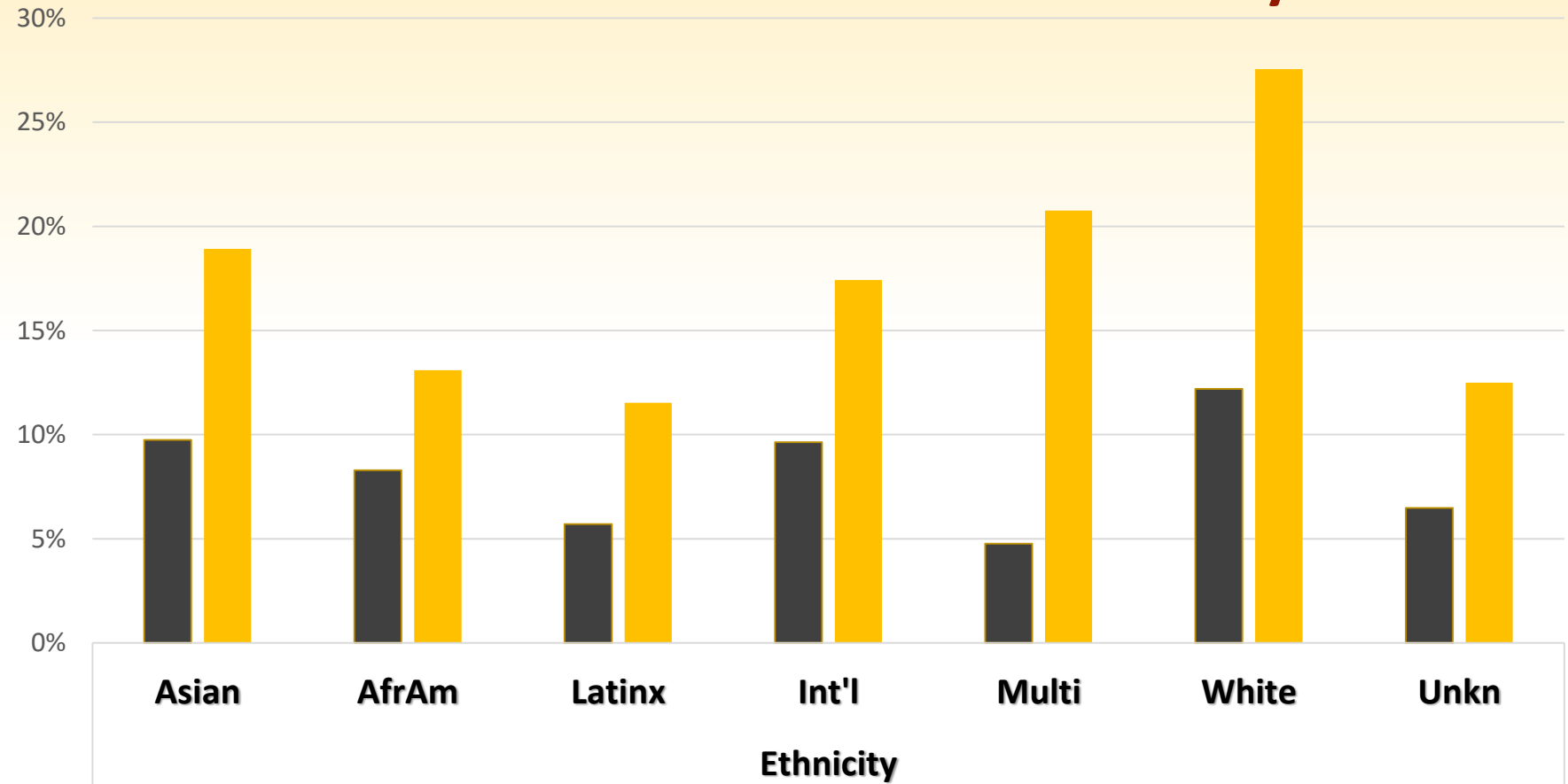
4-Year Grad Rates x HSGPA



Concern #2. Underrepresented Students ?

