

## Undergraduate Time to Degree *Completion Rates by College and Division*

### ISSUES

How does time-to-degree differ among the six undergraduate colleges/divisions? The length of time needed to complete certain degrees in the College of Engineering is over five years; how does this affect the campus graduation statistics? To shed some light on these issues, we examined the time to bachelor's degree completion for students graduating with degrees from the six undergraduate college/divisions.

### METHODOLOGY

While graduation rates follow an entering new student cohort to graduation, the time-to-degree completion statistics we present in this analysis look backwards – from completed degrees to where and when the degree recipient started. We start with all bachelor's degrees conferred during the 2002-03 academic year. The source of these data is the official Degrees Conferred file submitted to the UCOP, which treats summer terms as the first term of the academic year. To simplify the statistics, we calculated the time-to-degree completion by academic year intervals – comparing academic year of degree awarded with academic year of entrance. We used the proportion of 2002-03 bachelor's degrees awarded in given time—periods 4 years, 5 years, and 6 years—as the units of measurement in this analysis. The notes at the end of this analysis provide additional information regarding methodology and related issues not covered in this paper (Attachment 1).

This approach to the analysis has the advantage of highlighting the movement of students who graduated in terms of time to degree and their college/division of origin; however, it does not account for those students who for one of several reasons fail to graduate within a set period of time. These students, who average approximately 20 percent of a given student cohort (based on data from ORMP-IPA analysis “New Students: Movement in and out of divisions/colleges”) are not part of this analysis.

The analysis evaluates students in two primary groups:

#### *Start and Finish Same College/Division*

- new freshman who began and ended (i.e. received a degree from) in the same college/division
- new non-freshman (entered at sophomore level or higher) who began and ended in the same college/division

*Start and Finish Different College/Division*

- new freshman who began and ended in different college/divisions
- new non-freshman who began and ended in different college/divisions

**ANALYSIS**

The following table displays the number of degrees conferred in each division who were tracked as described above:

**TABLE I: Number of Bachelor’s Degrees Conferred in 2002-03, by College/Division**

	Start & Finish – Same			Start & Finish – Different			Other Graduates	TOTAL
	New Freshman	New Non-Freshman	Subtotal	New Freshman	New Non-Freshman	Subtotal		
CAES	386	362	748	459	53	512	51	1,311
DBS	366	218	584	167	51	218	18	820
COE	257	132	389	90	17	107	11	507
HArCS	111	128	239	201	43	244	24	507
MPS	68	90	158	50	11	61	7	226
DSS	465	502	967	646	121	767	48	1782
Total	1,653	1,432	3,085	1,613	296	1,909	159	5,153

Of the 5,153 bachelor’s degrees conferred in 2002-03, 132 were double degrees awarded to students who received bachelor’s degrees from two different colleges. Therefore, these 132 degrees were conferred to 66 students.

Thirteen degrees were conferred in programs outside the six colleges/divisions we examined and are not included in this analysis. The total number of bachelor’s degrees conferred in 2002-03 was 5,166 as was also reported in the *Summary of Degrees Conferred* report available at: [http://www.ormp.ucdavis.edu/inform/docs/enrollment/edaxcol\\_yhist.pdf](http://www.ormp.ucdavis.edu/inform/docs/enrollment/edaxcol_yhist.pdf).

**RESULTS**

Using the methodology described above, student time-to-degree statistics (as defined) were developed for Freshmen and Non-Freshmen groups. We display the results in both tabular (cumulative change) and graphic forms (annual change) for the cohort of students analyzed.

*Freshmen Level Students.* Table II displays the cumulative time-to-degree rates for students who started at freshman level.

In general, approximately 54% of new freshmen level students who graduated in the unit in which they started, did so in 4 years. Engineering majors are the exception to this pattern;

only 38% graduated within 4 years. Because Engineering students typically have a large number of courses with tight prerequisite chains, it is difficult to maintain the schedule needed each year to graduate in 4 years. Furthermore, approximately 20% of Engineering students who graduated last year did so in majors that require more than the 180 units needed in most disciplines to graduate. Accordingly both the 4-year and 5-year rates for Engineering degree recipients are lower than the rates for the other colleges and divisions. By year 6, however, the effect of this difference in time to degree disappears. Engineering's impact on overall campus finish rates is relatively minor with cumulative rates increasing by just about 1% to 3% when it is excluded.

