



**RESEARCH DEPARTMENT**



**The Influence of Matriculation Services at Santiago Canyon College  
on Student Success  
Fall 2000 to Fall 2006 Cohorts**

June 2007

**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 Santiago Canyon College (SCC), characteristics and demographics of student cohorts who received matriculation services (Fall 2000 through Fall 2006) were analyzed in comparison to non-matriculation students entering SCC 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 SCC 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.
- Matriculants transferred to a university during the first several semesters more frequently than non-matriculants, and this difference continues into subsequent semesters.

## Student Demographics and Characteristics

- A high number of freshmen are using matriculation services (885 in Fall 2006 vs. 644 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 both day and evening classes.
- Non-Matriculated students are more likely to be over 21 years of age, have an educational goal related to employment or career, and attend part-time (fewer than 12 units in a semester), and attend only during the day or only during the evening.
- Many freshmen are “undecided” of their educational goal when they enter SCC (18% to 21% of matriculants, vs. 8% to 12% of non-matriculants).

### 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=644	n=1185	n=750	n=1576	n=893	n=1975	n=885	n=1574
<b>Ethnicity/Race</b>								
African-American	2%	3%	1%	2%	1%	2%	1%	2%
Asian/Pacific Islander	8%	6%	10%	6%	11%	6%	10%	7%
Latino	29%	37%	39%	44%	38%	49%	38%	43%
White	54%	45%	42%	39%	43%	36%	39%	37%
Other	5%	3%	4%	4%	4%	3%	6%	5%
Decline to state	4%	6%	3%	5%	3%	4%	5%	5%
<b>Age Group</b>								
17 and under	18%	9%	15%	11%	15%	7%	18%	11%
18 - 21	73%	33%	72%	35%	77%	32%	78%	40%
22 - 29	4%	22%	7%	19%	5%	23%	2%	22%
30 - 39	3%	17%	4%	17%	2%	19%	1%	15%
40 - 49	2%	11%	2%	12%	1%	13%	0%	8%
50 and over	0%	8%	0%	6%	0%	6%	0%	3%
<b>Gender</b>								
Female	50%	34%	50%	33%	46%	23%	51%	27%
Male	50%	66%	50%	67%	54%	77%	49%	73%
<b>Educational Goal</b>								
AA and/or Transfer	65%	23%	61%	26%	64%	20%	64%	29%
Vocational Certificate	1%	21%	2%	16%	1%	18%	1%	32%
Employment or Career	10%	33%	12%	39%	12%	47%	13%	25%
Personal Development	1%	7%	2%	4%	1%	5%	1%	2%
Basic Skills or HS Completion	3%	2%	3%	4%	1%	2%	2%	2%
Undecided or Unknown	19%	12%	20%	11%	21%	8%	18%	10%
<b>Full-Time/Part-Time Status</b>								
Full-Time	40%	13%	37%	16%	45%	12%	40%	17%
Part-Time	60%	87%	63%	84%	55%	88%	60%	83%

**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=644	n=1185	n=750	n=1576	n=644	n=1185	n=750	n=1576
<b>Citizenship</b>								
U.S. Citizen	87%	84%	79%	81%	84%	79%	88%	85%
Permanent Resident	7%	11%	9%	12%	7%	18%	4%	10%
Visa	2%	1%	2%	1%	1%	1%	1%	0%
Other Status	4%	4%	10%	6%	7%	3%	8%	5%
<b>Day/Night Status</b>								
Day	53%	60%	53%	70%	47%	74%	56%	74%
Night	6%	23%	8%	14%	9%	11%	2%	10%
Both	41%	16%	39%	16%	44%	14%	42%	16%
<b>High School of Origin</b>								
Canyon High	10%	2%	7%	4%	7%	4%	7%	3%
El Modena	11%	4%	8%	5%	10%	4%	13%	5%
Esperanza	11%	3%	8%	2%	9%	2%	7%	3%
Foothill	7%	2%	5%	3%	8%	2%	9%	2%
Lutheran	1%	1%	3%	1%	3%	1%	2%	1%
Orange	7%	3%	10%	5%	7%	3%	11%	4%
Tustin	5%	2%	3%	2%	5%	1%	3%	1%
Villa Park	12%	4%	9%	3%	9%	3%	10%	5%
Other High Schools	36%	79%	47%	76%	43%	79%	38%	76%

