## Report



## Factors related to graduation rates: Freshman entrants

January, 2017

#### **OVERVIEW**

This report has descriptive statistics of and graduation rates by demographic variables, admissions selection factors, academic indicators at Berkeley, and campus experiences. Graduation rates adjusted for these variables are also presented. This report provides the background data for the accompanying briefing note, "Opportunities to increase the normative graduation rate: Freshman entrants."

#### **Methodology**

This analysis includes freshmen who entered in Fall 2008 (n = 4,263) and Fall 2009 (n = 4,355). These cohorts were chosen to allow for the calculation of 5-year graduation rates. Graduation data through Summer 2014 were pulled from Cal Answers. Normative graduation for freshman entrants is 4 years from the time of entry. One extra term is defined as an academic-year term (Fall or Spring) beyond the normative graduation time.

Demographic variables (gender, ethnicity, Pell Grant recipient status, and first-generation college student information) were sourced from Cal Answers in Spring 2016. "First-generation college" is defined as a student who reported that neither parent graduated from a 4-year college. "Pell Grant recipient" is defined as a student who received a Pell Grant while at Berkeley. U.S. residents and eligible non-citizens at lower annual income levels (typically less than \$45,000) are eligible to receive Pell Grants.

Admissions selection factors, including weighted high school grade point average (GPA), SAT Math and SAT Verbal scores, and athlete at entry were sourced from Cal Answers.

Initial academic indicators include first-term units attempted, first-term GPA, and first-year Academic Probation. The number of units attempted was measured at the time of Census for each student's first term at Berkeley. To evaluate academic performance, students were placed into the following groups based on their first-term GPA and whether or not they were placed on Probation in their first year:

- GPA < 2.00 or Academic Probation
- GPA 2.00-2.69 (C / C+)
- GPA 2.70-3.69 (B average)
- GPA 3.70-4.00 (A average)

Students were grouped into the School, College, or Division in which they first declared a major. If a student declared more than one major at the same time, the first major alphabetically was used. Time to declaration was measured in elapsed terms from entry. Data on academic indicators were sourced from Cal Answers.

Campus experiences included in the analysis are Work-Study participation and study abroad participation. Information was provided by the Berkeley Study Abroad Office for students who participated in UC Education Abroad Program (EAP) / Berkeley Abroad from Summer 2008 through Spring 2016. Students who studied abroad through other programs were not included in the count of study abroad participants. The Berkeley Financial Aid and Scholarships Office supplied the data about Work-Study activity from academic year 2008-09 through 2015-16.

The demographic, admissions selection, academic indicator, and campus experience factors described were used in logistic regression models. Two separate models were estimated:

- Graduating within 4 years compared to graduating at 4.5 years
- Graduating within 4.5 years compared to graduating at 5 years

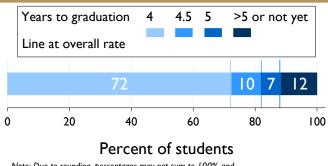
Adjusted graduation rates were calculated post hoc. As a sensitivity analysis, a model was fit on graduating at 4.5 years compared to graduating at 5 years.

#### **DEMOGRAPHIC VARIABLES AND ADMISSIONS CRITERIA**

### Graduation rates by demographic variables and admissions criteria

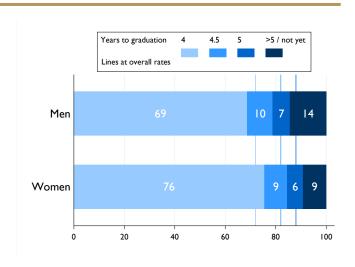
	Ove	all	% gr	aduated wi	thin
	Count	%	4 years	4.5 years	5 years
Total	8,618	100%	72%	82%	88%
Gender	2044	440/	400/	700/	040/
Men	3,944	46%	69%	79%	86%
Women	4,674	54%	76%	85%	91%
Ethnicity			100/	400/	
URM	1,235	14%	49%	63%	78%
International	619	7%	70%	78%	84%
White/Other	3,079	36%	74%	83%	89%
API	3,685	43%	79%	88%	93%
Parent education					
First-generation college	2,189	27%	61%	74%	84%
Not first-generation	5,846	73%	77%	85%	90%
Income					
Pell Grant recipient	2,886	33%	63%	76%	85%
Not Pell Grant recipient	5,732	67%	77%	85%	90%
Weighted HS GPA					
<4.00	1,166	14%	50%	62%	74%
4.00 – 4.24	2,150	25%	70%	80%	87%
4.25 – 4.49	3,252	38%	77%	87%	92%
4.50 or higher	2,019	24%	81%	88%	92%
SAT Math	_,		2		, _,,
<650	2,499	29%	60%	72%	82%
650 – 690	1,723	20%	75%	84%	91%
700 – 740	1,646	19%	78%	86%	91%
750 – 800	2,625	31%	80%	88%	92%
SAT Verbal	2,025	3.70	33,0	33/3	7 2 7 0
<600	2,284	27%	59%	71%	82%
600 – 640	1,685	20%	74%	83%	90%
650 – 690	1,917	23%	77%	86%	91%
700 – 800	2,607	31%	80%	88%	92%
Athlete at entry	2,007	3170	00/0	00/0	72/3
Athlete	482	6%	41%	52%	69%
Not an athlete	8,136	94%	74%	84%	90%

## Overall graduation rates: freshman entrants Fall 2008 and Fall 2009

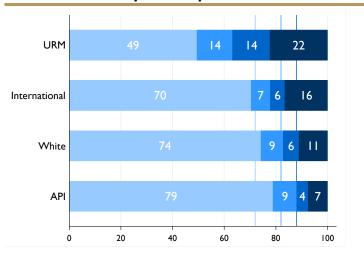


Note: Due to rounding, percentages may not sum to 100% and may differ from rates reported in the table above

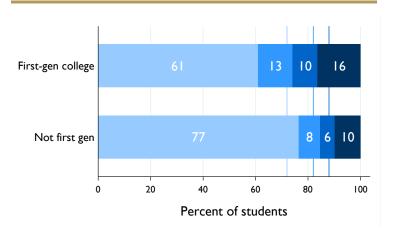
## Graduation rates by gender



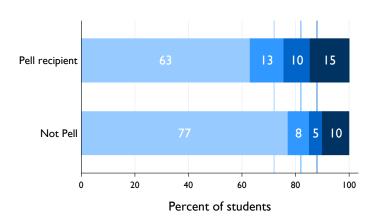
### Graduation rates by ethnicity



## Graduation rates by parent education

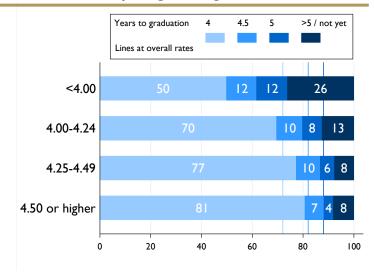


## Graduation rates by family income

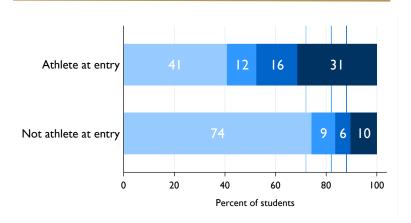


Note: Due to rounding, percentages may not sum to 100% and may differ from rates reported in the table on page 2

