



The Influence of Matriculation Services at Santa Ana College on Student Success Fall 2000 to Fall 2006 Cohorts

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Background

Matriculation services are offered to incoming freshmen students. Many of these services are provided at orientation when students are provided placement testing, advisement, and counseling; a Needs Assessment Form is one of the products of this activity. As part of a continuing effort to measure the impact these services have on student success at Santa Ana College (SAC), characteristics and demographics of student cohorts who received matriculation services (Fall 2000 through Fall 2006) were analyzed in comparison to non-matriculation students entering SAC at the same time (students who did not use matriculation services). Those data include high school origins, demographics, initial English and math course enrollment, persistence to subsequent semesters, academic performance, AA/AS degree and certificates earned, and transfer to a university.

Summary of Findings

Overall, students in the cohorts who received matriculation services (based upon having a completed needs assessment form) were more frequently students who plan to pursue a BA/BS degree and/or AA/AS degree, attend college full-time (12+ units), and younger (18-21 years of age) than the non-matriculant cohort students.

- Matriculants persist to subsequent semesters at rates typically ten percentage points higher than non-matriculants.
- Matriculants completed more units per semester than non-matriculants.
- More matriculants took an English/ESL/EMLS and/or math course during their initial semester at SAC than non-matriculants.
- Non-matriculant students in recent cohorts have had higher first-semester GPAs than matriculants.
- Matriculants earned AA/AS degrees and certificates more frequently than non-matriculants.
- Non-matriculants more frequently transfer to a university during the first several semesters than matriculants, but by the eighth semester matriculants have more frequently transferred more frequently than non-matriculants.

Student Demographics and Characteristics

- A high number of freshmen are using matriculation services (1,509 in Fall 2006 vs. 1,101 in Fall 2000).
- Matriculated students are more likely to be 21 years of age or younger, have an educational goal of earning an AA/AS and/or transferring, be full-time, and attend classes mainly during the day.
- Non-Matriculated students are more likely to be over 21 years of age, have an educational goal related to employment or career and/or to obtain an AA degree/transfer.
- Many freshmen are “undecided” of their educational goal when they enter SAC (18% to 29%).

Matriculant and Non-Matriculant Student Characteristics Fall 2000 through Fall 2006 First-Time Freshmen Cohorts

Student Characteristic	Fall 2000		Fall 2002		Fall 2004		Fall 2006	
	Matric.	Non-Matric.	Matric.	Non-Matric.	Matric.	Non-Matric.	Matric.	Non-Matric.
	n=1101	n=2383	n=1365	n=2267	n=1521	n=1586	n=1509	n=2021
Ethnicity								
African-American	2%	3%	1%	3%	1%	4%	1%	4%
Asian/Pacific Islander	20%	14%	10%	10%	11%	10%	11%	10%
Latino	57%	56%	74%	59%	74%	55%	76%	50%
White	16%	20%	10%	22%	10%	24%	9%	26%
Other	4%	3%	2%	3%	2%	3%	2%	5%
Decline to state	2%	4%	1%	4%	2%	4%	1%	5%
Age Group								
17 and under	16%	14%	15%	24%	19%	21%	19%	20%
18 - 21	61%	39%	66%	38%	70%	41%	71%	36%
22 - 29	12%	17%	10%	15%	5%	15%	6%	13%
30 - 39	7%	14%	6%	12%	3%	12%	3%	14%
40 - 49	3%	10%	2%	8%	2%	7%	1%	10%
50 and over	1%	7%	1%	4%	0%	4%	0%	6%
Gender								
Female	50%	49%	53%	49%	53%	45%	52%	41%
Male	50%	51%	47%	51%	47%	55%	48%	59%
Educational Goal								
AA and/or Transfer	49%	32%	50%	35%	52%	37%	58%	31%
Vocational Certificate	5%	8%	5%	5%	4%	4%	7%	6%
Employment or Career	14%	23%	11%	24%	12%	29%	11%	32%
Personal Development	1%	6%	2%	7%	1%	6%	1%	9%
Basic Skills or HS Completion	7%	7%	5%	5%	2%	4%	3%	4%
Undecided or Unknown	24%	24%	27%	24%	29%	20%	20%	18%
Full-Time/Part-Time Status								
Full-Time (12+ units)	29%	18%	30%	16%	37%	17%	28%	15%
Part-Time (<12 units)	71%	82%	70%	84%	63%	83%	72%	85%