15 Units
in 1st Term

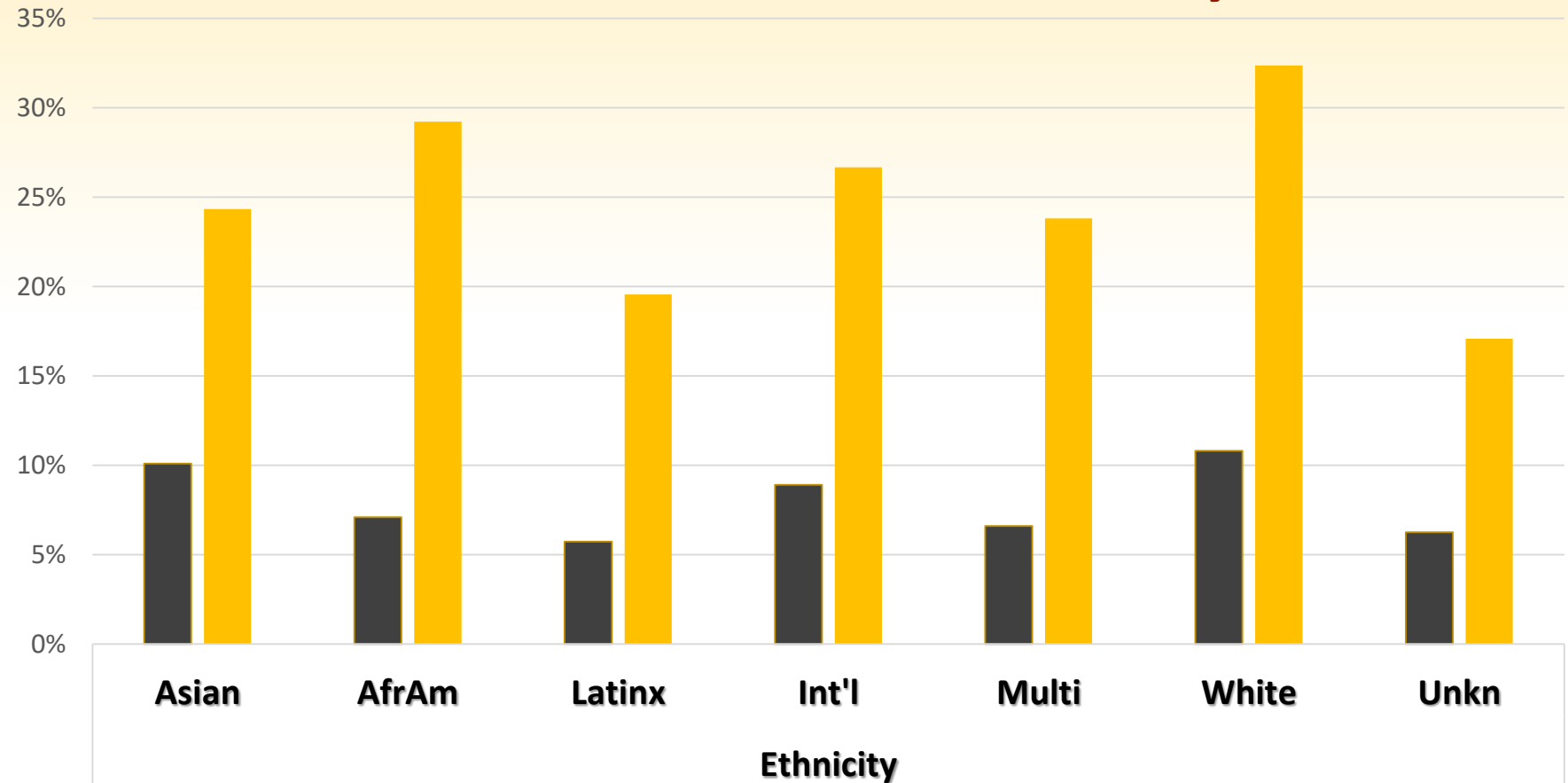
4-Year Grad Rates x Ethnicity



Concern #2. Underrepresented Students ?

30 Units
in 1st Year

4-Year Grad Rates x Ethnicity



Effects of Freshmen Full Load (≥ 15 Units) in 1st Term and 1st Year

(1) 4-Year Graduation Rates

 **(2) 1-Year Retention Rates**

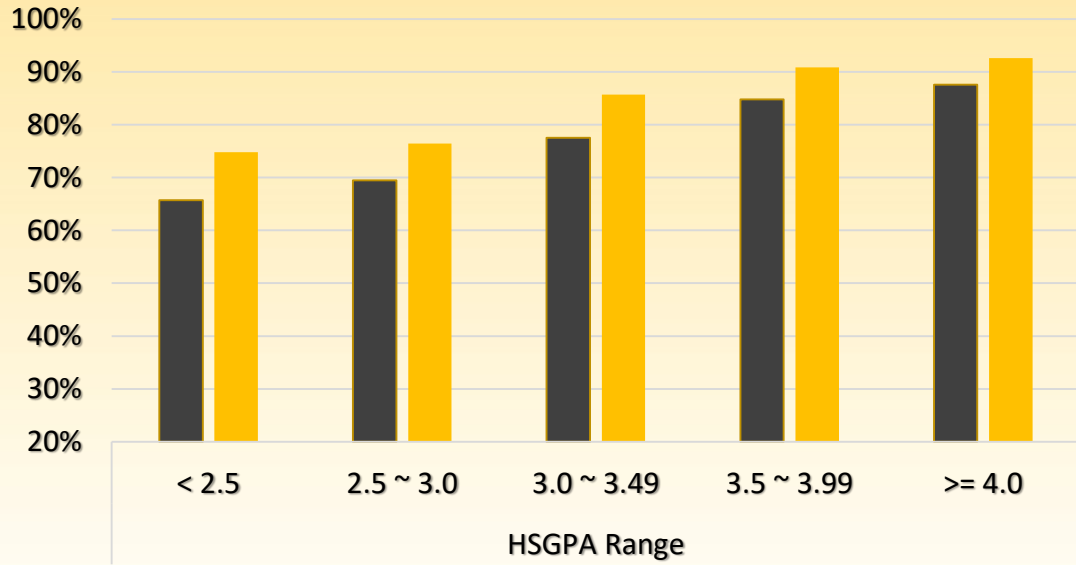
(3) Completion Rates

(Units Passed / Units Attempted)

