
Using Enrollment Management Analytics (EMA) to address inequities at UCI

— Provost Leadership Academy —

What is Enrollment Management Analytics (EMA)?



Info Regarding In-Person Visits



United by a
shared purpose

Enrollment Management brings Analytics, Admissions, Financial Aid and Registrar together to support a first-in-class education to the most talented students, regardless of background.

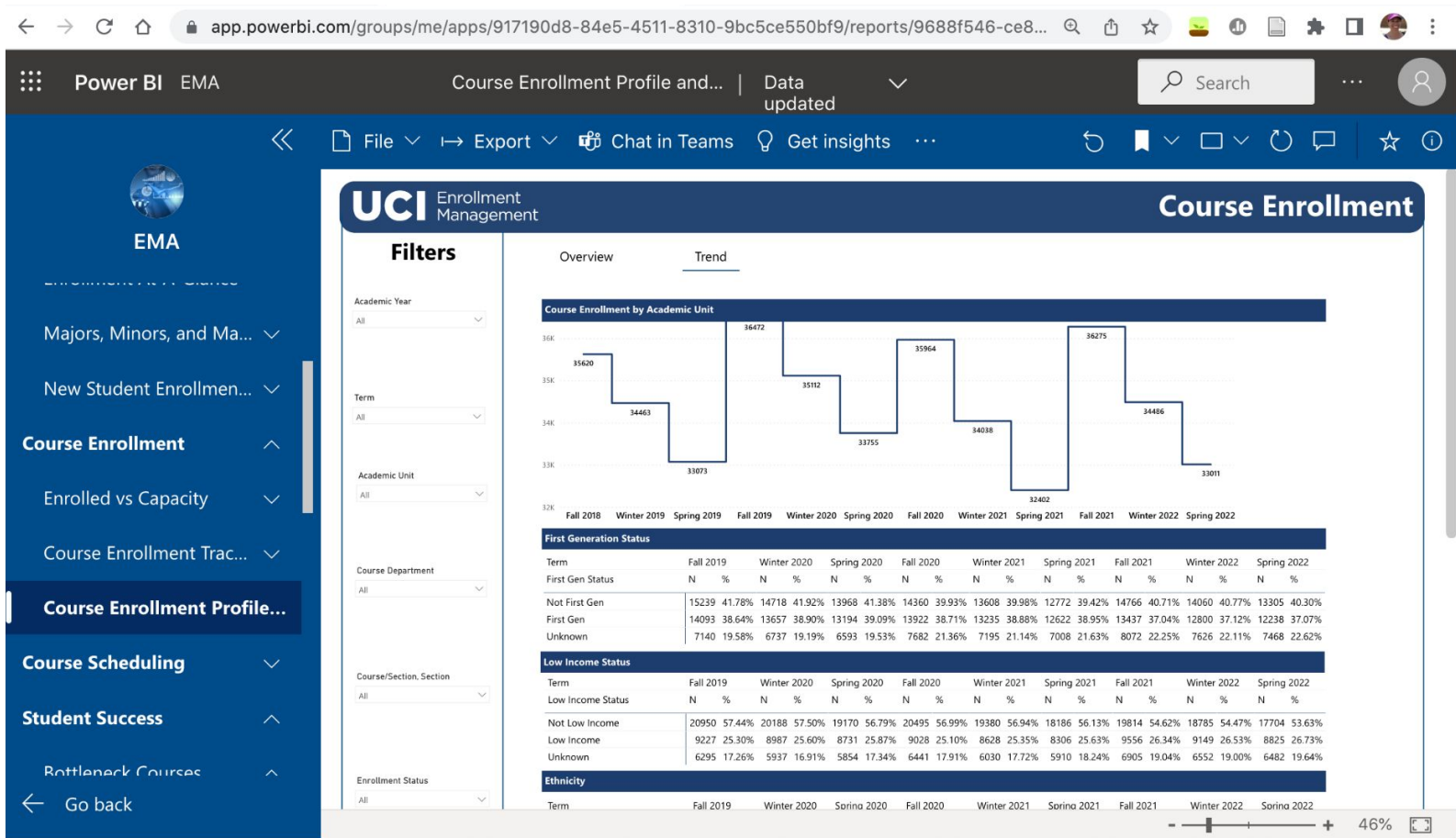
Patricia Morales, Ph.D. Associate Vice Chancellor, Enrollment Management