Matriculant and Non-Matriculant Student Characteristics
Fall 2000 through Fall 2006
First-Time Freshmen Cohorts (continued)

Student Characteristic	Fall 2000		Fall 2002		Fall 2004		Fall 2006	
	Matric.	Non-Matric.	Matric.	Non-Matric.	Matric.	Non-Matric.	Matric.	Non-Matric.
	n=1101	n=2383	N=1365	n=2267	n=1521	n=1586	n=1509	n=2021
Citizenship								
U.S. Citizen	63%	74%	55%	72%	62%	80%	62%	82%
Permanent Resident	19%	15%	17%	12%	14%	9%	14%	8%
Visa	8%	3%	5%	2%	3%	2%	5%	3%
Other Status	10%	8%	23%	14%	21%	9%	19%	7%
Day/Night Status								
Day	62%	67%	64%	67%	65%	65%	64%	72%
Night	6%	12%	9%	14%	9%	13%	2%	11%
Both	32%	21%	27%	18%	26%	22%	34%	17%
High School of Origin								
Century	6%	3%	5%	3%	10%	2%	10%	1%
Cesar Chavez	0%	0%	1%	1%	2%	0%	1%	0%
Garden Grove	3%	1%	2%	2%	2%	1%	2%	1%
Hare/Lake	0%	0%	0%	0%	0%	0%	0%	0%
Mater Dei	1%	1%	0%	0%	1%	1%	0%	0%
Middle College	1%	4%	0%	4%	0%	5%	0%	5%
Mountain View	1%	1%	2%	1%	2%	1%	3%	0%
OC High School of the Arts	0%	0%	0%	5%	0%	0%	0%	0%
Saddleback	4%	6%	8%	4%	8%	3%	9%	4%
Santa Ana	4%	7%	11%	10%	13%	5%	14%	6%
Santiago	4%	3%	6%	3%	5%	2%	5%	2%
Valley	7%	5%	7%	5%	7%	5%	4%	6%
Other High School of Origin	69%	69%	57%	63%	50%	73%	50%	73%

Initial English/ESL/EMLS Enrollment at SAC

- 6% to 15% of matriculants and 3% to 7% of non-matriculants enroll in Freshmen Composition or higher in their first semester.
- 43% to 65% of matriculants took an English/ESL/EMLS sequence course during their initial semester at SAC, versus 21% to 33% of non-matriculants.
- Supplemental English/ESL/EMLS, the Tutoring Center and the ESL lab are used by a higher proportion of matriculants than non-matriculants.
- More matriculants are enrolling in English/ESL/EMLS courses in their first semester than prior cohorts (57% in Fall 2006 vs. 43% in Fall 2000); it is the reverse for non-matriculants.

Initial English/ESL/EMLS Course Enrollment of Matriculants and Non-Matriculants Fall 2000 through Fall 2006 First-Time Freshmen Cohorts