At the 4-year mark, DSS has the largest share of its freshmen level students who started and graduated in DSS at 61.5% while HARCS at 51.4% has the lowest share. A similar pattern holds for students who started in different units and finished in DSS and HARCS. Their respective shares of graduates were 45.6% and 29.4%. At the 5-year mark, the spread between the high and low values shrinks considerably, particularly for students who started and finished in different units. Even so, for HARCS continues to have the lowest the cumulative time-to-degree rates while DBS and CAES have the highest. At six years, the percentage spread between high and low finish rates narrows to the point where the differences are negligible.

For freshmen level students who start and finish in different units, the proportion who finish in 4-years, falls to 37.6% while the spread between high and low rates among the units remains relatively constant for both types of freshmen students at approximately 25%.

*Non Freshmen Level Students.* Table III displays similar data for graduates who entered the campus as non-freshmen. This group is composed primarily of students who started at junior level with approximately equal numbers of students at the sophomore and senior levels (109 sophomores and 98 seniors). Because the sophomore and senior numbers are roughly comparable, these groups were not broken out and examined separately. We assume that they tend to offset each other in this analysis. As noted in the previous table, Engineering students tend to need more time to complete their degrees because their courses tend to be tightly sequenced.

For non-freshmen, about 40% of the graduates in this group who started and finished in the same unit, did so within 2 years. This rate is 15% below the comparable statistic for freshmen level students displayed in Table II. The percent of students who started and finished in different units, graduating in 2 years drops to 17.9%; however the number students in this group is small (i.e., 50). In general, a large majority of non-freshmen level students need at least 3 years on campus in order to graduate.

Interestingly, the spread in finish rates among the units for non-freshmen starting and finishing in different units is considerably larger than the comparable range for freshmen level students (i.e., 36.4% vs. 25.4%). Notable in a comparison of the 4 year mark for freshmen and 2 year mark for non-freshmen who start and finish in different units is the significant difference for DBS (i.e., 31.7% vs. 7.8%), Engineering (20% vs. 0%), and DSS (45.4% vs. 22.3%). Once again because the total number of non freshmen students who

started and finished in different units is small (i.e., 296), these differences may not be worth of further consideration.

While Tables II and III show cumulative time-to-degree rates, graphs 1 and 2 display the statistic by time interval. This perspective makes it easier to see the percentage of degrees awarded at each interval for each unit.

### **CONCLUSION**

Whether the finish rates displayed in Tables II and III warrant further examination will require discussion and review by campus policymakers. A natural next step would be to factor frequency and timing of major changes into the appropriate portion of this analysis. Given the current state interest in expanding the number of transfer students who attend UC and the UCOP's interest in constraining overall campus enrollment growth, it may be useful to consider the impact of these findings in the development of long term enrollment plans at both the college/division and central campus levels.

TABLE II: Students Entering at Freshman Level

	Number of Degrees Conferred		Cumulative Time-to-Degree Rates					
			Within 4 years		Within 5 years		Within 6 years	
	Same	Different	Same	Different	Same	Different	Same	Different
CAES	386	459	54%	37%	88%	86%	96%	96%
DBS	366	167	55%	32%	92%	84%	98%	95%
COE	257	90	38%	20%	85%	81%	97%	92%
HArCS	111	201	51%	30%	85%	77%	96%	92%
MPS	68	50	56%	30%	91%	78%	97%	92%
DSS	465	646	62%	45%	91%	85%	96%	94%
Campus Total	1,653	1,613	54%	38%	90%	83%	97%	94%
High – Low Spread			23%	25%	8%	9%	2%	4%
Campus Total – Excluding COE	1,396	1,523	57%	39%	90%	84%	97%	94%

TABLE III: Students Entering at Non-Freshman Level

	Number of Degrees Conferred		Cumulative Time-to-Degree Rates					
			Within 2 years		Within 3 years		Within 4 years	
	Same	Different	Same	Different	Same	Different	Same	Different
CAES	362	53	34%	19%	83%	68%	94%	80%
DBS	218	51	44%	8%	84%	73%	95%	90%
COE	132	17	24%	0%	78%	41%	96%	88%
HArCS	128	43	39%	19%	88%	74%	97%	91%
MPS	90	11	36%	36%	87%	64%	96%	82%
DSS	502	121	49%	22%	90%	70%	96%	92%
Campus Total	1,432	296	40%	18%	86%	69%	95%	89%
High – Low Spread			24%	36%	12%	33%	3%	13%
Campus Total – Excluding COE	1,300	279	42%	19%	87%	71%	95%	89%

Same = Start and Finish Same  
Different = Start and Finish Different

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Attachment 1  
Notes

1. Graduation rates and time-to-degree

As described in the narrative of this document, we are using time-to-degree rates as the measurement. This statistic differs from graduation rates because the population examined is degree recipients in a particular year, not the total entering class. Graduation rates are often reported in conjunction with Persistence Rates which measure the proportion of the entering cohort who persist onto the subsequent years.

