# Five Measures of Student Success at UC Berkeley

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Stay Day Conference   University of California, Berkeley   May 25, 2011
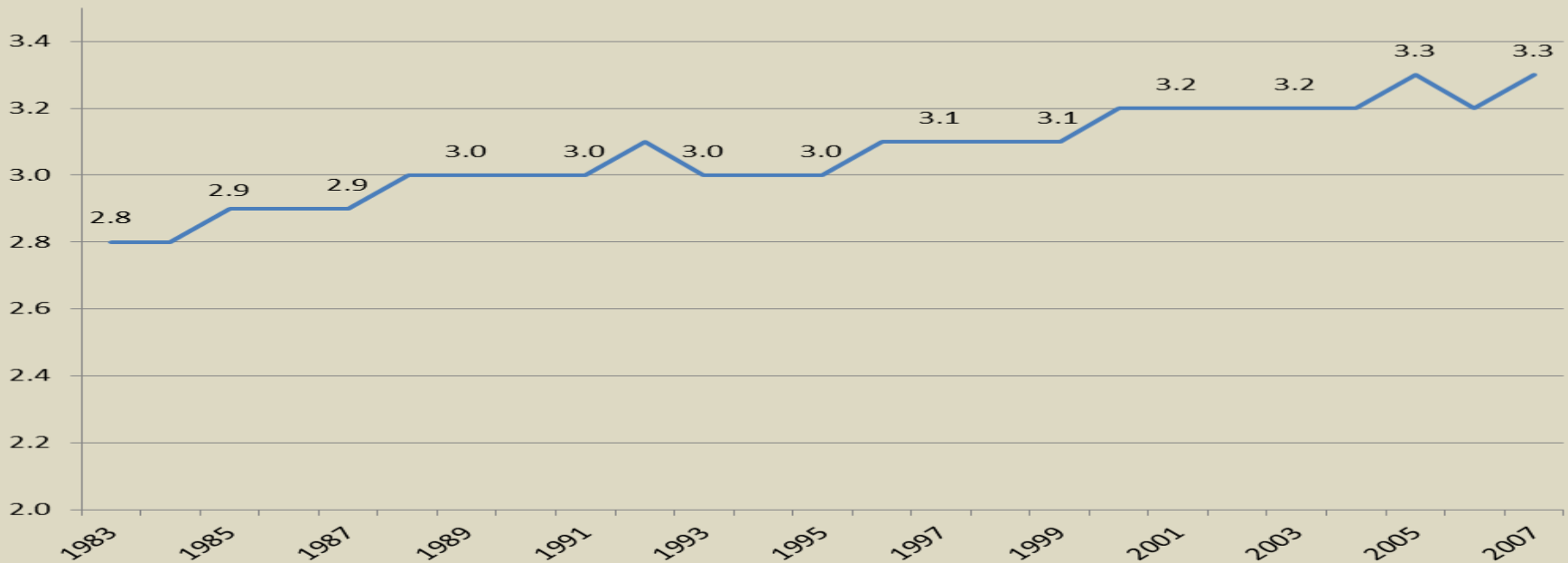
Trends in Academic Success: Graduation Rates