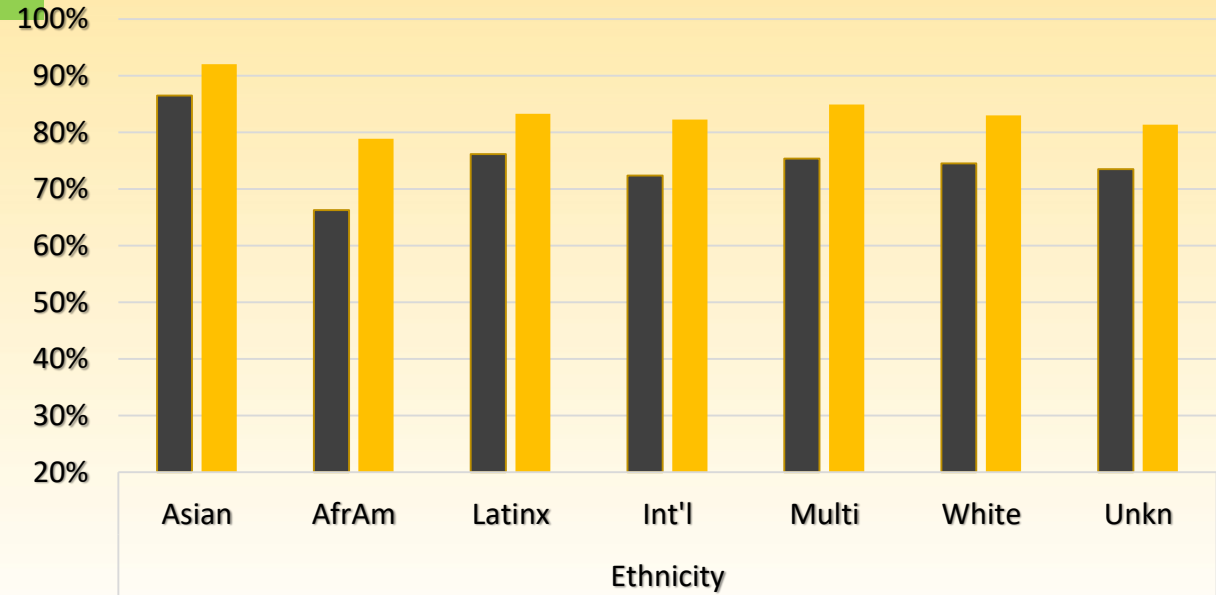


1-Year Retention Rates x HSGPA

15 Units
in 1st Term

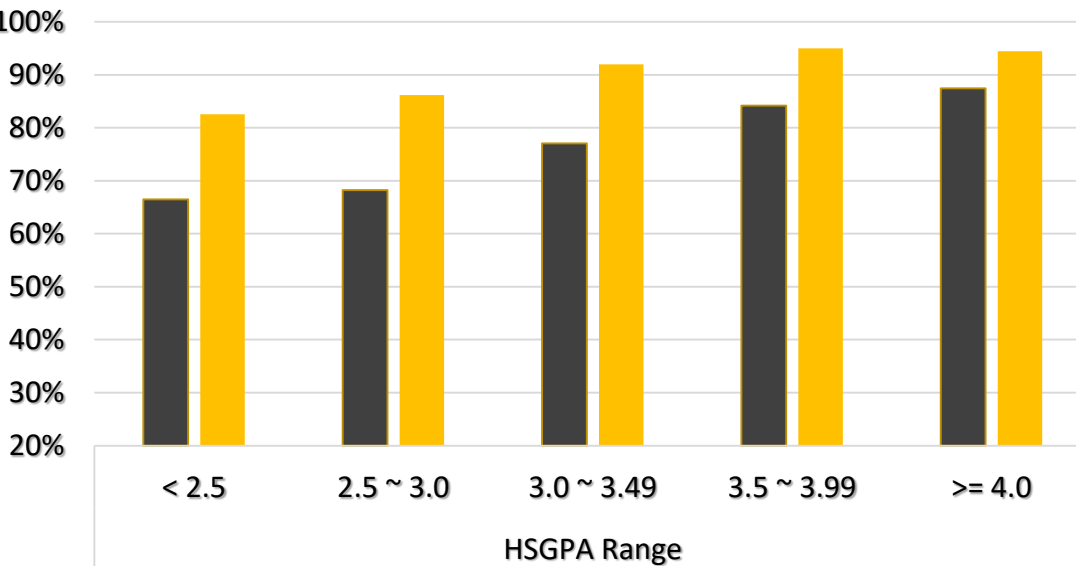


1-Year Retention Rates x Ethnicity

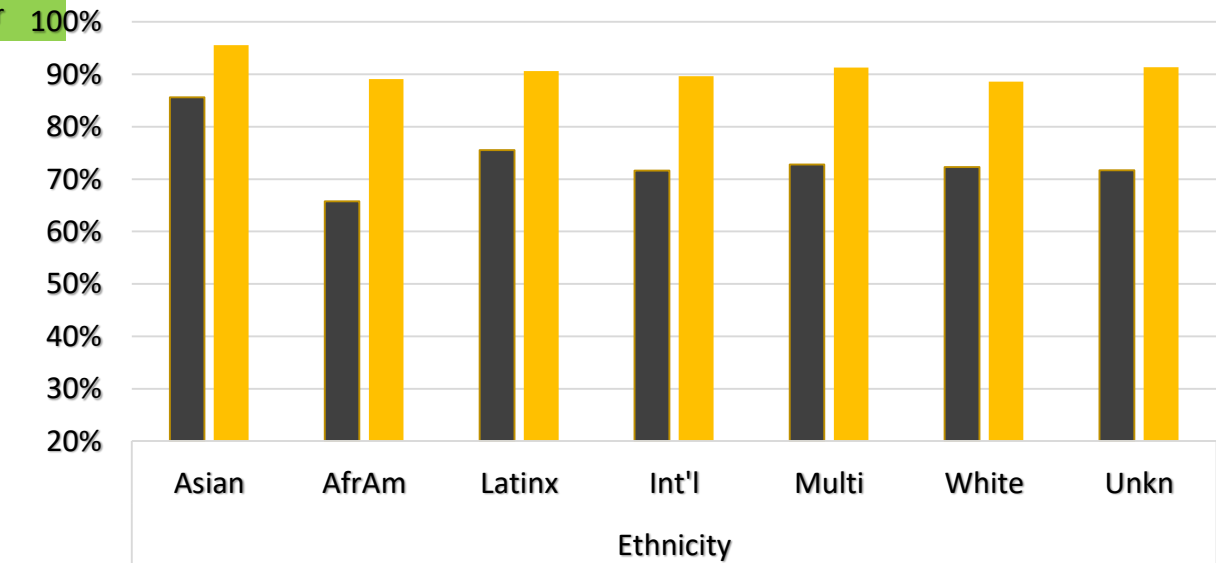


1-Year Retention Rates x HSGPA

30 Units
in 1st Year