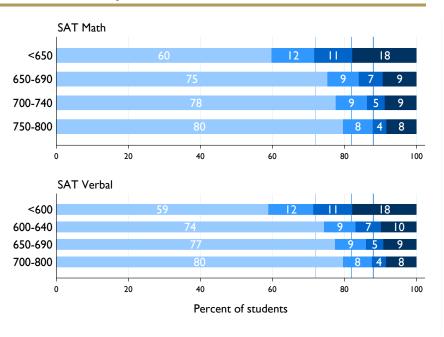
## Graduation rates by weighted high school GPA



## Graduation rates by athlete at entry



## **Graduation rates by SAT scores**



Note: Due to rounding, percentages may not sum to 100% and may differ from rates reported in the table on page 2

## **ACADEMIC INDICATORS AND CAMPUS EXPERIENCES**

## Graduation rates by academic indicators and campus experiences

	Overa	ıll	% g	raduated wit	thin
	Count	%	4 years	4.5 years	5 years
Total	8,618	100%	72%	82%	88%
Haite attended in the first terms					
Units attempted in the first term	244	30/	F <b>7</b> 0/	720/	700/
< 13	246	3%	57%	72%	79%
13 – 14.5	4,773	55%	71%	81%	88%
15 or greater	3,598	42%	75%	84%	89%
First-term GPA / first-year Probation					
< 2.00 or Academic Probation	520	6%	32%	42%	55%
First-term GPA < 2.00	304				
First-year Probation	503				
C to C+ (2.00 – 2.69)	857	10%	56%	70%	80%
B average (2.70 – 3.69)	4,916	57%	75%	85%	91%
A average (3.70 or greater)	2,288	27%	83%	90%	95%
reacting (on on greater)	2,200	27,70	6575	70,0	7570
First declared major*					
Chemistry	422	5%	75%	84%	89%
Engineering	1,333	16%	79%	88%	92%
Environmental Design	270	3%	73%	80%	87%
Natural Resources	932	11%	72%	83%	90%
Haas	306	4%	87%	93%	96%
Letters & Science	5,064	61%	74%	84%	92%
Admin Programs	641	8%	73%	83%	92%
Arts & Humanities	644	8%	71%	83%	91%
Bio Sciences Div	964	12%	82%	91%	97%
Math & Phys Sci Div	411	5%	66%	84%	93%
Social Sciences Div	1,598	19%	76%	85%	92%
Undergraduate Div	806	10%	66%	77%	87%
Timing of first region declaration					
Timing of first major declaration After fourth term	2,171	25%	48%	59%	73%
	•				
By the end of the fourth term	6,447	75%	81%	90%	94%
Work-Study					
Work-Study participant	1,837	21%	68%	82%	90%
Not Work-Study participant	6,781	79%	73%	82%	88%
Study Abroad					
No study abroad	7,102	82%	73%	81%	87%
Study abroad	1,516	18%	73% 71%	85%	95%
One trip during the academic year	845	10%	71%	87%	97%
, ,	515	6%	72%	86%	92%
One summer trip					
Multiple trips	156	2%	44%	67%	94%

<sup>\*</sup>Students who did not declare a major (n = 291) are not included.

#### **GROUPS WITH RELATIVELY LOW NORMATIVE GRADUATION RATES**

In the bivariate analysis of graduation rates by demographic groups and admissions criteria, three groups emerged as having relatively low 4-year graduation rates, students who: identified as Underrepresented Minorities (URM), had a weighted high school GPA below 4.00, or were athletes at entry. Further analyses of these three groups are presented in the following pages.

The table below shows the 4-year graduation rates of URM and non-URM students by gender, parental education, family income, and admissions criteria. There was a 27-point difference between the overall 4-year graduation rates of URM (49%) and non-URM students (76%). The difference was much diminished among students with high SAT scores. The difference was also less pronounced among students who had at least one parent who graduated from a 4-year college (19 points) or students who had not receive a Pell Grant (15 points).

Count and percent of students graduating within four years, by Underrepresented Minority students and by demographic variables and admissions criteria

		URM st	udents		No				
	With	in 4			Withi	n 4			Point
	yea		>4 ye		year		>4 ye		difference in
	n	%	n	%	n	%	<u>n</u>	%	4-year rate
Total	611	49%	624	51%	5,630	76%	1,753	24%	27
Gender									
Men	205	43%	277	57%	2,505	72%	957	28%	29
Women	406	54%	347	46%	3,125	80%	796	20%	26
Parent education									
Not first generation	243	59%	166	41%	4,230	78%	1,207	22%	19
First generation college	348	44%	439	56%	987	70%	415	30%	26
Family income									
Not Pell recipient	245	63%	147	38%	4,177	78%	1,163	22%	15
Pell Grant recipient	366	43%	477	57%	1,453	71%	590	29%	28
Weighted HS GPA									
<4.00	129	36%	232	64%	452	56%	353	44%	20
4.00 – 4.24	189	48%	207	52%	1,306	74%	448	26%	26
4.25 – 4.49	207	61%	132	39%	2,308	79%	605	21%	18
4.50 or higher	86	62%	53	38%	1,544	82%	336	18%	20
SAT Math									
<650	422	46%	499	54%	1,074	68%	504	32%	22
650 – 690	110	58%	79	42%	1,188	77%	346	23%	19
700 – 740	42	66%	22	34%	1,236	78%	346	22%	12
750 – 800	32	78%	9	22%	2,059	80%	525	20%	2
SAT Verbal									
<600	311	42%	429	58%	1,035	67%	509	33%	25
600 – 640	121	53%	107	47%	1,133	78%	324	22%	25
650 – 690	95	69%	43	31%	1,390	78%	389	22%	9
700 – 800	79	72%	30	28%	1,999	80%	499	20%	8
Athlete at entry									
Athlete	27	28%	71	72%	170	44%	214	56%	16
Not an athlete	584	51%	553	49%	5,460	78%	1,539	22%	27

The table below shows the 4-year graduation rates of URM and non-URM students by academic indicators at Berkeley. There was a 27-point difference between the overall 4-year graduation rates of URM (49%) and non-URM students (76%). The difference was smaller among students with a first-term GPA above 3.70 (17-point difference) and among students who first declared in L&S Arts & Humanities and L&S Undergraduate Division (16-point difference for each). The difference was larger among students who declared in L&S Biological Sciences (32-point difference).

Where the number of students in a group was less than 30, the group is greyed out because meaningful comparisons could not be conducted.