Tony Hwang, Ed.D., Executive Director

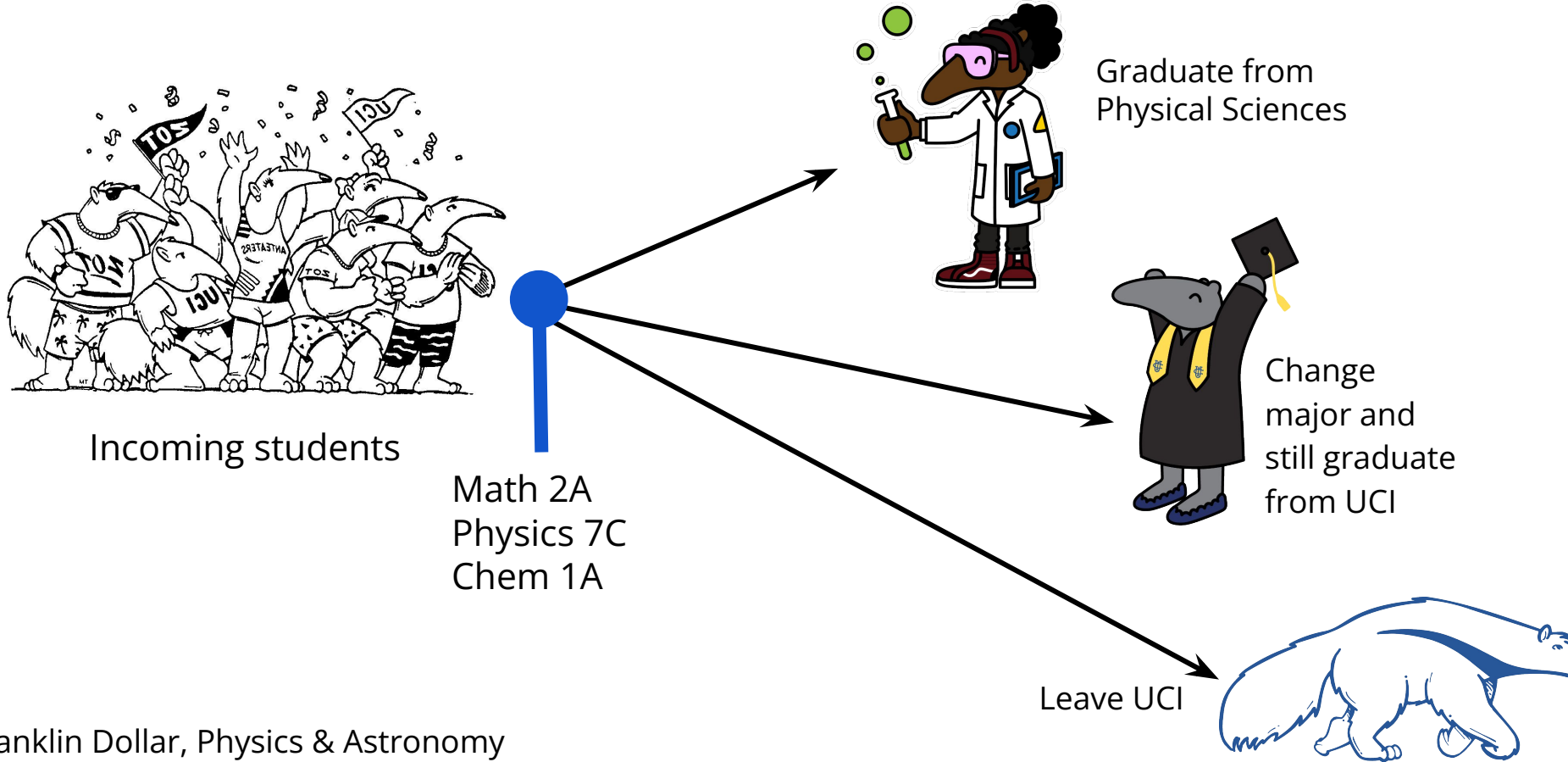
Jovonte Willis, Director of Enrollment Management Analytics