### Initial English/ESL/ACE Enrollment at SCC

- 21% to 40% on matriculants and 5% to 11% of non-matriculants enroll in Freshmen Composition or higher English in their first semester; the percentages have nearly doubled for both groups since Fall 2000.
- 56% to 70% of matriculants took an English/ESL/ACE sequence course during their initial semester, versus 13% to 22% of non-matriculants.
- Supplemental English/ESL/ACE, the Tutoring Center and ESL Lab are used by a higher proportion of matriculants than non-matriculants.
- More Fall 2006 matriculants are enrolling in English/ESL/ACE courses in their first semester than prior cohorts.

### Initial English and ESL/ACE Course Enrollment of Matriculant and Non-Matriculant Students Fall 2000 through Fall 2006 First-Time Freshmen

Subject	Fall 2000		Fall 2002		Fall 2004		Fall 2006		
	Matric	Non-Matric	Matric	Non-Matric	Matric	Non-Matric	Matric	Non-Matric	
	n=644	n=1185	n=750	n=1576	n=893	n=1975	n=885	n=1574	
<b>English and ESL/ACE Sequence Courses</b>									
ENGL 101 Freshmen Comp or above	21%	5%	27%	8%	38%	7%	40%	11%	
ENGL 061 Introduction to Composition	14%	3%	13%	4%	16%	4%	17%	6%	
ENGL N60 Basics of Effective Writing	17%	5%	5%	3%	7%	1%	8%	2%	
ENGL N50 Intro to Written Communication	2%	1%	2%	1%	2%	1%	3%	1%	
ESL 112 ESL Adv ESL Composition	0%	0%	0%	0%	0%	0%	0%	0%	
ESL 110 Intro to the Essay	0%	0%	1%	0%	0%	0%	0%	0%	
ESL 109 Writing 3/Grammar IV	0%	0%	0%	0%	1%	0%	0%	0%	
ESL 107 Writing 2/Grammar III	0%	1%	2%	1%	2%	0%	0%	0%	
ESL 055 Writing 1/Grammar II	2%	1%	2%	1%	2%	0%	0%	0%	
ESL N49 Grammar I	0%	0%	2%	0%	1%	0%	0%	0%	
ESL N40 Intro to Academic ESL	0%	0%	2%	0%	0%	0%	0%	0%	
ACE N42/N43 Acad. Reading, Write/Speak Skills	6 units	Formerly ESL. Paired ACE courses do not align with former ESL courses.						1%	0%
ACE 052/053 Exp. Acad. Read, Write/Speak Skills	6 units							0%	1%
ACE 093/102 Ref. Acad. Reading, Write/Speak Skills	6 units							1%	1%
ACE 096/116 Intro. Acad. Compos./Read & Discuss.	5 units							0%	0%
<b>TOTAL ENROLLED IN ENGLISH and ESL/ACE</b>	<b>56%</b>	<b>16%</b>	<b>56%</b>	<b>18%</b>	<b>69%</b>	<b>13%</b>	<b>70%</b>	<b>22%</b>	
<b>Supplemental English and ESL/ACE Courses</b>									
ENGL 062 Writing Center	2%	1%	3%	2%	2%	0%	1%	0%	
ESL N09 ESL Lab	1%	1%	1%	0%	2%	0%	1%	0%	
STDY N95 Tutoring Center	9%	5%	9%	5%	1%	0%	5%	2%	

## Initial Math Enrollment at SCC

- Math 060 Elementary Algebra is the most frequently taken math course for both matriculants and non-matriculants during their initial semester.
- The next most frequently taken math courses were Math 080 Intermediate Algebra and Math N48 Pre-Algebra.
- Matriculants are more likely to take a math sequence course during their first semester than non-matriculants (53% to 69%) than non-matriculants (13% to 22%).
- Relatively few freshmen take advantage of supplemental math courses intended to increase success in the primary math course they are taking.