Count and percent of students graduating within four years, by Underrepresented Minority students and by academic indicators

	ι	JRM stu	ıdents		No				
	Withi	n 4			Withi	n 4			Point
	years		>4 ye	>4 years		rs	>4 ye		difference in
	n	%	n	%	n	%	n	%	4-year rate
Total	611	49%	624	51%	5,630	76%	1,753	24%	27
First-term units attem	pted								
<13	14	38%	23	62%	127	61%	82	39%	23
13-14.5	421	51%	410	49%	2,978	76%	964	24%	25
15+	176	48%	191	52%	2,525	78%	706	22%	30
First-term GPA / Prob	ation								
<2.0 or first-year									
Probation	26	18%	115	82%	139	37%	240	63%	19
C / C+	76	36%	134	64%	406	63%	241	37%	27
B average	414	57%	317	43%	3,279	78%	906	22%	21
A average	92	67%	46	33%	1,803	84%	347	16%	17
Declared first major									
After 4th term	149	31%	331	69%	888	53%	803	47%	22
By 4th term	462	61%	293	39%	4,742	83%	950	17%	22
First declared major									
Chemistry					303	77%	92	23%	
Engineering	42	58%	31	42%	1,013	80%	247	20%	22
Environmental Design	27	51%	26	49%	170	78%	47	22%	27
Natural Resources	74	50%	74	50%	596	76%	188	24%	26
Haas					257	88%	35	12%	
Letters & Science	447	53%	391	47%	3,291	78%	935	22%	25
Admin Programs	67	49%	71	51%	398	79%	105	21%	30
Arts & Humanities	74	58%	54	42%	384	74%	132	26%	16
Bio Sciences Div	41	53%	37	47%	749	85%	137	15%	32
Math & Phys Sci Div	21	49%	22	51%	252	68%	116	32%	19
Social Sciences Div	164	55%	135	45%	1,054	81%	245	19%	26
Undergraduate Div	80	53%	72	47%	454	69%	200	31%	16

For students who studied abroad during the summer, the difference in the 4-year graduation rate of URM students compared to non-URM students (32 points) was large, relative to the overall difference (27 points).

# Count and percent of students graduating within four years, by Underrepresented Minority students and by campus experiences

		URM st	tudents		N	ot URN	1 students		Point
	With	nin 4				in 4		_	difference
	yea	ars	>4 y	ears	yea	rs	>4 years		in 4-year
	n	%	n	%	n	%	n	%	rate
Total	611	49%	624	51%	5,630	76%	1,753	24%	27
Work-Study									
Yes	237	48%	255	52%	1,020	76%	325	24%	28
No	374	50%	369	50%	4,610	76%	1,428	24%	26
Study abroad									
Did not study abroad	443	50%	450	50%	4,729	76%	1,480	24%	26
One trip – academic									
year	79	51%	77	49%	527	76%	162	24%	25
One trip – summer	72	53%	64	47%	322	85%	57	15%	32
Multiple trips	17	34%	33	66%	52	49%	54	51%	15

The table below shows the 4-year graduation rates of students with a weighted high school GPA less than 4.00 and those with a weighted high school GPA of 4.00 or greater. There was a 26-point difference between the overall 4-year graduation rates of these two groups. The difference was smaller for students who had high SAT scores, and for students who identified as Asian / Pacific Islander or identified as URM. International students with a weighted high school GPA of 4.00 or greater had a lower normative graduation rate (68%) than those with a weighted high school GPA less than 4.00 (77%). When considering weighted high school GPA as a continuous variable (analysis not shown), it was not related to normative graduation for international students.

Count and percent of students graduating within four years, by weighted high school GPA, and by demographic variables and admissions criteria

	Weig	hted HS	GPA <	4.00	Weigh				
	With	in 4			Within	n 4			Point
	years		>4 ye	>4 years		years		ars	difference in
	n	%	n	%	n	%	n	%	4-year rate
Total	581	50%	585	50%	5,640	76%	1,781	24%	26
Gender									
Men	236	42%	325	58%	2,461	73%	902	27%	31
Women	345	57%	260	43%	3,179	78%	879	22%	21
Parent education									
Not first generation	361	55%	293	45%	4,096	79%	1,073	21%	24
First generation college	174	41%	253	59%	1,158	66%	599	34%	25
Family income									
Not Pell recipient	386	55%	312	45%	4,016	80%	987	20%	25
Pell Grant recipient	195	42%	273	58%	1,624	67%	794	33%	25
Ethnicity									
Asian / Pacific Islander	124	61%	80	39%	2,784	80%	697	20%	19
International	138	77%	42	23%	279	68%	131	32%	-9
URM	129	36%	232	64%	482	55%	392	45%	19
White / Other	190	45%	231	55%	2,095	79%	561	21%	34
SAT Math									
<650	301	43%	402	57%	1,188	67%	595	33%	24
650 – 690	81	52%	75	48%	1,215	78%	349	22%	26
700 – 740	59	61%	38	39%	1,216	79%	330	21%	18
750 – 800	127	73%	47	27%	1,957	80%	484	20%	7
SAT Verbal									
<600	277	42%	375	58%	1,062	66%	557	34%	24
600 – 640	107	54%	92	46%	1,144	77%	338	23%	23
650 – 690	93	65%	51	35%	1,387	79%	378	21%	14
700 – 800	91	67%	44	33%	1,983	80%	485	20%	13
Athlete at entry									
Athlete	456	57%	342	43%	5,577	76%	1,747	24%	19
Not an athlete	125	34%	243	66%	63	65%	34	35%	31

The difference in 4-year graduation by weighted high school GPA was much smaller for students who earned at least a 3.70 GPA in their first semester at Berkeley, declared a major by the end of the fourth term, or declared their first major in College of Engineering or L&S Math & Physical Sciences Division. It should be noted that, among students with at least a 4.00 weighted high school GPA, 76% graduated within four years, but in L&S Math & Physical Sciences, the rate was 67%.

Count and percent of students graduating within four years, by weighted high school GPA and by academic indicators

	Weighted HS GPA < 4.00				Weig	Weighted HS GPA 4.00+				
	Withi				Withi				Point	
	yeaı	years		>4 years		years		ars	difference in	
	n	%	n	%	n	%	n	%	4-year rate	
Total	581	50%	585	50%	5,640	76%	1,781	24%	26	
First-term units attem	pted									
<13					132	61%	84	39%		
13-14.5	338	47%	385	53%	3,052	76%	981	24%	29	
15+	235	57%	179	43%	2,456	77%	715	23%	20	
First-term GPA / Prob	ation									
<2.0 or first-year										
Probation	23	17%	113	83%	140	37%	239	63%	20	
C / C+	99	40%	148	60%	382	63%	226	37%	23	
B average	354	56%	278	44%	3328	78%	940	22%	22	
A average	105	73%	38	27%	1,784	83%	353	17%	10	
Declared first major										
After 4th term	160	29%	389	71%	873	54%	737	46%	25	
By 4th term	421	68%	196	32%	4,767	82%	1,044	18%	14	
First declared major										
Chemistry					305	75%	100	25%		
Engineering	25	64%	14	36%	1,026	80%	264	20%	16	
Environmental Design	31	76%	10	24%	165	72%	63	28%	-4	
Natural Resources	63	50%	62	50%	606	75%	199	25%	25	
Haas					246	88%	33	12%		
Letters & Science	434	53%	380	47%	3,292	78%	938	22%	25	
Admin Programs	70	52%	65	48%	395	78%	111	22%	26	
Arts & Humanities	40	48%	44	52%	418	75%	142	25%	27	
Bio Sciences Div	37	63%	22	37%	752	83%	152	17%	20	
Math & Phys Sci Div	26	60%	17	40%	246	67%	121	33%	7	
Social Sciences Div	155	57%	118	43%	1,059	80%	260	20%	23	
Undergraduate Div	106	48%	114	52%	422	74%	152	26%	26	

# Count and percent of students graduating within four years, by weighted high school GPA and by campus experiences

	Weigh	ted HS	GPA <	4.00	Weig	hted HS	GPA 4.0	00+	
•	Withi	Within 4			Withi	n 4			Point
	yeaı	^S	>4 ye	ars	years		>4 years		difference in
	n	%	n	%	n	%	n	%	4-year rate
Total	581	50%	585	50%	5,640	76%	1,781	24%	26
Work-Study									
Yes	110	49%	116	51%	1,147	71%	464	29%	22
No	47 I	50%	469	50%	4,493	77%	1,317	23%	27
Study abroad									
Did not study abroad	484	49%	499	51%	4,670	77%	1,420	23%	28
One trip – academic year	44	54%	37	46%	561	74%	202	26%	20
One trip – summer	44	56%	34	44%	350	80%	87	20%	24
Multiple trips					59	45%	72	26%	

The overall difference in 4-year graduation rates between students who were athletes at entry and those who were not was 33 points. This difference was more pronounced among men (46-point difference) than women (16-point difference). Due to the small number of students who entered as athletes (n = 482 across two cohorts of entering freshmen), many of the counts are too small for meaningful comparison. Where the number of students in a group was less than 30, the group is greyed out.