1-Year Retention Rates x Ethnicity



Effects of Freshmen Full Load (≥ 15 Units) in 1st Term and 1st Year

(1) 4-Year Graduation Rates

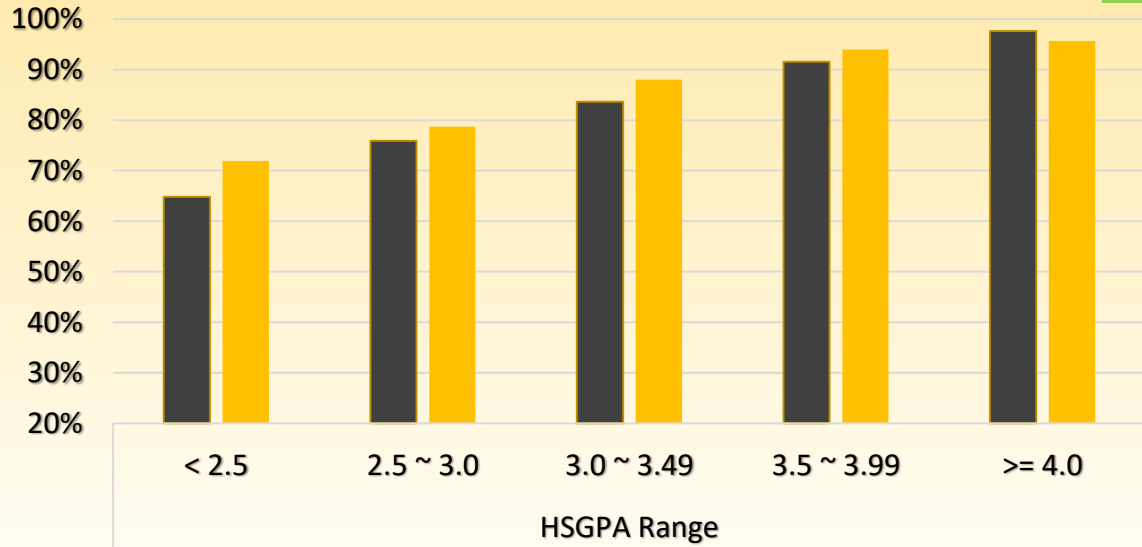
(2) 1-Year Retention Rates

 **(3) Completion Rates**

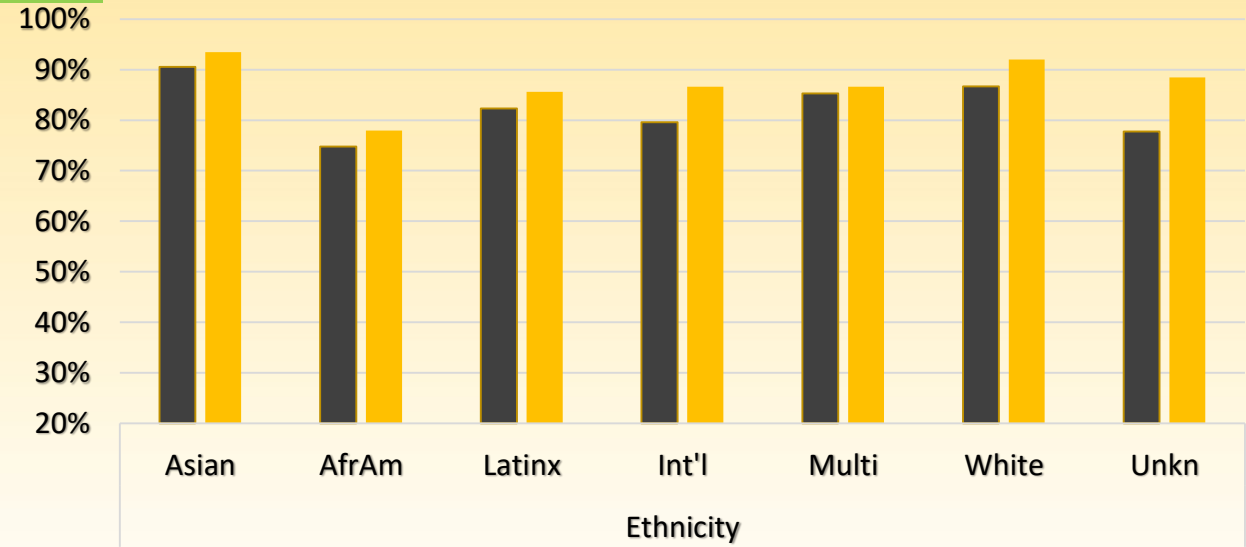
(Units Passed / Units Attempted)