### Initial Math Course Enrollment of Matriculant and non-Matriculant Students 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=644	n=1185	n=750	n=1576	n=893	n=1975	n=885	n=1574
<b>Math Sequence Courses</b>								
MATH 180 and higher	2%	1%	1%	0%	3%	1%	4%	2%
MATH 170 Pre-Calculus	2%	0%	2%	1%	2%	0%	3%	0%
MATH 160 Trigonometry	1%	0%	1%	0%	2%	1%	2%	1%
MATH 150 Calculus	0%	0%	1%	0%	2%	0%	1%	0%
Math 145 Finite Math	0%	0%	0%	0%	0%	0%	1%	0%
MATH 140 College Algebra	5%	2%	6%	2%	8%	2%	4%	2%
MATH 105 Math for Liberal Arts	0%	0%	0%	0%	1%	0%	2%	0%
MATH 080 Intermediate Algebra	9%	3%	10%	3%	15%	2%	18%	5%
MATH 070 Geometry	1%	0%	0%	0%	0%	0%	0%	0%
MATH 060 Elementary Algebra	18%	4%	14%	5%	18%	3%	19%	6%
MATH N48 Pre-Algebra	14%	4%	13%	5%	11%	3%	12%	4%
MATH N05/N06 Basic Math	5%	2%	5%	3%	4%	1%	3%	2%
<b>TOTAL ENROLLED IN SEQUENCE</b>	<b>57%</b>	<b>16%</b>	<b>53%</b>	<b>19%</b>	<b>66%</b>	<b>13%</b>	<b>69%</b>	<b>22%</b>
<b>Supplemental Courses</b>								
MATH 098 Algebra Discussion	5%	1%	5%	1%	0%	0%	0%	0%
MATH 030 Math Anxiety	0%	0%	0%	0%	0%	0%	0%	0%
MATH N85 Review	6%	3%	5%	1%	13%	4%	12%	5%

## Persistence

- Matriculated first-time freshmen persist to a second semester at rates of 73% to 77%, versus 50% to 65% non-matriculated first-time freshmen.
- Persistence to the third through eighth semesters is also higher for matriculants than non-matriculants.

### Matriculant and Non-Matriculant 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	644	73%	63%	56%	44%	41%	27%	22%
	Non-Matriculant	1,185	57%	39%	35%	26%	22%	17%	16%
Fall 2001	Matriculant	647	77%	67%	57%	43%	38%	29%	21%
	Non-Matriculant	1,457	59%	43%	36%	31%	26%	17%	14%
Fall 2002	Matriculant	750	73%	60%	52%	44%	37%	22%	21%
	Non-Matriculant	1,576	53%	39%	38%	29%	24%	17%	15%
Fall 2003	Matriculant	401	77%	62%	55%	46%	42%	28%	
	Non-Matriculant	2,120	65%	51%	44%	37%	33%	21%	
Fall 2004	Matriculant	893	74%	57%	53%	37%			
	Non-Matriculant	1,975	50%	41%	38%	30%			
Fall 2005	Matriculant	766	75%	62%					
	Non-Matriculant	1,687	63%	47%					

## Academic Performance

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

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

Cohort		n	Semester of Enrollment						
			1st	2nd	3rd	4th	5th	6 <sup>th</sup>	7th
Fall 2001	Matriculant	647	8.3	8.6	8.5	8.7	7.2	7.5	5.5
	Non-Matriculant	1,457	4.3	5.7	5.0	5.8	4.5	4.7	3.5
Fall 2002	Matriculant	750	7.6	7.8	7.7	8.1	6.6	6.6	5.1
	Non-Matriculant	1,576	4.1	5.5	5.1	5.2	4.5	4.4	3.7
Fall 2003	Matriculant	401	7.7	7.2	6.9	6.8	7.2	6.0	4.4
	Non-Matriculant	2,120	4.9	6.0	5.9	6.3	5.1	4.8	5.1
Fall 2004	Matriculant	893	8.4	7.5	8.1	7.9	6.6		
	Non-Matriculant	1,975	3.5	4.8	4.7	4.9	3.8		
Fall 2005	Matriculant	766	8.2	7.8	7.8				
	Non-Matriculant	1,687	4.1	5.1	4.4				
Fall 2006	Matriculant	885	7.6						
	Non-Matriculant	1,574	4.2						

