UNIVERSITY OF SOUTH CAROLINA AIKEN

Academic Tracking Report #6: Success and Retention of Entering Freshmen With Admission Prerequisite Exceptions (2004 and 2005)

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University Mission

Founded in 1961, the University of South Carolina Aiken (USCA) is a comprehensive liberal arts institution committed to active learning through excellence in teaching, faculty and student scholarship, research, creative activities and service. In this stimulating academic community, USCA challenges students to acquire and develop the skills, knowledge, and values necessary for success in a dynamic global environment.

The university offers degrees in the arts and sciences and in the professional disciplines of business, education, and nursing. All courses of study are grounded in a liberal arts and sciences core curriculum. USCA also encourages interdisciplinary studies and collaborative endeavors.

Emphasizing small classes and individual attention, USCA provides students with opportunities to maximize individual achievement in both academic and co-curricular settings. The institution challenges students to think critically and creatively, to communicate effectively, to learn independently, and to acquire depth of knowledge in chosen fields. The university values honesty, integrity, initiative, hard work, accomplishments, responsible citizenship, respect for diversity, and cross-cultural understanding.

USC Aiken attracts students of varying ages and diverse cultural backgrounds who have demonstrated the potential to succeed in a challenging academic environment. In addition to serving the Savannah River area, USCA actively seeks student enrollment from all parts of South Carolina as well as from other states and countries.

As a senior public institution of the University of South Carolina, USCA combines the advantages of a smaller institution with the resources of a major university system. Located in beautiful, historic Aiken, South Carolina, USCA is an institution of moderate size (2,500-5,000 students) that offers baccalaureate degrees in a number of disciplines, completion baccalaureate degrees at University of South Carolina regional campuses, and master's degrees in selected programs.

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Table of Contents

Executive Summary

This study provides a profile of entering freshmen at the University of South Carolina Aiken (USCA) in Fall 2004 and Fall 2005 who were granted exceptions to admission prerequisites through substitution of Tech Prep high school units for College Prep units or for missing high school units. On average these students who were allowed exceptions to admission prerequisites of high school coursework earned lower grades and were retained at lower rates than students for whom no exceptions were made. Major findings of this study include:

- Just over a fifth (21.9%) of entering first year students in Fall 2004 and just over a sixth (16.4%) of entering students in Fall 2005 were allowed an exception of half a high school unit or more to the prerequisites for admission.

- The rate at which admitted applicants (admission status 4 or 5) with exceptions to admission prerequisites matriculated at USCA (the yield rate) was 59.7% in Fall 2004 and 53.8% in Fall 2005, slightly below the yield rate for all applicants of about 63%, suggesting that applicants with admissions exceptions are slightly less likely to enroll than those who have completed the full slate of College Prep high school courses.

- The number of high school units for which exceptions were allowed ranged from half a unit to four units. Just under a quarter (23.8%) of all exceptions among matriculants with admission prerequisite exceptions had more than one unit worth of Tech Prep units and/or missing units.

- For those freshmen entering with admission prerequisite exceptions in Fall 2004, the mean first semester grade point average (Sem GPA) was 1.96, compared to 2.38 for the entire full-time freshman cohort, and the retention rate was 46.7%, compared to 60.2% for the entire cohort. Both differences were statistically significant.

- Academic performance of students with prerequisite exceptions was lower than that of classmates with similar SAT scores, high school class rank, and predicted GPAs. One year retention rates of these students who had Tech Prep units in high school or were missing high school units remained relatively constant at or below 50% regardless of SAT scores, high school class rank, or predicted GPA.

- Even when students were missing just half a credit in any area, retention rates of these students were still below 50%.

- Regardless of the curricular area in which students had completed Tech Prep units or were missing high school units, first semester GPAs were lower for students with admission prerequisite exceptions than for the rest of the cohort. Retention of students with admission prerequisite exceptions was lower than students who had completed all of the College Prep high school units, except in cases where students had earned Tech Prep electives.