Jun Xiang, Business Intelligence Analyst

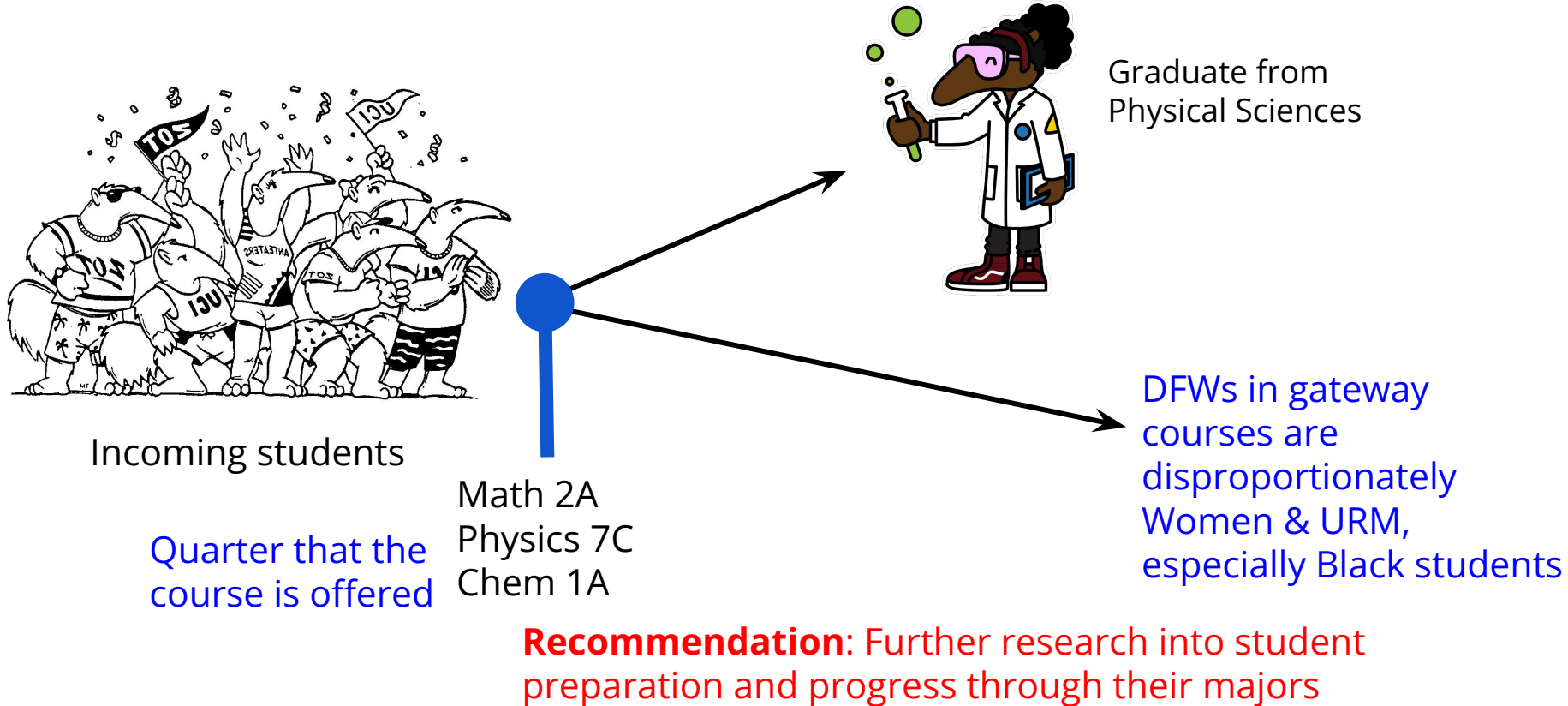
What is Enrollment Management Analytics (EMA)?