- Non-matriculant GPAs are generally higher than matriculant GPAs.
- Generally, GPAs generally rose following the first semester for both matriculants and non-matriculants.

### Average Semester GPA of Matriculants and Non-Matriculants Fall 2001 through Fall 2006 First-Time Freshmen Cohorts

Cohort		n	Semester of Enrollment						
			1st	2nd	3rd	4th	5th	6 <sup>th</sup>	7th
Fall 2001	Matriculant	647	2.47	2.46	2.49	2.63	2.54	2.58	2.53
	Non-Matriculant	1,457	2.56	2.58	2.68	2.81	2.55	2.73	2.63
Fall 2002	Matriculant	750	2.31	2.40	2.44	2.56	2.52	2.55	2.49
	Non-Matriculant	1,576	2.46	2.63	2.59	2.66	2.48	2.59	2.38
Fall 2003	Matriculant	401	2.23	2.31	2.44	2.60	2.48	2.61	3.08
	Non-Matriculant	2,120	2.47	2.60	2.63	2.70	2.65	2.68	2.43
Fall 2004	Matriculant	893	2.27	2.27	2.52	2.52	2.60		
	Non-Matriculant	1,975	2.59	2.65	2.68	2.75	2.75		
Fall 2005	Matriculant	766	2.23	2.26	2.44				
	Non-Matriculant	1,687	2.53	2.61	2.65				
Fall 2006	Matriculant	885	2.24						
	Non-Matriculant	1,574	2.48						

## Degrees and Certificates Earned

- Few students earned an AA/AS degree or a certificate by the end of their fourth semester.
- Matriculants earned degrees and certificates in higher percentages than non-matriculants.
- 10% of matriculants earned an AA/AS or certificate by the end of twelve semesters vs. 4% of non-matriculants.

### Percent of Matriculant vs. Non-Matriculant Students 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 AA/AS degrees. 72% of matriculants and 78% of non-matriculants 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	Matriculant n=95		Non-Matriculant n=83	
	#	%	#	%
Liberal Arts	68	72%	65	78%
Business Administration	3	3%	3	4%
Psychology	4	4%	2	2%
Other	20	21%	13	16%

## Transfers to 4-Year Universities

- Matriculants transfer at higher rates than non-matriculants.
- Matriculants transfer at similar rates to non-matriculants initially, but generally by the fourth semester have cumulative transfer rates that exceed those of non-matriculants.
- The percentage of matriculants who have transferred by the end of their fourth, sixth, eighth, or tenth semester has declined by two to five percentage points since Fall 2000.

### Matriculant and 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 (cumulative from 2 <sup>nd</sup> through 10 <sup>th</sup> semester)				
			2nd	4th	6th	8th	10th
Fall 2000	Matriculant	644	2%	8%	17%	22%	25%
	Non-Matriculant	1,185	2%	3%	6%	7%	8%
Fall 2001	Matriculant	647	1%	6%	15%	21%	23%
	Non-Matriculant	1,457	1%	4%	7%	8%	9%
Fall 2002	Matriculant	750	1%	5%	14%	20%	
	Non-Matriculant	1,576	1%	3%	6%	7%	
Fall 2003	Matriculant	401	1%	4%	12%		
	Non-Matriculant	2,120	1%	5%	9%		
Fall 2004	Matriculant	893	1%	6%			
	Non-Matriculant	1,975	1%	2%			
Fall 2005	Matriculant	766	1%				
	Non-Matriculant	1,687	1%				