The consistently low performance and retention of students who were allowed exceptions to admission prerequisites for high school coursework may be indicative of reduced levels of commitment to college and/or less competency in successfully navigating long term curricular requirements than specific academic deficiencies that inhibit collegiate success. Although evidence that points to this conclusion is circumstantial, it seems unlikely that half credit deficiencies in any curricular area would directly cause such marked differences in collegiate performance. It seems more likely that students who do not meet all high school curricular prerequisites are simply less committed to the goal of attending a four-year college and have a greater propensity to compromise their academic program for whatever reason than do students who complete all required College Prep high school units.

Methodology

This study was designed to harvest data directly from the University mainframe rather than rely upon reports generated by the USC Columbia Registrar or the USC Columbia Institutional Planning and Analysis Office because these reports were discovered to undercount matriculated students who were missing high school units.

Data for applicants to USCA in Fall 2004 and Fall 2005 were gathered in October 2005 from the current USC Admissions Information file (ADMSINFO), a data set which contains applicant records for at least 2 years. A purging process for applicant data from Fall 2003 had already begun to remove from this file and was incomplete in many cases, and so applicants prior to Fall 2003 were not included in this file. These data should include the most current records on file, and spot checking of downloaded records with Admission screens was performed to confirm data integrity.

Only applicants who were coming to USCA directly from high school and seeking a baccalaureate degree (basis type HB) were included in this study. Completion of required high school units in Lab Science, Foreign Language, Social Studies, and Electives was included in the data set as well as the type of unit (College Prep or Tech Prep) for high school units in English Language Arts, Mathematics, Lab Science, Foreign Language, Social Studies, and Electives. Completion data for English Language Arts and Mathematics were not considered in the scope of this study because USCA admission policy does not allow for admission of students directly from high school who are missing units of either English Language Arts or Mathematics.

Downloaded data were placed into separate files for applicants intending to enroll in Fall 2004 and for those intending to enroll in Fall 2005. For both years, the downloaded data were placed into MS Access and matched with data from the Applicants files frozen by the USCA IE Office each year in August (freeze dates: 8/2/2004 and 8/19/2005) to collect demographic data as well as information such as high school performance and college admission scores. These data files were then matched to Homer files (freeze dates 11/1/2004 and 10/31/2005) to determine which applicants actually enrolled as well as other information contained in those files, such as entering major. For the extended data set for 2004 applicants only, the final copy of the Fall 2004 Homer file was integrated to collect first semester grade point averages. The Fall 2005 Homer file was also merged into the data set and matched in order to determine which students had persisted from Fall 2004 to Fall 2005. Both data sets were exported to MS Excel for analysis using pivot table functions.

This methodology is designed to gather all prerequisite deficiencies for students entering in Fall 2004 and Fall 2005 along with performance and retention data for students entering in Fall 2004. Because of the discrepancies noted earlier about reports from the USC IPA Office to the South Carolina Commission on Higher Education about enrolled students who met prerequisites, these data for 2004 matriculants will not agree with published reports from CHE (see Table 3). However, the figures for 2005 should closely approximate those reported to CHE if the programming in the USC IPA Office has been adjusted appropriately.

Context and Demographic Profile

The South Carolina Commission on Higher Education (CHE) revised undergraduate admission requirements for four-year institutions effective in 2003-04. These requirements mandated that undergraduate students entering four-year institutions from high school have completed four units of English, three units of mathematics, three units of laboratory science, two units of the same foreign language, three units of social science, fours units of electives, and one unit of physical education or ROTC. This policy also allows for institutions to make exceptions:

> in admitting 1) students who do not meet all of the prerequisites, limited to those individual cases in which the failure to meet one or more prerequisites is due to circumstances beyond the reasonable control of the student or 2) students who have taken the Tech Prep (Applied Academics) courses rather than the required college preparatory curriculum described above and who meet all other institutional admissions criteria. (South Carolina Commission on Higher Education , 2003).

USCA also requires students entering from high school to demonstrate they have taken a fourth unit of mathematics. This fourth unit of math is coded in the electives field.

Following CHE's guidelines, USCA policy for entering freshmen in 2004 and 2005 did make exceptions for students who do not meet all prerequisites, allowing for full admission of applicants who substitute a limited number of Tech Prep courses for College Prep courses or in individual cases where students are missing a prerequisite course, so long as the course is not in English Language Arts or Mathematics.