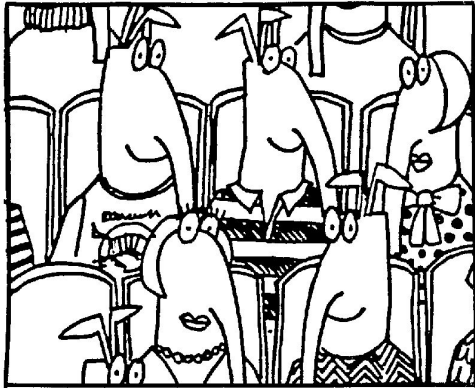
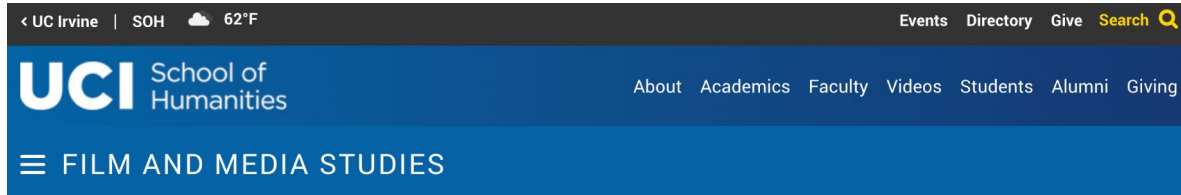
Inequities in “gateway courses” in Physical Sciences