Count and percent of students graduating within four years, by athlete at entry, and by demographic variables and admissions criteria

	Δ	thlete a	at entry		No	t athlet	e at entry	<i>'</i>	
	With				Withi				Point
	yea		>4 ye		year		>4 ye		difference in
_	n	%	n	%	<u>n</u>	%	n	%	4-year rate
Total	197	41%	285	59%	6,044	74%	2,092	26%	33
Gender									
Men	72	26%	201	74%	2,638	72%	1,033	28%	46
Women	125	60%	84	40%	3,406	76%	1,059	24%	16
Parent education	157	4.40/	100	F.40/	4214	700/	1 175	210/	25
Not first generation First generation college	157 26	44% 30%	198 62	56% 70%	4,316 1,309	79% 62%	1,175 792	21% 38%	35 32
Family income	20	30%	02	70%	1,307	02/0	772	30/0	32
Not Pell recipient	160	42%	223	58%	4,262	80%	1,087	20%	38
Pell Grant recipient	37	37%	62	63%	1,782	64%	1,005	36%	27
Ethnicity									
Asian / Pacific Islander	13	36%	23	64%	2,895	79%	754	21%	43
International	22	61%	14	39%	414	71%	169	29%	10
URM	27	28%	71	72%	584	51%	553	49%	23
White / Other	135	43%	177	57%	2,151	78%	616	22%	35
Weighted HS GPA									
<4.00	125	34%	243	66%	456	57%	342	43%	23
4.00 – 4.24	41	62%	25	38%	1,454	70%	630	30%	8
4.25 – 4.49					2,500	77%	730	23%	
4.50 or higher					1,623	81%	387	19%	
SAT Math									
<650	136	39%	215	61%	1,360	63%	788	37%	24
650 – 690	33	46%	38	54%	1,265	77%	387	23%	31
700 – 740					1,265	78%	354	22%	
750 – 800					2,083	80%	528	20%	
SAT Verbal									
<600	121	36%	214	64%	1,225	63%	724	37%	27
600 – 640	43	52%	40	48%	1,211	76%	391	24%	24
650 – 690	18	55%	15	45%	1,467	78%	417	22%	23
700 – 800					2,070	80%	525	20%	

The difference in 4-year graduation rates between students who were athletes at entry and those who were not was relatively small for students who declared a major by the end of the fourth term (12 points). Many of the units (School, College, or Division) had too few students who entered as athletes for findings to be meaningful.

Count and percent of students graduating within four years, by athlete at entry and by academic indicators

	Athlete at entry				No	t athlet	e at entry	,	
	Withi	n 4			Withi	n 4			Point
	yeaı		>4 ye		year		>4 ye		difference in
	n	%	n	%	n	%	n	%	4-year rate
Total	197	41%	285	59%	6,044	74%	2,092	26%	33
First-term units attemp	pted								
< 3	0		0		141	57%	105	43%	
13-14.5	127	39%	199	61%	3,272	74%	1,175	26%	35
15+	70	45%	86	55%	2,631	76%	811	24%	31
First-term GPA / Proba	ation								
<2.0 or first-year	•	1.50/		050/	1.54	2.40/	205	4.40/	
Probation	9	15%	50	85%	156	34%	305	66%	19
C / C+	33	28%	87	73%	449	61%	288	39%	33
B average	136	51%	129	49%	3,557	76%	1,094	24%	25
A average	19	56%	15	44%	1,876	83%	378	17%	27
Declared first major									
After 4th term	103	30%	243	70%	934	51%	891	49%	21
By 4th term	94	69%	42	31%	5,110	81%	1,201	19%	12
First declared major									
Chemistry					314	75%	106	25%	
Engineering					1,054	79%	277	21%	
Environmental Design					194	73%	72	27%	
Natural Resources					657	72%	256	28%	
Haas School of Business					258	89%	31	11%	
Letters & Science	171	46%	200	54%	3,567	76%	1,126	24%	30
Admin Programs	19	35%	35	65%	446	76%	141	24%	41
Arts & Humanities					443	72%	173	28%	
Bio Sciences Div					776	82%	166	18%	
Math & Phys Sci Div					270	67%	133	33%	
Social Sciences Div	44	47%	50	53%	1,174	78%	330	22%	31
Undergraduate Div	76	46%	89	54%	458	71%	183	29%	25

Graduation rates by Work-Study participation between students who were athletes at entry and those who were not would not be meaningful as the number of athletes at entry who participated in Work-Study was too small for analysis.

# Count and percent of students graduating within four years, by athlete at entry and by campus experiences

_		thlete a	t entry				e at entr	у	
	Within 4				Within 4				Point
	year	'S	>4 ye	ars	yeaı	rs	>4 years		difference in
	n	%	n	%	n	%	n	%	4-year rate
Total	197	41%	285	59%	6,044	74%	2,092	26%	33
Work-Study									
Yes					1,248	69%	573	31%	
No	188	40%	278	60%	4,796	76%	1,519	24%	36
Study abroad									
Did not study abroad	180	39%	276	61%	4,992	75%	1,654	25%	36
One trip – academic year					595	72%	235	28%	
One trip – summer					388	77%	116	23%	
Multiple trips	0		0		69	44%	87	56%	

The table below is limited to only Underrepresented Minority students (N = 1,235). The URM students were grouped into those who graduated in a normative time (first two columns) and those taking more than four years to graduate. These groups were then distributed by demographic groups and admissions criteria. Overall, 34% of URM students were not first-generation college students. For those who graduated within four years, a higher proportion (41%) were not first-generation college students. Similarly, 32% of URM students were not Pell Grant recipients, but 40% of URM students who graduated within four years were not Pell Grant recipients.