Applicants to USCA coming directly from high school (basis type HB) in Fall 2004 and Fall 2005 accounted for roughly 55% of the applicant pool in each year (3,190 total applicants in Fall 2004 and 3,562 total applicants in Fall 2005). Just under half of these applicants completed the admission process and were offered a tentative acceptance (admission status = 4) or a final acceptance (admission status = 5).

Table 1. Applicants in Fall 2004 and Fall 2005 By Admission Status

Admission Status	2004	2005
1 (Rejected)	260	357
2 (Cancelled)	181	266
3 (Pending)	337	402
4 (Tentative Acceptance)	351	318
5 (Final Acceptance)	620	653
Grand Total	**1,749**	**1,996**

In both Fall 2004 and Fall 2005 there were 971 applicants who were admitted and who had an application status of 4 or 5.[1] In 2004, 620 of the students in this category enrolled at USCA and 603 of these students enrolled in 2005 for an admission yield rate of 63.9% and 62.1% respectively.

In Fall 2004, 101 admitted applicants substituted a Tech Prep course for a College Prep course, and 61 of these matriculated for a yield rate of 60.4%. There were 148 admitted applicants who were missing one half or more of a required high school unit, and 88 matriculated for a 59.5% yield rate. A total of 226 applicants had some sort of prerequisite exception due to Tech Prep,

[1] It is important to observe that while the 2004 applicants file was frozen on 8-1-05, the 2005 applicants file was frozen two and half weeks later in the year on 8-19-05.

missing units, or some combination of both, and 135 of these enrolled, for a 59.7% yield rate, a level that is about four percentage points below the overall yield rate for the term.

In Fall 2005, 82 admitted applicants substituted a Tech Prep course for a College Prep course, and 61 of these matriculated for a yield rate of 64.6%. There were 111 admitted applicants who were missing one half or more of a required high school unit, and 50 matriculated for a 45.0% yield rate. A total of 184 applicants had some sort of prerequisite exception due to Tech Prep, missing units, or some combination of both, and 99 of these enrolled, for a 53.8% yield rate, a level that is about eight and a half percentage points below the overall yield rate for the term. This indicates that students for whom exceptions to high school prerequisites are allowed had a slightly lower chance of enrolling than those who completed the full set of required College Prep high school courses.

Table 2. Number and Yield Rate of Admitted Applicants and Matriculants with Prerequisite Exceptions

	2004			2005		
	Applicants*	**Matriculants**	**Yield**	**Applicants†**	**Matriculants**	**Yield**
Basis Type						
HB	1,749			1,996		
Admission Status						
1 (Rejected)	260			357		
2 (Cancelled)	181			266		
3 (Pending)	337			402		
4 (Tentative Acceptance)	351			318		
5 (Final Acceptance)	620			653		
Total 4 & 5 (Tentative and Final Acceptances)	971	620	63.9%	971	603	62.1%
Prerequisite Exceptions (4 or 5 only)						
Any Tech Prep	101	61	60.4%	82	53	64.6%
Missing Any	149	90	60.4%	111	50	45.0%
Tech Prep & Missing^	227	136	59.9%	184	99	53.8%
% Meeting All Prereqs	**76.6%**	**78.1%**	**--**	**81.1%**	**83.6%**	**--**
% Not Meeting All Prereqs	**23.4%**	**21.9%**	**--**	**18.9%**	**16.4%**	**--**

* Data Frozen 8-01-2004
† Data Frozen 8-19-2005
^ Tech Prep & Missing includes students who may have had both tech prep units and missing units.

It is significant to note that the number of students who met all prerequisites increased from 77.9% in Fall 2004 to 83.6% in Fall 2005, an increase of 5.7 percentage points. Some of this increase is attributable to efforts of the Admissions Office to reduce the numbers of students with prerequisite exceptions based on performance data provided by the IE Office in 2004.