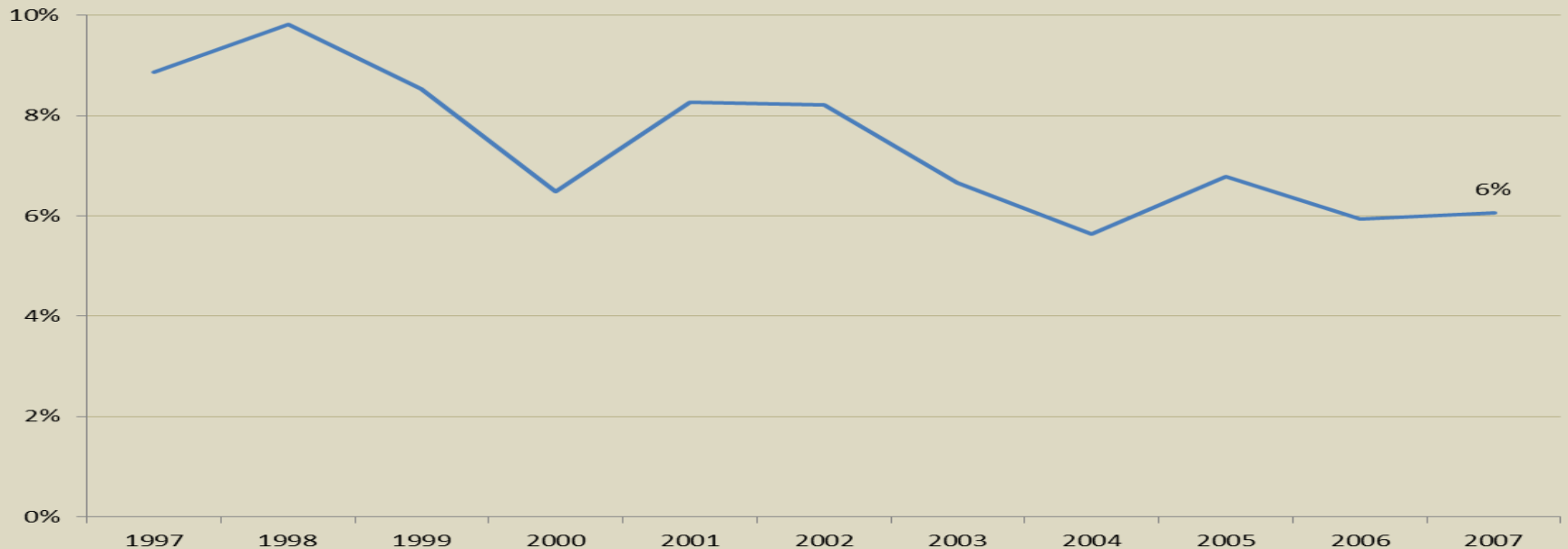4- and 6-year Graduation Rates at UC Berkeley by Newly Entering Fall Freshmen Cohort Year (1983-2004)
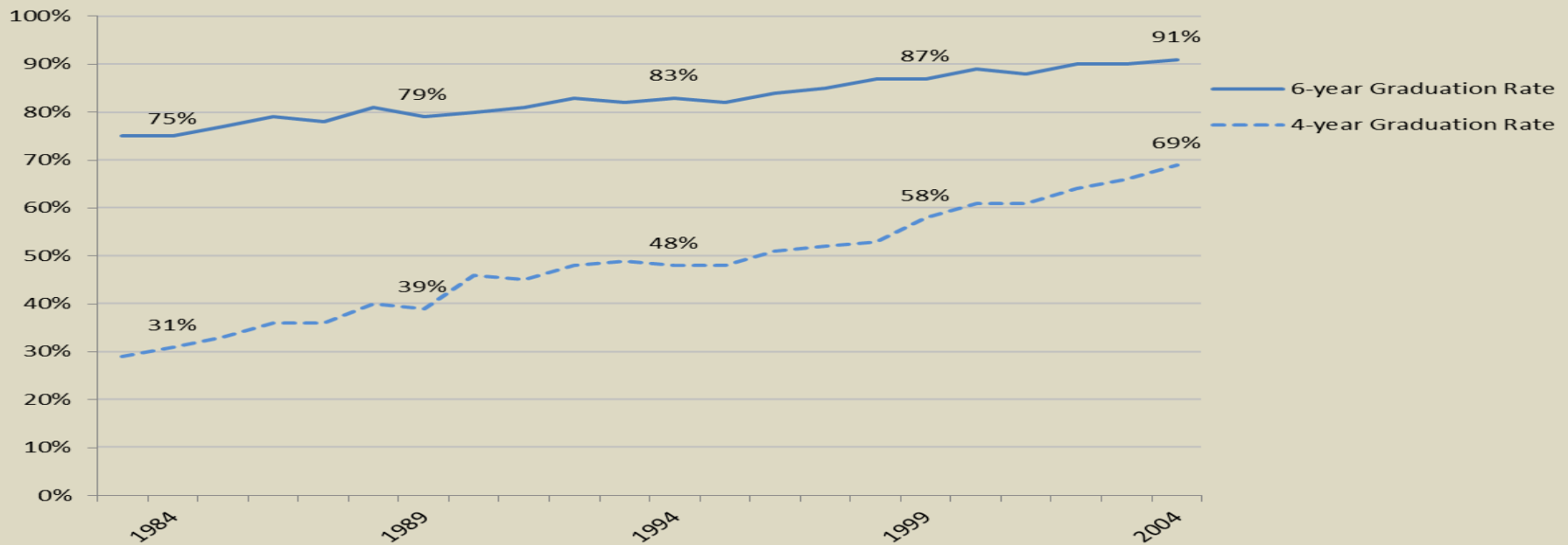
Trends in Academic Success: 1ˢᵗ-year Grade Point Averages