Time-to-degree statistics look at the degree recipients and calculate the length of time it took for degree completion based on when the recipient started. Often, time to degree statistics are expressed in as the number of terms. For example, most of campus is familiar with the average time-to-degree of approximately 13 terms. For this analysis, we look at the proportion of 2002-03 degrees conferred within specific time frames (years).

The official campus statistics regarding graduation rates, retention rates, and time-to-degree are produced by UCD Student Affairs Research and Information office (SARI). SARI produces these to figure for official campus use as well as for reporting to national, external entities. These official figures are produced using specific and consistent methodology.

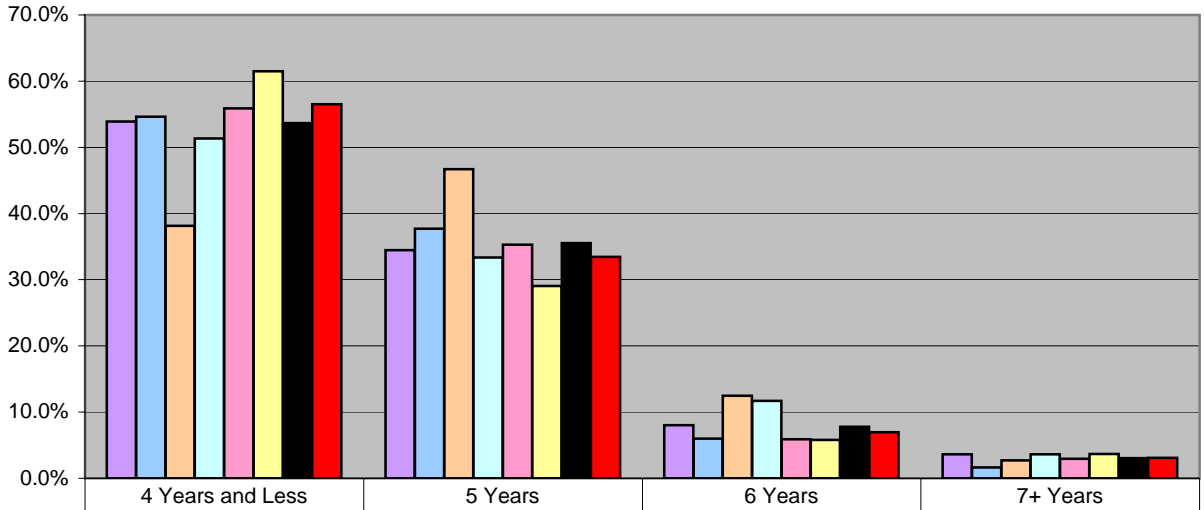
2. Non-Freshman versus transfer students

In this analysis we group new students based on their class level (i.e., the number of college units they have at the start of their UC Davis career). Students who are in the non-freshman group are not necessarily all transfer students. This category includes new, direct from high school students entering UC Davis with enough AP and college units to place them at sophomore (or higher) level.

3. Computer Science majors are reported in the Division Math and Physical Sciences (MPS) because the degree is conferred out of the College of Letters and Science.