The demographic profile of students who did not meet all prerequisites roughly mirrored the distribution of all entering freshmen by race and by gender. For instance, African American or black students comprised 29.4% and white students comprised 61.6% of the entering class in Fall 2004, while among matriculants not meeting all prerequisites in the same Fall, 33.6% were African American or black and 59.1% were white. Similarly, women comprised 66.6% of the entering class in Fall 2004 and 34.4% were men, while among matriculants not meeting all prerequisites in the same fall 65.0% were women and 35.0% were men. The demographic distributions of student meeting and not meeting all prerequisites in Fall 2005 were also similar.

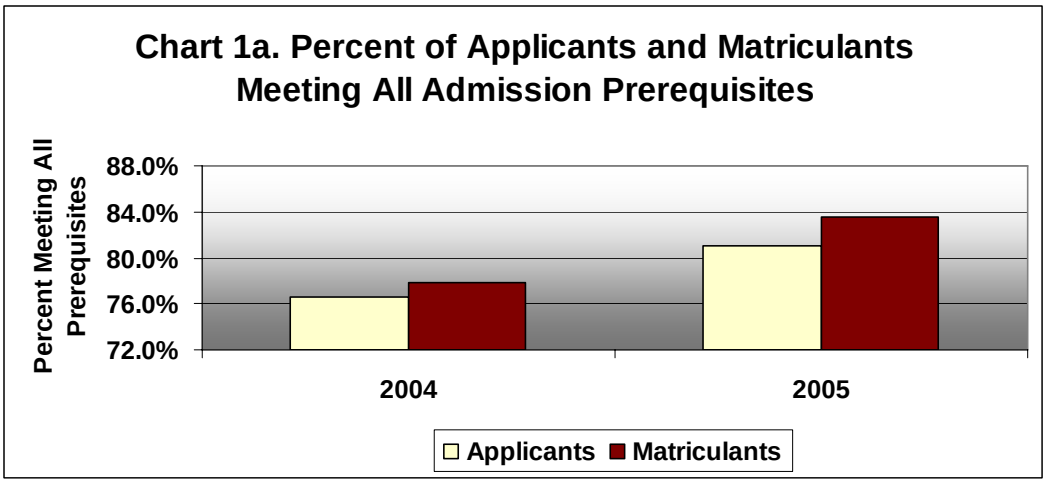
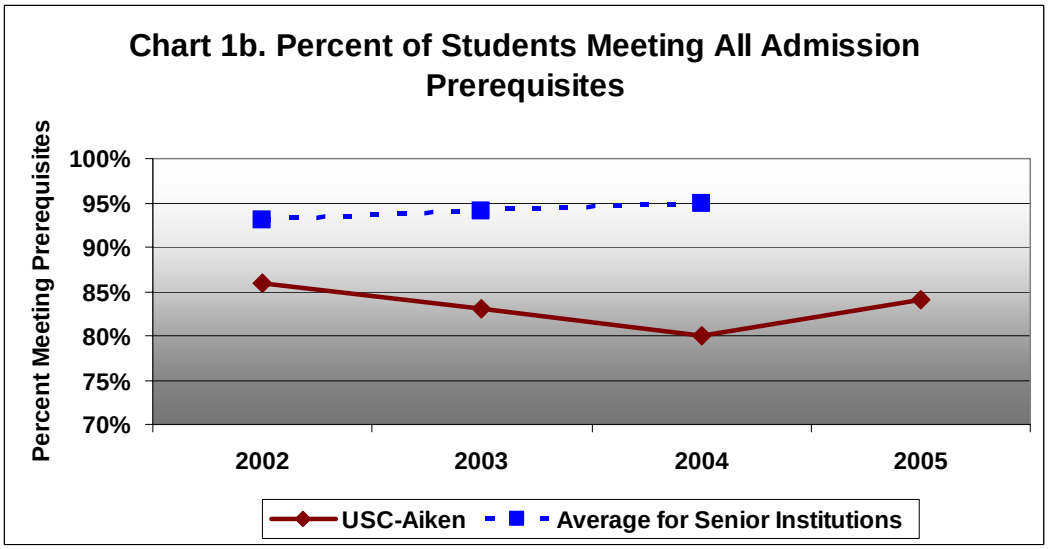


Table 3. Percent of Applicable1 First-Time Freshmen Meeting High School Course Prerequisites