Inequities in “gateway courses” in Physical Sciences



Addressing needs of an increasingly diverse major



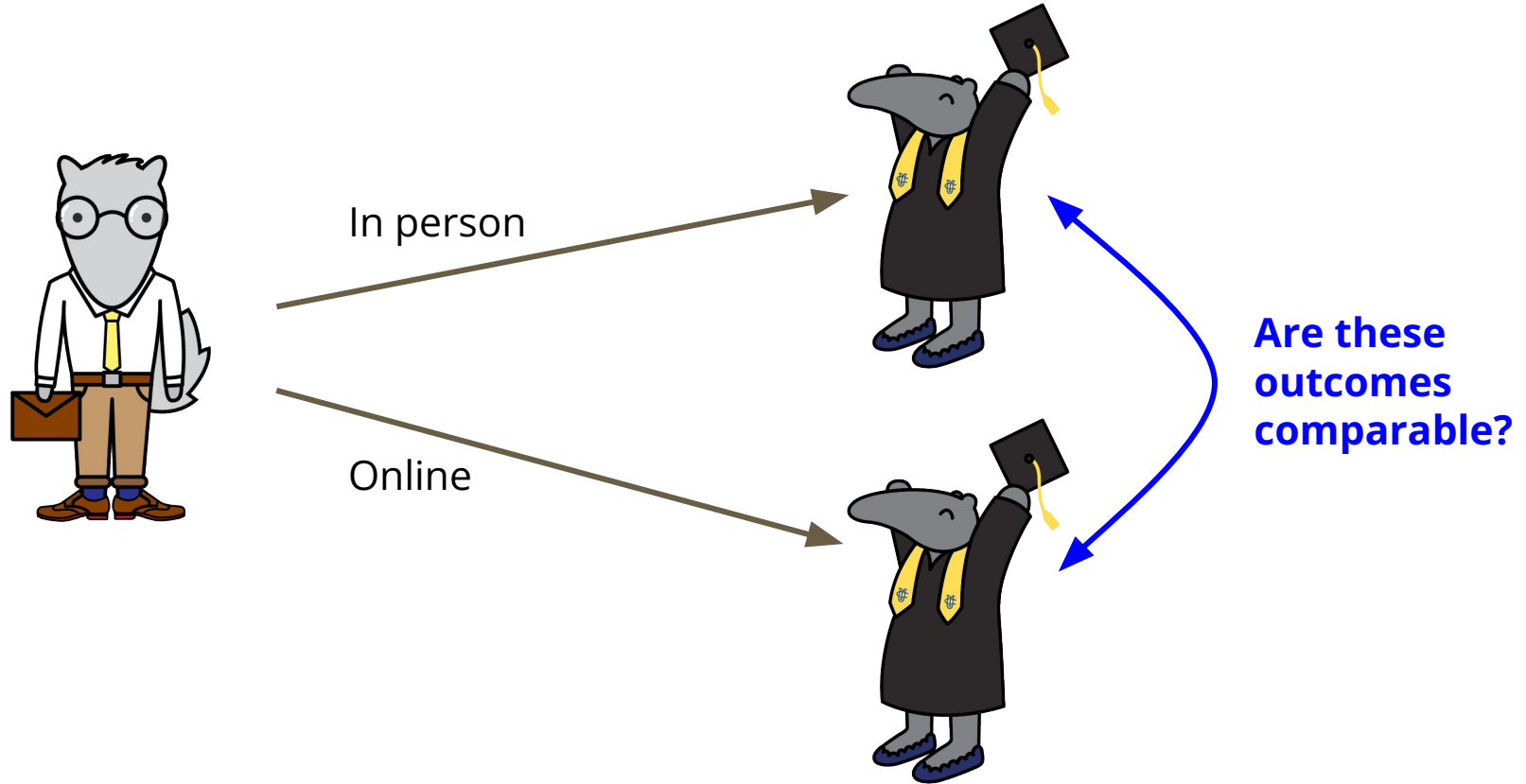
Added >100 majors in the last 3 years

Largest major in Humanities

19th largest major at UCI

Recommendation: Use demographic trends to determine how best to attract, accommodate, and ensure the success of all students

Online courses and Business majors



Online courses and Business majors

Overall

Modality	Graded	ABC	%ABC	DFW's	% DFW
InPerson	1845	1759	95.3%	97	5.3%
Online	1335	1280	95.9%	55	4.1%

Comparable DFW rates

Race/Ethnicity (combined online and in-person)

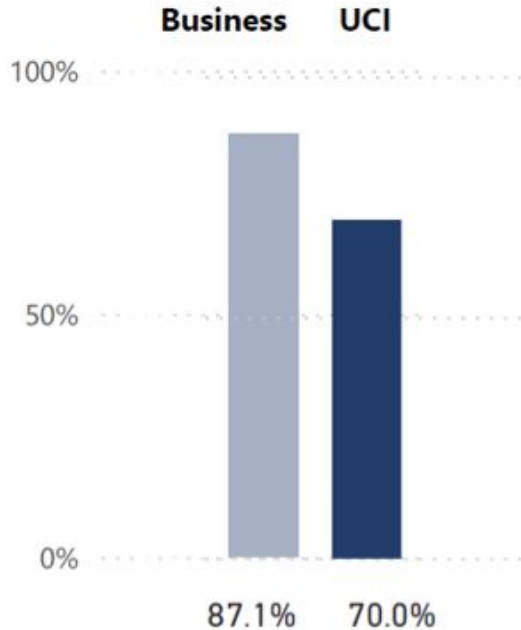
race	Graded	ABC	%ABC	DFW's	% DFW
<input type="checkbox"/>	10	9	90.0%	1	10.0%
<input type="checkbox"/> African American/Black	77	65	84.4%	12	15.6%
<input type="checkbox"/> American Indian/Alaskan Native	12	12	100.0%		
<input type="checkbox"/> Asian	2073	2006	96.8%	85	4.1%
<input type="checkbox"/> Latinx	521	489	93.9%	32	6.1%
<input type="checkbox"/> Native Hawaiian/Pacific Islander	4	4	100.0%		
<input type="checkbox"/> Unknown	138	134	97.1%	7	5.1%
<input type="checkbox"/> White	330	316	95.8%	14	4.2%

Recommendation: Determine in-person vs online DFW rate

Identify barriers to success

Online courses and Business majors

Business majors have a high 4-year graduation rate



PRE-PANDEMIC students who took online courses were more likely to finish in 4 years

Courses Taken	N	4-Year
0	105	76.2%
1	87	92.0%
2	60	95.0%
3	44	95.5%
4	36	91.7%
5	17	94.1%

Recommendation: Study graduation rates of specific demographics of students in in-person and online courses

Do “UCI 101” types of courses foster student success?



Uni Stu courses had low sample sizes

Social Ecology ACE peer mentor program had 2-years of historic data which isn't enough for analyzing 4-year graduation rates. Stay tuned!