Subject	Fall 2000		Fall 2002		Fall 2004		Fall 2006	
	Matric.	Non-Matric.	Matric.	Non-Matric.	Matric.	Non-Matric.	Matric.	Non-Matric.
	n=1101	n=2383	n=1365	n=2267	n=1521	n=1586	n=1509	n=2021
English/ESL/EMLS Sequence Courses								
ENGL 101 Freshmen Comp or above	6%	3%	10%	7%	15%	6%	13%	7%
ENGL 061 Introduction to Comp.	6%	5%	11%	5%	18%	6%	15%	6%
ENGL N60 Basics of Effective Writing	12%	8%	11%	5%	13%	3%	12%	3%
ENGL N50 Intro to Written Comm.	5%	3%	4%	2%	6%	2%	5%	1%
EMLS/ESL 112 ESL Adv Comp.	0%	0%	0%	0%	0%	0%	0%	0%
EMLS/ESL 110 Intro to the Essay	1%	1%	1%	0%	1%	1%	1%	0%
EMLS/ESL 109 Writing 3/Grammar IV	2%	2%	1%	1%	2%	1%	2%	1%
EMLS/ESL 107 Writing 2/Grammar III	2%	3%	4%	1%	3%	1%	3%	1%
EMLS/ESL 055 Writing 1/Grammar II	3%	3%	4%	2%	3%	1%	2%	1%
ESL N49 Grammar I	2%	3%	4%	1%	2%	0%	2%	0%
ESL N40 Intro to Academic ESL	4%	2%	2%	1%	2%	1%	2%	1%
TOTAL ENROLLED IN SEQUENCE	43%	33%	52%	25%	65%	22%	57%	21%
Supplemental English/ESL/EMLS								
ENGL 062 Writing Center	3%	2%	10%	5%	10%	2%	5%	2%
ENGL 071 Building Bridges Literature	1%	0%	1%	0%	1%	0%	0%	0%
ENGL N59 Vocabulary Building	1%	0%	0%	0%	0%	0%	0%	0%
ENGL N58 Spelling for Adults	1%	0%	0%	0%	0%	0%	0%	0%
ESL 089 Two Word Verbs and Idioms	0%	0%	0%	0%	0%	0%	0%	0%
ESL 088 Verb Tenses	0%	0%	0%	0%	0%	0%	0%	0%
ESL N09 ESL Lab	8%	7%	3%	2%	4%	1%	8%	3%
STDY N95 Tutoring Center	4%	3%	4%	3%	2%	2%	3%	2%

Initial Math Enrollment at SAC

- Math 080 Intermediate Algebra is the most frequently taken course for both matriculants and non-matriculants during their initial semester at SAC.
- The second, third and fourth most frequently taken math courses are below Math 080.
- Matriculants are more likely to take a math course during their first semester at SAC (40% to 77%) than non-matriculants (26% to 37%).
- Few freshmen take advantage of supplemental math courses intended to increase success in the primary course they are taking.

Initial Math Course Enrollment of Matriculants and Non-Matriculants Fall 2000 through Fall 2006 First-Time Freshmen Cohorts

Subject	Fall 2000		Fall 2002		Fall 2004		Fall 2006	
	Matric.	Non-Matric.	Matric.	Non-Matric.	Matric.	Non-Matric.	Matric.	Non-Matric.
	n=1101	n=2383	n=1365	n=2267	n=1521	n=1586	n=1509	n=2021
Math Sequence Courses								
MATH 180 Calculus (and higher)	2%	1%	1%	1%	2%	2%	3%	1%
MATH 170 Pre-Calculus	1%	1%	1%	3%	1%	0%	2%	1%
MATH 160 Trigonometry	1%	0%	1%	1%	2%	1%	2%	1%
MATH 150 Calculus	0%	0%	1%	0%	1%	0%	1%	0%
MATH 140 College Algebra	0%	0%	0%	0%	0%	0%	0%	0%
MATH 105 Math for Liberal Arts	2%	2%	4%	1%	3%	1%	2%	1%
MATH 080 Intermediate Algebra	12%	13%	19%	12%	25%	13%	20%	11%
MATH 070 Geometry	5%	4%	8%	5%	12%	3%	10%	4%
MATH 060 Elementary Algebra	0%	0%	0%	0%	0%	0%	0%	0%
MATH N48 Pre-Algebra	9%	8%	12%	10%	18%	5%	15%	5%
MATH N05/N06	8%	7%	11%	4%	13%	3%	11%	2%
TOTAL ENROLLED IN SEQUENCE	40%	36%	58%	37%	77%	28%	66%	26%
Supplemental Math								
MATH 098 Algebra Discussion	0%	0%	0%	0%	2%	0%	2%	1%
MATH 030 Math Anxiety	0%	0%	0%	0%	0%	0%	0%	0%
MATH N85 Review	1%	0%	0%	0%	0%	0%	0%	0%

Persistence

- Matriculated first-time freshmen students persist to a second semester at rates of 63% to 72%, versus 50% to 60% for non-matriculant first-time freshmen at SAC.
- Persistence to the third through eighth semesters is also higher for matriculants than non-matriculants.