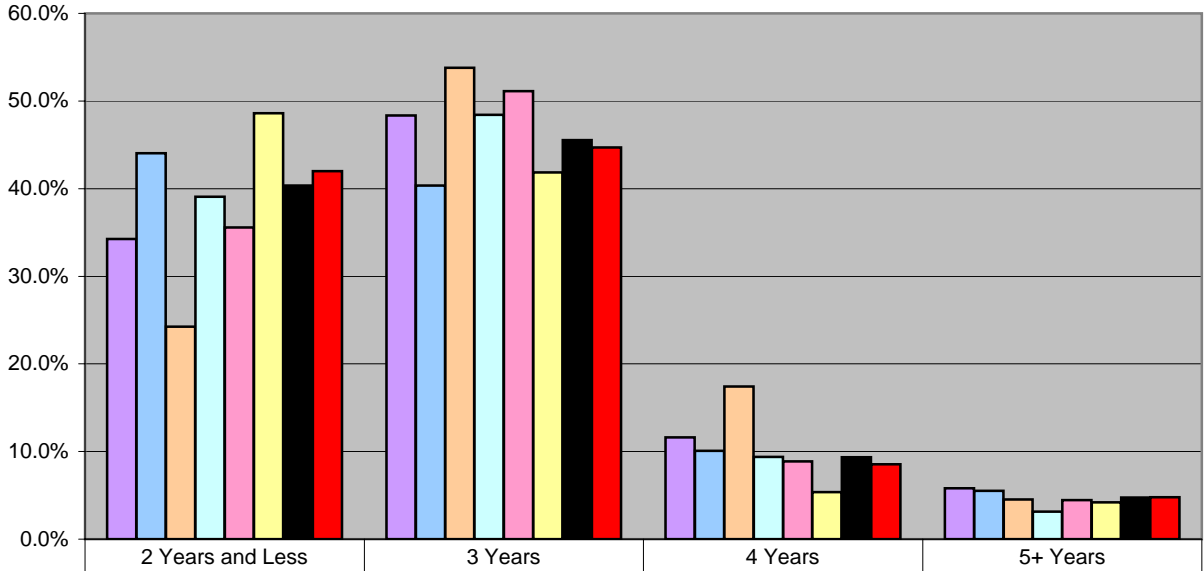
**Graph 1 - Students Who Start and Finish in the Same College/Division**

**New Freshman**



	4 Years and Less	5 Years	6 Years	7+ Years
■ CAES (n=386)	53.9%	34.5%	8.0%	3.6%
■ DBS (n=366)	54.6%	37.7%	6.0%	1.6%
■ COE (n=257)	38.1%	46.7%	12.5%	2.7%
■ HArCS (n=111)	51.4%	33.3%	11.7%	3.6%
■ MPS (n=68)	55.9%	35.3%	5.9%	2.9%
■ DSS (n=465)	61.5%	29.0%	5.8%	3.7%
■ Campus (n=1653)	53.7%	35.5%	7.8%	3.0%
■ Campus excl COE (n=1396)	56.5%	33.5%	6.9%	3.1%