Looking at other peer mentor programs didn't yield useful data

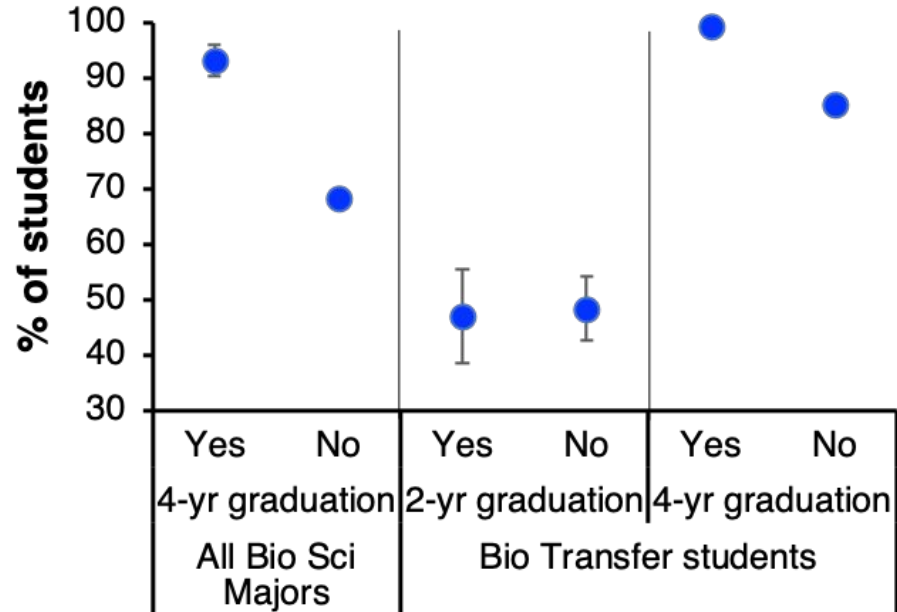
Recommendation: To Integrate data from various mentoring programs for UCI undergraduate students with the EMA dataset and to conduct analyses testing which programs affect 4th and 6th year graduation rates, in particular among underrepresented minority students

Bio 199 Undergraduate Research

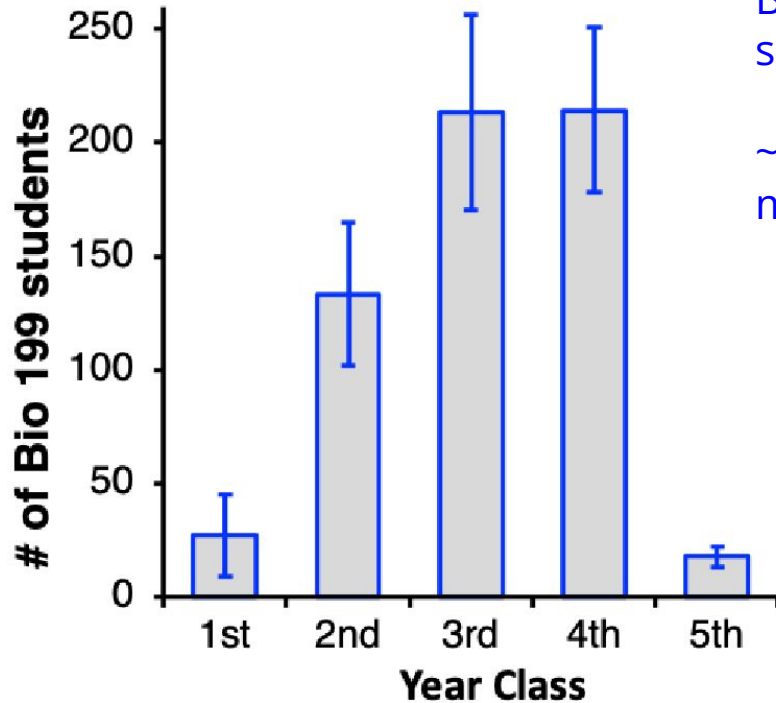


Recommendation: Further research into motivation and which students benefited the most from Bio 199

Strong correlation with higher graduation rates, but correlation is not causation!