1st Term Completion Rates x HSGPA

15 Units
in 1st Term

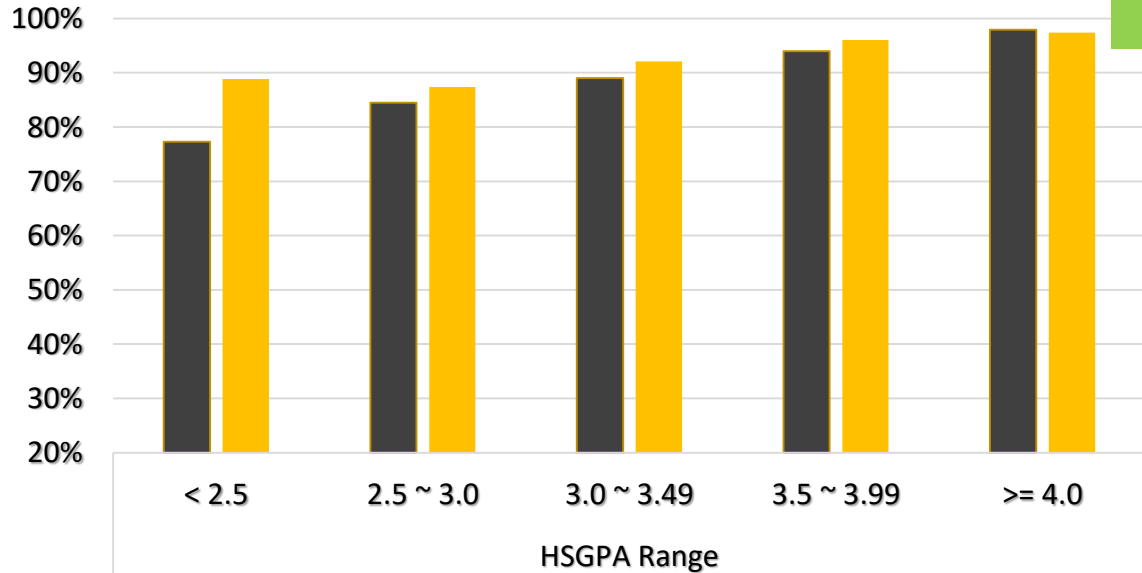


1st Term Completion Rates x Ethnicity

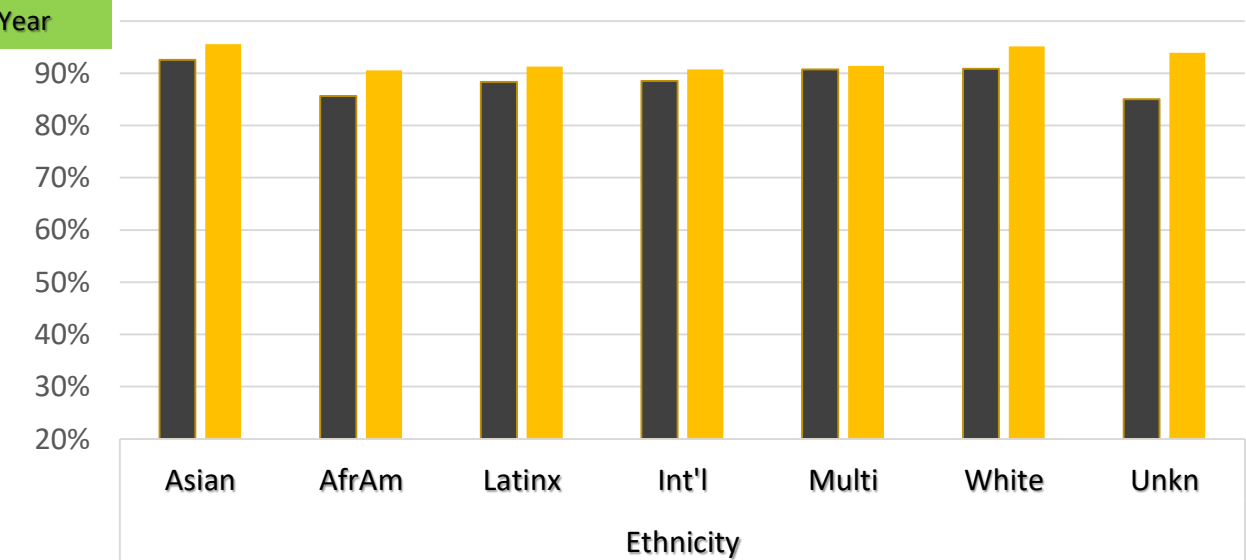


1st Year Completion Rates x HSGPA

30 Units
in 1st Year



1st Year Completion Rates x Ethnicity



Logistic Regression on 4-Year Graduation Rates

Eligibility Index > 30-Units in 1st Year > Gender > Pell

IVs	B	Wald	Sig.	Exp(B)
EI_NEW	0.002	341.96	0.00	1.002
URM	-0.203	6.06	0.01	0.816
FULLLOAD (30 units)	0.991	88.00	0.00	2.693
MEN	-0.523	64.32	0.00	0.593
PELL_REC	-0.287	17.00	0.00	0.750
FIRSTGEN	-0.124	3.57	0.06	0.883
URM by FULLLOAD	0.259	3.61	0.06	1.295

Nagelkerke
R Square = 14%

Higher Education Research Literature

- Academic *Momentum* Theory

The speed with which undergraduates initially progress in college significantly affects their likelihood of completing a degree

- Early Credit *Momentum*

15 credits in their first term graduates at significantly higher rates

- Academic *Intensity* Theory

Levels of academic intensity (high units) in the first year of higher education contributes eventual success



**SUCCESS IS LIKE A SNOWBALL ...
IT TAKES MOMENTUM TO BUILD
AND THE MORE YOU ROLL IN THE
RIGHT DIRECTION THE BIGGER IT GETS.**