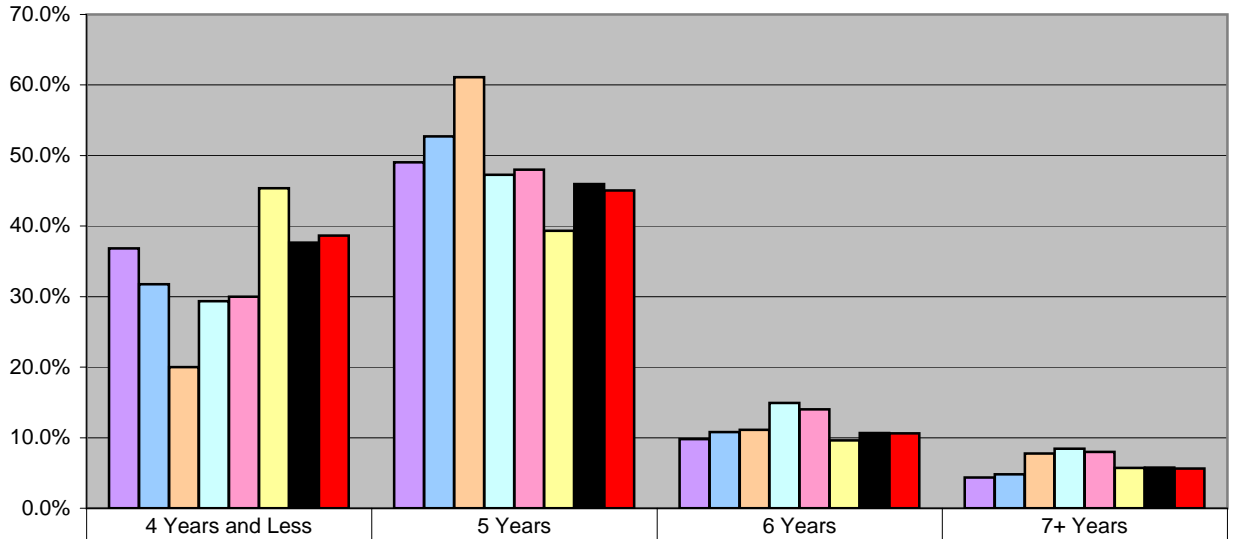
**New Non-Freshman**



	2 Years and Less	3 Years	4 Years	5+ Years
■ CAES (n=362)	34.3%	48.3%	11.6%	5.8%
■ DBS (n=218)	44.0%	40.4%	10.1%	5.5%
■ COE (n=132)	24.2%	53.8%	17.4%	4.5%
■ HArCS (n=128)	39.1%	48.4%	9.4%	3.1%
■ MPS (n=90)	35.6%	51.1%	8.9%	4.4%
■ DSS (n=502)	48.6%	41.8%	5.4%	4.2%
■ Campus (n=1432)	40.4%	45.5%	9.4%	4.7%
■ Campus excl COE (n=1300)	42.0%	44.7%	8.5%	4.8%

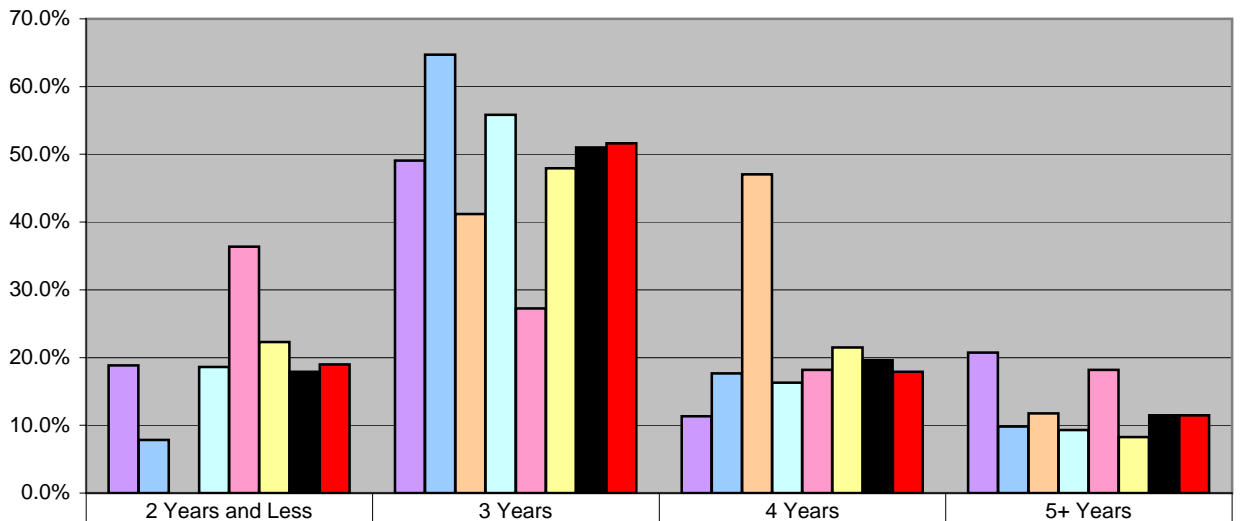
**Graph 2 - Students Who Start and Finish in Different Colleges/Divisions**

**New Freshman**



	4 Years and Less	5 Years	6 Years	7+ Years
■ CAES (n=459)	36.8%	49.0%	9.8%	4.4%
■ DBS (n=167)	31.7%	52.7%	10.8%	4.8%
■ COE (n=90)	20.0%	61.1%	11.1%	7.8%
■ HArCS (n=201)	29.4%	47.3%	14.9%	8.5%
■ MPS (n=50)	30.0%	48.0%	14.0%	8.0%
■ DSS (n=646)	45.4%	39.3%	9.6%	5.7%
■ Campus (n=1613)	37.6%	45.9%	10.7%	5.8%
■ Campus excl COE (n=1523)	38.7%	45.0%	10.6%	5.6%

**New Non-Freshman**



	2 Years and Less	3 Years	4 Years	5+ Years
■ CAES (n=53)	18.9%	49.1%	11.3%	20.8%
■ DBS (n=51)	7.8%	64.7%	17.6%	9.8%
■ COE (n=17)	0.0%	41.2%	47.1%	11.8%
■ HArCS (n=43)	18.6%	55.8%	16.3%	9.3%
■ MPS (n=11)	36.4%	27.3%	18.2%	18.2%
■ DSS (n=121)	22.3%	47.9%	21.5%	8.3%
■ Campus (n=296)	17.9%	51.0%	19.6%	11.5%
■ Campus excl COE (n=279)	19.0%	51.6%	17.9%	11.5%