1st-Year UC GPA:
UC Berkeley New fall Freshmen Cohort
(1983-2007)

Trends in Academic Success: 1ˢᵗ-year Probation Rates

1st-Year Probation Rates:
UC Berkeley New fall Freshmen Cohort
(1997-2007)

The Present Study:
Five Questions of Interest

❖ Who are the students that do not graduate and why?

❖ Who are the students that do not do well academically in their 1st year and what happens to them over time?

❖ What factors are associated with how satisfied students report being with their GPA?

❖ What is the profile of students who are apparently successful based on their GPA, but who indicate that they would not enroll at Berkeley if they could do it over again?

❖ How might stress and depression be associated with student success and particular student characteristics?

Students Who Do Not Graduate: The Basic Questions

- ❖ How many students do not graduate and when do they leave?

- ❖ How well or how poorly are students doing academically when they leave?

- ❖ To what extent is academic preparation associated with not graduating?

- ❖ To what extent are family resources associated with not graduating?

- ❖ To what extent is choice of field of study associated with not graduating?

- ❖ To what extent is initial academic difficulty at Cal associated with not graduating?

Recruited Student-Athletes and Our Focus Today

- Constitute 6% of freshman cohort (221) but 16% (58) of those not graduating

- Six-year graduation rate is 78% for female athletes, 70% for male athletes

- Background and non-graduation characteristics are somewhat different

- Therefore, we do not include them in much of the analysis

- We also look at just six-year graduation for fall freshmen, not four-year graduation, transfer students or spring freshmen

When Students Leave (Fall 2004 Cohort)

Table 1. Non-Graduates by Timing of Leaving and Gender

MALE	Number	% of Cohort
First Year	25	1.6%
Second Year	24	1.6%
Third Year	22	1.4%
Fourth Year	35	2.3%
Fifth Year*	36	2.3%
Total	**142**	**9.3%**
FEMALE	Number	% of Cohort
First Year	23	1.2%
Second Year	20	1.0%
Third Year	21	1.1%
Fourth Year	14	0.7%
Fifth Year*	46	2.4%
Total	**124**	**6.5%**

*Includes those still persisting

UC GPA of Students Who Do Not Graduate

Table 2. Percent of Cohort Not Graduating by Gender, UC GPA and Timing of Departure			
MALE	Early	Late	Total
3.0 & up	1.3%	1.4%	2.7%
2.4-2.99	1.0%	1.8%	2.8%
Under 2.4	2.2%	1.6%	3.9%
Total	4.5%	4.8%	9.3%
FEMALE	Early	Late	Total
3.0 & up	1.4%	0.7%	2.1%
2.4-2.99	0.6%	1.7%	2.2%
Under 2.4	1.5%	0.7%	2.1%
Total	3.4%	3.1%	6.5%