Matriculants and Non-Matriculants Persistence to Subsequent Semesters Fall 2000 through Fall 2005 First-Time Freshmen Cohorts

Cohort		n	Persistence to Subsequent Semester						
			2nd	3rd	4th	5th	6th	7th	8th
Fall 2000	Matriculant	1,101	67%	56%	53%	42%	38%	29%	24%
	Non-Matriculant	2,383	53%	40%	36%	28%	26%	18%	17%
Fall 2001	Matriculant	1,170	70%	59%	51%	39%	36%	26%	25%
	Non-Matriculant	2,705	51%	38%	33%	25%	22%	17%	14%
Fall 2002	Matriculant	1,365	69%	55%	49%	40%	36%	25%	23%
	Non-Matriculant	2,267	52%	35%	31%	26%	22%	17%	15%
Fall 2003	Matriculant	1,354	72%	55%	48%	37%	34%	23%	
	Non-Matriculant	1,738	60%	46%	40%	33%	29%	20%	
Fall 2004	Matriculant	1,521	71%	54%	50%	36%			
	Non-Matriculant	1,586	50%	35%	32%	26%			
Fall 2005	Matriculant	1,479	63%	47%					
	Non-Matriculant	1,819	50%	36%					

Academic Performance

- Matriculants complete more units than non-matriculants for all cohorts in all semesters.

Average Semester Units Completed by Matriculants vs. Non-Matriculants Fall 2001 through Fall 2006 First-Time Freshmen Cohorts

Cohort		n	Semester of Enrollment at SAC						
			1st	2nd	3rd	4th	5th	6th	7th
Fall 2001	Matriculant	1,170	6.6	7.4	6.8	7.0	6.2	6.4	5.0
	Non-Matriculant	2,705	4.1	5.7	5.5	6.2	5.2	5.2	4.1
Fall 2002	Matriculant	1,365	6.6	6.9	6.3	6.5	5.7	5.6	4.8
	Non-Matriculant	2,267	4.0	5.4	5.8	6.3	5.0	4.9	4.4
Fall 2003	Matriculant	1,354	7.1	6.8	6.0	5.9	6.1	5.6	4.5
	Non-Matriculant	1,738	5.1	5.9	5.9	5.8	5.8	5.1	4.5
Fall 2004	Matriculant	1,521	7.2	6.6	6.5	6.1	5.6		
	Non-Matriculant	1,586	4.0	5.2	5.5	5.3	5.2		
Fall 2005	Matriculant	1,479	6.2	6.4	6.3				
	Non-Matriculant	1,819	3.6	5.1	4.9				
Fall 2006	Matriculant	1,509	6.1						
	Non-Matriculant	2,021	3.8						

- Average matriculant and non-matriculant first-semester GPAs fell for every cohort from Fall 2001 and Fall 2004, though rebounded slightly for the Fall 2005 cohort.
- Generally, average cohort student GPAs generally rose following the first semester.

Average Semester GPA of Matriculants vs. Non-Matriculants Fall 2001 through Fall 2006 First-Time Freshmen Cohorts

Cohort		n	Semester of Enrollment at SAC						
			1st	2nd	3rd	4th	5th	6th	7th
Fall 2001	Matriculant	1,170	2.51	2.41	2.32	2.48	2.35	2.45	2.47
	Non-Matriculant	2,705	2.48	2.48	2.34	2.45	2.33	2.39	2.31
Fall 2002	Matriculant	1,365	2.31	2.34	2.26	2.28	2.45	2.43	2.33
	Non-Matriculant	2,267	2.36	2.54	2.42	2.49	2.34	2.44	2.30
Fall 2003	Matriculant	1,354	2.29	2.22	2.23	2.31	2.44	2.50	2.60
	Non-Matriculant	1,738	2.28	2.41	2.44	2.44	2.52	2.49	2.29
Fall 2004	Matriculant	1,521	2.22	2.25	2.30	2.33	2.41		
	Non-Matriculant	1,586	2.20	2.31	2.45	2.57	2.58		
Fall 2005	Matriculant	1,479	2.13	2.31	2.41				
	Non-Matriculant	1,819	2.23	2.52	2.48				
Fall 2006	Matriculant	1,509	2.21						
	Non-Matriculant	2,021	2.41						

