



SF State Graduation and Attrition Study

Fall 2005-2007
New Junior and Senior Transfer Students
from California Community Colleges

Revised
December
2013

Introduction

Recent studies of attrition by SF State’s Office of Academic Institutional Research (AIR) focused on full-time first-time freshmen (FTTF). Graduation and attrition among California Community College (CCC) transfer students are the focus of this report. New transfer students accounted for roughly 12% of all undergraduates and about 48% of all **new** undergraduates enrolled in the Fall terms of 2005-2007. Students from the CCC system accounted for about 86% of all new undergraduate transfer students enrolled in those terms. The cohorts used in this study were the new CCC transfer students who entered SF State as juniors or seniors in the Fall terms of 2005-2007. Sophomores were excluded because they accounted for 2% or fewer of the CCC transfer students who entered SF State in any of the three cohort years studied.

CCC Transfer Student Graduation Rates

Among the upper-division CCC transfer students in the study cohorts, roughly nine in ten entered SF State as juniors.

New CCC Transfer Students by Class Level

	2005		2006		2007	
	n	%	n	%	n	%
Junior	2180	88.0%	2378	90.2%	2206	86.7%
Senior	298	12.0%	257	9.8%	338	13.3%
Total	2478	100.0%	2635	100.0%	2544	100.0%

Yet the 4-year graduation rate of the juniors in each cohort year was only about four percentage points lower **or higher** than that of the seniors of the same cohort year.

4-Year Status by Class Level

		4-Year Graduates	Still Enrolled after 4 Years	4-Year Leavers
2005	Junior	68.7%	5.6%	25.7%
	Senior	73.5%	7.7%	18.8%
2006	Junior	69.4%	5.3%	25.3%
	Senior	65.8%	5.8%	28.4%
2007	Junior	69.5%	5.1%	25.4%
	Senior	66.0%	6.8%	27.2%

It should also be noted that, although roughly 16% of CCC transfer students were still enrolled after three years, only 5% were still enrolled after four years. Graduation rates rose more than 10 percentage points between the ends of the third and fourth years, while the rates of leaving without earning a degree were essentially unchanged. Most of the CCC transfer students still enrolled at the end of three years at SF State were able to graduate by the end of four years.

3-Year Status

	3-Year Graduates	Still Enrolled after 3 Years	3-Year Leavers
2005	57.7%	17.4%	24.9%
2006	58.5%	15.4%	26.1%
2007	58.5%	15.8%	25.7%

4-Year Status

	4-Year Graduates	Still Enrolled after 4 Years	4-Year Leavers
2005	69.2%	5.9%	24.9%
2006	69.0%	5.4%	25.6%
2007	69.1%	5.3%	25.6%

CCC Transfer Student vs. FTFTF Graduation Rates

The starting point for the calculation of 4-year graduation rates for transfer students and 6-year graduation rates for FTFTF is the time of their SF State matriculation. By definition, new upper-division transfer students have already completed their first two years when they enter SF State. Their 4-year graduation rates can be compared to the 6-year graduation rates of FTFTF who successfully complete their first two years at SF State **and continue their SF State enrollment into their third year.**



CCC Transfers	CCC	CCC	SF State Yr 1	SF State Yr 2	SF State Yr 3	SF State Yr 4
FTFTF	SF State Yr 1	SF State Yr 2	SF State Yr 3	SF State Yr 4	SF State Yr 5	SF State Yr 6



Only students enrolled at SF State this point are included in the calculation of the 4-year transfer and 6-year FTFTF graduation rates mentioned below.

The mean 4-year graduation rate of the Fall 2005-2007 CCC transfer students in this study was 69%. The 6-year graduation rate of the Fall 2005 FTFTF who were still enrolled at SF State two Fall terms after their matriculation (regardless of the number of units earned by that point¹) was nearly the same (67%).