Role of Level of Parental Education

Table 3. Distribution of Non-Graduates by Gender and Parental Education		
MALE	**Number**	**% of Group**
No College	22	10.6%
Some College	17	12.3%
4-Yr Degree	30	9.1%
Graduate Study	88	11.5%
FEMALE	**Number**	**% of Group**
No College	34	10.2%
Some College	21	8.9%
4-Yr Degree	20	4.5%
Graduate Study	20	2.4%

The Non-Graduates: by Race/Ethnicity

Table 4. Distribution of Non-Graduates by Race/Ethnicity	Number	% of Group
White	83	8%
Chicano	35	14%
Chinese	34	4%
No Data	18	8%
African American	16	19.5%
Filipino	14	10%
International	12	7%
Korean	11	6%
Latino	9	11%
South Asian	9	7%
Other Asian	9	10%
Japanese	6	10%
Vietnamese	6	5%
Other	4	8%
American Indian	2	7%
Pacific Islander	0	0%

Non-Graduates by Intended Major

**Table 5. Distribution of Non-Graduates
by Selected Intended Major**

	Number	% of Group
Undecided	120	9%
MCB	22	6%
EECS	9	6%
Mathematics	9	15%
Mech Engineering	9	8%
Architecture	8	8%
Economics	8	11%
Chemistry	6	7%
Political Science	5	4%
Psychology	5	6%
Chem Engineering	4	6%
Civil Engineering	4	6%
Physics	4	9%
English	3	4%
History	2	4%
Applied Math	0	0%

Role of First-Year UC GPA

Table 6. Distribution of Non-Graduates by Gender and First-Year UC GPA		
MALE	**Number**	**% of Group**
Under 2.5	71	37.2%
2.5-3.19	39	7.5%
3.2-3.59	17	3.4%
3.6-4.0	16	3.8%
FEMALE	**Number**	**% of Group**
Under 2.5	51	30.7%
2.5-3.19	40	7.0%
3.2-3.59	19	3.2%
3.6-4.0	15	2.5%

Combined Effects of 1st - Year GPA and Parental Education

Table 7. Distribution of Non-Graduates by Gender, First-Year UC GPA and Parental Education

GPA Under 2.5		
MALE	Number	% of Group
No College Degree	25	36.8%
College Degree	44	37.9%
FEMALE		
No College Degree	27	34.6%
College Degree	21	26.6%
GPA 3.6-4.0		
MALE	Number	% of Group
No College Degree	5	8.3%
College Degree	10	2.9%
FEMALE		
No College Degree	3	3.0%
College Degree	12	2.6%

What have we learned about non-graduation at Berkeley?

1. A small amount of leaving occurs at all points of the undergraduate career

2. Leaving is associated with lower than average UC GPA but few students "flunk out."

3. Gender plays a role but generally student characteristics and academic discipline are not as prominent as usually thought to be

4. Personal troubles versus social problem

5. Focus on first-year academic performance as indicator

Vulnerability in the first year and chances of graduation

1. Excluding student-athletes, defined as vulnerable population 574 fall 2004 freshmen those with at least one of the following characteristics: low first year GPAs (<2.5); those who have experienced a drop in their GPAs from high school to UCB of at least 1.75 points; those with SAT scores lower than 1100.

2. Question: How many of these students persist to graduation and what are the characteristics associated with graduation?

3. Students who experience a large drop in their GPA from high school to the freshman year at Cal but don't have either a GPA less than 2.5 or a low SAT score are just as likely to graduate as "non-vulnerable" freshmen

4. Half of the most vulnerable group (all three criteria) persist to graduation

Vulnerable Students from the fall 2004 Cohort: Graduation Rates by Gender & 1st - Year UC GPA

Table 1a. Vulnerable Student Graduation Rates by Gender and First-Year UC GPA

	Male			Female	
	Number	Grad Rate		Number	Grad Rate
No UC GPA	11	9%		9	0%
Under 2.20	90	51%		72	58%
2.20-2.49	90	81%		85	86%
2.50 and up	57	89%		160	92%
Total	248	69%		326	80%
Student-Athlete	58	53%		48	73%