Steve Ferrante

Momentum

SNOWBALL EFFECT



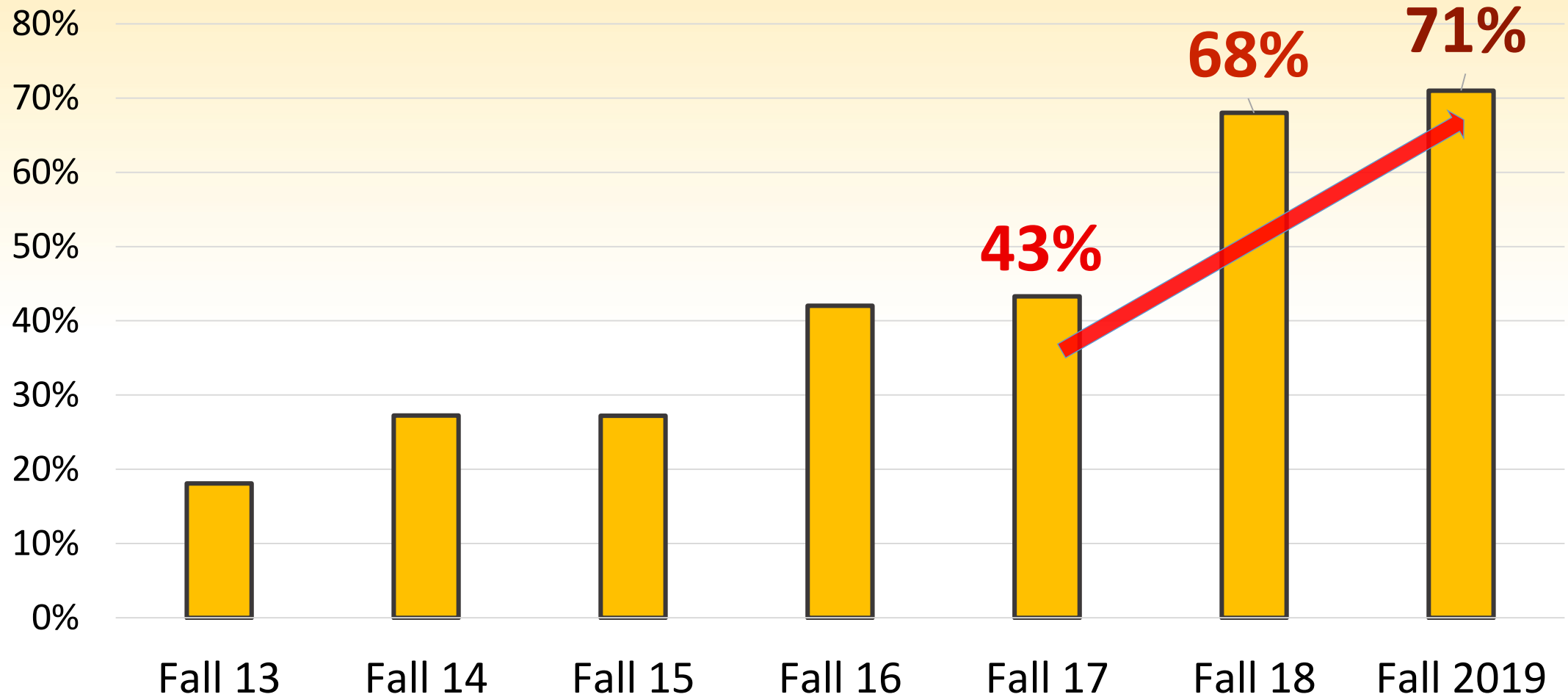
***Opportunities** for Improvement !!*

4-Year Graduation Rates

2 Major Efforts / Achievements at Cal State LA

- **Increase in Full Loaders (\geq 15 units per semester)**
- **Increase in B4 (GE Math/QR) Completion**

% of Full Loaders (\geq 15 Units) : *First-Time Freshmen Cohort*

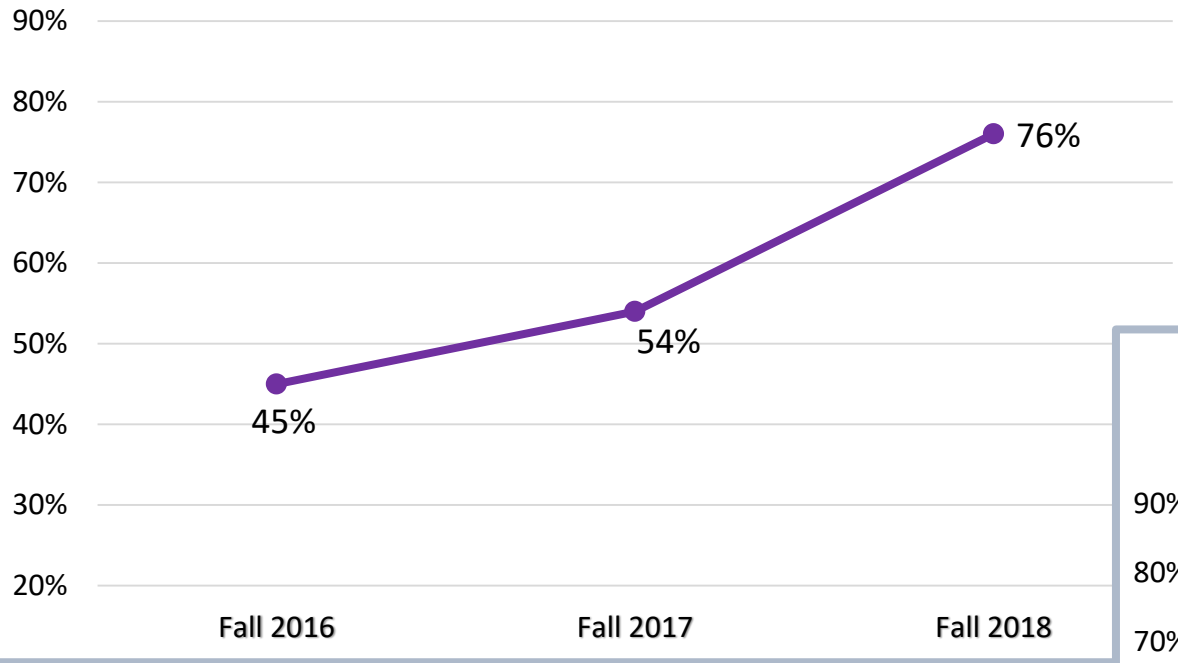


Units Completed by the end of 1st year by cohort: fa16, fa17, fa18

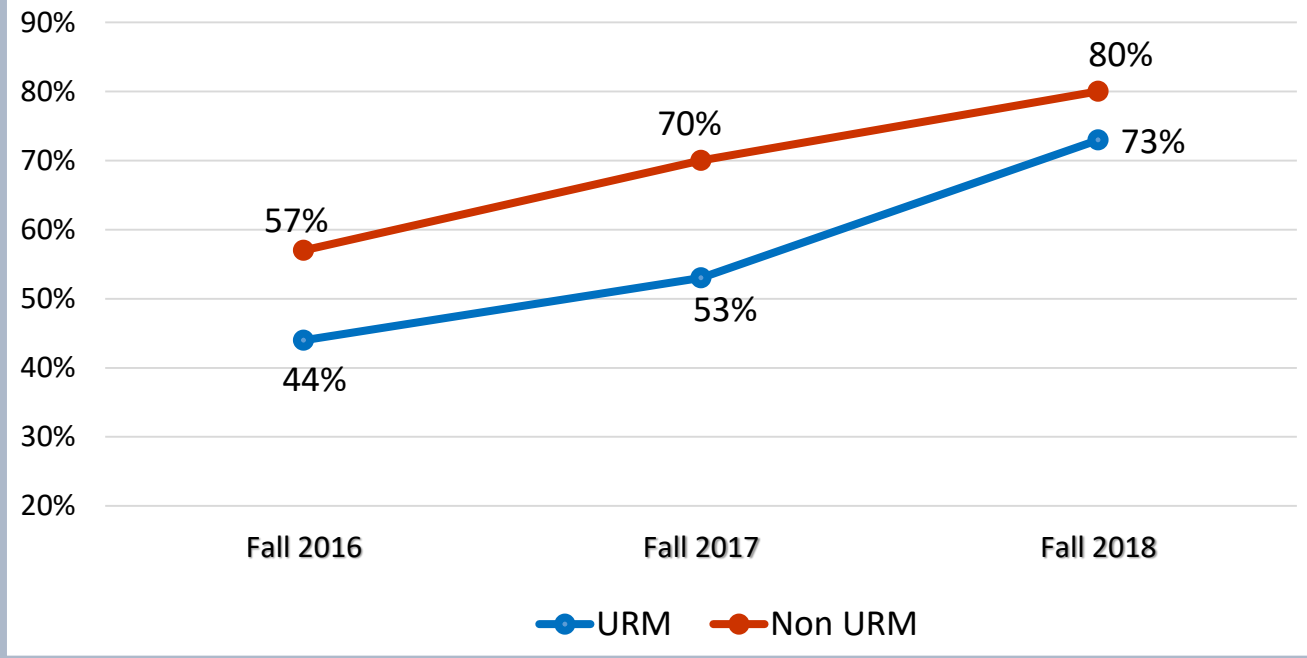
Term	Cohort	Avg. Total Units Earned
2169	3,830	24.93
2179	3,556	25.95
2189	3,862	27.76