Bio 199 Undergraduate Research



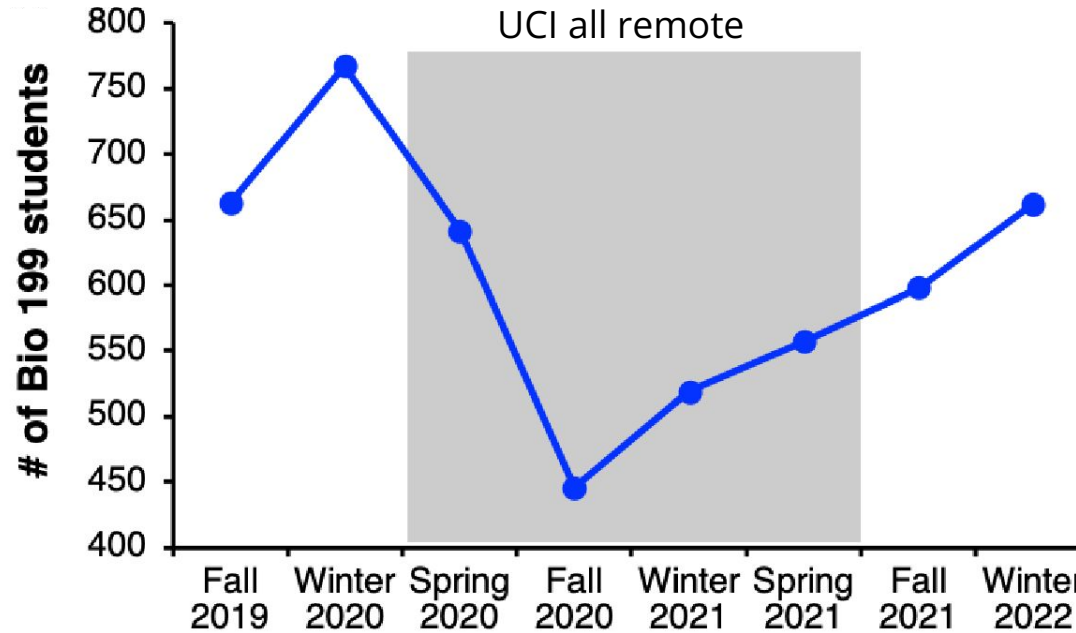
Bio 199 students are primarily juniors and seniors

~20% of the Bio 199 students are not Bio majors

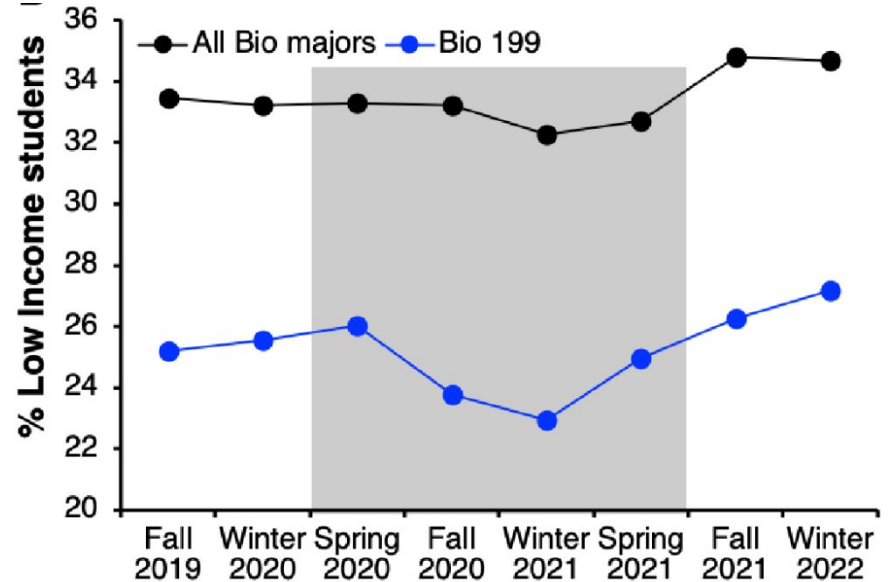
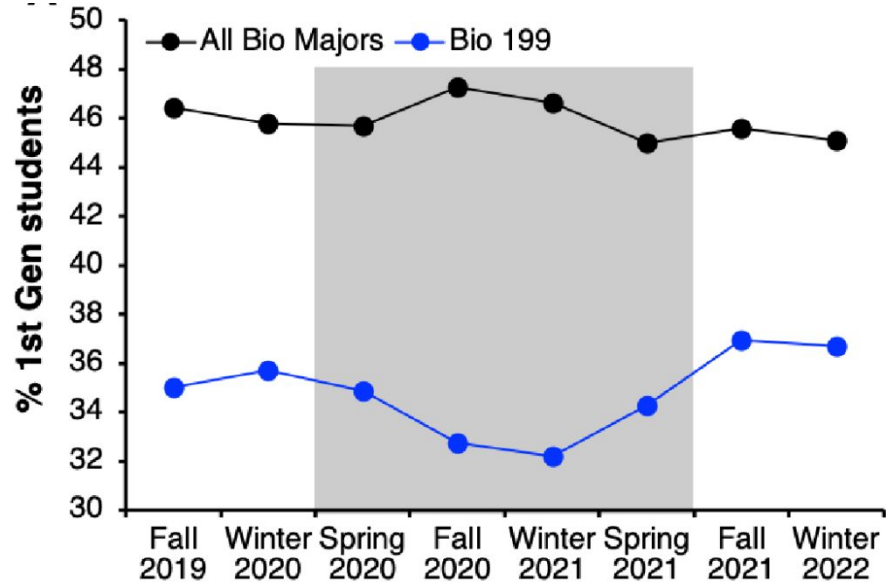
Recommendation: Increase earlier participation through program specific advising and more frequent “how to get into research” workshops targeted at 1st and 2nd years.