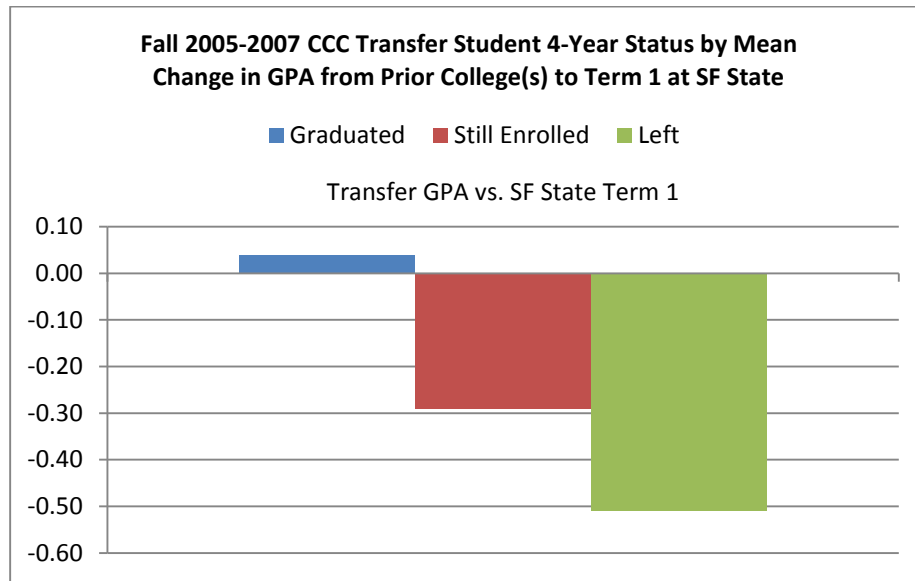
¹ Roughly 17% of Fall 2005-2007 FTFTF who were enrolled in Term 3 (Fall 2006-2008, respectively) earned 30 or more campus (SF State) units by the beginning of Term 3. Roughly 30% earned 30 or more total (SF State plus all other sources) units by that time.

Four-Year Outcomes among CCC Transfer Students by Student Characteristic

Statistically significant differences in 4-year status were found between students when grouped by demographic or academic characteristic. Student characteristics associated with a **greater likelihood of leaving** are highlighted below. Appendix A provides further details.

- Students **25 years of age or over** were significantly more likely than were those 24 years of age or under to be 4-year leavers and less likely to be 4-year graduates.
- **URM** students were significantly more likely than were non-URM students to be 4-year leavers and less likely to be 4-year graduates.
- Students who enrolled **part-time** in Term 1 were significantly more likely than were those who enrolled full-time to be 4-year leavers, while full-time students were more likely to be 4-year graduates.
- The **mean course completion rate**² at SF State for 4-year leavers (80%) was significantly lower than was that of 4-year graduates (99%).
- The **mean number of years between high school graduation and SF State entry** by 4-year leavers (6.4) was significantly greater than that of 4-year graduates, who graduated from high school a mean of 6.0 years before transferring into SF State. The most common interval between high school and transfer to SF State was three years (26% of the students). More than half (54%) transferred to SF State within four years of high school graduation, and nearly two thirds (64%) transferred to SF State within five years.
- Students with a **“C” transfer GPA** were significantly more likely than were those with a higher transfer GPA to be 4-year leavers, while those with an “A” transfer GPA were more likely than were those with a lower transfer GPA to be 4-year graduates.
- The **mean transfer GPA** of 4-year leavers (2.87) was statistically significantly lower than that of the 4-year graduates (3.05) despite the GPAs’ not appearing to be very far apart.
- The **mean SF State Term 1 GPA** of 4-year leavers (2.36) was significantly lower than that of the 4-year graduates (3.09).
- Students whose **GPA decreased from their previous institution to Term 1 at SF State** were more likely than were those whose GPA improved or stayed the same to be 4-year leavers. This is a measure of academic difficulty, independent of academic achievement level.

² Course completion rates were calculated for each student using units attempted and units earned only from grading records where the grade was one that carries grade point credit and contributes to GPA (A-F, WU, and IC). Records with grades of CR, NC, I, or W were not used. If an A, B, or C was earned in an ABC/NC-graded course, the course record was used in calculating both units attempted and units earned. If an NC was earned in an ABC/NC-graded course, the course record was not used. Course completion rate is slightly overstated, compared to what it would be if CR or NC grades were included in the calculation.