First-Time Freshmen Cohort Quantitative Reasoning (B4) Completion



First-Time Freshmen Cohort URM Gap: Quantitative Reasoning (B4) Completion



Who graduated in 4-Years ?

(Fa11 thru Fa15 cohort)

4-Year Graduation	4-Year Graduation Rates		
	Gender		
Ethnicity	Female	Male	Total
Asian	16.1%	11.5%	13.9%
AfrAm	10.7%	6.9%	9.5%
Latinx	8.4%	5.2%	7.1%
Int'l	14.7%	7.7%	11.4%
White	20.2%	12.5%	16.7%
Cohort Total	10.1%	6.8%	8.8%

4-Year Graduation	Pell	1st Gen	Total	HS GPA	SAT Total
Graduated	815 (7.2%)	689 (7.2%)	1360 (8.8%)	3.35	962
Cohort Total	11250	9536	15494	3.17	885

College at Entry	Graduated in 4yrs	4-year grad rates (%)	Total
AL	224	12.0%	1859
BE	201	11.9%	1689
ED	5	6.5%	77
ET	85	4.2%	2032
HHS	357	8.8%	4052
NSS	318	9.8%	3260



Who graduated in 4-Years ?

(Fa11 thru Fa15 cohort)

Total Units to Degree	128.26
Total Units to Degree	# of Students
120-124	723
125-129	237
130-134	127
135 or higher	273

AP Credits / Transfer Units at Freshmen Entry	Graduated in 4yrs	Not graduated in 4yrs
Ave Units Earned	4.30	1.46

Summer/Intersession Course Taking	Graduated in 4-Years	
	Graduated in 4yrs	Not graduated in 4yrs
Average Units Earned in Summer / Intersession	6.50	2.84
# of takers in Summer / Intersession	917	8092
# of Cohort	1360	14134