Bio 199 Undergraduate Research

The pandemic took a heavy toll on undergraduate research

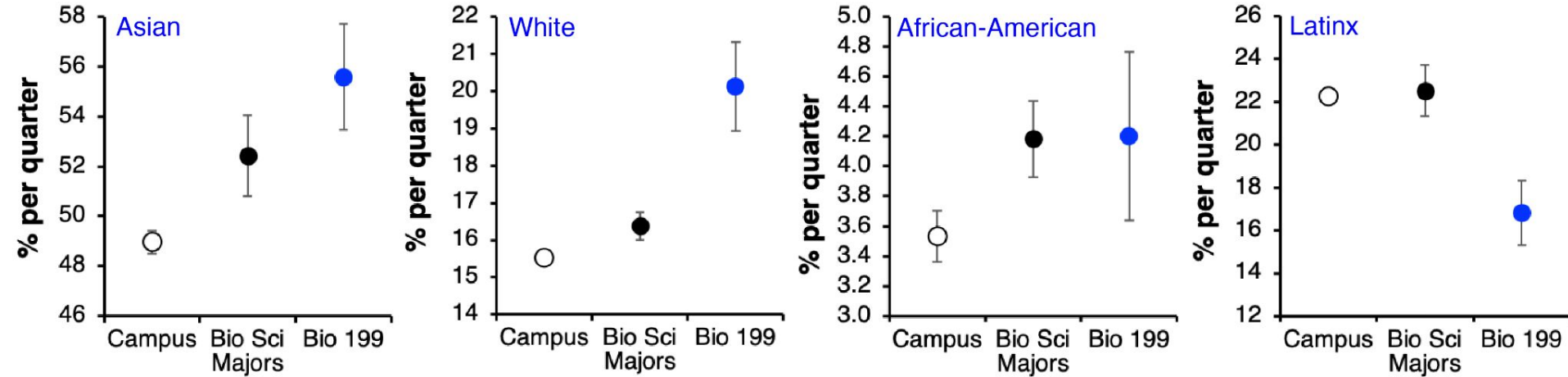


Bio 199 isn't equally accessible to all students



Recommendation: Expand “how-to” workshops to campus-wide programs such as the 1st Gen Initiative. Explore avenues for funding low income students to make it financially feasible for them to earn course credit for research.

Bio 199 isn't equally accessible to all students



Recommendation: In addition to advising and workshops, research other factors that may be barriers such as imposter syndrome for the students or unconscious biases from the faculty.

Future directions

- More research!!
- Use data to identify high-priority areas for interventions that foster student success at all levels (Majors, Schools, Campus)
- Determine if successful interventions can be applied to different programs or scaled up to School or Campus populations.
- Use clearinghouse data to identify pathways through majors that correlate with completing higher degrees and/or employment

Thank you!

Nancy Aguilar-Roca (Ecology and Evolutionary Biology)

Claudia Benavente (Pharmaceutical Sciences)

Franklin Dollar (Physics and Astronomy)

Wei Li (Biological Chemistry)

Lindsay Richland (Education)

Fatimah Rony (Film and Media Studies)

Zheng Sun (Merage School of Business)

Ilona Yim (Psychological Science)