	2002		2003		2004	
Senior Institutions	**Applicable Freshmen**	**% Meeting Prerequisites**	**Applicable Freshmen**	**% Meeting Prerequisites**	**Applicable Freshmen**	**% Meeting Prerequisites**
The Citadel	520	100.00%	553	100.00%	569	100.00%
Clemson	2,474	99.84%	2,767	99.78%	3,018	99.73%
Coastal Carolina	1,039	95.28%	1,238	91.20%	1,304	90.03%
College of Charleston	1,986	95.37%	1,860	97.20%	1,940	97.58%
Francis Marion	745	92.08%	768	92.97%	746	94.64%
Lander	529	93.57%	547	90.31%	652	92.79%
SC State	716	100.00%	810	100.00%	960	100.00%
USC-Columbia	3,486	97.19%	3,429	97.52%	3,337	96.13%
USC-Aiken	475	85.68%	549	83.32%	599	79.97%
USC-Beaufort	N/A	N/A	42	97.62%	140	57.86%
USC-Upstate	638	97.02%	667	89.66%	636	88.52%
Winthrop	1,081	91.67%	1,059	92.26%	990	94.44%
Total Sr. Institutions	**13,758**	**92.53%**	**14,289**	**94.32%**	**14,891**	**95.25%**

(Source: South Carolina Commission on Higher Education, 2005)



In general, students who did not meet all prerequisites for admission also had weaker high school records and lower SAT scores than their classmates who did meet all prerequisites. For the entire entering class in Fall 2004, the mean combined SAT score (including converted ACT scores) was 977, and the mean predicted GPA was 2.68, while for those not meeting all prerequisites, the mean combined SAT score (including converted ACT scores) was 928 and the mean predicted GPA was 2.53. For all entering students out of the Fall 2005 class, the mean combined SAT score (including converted ACT scores) was 995 and the mean predicted GPA was 2.72, while for those not meeting all prerequisites, the mean combined SAT score was 938 and the mean predicted GPA was 2.56.

Table 4. Profile of 2004 Applicants with Tech Prep or Missing HS Units By Race and Gender

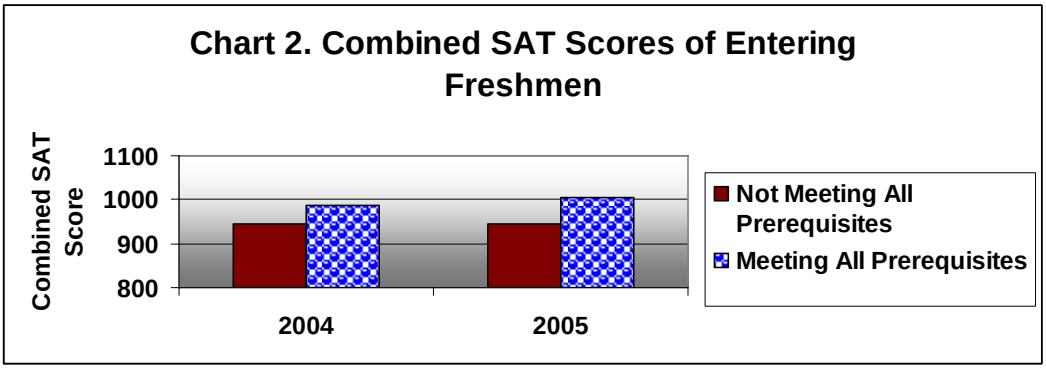
		Applicants			Matriculants		
Gender	**Race/Ethnicity**	**N**	**Mean SAT**	**Mean PrGPA**	**N**	**Mean SAT**	**Mean PrGPA**
Men	White	44	984	2.44	30	990	2.47
	Black/Afr Amer	25	838	2.18	12	823	2.21
	Asian	1	1220	2.96	1	1220	2.96
	Hispanic	1	1060	3.30	1	1060	3.30
	No Report	3	933	2.48	3	933	2.48
Men Total		75	937	2.39	48	951	2.43
Women	White	78	976	2.70	50	964	2.68
	Black/Afr Amer	62	846	2.46	34	844	2.41
	Asian	4	900	2.70	--	830	2.54
	Hispanic	1	830	2.54	1	830	2.54
	No Report	3	1063	2.83	1	1050	3.04
Women Total		148	921	2.60	86	917	2.58
(blank)		4	1075	--	2	1075	--
Total		**226**	**928**	**2.55**	**135**	**943**	**2.54**