Only Underrepresented Minority students (N = 1,235): Demographic and admissions variables by graduation

	With	in 4 years	>4	4 years	Tota	URM
	n	%	n	%	n	%
All URM	611	100%	624	100%	1,235	100%
Gender						
Men	205	34%	277	44%	482	39%
Women	406	66%	347	56%	753	61%
Total	611	100%	624	100%	1,235	100%
Parent education						
Not first generation	243	41%	166	27%	409	34%
First generation college	348	<b>59</b> %	439	73%	787	66%
Total	591	100%	605	100%	1,196	100%
Family income						
Not Pell recipient	245	40%	147	24%	392	32%
Pell Grant recipient	366	60%	477	76%	843	68%
Total	611	100%	624	100%	1,235	100%
Weighted HS GPA						
<4.00	129	21%	232	37%	361	29%
4.00 - 4.24	189	31%	207	33%	396	32%
4.25 – 4.49	207	34%	132	21%	339	27%
4.50 or higher	86	14%	53	8%	139	11%
Total	611	100%	624	100%	1,235	100%
SAT Math					,	
<650	422	70%	499	82%	921	76%
650 – 690	110	18%	79	13%	189	16%
700 – 740	42	7%	22	4%	64	5%
750 – 800	32	5%	9	1%	41	3%
Total	606	100%	609	100%	1,215	100%
SAT Verbal					, -	
<600	311	51%	429	70%	740	61%
600 – 640	121	20%	107	18%	228	19%
650 – 690	95	16%	43	7%	138	11%
700 – 800	79	13%	30	5%	109	9%
Total	606	100%	609	100%	1,215	100%
Athlete at entry					.,,	
Athlete	27	4%	71	11%	98	8%
Not an athlete	584	96%	553	89%	1,137	92%
Total	611	100%	624	100%	1,235	100%

The table below is limited to only Underrepresented Minority students (N = 1,235). The URM students were grouped into those who graduated in a normative time and those who did not. These groups were then distributed by academic indicators at Berkeley. Overall, 61% of URM students declared by the end of the fourth term. Among those who graduated within four years, 76% had declared by the end of the fourth term.

Only Underrepresented Minority students (N = 1,235): Academic indicators by graduation

	With	nin 4 years	>4	years	Total U	IRM students
	n	%	n	%	n	%
All URM	611	100%	624	100%	1,235	100%
First-term units attempted						
<13	14	2%	23	4%	37	3%
13-14.5	421	69%	410	66%	831	67%
15+	176	29%	191	31%	367	30%
Total	611	100%	624	100%	1,235	100%
First-term GPA / Probation						
<2.0 or first-year Probation	26	4%	115	19%	141	12%
C / C+	76	13%	134	22%	210	17%
B average	414	68%	317	52%	731	60%
A average	92	15%	46	8%	138	11%
Total	608	100%	612	100%	1,220	100%
Declared first major						
After 4th term	149	24%	331	53%	480	39%
By 4th term	462	76%	293	47%	755	61%
Total	611	100%	624	100%	1,235	100%
First declared major						
Chemistry						
Engineering	42	7%	31	5%	73	6%
Environmental Design	27	4%	26	4%	53	4%
Natural Resources	74	12%	74	12%	148	12%
Haas School of Business						
Letters & Science	447	73%	391	72%	838	73%
Administered Programs	67	11%	71	11%	138	11%
Arts & Humanities Div	74	12%	54	9%	128	10%
Bio Sciences Div	41	7%	37	6%	78	6%
Math & Phys Sci Div	21	3%	22	4%	43	3%
Social Sciences Div	164	27%	135	22%	299	24%
Undergraduate Div	80	13%	72	12%	152	12%
Undeclared	0	0%	82	13%	82	7%
Total	611	100%	624	100%	1,235	100%

Only Underrepresented Minority students (N = 1,235): Campus experiences by graduation

	Within 4	Within 4 years		>4 years		1 students		
	n	%	n	%	n	%		
All URM	611	100%	624	100%	1,235	100%		
Work-Study								
Yes	237	39%	255	41%	492	40%		
No	374	61%	369	59%	743	60%		
Total	611	100%	624	100%	1,235	100%		
Study abroad								
Did not study abroad	443	73%	450	72%	893	72%		
One trip – academic year	79	13%	77	12%	156	13%		
One trip – summer	72	12%	64	10%	136	11%		
Multiple trips	17	3%	33	5%	50	4%		
Total	611	100%	624	100%	1,235	100%		

The table below is limited to only students with weighted high school GPA below  $4.00 \, (N = 1,166)$ . These students were grouped into those who graduated in a normative time (first two columns) and those taking more than four years to graduate. These groups were then distributed by demographic groups and admissions criteria.

Only students with weighted HS GPA < 4.00 (N = 1,166): Demographic and admissions variables by graduation

	Wit	hin 4 years	>4	years		l HS < 4.00
	n	%	n	<b>,</b> %	n	%
<b>AII HS GPA &lt; 4.00</b>	581	100%	585	100%	1,166	100%
Gender						
Men	236	41%	325	56%	561	48%
Women	345	59%	260	44%	605	52%
Total	581	100%	585	100%	1,166	100%
Ethnicity						
Asian / Pacific Islander	124	21%	80	14%	204	17%
International	138	24%	42	7%	180	15%
URM	129	22%	232	40%	361	31%
White / Other	190	33%	231	39%	421	36%
Total	581	100%	585	100%	1,166	100%
Parent education						
Not first generation	361	67%	293	54%	654	60%
First generation college	174	33%	253	46%	427	40%
Total	535	100%	5 <del>4</del> 6	100%	1,081	100%
Family income						
Not Pell recipient	386	66%	312	53%	698	60%
Pell Grant recipient	195	34%	273	47%	468	40%
Total	581	100%	585	100%	1,166	100%
SAT Math						
<650	301	53%	402	72%	703	62%
650 – 6 <del>9</del> 0	81	14%	75	13%	156	14%
700 – 740	59	10%	38	7%	97	9%
750 – 800	127	22%	47	8%	174	15%
Total	568	100%	562	100%	1,130	100%
SAT Verbal						
<600	277	49%	375	67%	652	58%
600 – 640	107	19%	92	16%	199	18%
650 – 690	93	16%	51	9%	144	13%
700 – 800	91	16%	44	8%	135	12%
Total	568	100%	562	100%	1,130	100%
Athlete at entry						
Athlete	456	78%	342	58%	798	68%
Not an athlete	125	22%	243	42%	368	32%
Total	581	100%	585	100%	1,166	100%

The table below is limited to only students with weighted high school GPA below 4.00 (N = 1,166). Overall, 53% of students with a weighted high school GPA below 4.00 had declared by the end of the fourth term. Among those who graduated within four years, 72% had declared by the end of the fourth term. Where the number of students in a group was less than 30, the group is greyed out because meaningful comparisons cannot be conducted.

Only students with weighted HS GPA < 4.00 (N = 1,166): Academic indicators by graduation

	Within 4 years		>4 y	ears/		otal A < 4.00
	n	%	n	%	n	%
All HS GPA < 4.00	581	100%	585	100%	1,166	100%
First-term units attempted						
<13						
13-14.5	338	58%	385	66%	723	62%
15+	235	40%	179	31%	414	36%
Total	581	100%	585	100%	1,166	100%
First-term GPA / Probation						
<2.0 or first-year Probation	23	4%	113	20%	136	12%
C / C+	99	17%	148	26%	247	21%
B average	354	61%	278	48%	632	55%
A average	105	18%	38	7%	143	12%
Total	581	100%	577	100%	1,158	100%
Declared first major						
After 4th term	160	28%	389	66%	549	47%
By 4th term	421	72%	196	34%	617	53%
Total	581	100%	585	100%	1,166	100%
First declared major						
Chemistry						
Engineering	25	4%	14	2%	39	3%
Environmental Design	31	5%	10	2%	41	4%
Natural Resources	63	11%	62	11%	125	11%
Haas School of Business						
Letters & Science	434	75%	380	79%	814	77%
Administered Programs	70	12%	65	11%	135	12%
Arts & Humanities Div	40	7%	44	8%	84	7%
Bio Sciences Div	37	6%	22	4%	59	5%
Math & Phys Sci Div	26	4%	17	3%	43	4%
Social Sciences Div	155	27%	118	20%	273	23%
Undergraduate Div	106	18%	114	19%	220	19%
Undeclared	0	0%	106	18%	106	9%
Total	581	100%	585	100%	1,166	100%