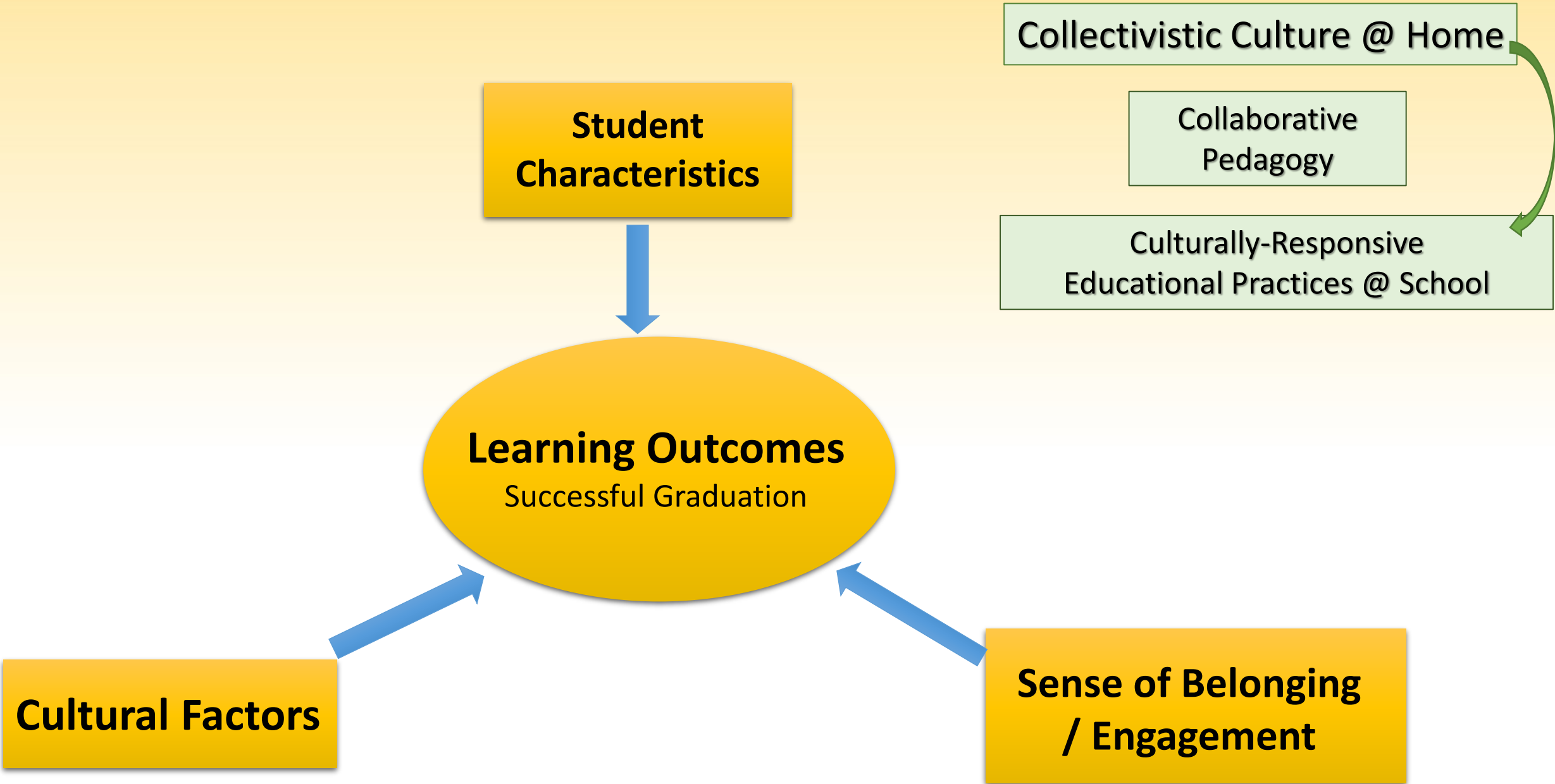
Opportunities for Improvement

URM Gap



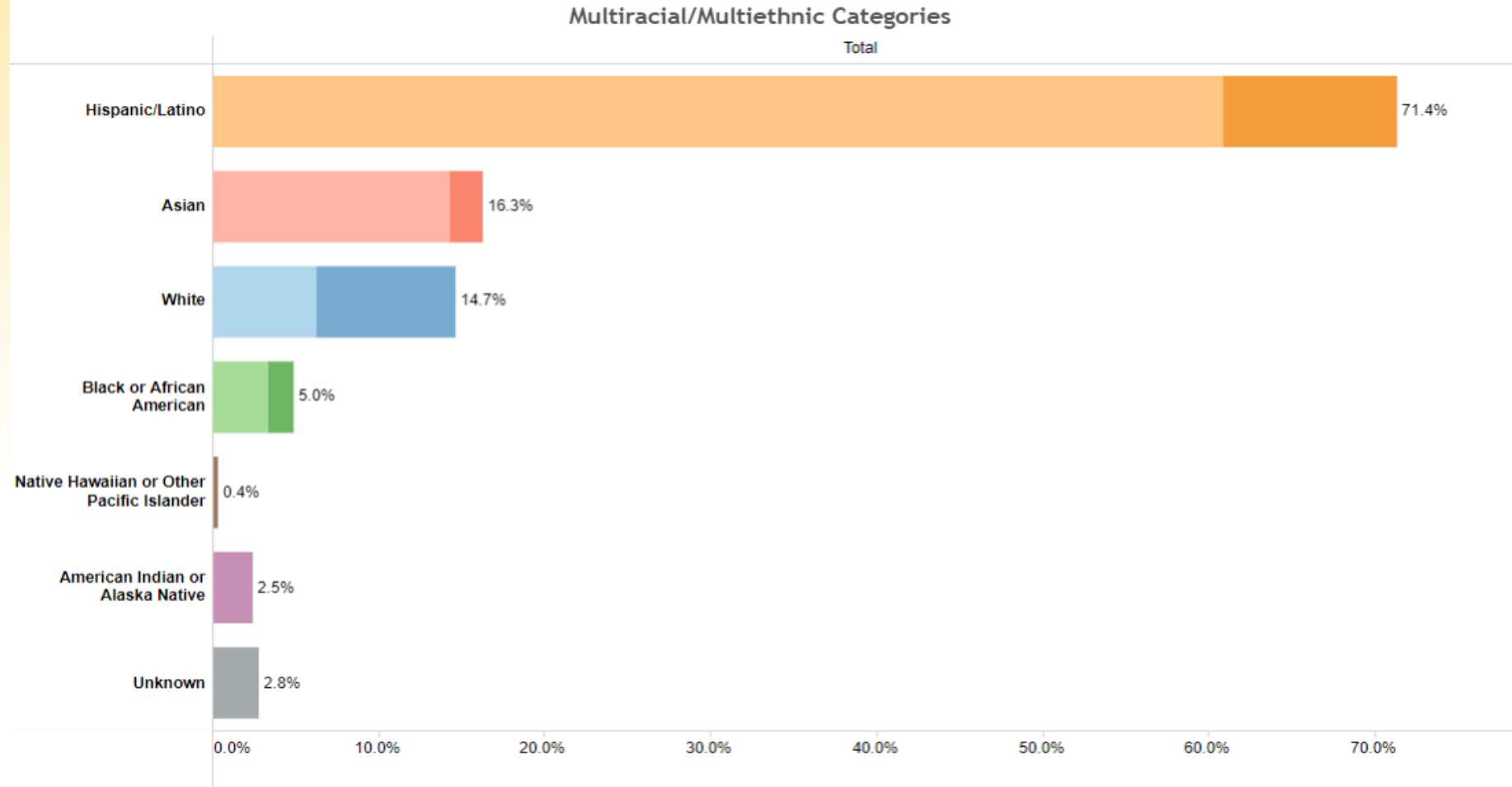
- ✓ ***Sense of Belonging***
- ✓ Learning Community
- ✓ Well-Being and Healthy Mind
- ✓ Post-Bac Outcomes
- ✓ Faculty Development
- ✓ Year-2 Planning for Math / QR :
(Latinx students)
- ✓ Collaborative Pedagogy





Redefined Ethnic Composition: Multiracial Dashboard

Term	Equity Box	Academic Career	Enrollment Status
Fall 2019		(All)	(All)
College	Department	Plan	
(All)	(All)	(All)	



Darker color on a bar graph represents multiracial/ethnic students who gave any two responses when selecting their race, including applicants who stated they are of Hispanic or Latino background. As such, multiracial/ethnic students may be counted in multiple categories and a total percentage, across all groups, will not add up to 100%.

The CSU application started collecting multiracial/ethnic information as of Summer 2009.

Q & A





CAL STATE LA
CALIFORNIA STATE UNIVERSITY, LOS ANGELES

Contact Us

Office of Institutional Effectiveness
CALIFORNIA STATE UNIVERSITY, LOS ANGELES
5151 State University Drive, Los Angeles, CA 90032

Phone

[323.343.2730](tel:323.343.2730)

Email

IE@calstatela.edu

Web

calstatela.edu/IE