Graduates vs. Leavers

Multinomial logistic regression was used to compare the relative contributions of student characteristics to 4-year status while holding all other factors constant. This differs from the statistical test that was used in the preceding section that simply measured the association between each individual student characteristic and each possible 4-year outcome one at a time. In regression, *all* of the student characteristics are included in the test to determine how well each characteristic predicts 4-year outcome. The characteristics or predictors in the regression model that were found to be statistically significant ($p < .01$) are shown below for the 4-year graduates vs. leavers. The regression results are provided in greater detail in Appendix B. The regression model as a whole explains 12-21% of the variation in 4-year status among the transfer students in the study cohorts. This is not negligible, considering that a multitude of academic and personal factors contribute to student outcomes. **Graduating** from SF State in four years was significantly **more likely** than was leaving for these new junior and senior CCC transfer students:

- Students **24 years of age and under** were 36% more likely than were students 25 years of age and over to graduate.
- Students who attended **full-time** in their first term were 83% more likely as were those who attended part-time to graduate.
- **Pell ineligible** students were 23% more likely than were Pell eligible students to graduate.
- **Local** students were 52% more likely than were non-local non-Southern California³ students to graduate.

³ Non-local non-Southern California students include those who live in areas of California outside of the local or Southern California areas and those who live outside of California or the U.S.

Additionally:

- For every 1-point increase in **transfer GPA**, the odds of graduating increased 24%.
- For every 1-point increase in **SF State Term 1 GPA**, the odds of graduating more than doubled (i.e., increased 157%)⁴.

Summary

Transfer students typically account for roughly half of all new undergraduate students and earn roughly two thirds of all bachelor's degrees conferred by SF State. Yet far less attention is paid to graduation rates of transfer students than to first-time full-time freshmen, who are the focus of state and federal government reporting. This report seeks to broaden the study of graduation and attrition. Students from the California Community College (CCC) system accounted for nearly nine in ten new undergraduate transfer students in Fall 2002-2012. The junior and senior CCC transfer students examined in this brief study entered SF State in Fall 2005-2007. More than two thirds of the CCC transfer students graduated within four years of their transfer to SF State, while about one quarter left within the same period of time without graduating. The 4-year graduation rate was roughly 10 percentage points higher than the 3-year graduation rate (demonstrating the value of tracking graduation out to the fourth year for transfer students). The 6-year graduation rate for the Fall 2005 full-time first-time freshmen who were still enrolled at SF State two Fall terms after their matriculation was nearly the same as the 4-year graduation rates for the Fall 2005-2007 CCC transfer students who entered SF State as juniors or seniors. Regression analysis revealed that students significantly more likely to be 4-year graduates than 4-year leavers were 24 years of age and under, initially enrolled full-time, Pell ineligible, or local. Additionally, the probability of graduating (vs. leaving) within four years of transferring from a CCC to SF State increased as transfer GPA and SF State Term 1 GPA increased.

⁴ Although 4-year status differed significantly by the difference between transfer GPA and SF State Term 1 GPA, this measure of academic difficulty was highly correlated with SF State Term 1 GPA, so it was excluded from the multiple logistic regression model.

Appendix A – Four-Year Outcomes by Student Characteristic

		4-Year Status							
		Graduated		Still Enrolled		Left		Total	
		n	%	n	%	n	%	n	%
Age Group	24 Years of Age and Under	3801	71.1%	252	4.7%	1296	24.2%	5349	100.0%
	25 Years of Age and Over	1491	64.6%	171	7.4%	646	28.0%	2308	100.0%
Total		5292	69.1%	423	5.5%	1942	25.4%	7657	100.0%
Gender	Female	3014	70.7%	197	4.6%	1051	24.7%	4262	100.0%
	Male	2278	67.1%	226	6.7%	891	26.2%	3395	100.0%
Total		5292	69.1%	423	5.5%	1942	25.4%	7657	100.0%
Race/Ethnicity	African American	230	61.2%	36	9.6%	110	29.3%	376	100.0%
	Asian	1317	68.6%	122	6.4%	480	25.0%	1919	100.0%
	Latino	782	66.3%	70	5.9%	328	27.8%	1180	100.0%
	Nat. American/Alaskan Native	26	60.5%	5	11.6%	12	27.9%	43	100.0%
	Nat. Hawaiian/Pacific Islander	32	55.2%	1	1.7%	25	43.1%	58	100.0%
	White	1851	71.3%	120	4.6%	625	24.1%	2596	100.0%
	Unknown	1054	71.0%	69	4.6%	362	24.4%	1485	100.0%
Total		5292	69.1%	423	5.5%	1942	25.4%	7657	100.0%
URM Status	URM	1070	64.6%	112	6.8%	475	28.7%	1657	100.0%
	Non-URM	4222	70.4%	311	5.2%	1467	24.5%	6000	100.0%
Total		5292	69.1%	423	5.5%	1942	25.4%	7657	100.0%
First Generation	First Generation	1105	67.5%	116	7.1%	417	25.5%	1638	100.0%
	Parental College	3554	69.6%	259	5.1%	1292	25.3%	5105	100.0%
Total		4659	69.1%	375	5.6%	1709	25.3%	6743	100.0%