Vulnerable Students: Graduation Rates by Gender & Parental Education

Table 1b. Vulnerable Student Graduation Rates by Gender and Parental Education

	Male			Female	
	Number	Grad Rate		Number	Grad Rate
Graduate Study	80	65%		53	77%
4-Yr College Degree	48	63%		61	82%
Some College	35	60%		45	73%
No College	76	80%		146	82%

Vulnerable Students: Graduation Rates by Race/Ethnicity

Table 1c. Vulnerable Student Graduation Rates by Selected Race/Ethnicity

Chinese	83%	
Vietnamese	83%	
Other Asian	83%	
Filipino	81%	
Latino	79%	
Chicano	78%	
African American	71%	
White	65%	
International	60%	
Korean	58%	
Total	74%	
Student-Athlete	62%	

Conclusions About Non-Graduation and Vulnerable Freshmen

- ❖ By focusing on non-success (students who do not graduate) and potential non-success (the most vulnerable freshmen), we have in fact reinforced the picture of Berkeley students as successful.

- ❖ We need to look at other than the fact of graduation per se to examine success or the lack thereof as experienced by our students.

Remaining Three Questions of Interest

❖ What factors are associated with how satisfied students report being with their GPA?

❖ What is the profile of students who are apparently successful based on their GPA, but who indicate that the would not enroll at Berkeley if they could do it over again?

❖ How might stress and depression be associated with student success and particular student characteristics?

Satisfaction with UC GPA and Associated Factors: Actual GPA

UCUES Item: "Please rate your level of satisfaction with [your UC GPA]"
6-pt scale ranges from *very dissatisfied* to *very satisfied*

Dissatisfaction (dissatisfied/very dissatisfied) with UC GPA by Actual UC GPA		
Cumulative UC GPA	Number	% of Group Dissatisfied
2.5 or lower	495	64%
2.51 to 2.99	847	50%
3.0 to 3.29	674	32%
3.3 to 3.69	544	15%
3.7 to 4.0	91	3%

*As Reported by Respondents to the 2008 Berkeley UC Undergraduate Experience Survey

Satisfaction with UC GPA and Associated Factors: Admit Status, Year in School, & Ethnicity

When controlling for a number of demographic and student-level variables (including actual GPA), we found higher levels of satisfaction with UC GPA for:

1. Transfer students

2. Students who had spent more years at UC Berkeley

3. Chicano and Latino students

4. Students with higher actual GPAs

Lower levels of satisfaction with UC GPA found for:

1. First & Second Generation Immigrants and International students

2. Korean, South Asian, Vietnamese, Chinese, Other Asian, & Japanese students
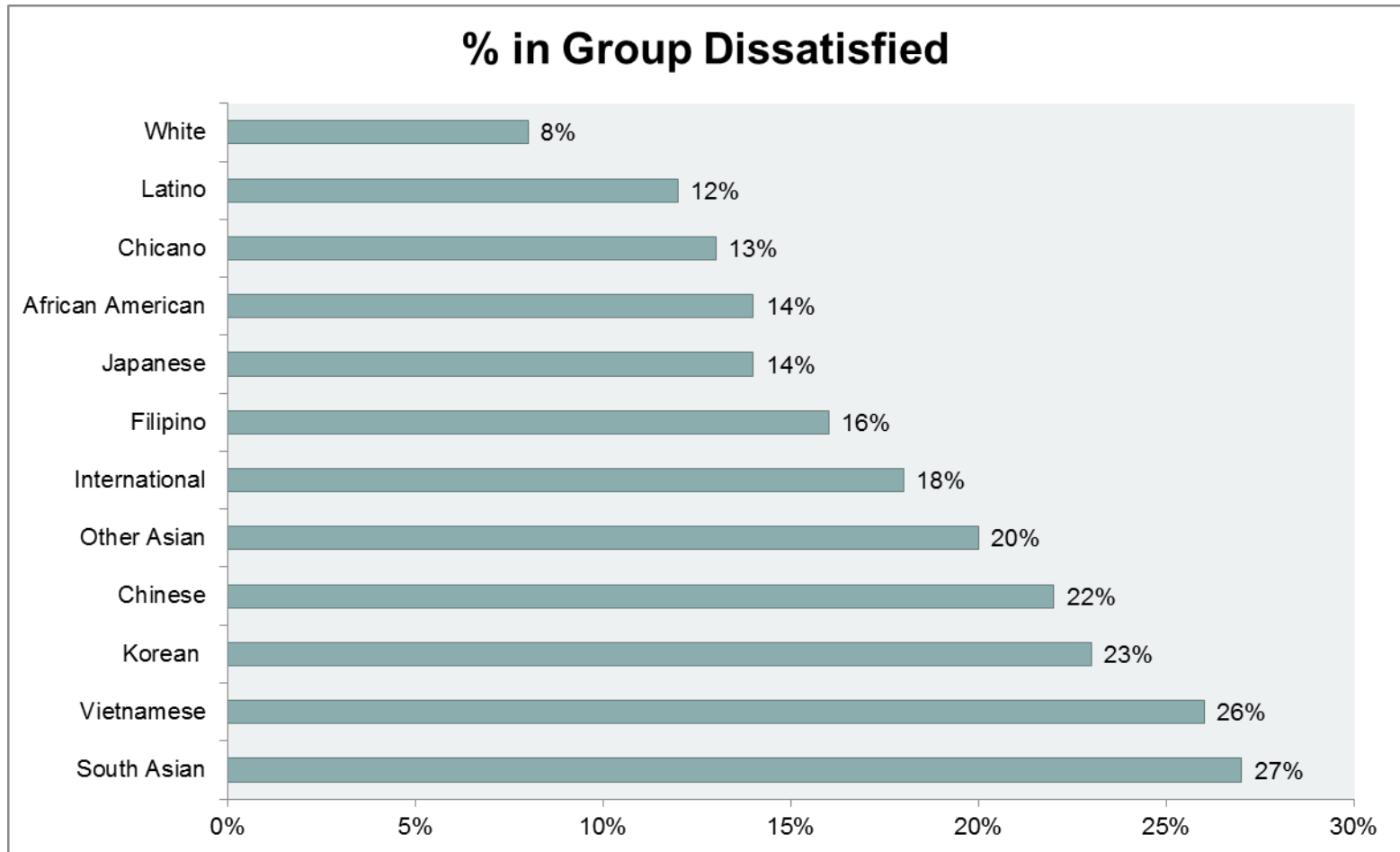
Dissatisfaction with UC GPA by Ethnicity (3.0 & above Actual GPAs)

Dissatisfaction (dissatisfied/very dissatisfied) with UC GPA by Race/Ethnicity for Students with GPAs of 3.0 or Higher

Race/Ethnicity	Number	% in Group Dissatisfied
South Asian	83	27%
Vietnamese	75	26%
Korean	93	23%
Chinese	442	22%
Other Asian	42	20%
International	43	18%
Filipino	41	16%
Japanese	24	14%
African American	22	14%
Chicano	68	13%
Latino	32	12%
White	221	8%

Dissatisfaction with UC GPA by Ethnicity (3.0 & above Actual GPAs)

% in Group Dissatisfied

Ethnicity	% Dissatisfied
White	8%
Latino	12%
Chicano	13%
African American	14%
Japanese	14%
Filipino	16%
International	18%
Other Asian	20%
Chinese	22%
Korean	23%
Vietnamese	26%
South Asian	27%