Only students with weighted HS GPA < 4.00 (N = 1,166): Campus experiences by graduation

	Within 4	Within 4 years		>4 years		otal A < 4.00
	n	%	n	%	n	%
AII HS GPA < 4.00	581	100%	585	100%	1,166	100%
Work-Study						
Yes	110	19%	116	20%	226	19%
No	471	81%	469	80%	940	81%
Total	581	100%	585	100%	1,166	100%
Study abroad						
Did not study abroad	484	83%	499	85%	983	84%
One trip – academic year	44	8%	37	6%	81	7%
One trip – summer	44	8%	34	6%	78	7%
Multiple trips						
Total	581	100%	585	100%	1,166	100%

The table below is limited to only students who were athletes at entry (N = 482). These students were grouped into those who graduated in a normative time (first two columns) and those taking more than four years to graduate. These groups were then distributed by demographic groups and admissions criteria. Overall, 43% of athletes at entry were women. Among those who graduated within four years, 63% were women. Where the number of students in a group was less than 30, the group is greyed out because meaningful comparisons cannot be conducted.

Only students who were athletes at entry (N = 482): Demographic and admissions variables by graduation

	Wit	hin 4 years	>4	years		tal etes
	n	%	n n	%	n	%
All athletes	197	100%	285	100%	482	100%
Caradan						
Gender	70	270/	201	710/	272	F <b>7</b> 0/
Men	72	37%	201	71%	273	57%
Women	125	63%	84	29%	209	43%
Total	197	100%	285	100%	482	100%
Ethnicity		70/	22	00/	24	70/
Asian / Pacific Islander	13	7%	23	8%	36	7%
International	22	11%	14	5%	36	7%
URM	27	14%	71	25%	98	20%
White / Other	135	69%	177	62%	312	65%
Total	197	100%	285	100%	482	100%
Parent education		• • • • • • • • • • • • • • • • • • • •		<b>-</b> 40/		222/
Not first generation	157	86%	198	76%	355	80%
First generation college	26	14%	62	24%	88	20%
Total	183	100%	260	100%	443	100%
Family income						
Not Pell recipient	160	81%	223	78%	383	79%
Pell Grant recipient	37	19%	62	22%	99	21%
Total	197	100%	285	100%	482	100%
Weighted HS GPA						
<4.00	125	66%	243	88%	368	79%
4.00 – 4.24	41	22%	25	9%	66	14%
4.25 – 4.49						
4.50 or higher						
Total	188	100%	277	100%	465	100%
SAT Math						
<650	136	72%	215	79%	351	76%
650 – 690	33	17%	38	14%	71	15%
700 – 740						
750 – 800						
Total	190	100%	273	100%	463	100%
SAT Verbal						
<600	121	64%	214	78%	335	72%
600 – 640	43	23%	40	15%	83	18%
650 – 690	18	9%	15	5%	33	7%
700 – 800						
Total	190	100%	273	100%	463	100%

Overall, 55% of students who were athletes at entry earned a B average in their first term at Berkeley. Among those who graduated within four years, 69% had earned a B average in their first term. Overall, 28% of students who were athletes at entry had declared a major by the end of the fourth term, while 48% of those who graduated within four years had declared by that time.

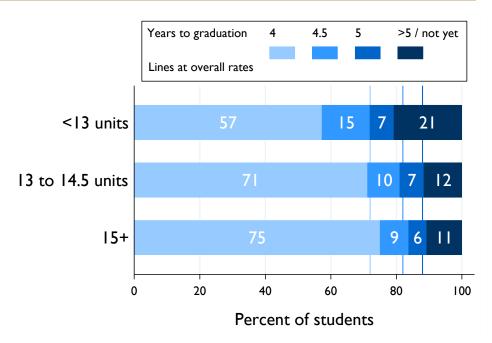
Only students who were athletes at entry (N = 482): Academic indicators by graduation

	With	in 4 years	>4 y	ears/	Total	athletes
	n	%	n	%	n	%
All athletes	197	100%	285	100%	482	100%
First-term units attempted						
< 3	0		0		0	
13-14.5	127	64%	199	70%	326	68%
15+	70	36%	86	30%	156	32%
Total	197	100%	285	100%	482	100%
First-term GPA / Probation	177	100/6	203	100%	402	100/6
<2.0 or first-year Probation	9	5%	50	18%	59	12%
C / C+	33	17%	87	31%	120	25%
B average	136	69%	129	46%	265	55%
A average	19	10%	15	5%	34	7%
Total	197	100%	281	100%	478	100%
Declared first major						
After 4th term	103	52%	243	85%	346	72%
By 4th term	94	48%	42	15%	136	28%
Total	197	100%	285	100%	482	100%
First declared major						
Chemistry						
Engineering						
Environmental Design						
Natural Resources						
Haas School of Business						
Letters & Science	171	87%	200	92%	371	89%
Administered Programs	19	10%	35	12%	54	11%
Arts & Humanities Div						
Bio Sciences Div						
Math & Phys Sci Div						
Social Sciences Div	44	22%	50	18%	94	20%
Undergraduate Div	76	39%	89	31%	165	34%
Undeclared	0	0%	67	24%	67	14%
Total	197	100%	285	100%	482	100%

Only students who were athletes at entry (N = 482): Campus experiences by graduation

	Within 4	Within 4 years		>4 years		thletes
	n	%	n	%	n	%
All athletes	197	100%	285	100%	482	100%
Work-Study						
Yes						
No	188	95%	278	98%	466	97%
Total	197	100%	285	100%	482	100%
Study abroad						
Did not study abroad	180	91%	276	97%	456	95%
One trip – academic year						
One trip – summer						
Multiple trips	0		0		0	
Total	197	100%	285	100%	482	100%

#### Graduation rates by first-term units attempted



Note: Due to rounding, percentages may not sum to 100% and may differ from rates reported in the table on page 5

The following models analyze subsets of the population. The first model excludes students who graduated in five years or greater, or who had not graduated. Students who attempted fewer than 13 units in their first term (compared to students who attempted 15 units or greater) were significantly less likely to finish within 4 years. Some of the difference in 4-year graduation between students who attempted 13 to 14.5 units compared to 15 units or greater is explained by demographic and admissions factors (see adjusted percentage).

The second model excludes students who graduated in 5.5 years or greater, or who had not graduated. Comparing students who graduated within 4.5 years to those who graduated at 5 years, there was no longer a difference for students who attempted 13 to 14.5 units (versus 15 units or greater), once demographic and admissions factors were considered.