Degrees and Certificates Earned

- Few students earned an AA/AS degree or a certificate by the end of their fourth semester.
- 10% of matriculants earned an AA/AS degree or certificate by the end of 12 semesters, compared to 4% of non-matriculants.

Percent of Matriculants vs. Non-Matriculants Earning a Degree or Certificate Fall 2000 through Fall 2005 First-Time Freshmen Cohorts

Cohort		n	% of Cohort Who Earned AA/AS/Certificate by Semester of Enrollment					
			2nd	4th	6th	8th	10th	12th
Fall 2000	Matriculant	1,101	<1%	1%	4%	7%	9%	10%
	Non-Matriculant	2,383	<1%	<1%	2%	3%	3%	4%
Fall 2001	Matriculant	1,170	1%	1%	5%	7%	9%	
	Non-Matriculant	2,705	<1%	<1%	1%	2%	3%	
Fall 2002	Matriculant	1,365	0%	<1%	2%	5%		
	Non-Matriculant	2,267	<1%	<1%	1%	2%		
Fall 2003	Matriculant	1,354	0%	<1%	2%			
	Non-Matriculant	1,738	<1%	<1%	1%			
Fall 2004	Matriculant	1,521	0%	2%				
	Non-Matriculant	1,586	<1%	1%				
Fall 2005	Matriculant	1,479	<1%					
	Non-Matriculant	1,819	<1%					

- There is no significant difference in the majors of cohort students who earned degrees; 68% of matriculant and 72% of non-matriculant students earned their AA/AS degree in Liberal Arts.

Matriculants vs. Non-Matriculants AA/AS Degrees Earned by Major Fall 2000 through Fall 2005 First-Time Freshmen Cohorts

Major	Matriculants (n=271)		Non-Matriculants (n=228)	
	#	%	#	%
Liberal Arts	185	68%	164	72%
Business Administration	23	8%	19	8%
Psychology	9	3%	6	3%
Other	54	20%	39	17%

Transfers to 4-Year Universities

- Non-matriculants transfer at higher rates initially, and continue to have higher cumulative transfer rates through about the fourth semester.
- By the sixth semester, about the same percentage of matriculants and non-matriculants has transferred.
- Matriculants transfer at higher rates by the tenth semester (2 to 3 percentage points difference).

Matriculant vs. Non-Matriculant Transfers to 4-Year Universities Fall 2000 through Fall 2005 First-Time Freshmen Cohorts

Cohort			Percent of Cohort Students Who Transferred, by Semester from Initial Enrollment at SAC (cumulative from 2 nd through 10 th semester)				
			2nd	4th	6th	8th	10th
Fall 2000	Matriculant	n=1,101	0%	1%	4%	8%	11%
	Non-Matriculant	n=2,383	1%	2%	4%	6%	8%
Fall 2001	Matriculant	n=1,170	0%	1%	3%	7%	9%
	Non-Matriculant	n=2,705	1%	2%	4%	6%	7%
Fall 2002	Matriculant	n=1,365	0%	1%	2%	7%	
	Non-Matriculant	n=2,267	0%	2%	4%	7%	
Fall 2003	Matriculant	n=1,354	0%	1%	4%		
	Non-Matriculant	n=1,738	1%	1%	6%		
Fall 2004	Matriculant	n=1,521	0%	2%			
	Non-Matriculant	n=1,586	1%	2%			
Fall 2005	Matriculant	n=1,479	0%				
	Non-Matriculant	n=1,819	1%				