Desire to Reenroll at UC Berkeley and Associated Factors

When controlling for gender, GPA, year in school, admit status, first generation college standing, household income, immigrant generation and ethnicity, we found higher levels of agreement with the notion of reenrolling at UCB for:
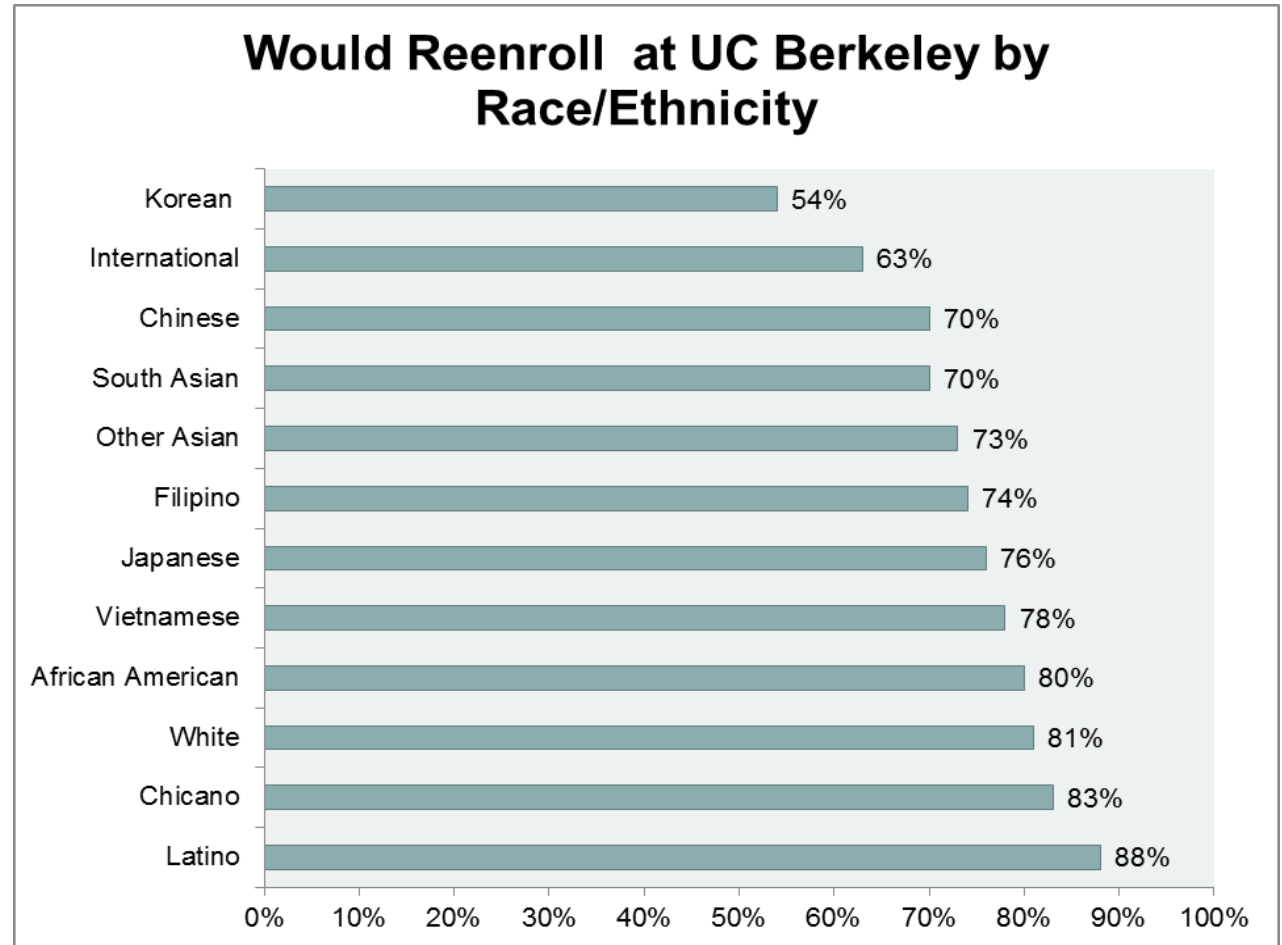
1. Students with higher GPAs

2. Students who had spent more years at UC Berkeley

3. Transfer students

Lower levels of agreement/desire to reenroll found for:

1. First & Second Generation Immigrants and International students

2. Korean, Other Asian, Chinese, and African American students

Desire to Reenroll at UCB by Ethnicity (3.7 or > Actual GPA)

"Knowing what I know now, I would still choose to enroll at this campus"