Actual and adjusted on graduation by first-term units attempted: Subsets of the population

	Graduate within 4 years compared to <u>at</u> 4.5 years N = 7,061			Graduate within 4.5 years compared to <u>at</u> 5 years N = 7,626 <sup>2</sup>		
	Actual	Actual Adjusted <sup>3</sup>		Actual	Adjusted <sup>3</sup>	
Overall	88%	89%		93%	94%	
First-term units attempted						
<13 units	80%	* 81%	*	91%	92%	
13 to 14.5 units	88%	* 89%		92%	* 94%	
15+ units (reference)	90%	90%		94%	94%	

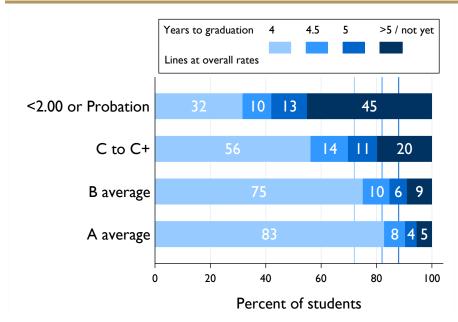
<sup>\*</sup> Significant at the 0.05 level of significance

<sup>&</sup>lt;sup>1</sup> Excludes students who graduated in 5 years or greater, or did not graduate

<sup>&</sup>lt;sup>2</sup> Excludes students who graduated in 5.5 years or greater, or did not graduate

<sup>&</sup>lt;sup>3</sup> Adjusted for gender, ethnicity, parent education, family income, weighted high school GPA, SAT Math and Verbal scores, Athlete at entry





Note: Due to rounding, percentages may not sum to 100% and may differ from rates reported in the table on page 5

Comparing students who graduated within 4 years with those who graduated at 4.5 years, students who earned a GPA less than 2.00 or were placed on Probation were significantly less likely to graduate within 4 years than students who earned an A average (reference group), even after controlling for demographic and admissions factors. Some of the difference in 4-year graduation for students who earned a C/C+ average or a B average, compared with students who earned an A average, is explained by demographic and admissions factors (see adjusted percentages).

Comparing students who graduated within 4.5 years with those who graduated at 5 years, the same patterns emerged – after controlling for demographic and admissions factors, the difference in 4.5-year graduation persisted for students who earned a GPA less than 2.00 or were on Probation, but the difference was, at least in part, diminished for students with at least a C average.

Actual and adjusted graduation by first-term GPA and first-year Probation: Subsets of the population

	compared t	vithin 4 years so <u>at</u> 4.5 years 7,061	Graduate within 4.5 yea compared to <u>at</u> 5 years N = 7,626 <sup>2</sup>		
	Actual	Adjusted <sup>3</sup>	Actual	Adjusted <sup>3</sup>	
Overall	88%	89%	93%	94%	
First-term GPA					
< 2.00 or Academic Probation	75% *	81% *	77% *	84% *	
C / C+	81% *	86%	87% *	93%	
B average	89% *	90%	93% *	94%	
A average (reference)	92%	90%	96%	95%	

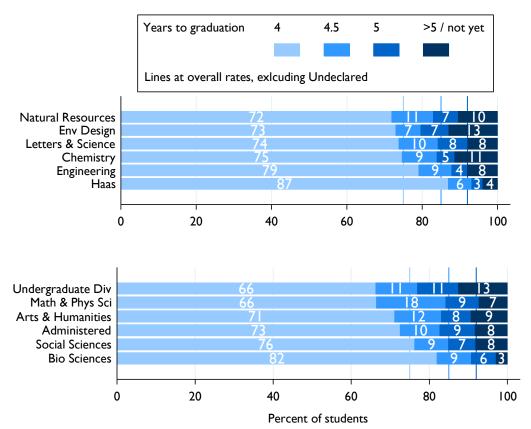
<sup>\*</sup> Significant at the 0.05 level of significance

<sup>&</sup>lt;sup>1</sup> Excludes students who graduated in 5 years or greater, or did not graduate

<sup>&</sup>lt;sup>2</sup> Excludes students who graduated in 5.5 years or greater, or did not graduate

<sup>&</sup>lt;sup>3</sup> Adjusted for gender, ethnicity, parent education, family income, weighted high school GPA, SAT Math and Verbal scores, Athlete at entry

### Graduation rates by School, College, or Division of first major



Notes: Students who did not declare a major (n = 291) are not included Due to rounding, percentages may not sum to 100% and may differ from rates reported in the table on page 5

#### Actual and adjusted graduation by Unit of first major: Subsets of the population

	compared t	within 4 years to <u>at</u> 4.5 years 7,061 '	Graduate within 4.5 year compared to <u>at</u> 5 year N = 7,626 <sup>2</sup>		
	Actual	Adjusted <sup>3</sup>	Actual	Adjusted <sup>3</sup>	
Overall	88%	89%	93%	94%	
Chemistry	89%	89%	95%	94%	
Engineering	90%	90%	96%	95%	
Environmental Design	92%	93%	91% *	94%	
Natural Resources	87% *	88% *	93% *	94%	
Haas (reference)	93%	93%	97%	97%	
Letters & Science	88% *	89%	91% *	94% *	
Admin Programs	88% *	90%	90% *	94%	
Arts & Humanities	86% *	88% *	92% *	94%	
Bio Sciences Div	90%	90%	93% *	93% *	
Math & Phys Sci Div	79% *	77% *	91% *	90% *	
Social Sciences Div	90%	91%	92% *	95%	
Undergraduate Div	86% *	90%	88% *	93% *	

<sup>\*</sup> Significant at the 0.05 level of significance

Excludes students who graduated in 5 years or greater, or did not graduate

<sup>&</sup>lt;sup>2</sup> Excludes students who graduated in 5.5 years or greater, or did not graduate

<sup>&</sup>lt;sup>3</sup> Adjusted for gender, ethnicity, parent education, family income, weighted high school GPA, SAT Math and Verbal scores, Athlete at entry

Comparing students who graduated within 4 years with those who graduated at 4.5 years, some of the differences between the Haas School of Business (reference category) and the other Colleges or Divisions were reduced after adjusting for demographic variables and admissions criteria (see table on previous page). Differences persisted for the College of Natural Resources, L&S Arts & Humanities, and L&S Math & Physical Sciences.

Comparing students who graduated within 4.5 years with those who graduated at 5 years, the only differences from the Haas School of Business (reference category) that persisted after controlling for demographic and admissions factors were within Letters & Science (see table on previous page).

#### Actual and adjusted graduation by timing of major declaration: Subsets of the population

	compared to	rithin 4 years o <u>at</u> 4.5 years 7,061 <sup>1</sup>	Graduate within 4.5 years compared to <u>at</u> 5 years N = 7,626 <sup>2</sup>		
	Actual	Adjusted <sup>2</sup>	Actual Ad	justed³	
Overall	88%	89%	93% 9	4%	
Declare first major					
After fourth term	75% *	81% *	81% * 80	6% *	
By fourth term	81%	86%	96% 96	6%	

<sup>\*</sup> Significant at the 0.05 level of significance

Comparing students who graduated within 4 years with those who graduated at 4.5 years, students who declared their first major after the fourth term were significantly less likely to graduate within 4 years. Controlling for demographic and admissions factors, the difference diminished in magnitude but was still statistically significant.

Comparing students who graduated within 4.5 years with those who graduated at 5 years, the same pattern emerged – after controlling for demographic and admissions factors, the difference in 4.5-year graduation persisted in statistical significance for students who declared their first major after the fourth term, but the magnitude was reduced.