Graduation and Attrition among New CCC Transfer Students – Revised December 2013

		4-Year Status							
		Graduated		Still Enrolled		Left		Total	
		n	%	n	%	n	%	n	%
Pell Eligibility	Pell Eligible	1574	66.4%	162	6.8%	635	26.8%	2371	100.0%
	Pell Ineligible	3718	70.3%	261	4.9%	1307	24.7%	5286	100.0%
Total		5292	69.1%	423	5.5%	1942	25.4%	7657	100.0%
EOP Enrollment	Enrolled in EOP	360	69.0%	45	8.6%	117	22.4%	522	100.0%
	Not Enrolled in EOP	4932	69.1%	378	5.3%	1825	25.6%	7135	100.0%
Total		5292	69.1%	423	5.5%	1942	25.4%	7657	100.0%
Geographic Origin	Local Area	3338	69.6%	317	6.6%	1138	23.7%	4793	100.0%
	Southern California	1028	68.6%	51	3.4%	420	28.0%	1499	100.0%
	All Other Areas	926	67.8%	55	4.0%	384	28.1%	1365	100.0%
Total		5292	69.1%	423	5.5%	1942	25.4%	7657	100.0%
Enrollment Status	Full-time	4412	73.4%	247	4.1%	1355	22.5%	6014	100.0%
	Part-time	880	53.6%	176	10.7%	587	35.7%	1643	100.0%
Total		5292	69.1%	423	5.5%	1942	25.4%	7657	100.0%
Transfer GPA	A	987	81.9%	42	3.5%	176	14.6%	1205	100.0%
	B	3700	68.8%	303	5.6%	1372	25.5%	5375	100.0%
	C	603	56.3%	76	7.1%	393	36.7%	1072	100.0%
Total		5290	69.1%	421	5.5%	1941	25.4%	7652	100.0%
SF State Term 1 vs. Transfer GPA	Improved or No Change	3051	77.9%	176	4.5%	689	17.6%	3916	100.0%
	Worsened	2225	61.1%	240	6.6%	1176	32.3%	3641	100.0%
Total		5276	69.8%	416	5.5%	1865	24.7%	7557	100.0%

Appendix B – Multinomial Logistic Regression Results

Parameter Estimates

		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence	
								Lower Bound	Upper Bound
4-Year Graduate vs. Leaver	Intercept	-3.509	.353	99.070	1	.000			
	Female	-.022	.064	.118	1	.731	0.978	.864	1.108
	24 Years of Age and Under	.304	.095	10.158	1	.001	1.356	1.124	1.635
	Full-time Enrollment	.606	.077	61.896	1	.000	1.833	1.576	2.131
	Asian (vs. White)	.136	.084	2.635	1	.105	1.146	.972	1.351
	URM (vs. White)	-.026	.080	.110	1	.740	.974	.833	1.139
	First Generation College	.034	.078	.196	1	.658	1.035	.889	1.205
	Pell Eligible	-.208	.075	7.819	1	.005	.812	.701	.940
	EOP Enrollee	.244	.142	2.936	1	.087	1.276	.966	1.686
	Local Origin (vs. non-local non-Southern California)	.415	.084	24.365	1	.000	1.515	1.284	1.786
	Southern California Origin (vs. non-local non-Southern California)	.053	.096	.305	1	.581	1.055	.873	1.274
	Transfer Units	.007	.003	4.574	1	.032	1.007	1.001	1.014
	Transfer GPA	.215	.080	7.284	1	.007	1.240	1.061	1.450
	SF State Term 1 GPA	.943	.041	533.805	1	.000	2.568	2.370	2.781
	Years between High School Graduation and SF State Matriculation	-.019	.008	5.664	1	.017	.981	.966	.997

Note: R^2 = .16 (Cox & Snell), .21 (Nagelkerke), .12 (McFadden). Model $\chi^2(28) = 1159.632, p < .000$.