Would Reenroll at UC Berkeley by Race/Ethnicity

Race/Ethnicity	Percentage
Korean	54%
International	63%
Chinese	70%
South Asian	70%
Other Asian	73%
Filipino	74%
Japanese	76%
Vietnamese	78%
African American	80%
White	81%
Chicano	83%
Latino	88%

6-pt scale ranging from strongly *disagree* to strongly *agree*

Desire to Reenroll at UCB by Ethnicity (3.7 or > Actual GPA)

*"Knowing what I know now,
I would still choose to enroll
at this campus"*

Would reenroll at UC Berkeley (strongly agree/agree) by Race/Ethnicity for Students with GPAs of 3.7 or Higher

Race/Ethnicity	Number	Proportion would Reenroll
Latino	63	88%
Chicano	68	83%
White	826	81%
African American	20	80%
Vietnamese	52	78%
Japanese	37	76%
Filipino	28	74%
Other Asian	49	73%
South Asian	66	70%
Chinese	447	70%
International	59	63%
Korean	56	54%

6-pt scale ranging from strongly *disagree* to strongly *agree*

Desire to Reenroll + Sense of Belonging, Pride, & being Valued

Composite variable created, consisting of the following 4 UCUES items:

1. "Knowing what I know now, I would still choose to enroll at this campus"
2. "I feel that I belong at this campus"
3. "I am proud to be a student at this campus"
4. "I feel valued as an individual on this campus"

Those with more positive ratings on the composite included:

**Female and Chicano students, as well as those with high GPAs

Those with less positive ratings included:

**Chinese, Korean, and Second Generation Immigrant students

Stress & Depression: Obstacles to Academic Success

UCUES Items:
"During this academic year, how often [has feeling depressed, stressed, or upset] been obstacles to your school work or academic success?"
5-pt scale ranging from *Not at all* to *All the time*

"During this academic year, how often has feeling depressed, stressed, or upset been an obstacle to your school work or academic success?"
6-pt scale ranging from *Never* to *Very often*

Stress & Depression: Student Success and Associated Factors

When controlling for GPA, year in school, first generation college standing, household income, immigrant generation and ethnicity, we found:

1. **Female students** and **transfer students** reported a greater frequency of stress and depression impacting their academic success

2. Students with **higher GPAs** and students with **higher household incomes** reported a lower frequency of stress and depression having an adverse impact on their school work and academic success

Conclusions about Satisfaction with GPA, Desire to Reenroll, and Stress & Depression

- Relatively objective measures of success, such as actual GPA, do not fully explain students' satisfaction with their own GPA.
    - International, First and Second Generation Immigrants, and Asian Students less satisfied

- Some students we would label as very successful (GPAs of 3.7 or higher), would not reenroll at UC Berkeley.
    - Race/Ethnicity and Immigrant Generation, over and above actual GPA, plays a role in whether or not a "successful" student would reenroll at UC Berkeley.
    - Korean and International Students expressed the lowest levels of agreement with the notion of reenrolling at UCB based on what they now know

- Experience with stress and depression as an obstacle to academic success and school work is associated with actual UC GPA, gender, and income.
    - The causal directionality of the significant relationship between UC GPA and reports of stress and depression as an obstacle to academic success are not able to be parsed out from the data.

Distribution and Overlap of Students: GPA Dissatisfaction, Stress & Depression, Belonging Composite

20% --Dissatisfied with UC GPA

21% --Experienced Stress & Depression as Obstacle to Academic Success

13% --Lower Sense of Belonging, Pride, Value, and Desire to Reenroll

15% --Full Overlap

13% --Dissatisfied with GPA + Experienced Stress & Depression as Obstacle

10% --Dissatisfied with GPA + Lower Belonging, Pride…

9% --Experienced Stress & Depression as Obstacle + Lower Belonging, Pride…

Questions? Comments?

- What was the most interesting/surprising thing you heard today?

- What did you not hear that you expected to hear?

- Does anything you heard today have implications for your work with students?