<sup>&</sup>lt;sup>1</sup> Excludes students who graduated in 5 years or greater, or did not graduate

<sup>&</sup>lt;sup>2</sup> Excludes students who graduated in 5.5 years or greater, or did not graduate

<sup>&</sup>lt;sup>3</sup> Adjusted for gender, ethnicity, parent education, family income, weighted high school GPA, SAT Math and Verbal scores, Athlete at entry

Over 90% of students who first declared outside of the College of Letters & Science did so by the end of the fourth term from entry. Within the College of Letters & Science, proportions of students who declared by the end of the fourth term ranged from 51% in Biological Sciences to 76% in Social Sciences.

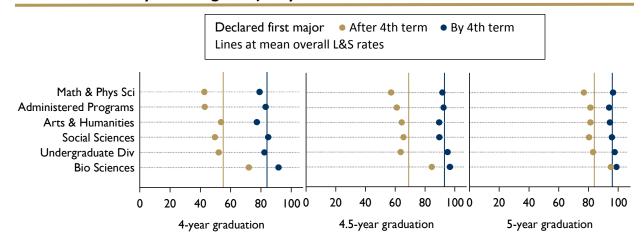
School / College / Division of first declared major, and students declared by 4th semester within School / College / Division

	Over (N = 8,		Declared	Declared by end of 4 <sup>th</sup> semester				
	_			% within School /				
	Count	%	Count	College / Division				
<b>Environmental Design</b>	270	3%	250	93%				
Haas	306	4%	286	94%				
Chemistry	422	5%	418	99%				
Natural Resources	932	11%	866	93%				
Engineering	1,333	16%	1,330	100%				
Letters & Science	5,064	61%	3,297	65%				
Math & Phys Sci Div	411	5%	268	65%				
Admin Programs	641	8%	473	74%				
Arts & Humanities	644	8%	478	74%				
Undergraduate Div	806	10%	378	47%				
Bio Sciences Div	964	12%	489	51%				
Social Sciences Div	1,598	19%	1,211	76%				

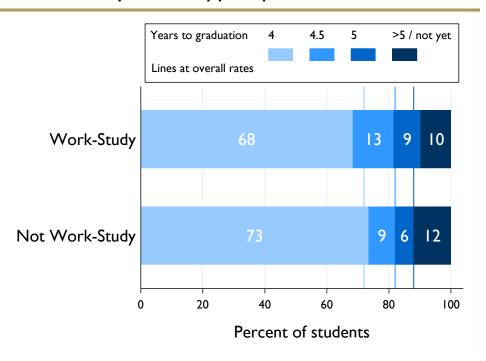
Note: Students who did not declare a major (n = 291) are not included.

Within the College of Letters & Science, graduation rates were closely related to when the first major was declared. Although students who declared in L&S Biological Sciences had a low percent of declaring by the fourth term, these students had notably high graduation rates (see graphic below).

Graduation rates by declaring a major by the end of the 4th term for L&S Divisions



#### Graduation rates by Work-Study participation



Note: Due to rounding, percentages may not sum to 100% and may differ from rates reported in the table on page 5

Comparing students who graduated within 4 years with those who graduated at 4.5 years, students who participated in Work-Study were significantly less likely to graduate within 4 years, compared to students who did not participate in Work-Study. Controlling for demographic and admissions factors, the difference diminished in magnitude but was still statistically significant. Similarly, the difference persisted after controlling for academic indicator variables: first-term units attempted, first-term GPA and first-year Probation, and timing and unit of first major declared.

Comparing students who graduated within 4.5 years with those who graduated at 5 years, after controlling for demographic and admissions factors, there was no difference in 4.5-year graduation for students who participated in Work-Study.

Actual and adjusted graduation by Work-Study participation: Subsets of the population

		luate within 4 pared to <u>at</u> 4. N = 7,061	•	Graduate within 4.5 years compared to <u>at</u> 5 years N = 7,626 <sup>2</sup>				
	Actual	Adjusted <sup>3</sup>	Further adjusted⁴	Actual	Adjusted <sup>3</sup>	Further adjusted4		
Overall	88%	89%		93%	94%			
Work-Study	84% *	87% *	88% *	93% *	94%	95%		
Not Work-Study	90%	90%	90%	90%	94%	95%		

<sup>\*</sup> Significant at the 0.05 level of significance

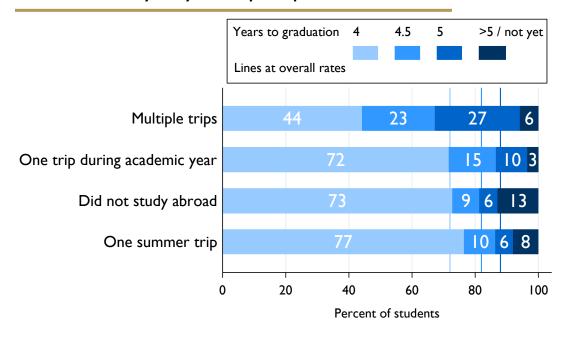
Excludes students who graduated in 5 years or greater, or did not graduate

<sup>&</sup>lt;sup>2</sup> Excludes students who graduated in 5.5 years or greater, or did not graduate

<sup>&</sup>lt;sup>3</sup> Adjusted for gender, ethnicity, parent education, family income, weighted high school GPA, SAT Math and Verbal scores, Athlete at entry

<sup>&</sup>lt;sup>4</sup> Further adjusted for first-term units attempted, first-term GPA / first-year Probation, timing and unit of first major declared

#### Graduation rates by study abroad participation



Note: Due to rounding, percentages may not sum to 100% and may differ from rates reported in the table on page 5

Comparing students who graduated within 4 years with those who graduated at 4.5 years, students who studied abroad for multiple trips or during the academic year were significantly less likely to graduate within 4 years, compared to students who did not study abroad. The differences persisted after controlling for demographic, admissions, and academic indicator variables.

Comparing students who graduated within 4.5 years with those who graduated at 5 years, the same pattern emerged – after controlling for demographic factors, admissions criteria, and academic indicators, the differences in 4.5-year graduation persisted for students who studied abroad multiple times or during the academic year, compared to students who did not study abroad.

However, in all models, students who studied abroad for one summer had similar graduation rates to those who did not study abroad.

Actual and adjusted graduation by study abroad participation: Subsets of the population

	Graduate within 4 years compared to <u>at</u> 4.5 years N = 7,061						Graduate within 4.5 years compared to <u>at</u> 5 years N = 7,626 <sup>2</sup>					
	Actual		Adjusted <sup>3</sup>		Further adjusted⁴		Actual	Adjusted <sup>3</sup>		Further adjusted⁴		
Overall	88%		89%				93%	94%				
Multiple trips	66%	*	72%	*	69%	*	71% *	80%	*	79%	*	
One trip – academic year	83%	*	83%	*	82%	*	90% *	91%	*	91%	*	
One trip – summer	89%		91%		91%		94%	96%		96%		
No study abroad (reference)	89%		90%		91%		93%	95%		96%		

<sup>\*</sup> Significant at the 0.05 level of significance

Excludes students who graduated in 5 years or greater, or did not graduate

<sup>&</sup>lt;sup>2</sup> Excludes students who graduated in 5.5 years or greater, or did not graduate

<sup>&</sup>lt;sup>3</sup> Adjusted for gender, ethnicity, parent education, family income, weighted high school GPA, SAT Math and Verbal scores, Athlete at entry

<sup>&</sup>lt;sup>4</sup> Further adjusted for first-term units attempted, first-term GPA / first-year Probation, timing and unit of first major declared