Table 5. Profile of 2005 Applicants with Tech Prep or Missing HS Units

		Applicants			Matriculants		
Gender	**Race/Ethnicity**	**N**	**Mean SAT**	**Mean PrGPA**	**N**	**Mean SAT**	**Mean PrGPA**
Men	White	46	983	2.48	26	990	2.48
	Black/Afr Amer	20	932	2.42	14	918	2.43
	Asian	2	810	2.34	1	810	2.16
	Hispanic	2	1140	2.85	1	1260	2.77
	No Report	1	910	2.36	1	910	2.36
Men Total		71	968	2.47	43	967	2.46
Women	White	50	980	2.75	26	958	2.77
	Black/Afr Amer	54	899	2.50	25	897	2.46
	Asian	2	1055	3.07			
	Hispanic	4	910	2.47	2	865	2.57
	No Report	3	920	2.30	3	920	2.30
Women Total		113	938	2.61	56	925	2.60
(blank)		--	--	--	--	--	--
Total		**184**	**950**	**2.56**	**99**	**943**	**2.54**

Among students in the Fall 2005 applicant pool who had Tech Prep high school units or were missing high school units, mean SAT scores rose sharply for African American students but remained constant for white students. While in 2004 African American men who were allowed admission prerequisite exceptions and then enrolled had a mean combined SAT score of 823, the same group in 2005 had a mean combined SAT score of 918. African American women who were granted admission prerequisite exceptions and then enrolled had a combined SAT score of 844 in 2004, while the same group in 2005 had a combined SAT score of 897. These increases are likely a result of the minimum SAT requirement of 800 instituted in Fall 2005. Combined SAT scores for white students with missing high school units or Tech Prep high school units dropped slightly for women from 964 in Fall 2004 to 968 in Fall 2005. Combined SAT scores for white men who were allowed prerequisite exceptions and then enrolled remained constant from 2004 to 2005 at 990.

What is perhaps most significant about these findings, however, is that students for whom admission prerequisite exceptions were made entered with SAT scores that were on average about 50 points lower than their fellow students who had met all high school prerequisites. This difference accounts for some, though not all of the weaker performance and retention rates of students who had not met all prerequisites but not all of it.



International students are not included in these calculations, but entering students who are not residents of South Carolina are held to the same high school course prerequisites as South Carolina residents. In Fall 2004, out of the 236 applicants with exceptions to high school prerequisites, 50 (21.2%) of them were nonresident students, and 23 out of the 135 matriculants (17.0%) who were allowed an exception to high school prerequisite courses were not residents of South Carolina. By comparison, out-of-state students comprised only 9.3% of the entire entering class in Fall 2004. Proportions were similar for Fall 2005.

Performance and Retention of Students with Admission Prerequisite Exceptions

Academic performance of the 136 students entering in Fall 2004 for whom exceptions to admission prerequisites were made was poor, with a first semester grade point average of just 1.96 and a one year retention rate of 46.7%. By contrast, the average first semester grade point average was 2.38 for all students in the entering full-time freshman cohort, and the overall one-year retention rate was about 60.2%, a difference of about half a grade point (significant at $p<0.001$) and about 13 percentage points in the one-year retention rate (significant at $p<0.01$).

These levels of weak performance appear across both types of exceptions (missing units and Tech Prep units), number of admission exceptions, entering high school grades and class ranks, and even SAT scores. In Fall 2004, 23.0% of the 135 freshmen with any sort of exception to admission prerequisites had more than one unit worth of exception; in Fall 2005, 24.2% of the 99 freshmen with any sort of exception to admission prerequisites had more than one unit worth of exceptions.

Table 6. Performance and Retention of Entering Students in Fall 2004 with Tech Prep Units and/or Missing Units

TOTAL EXCEPTIONS (HS UNITS)	Applicants	Matriculants	Mean 1st Sem GPA	F2005 Retained	Admission Yield	1Yr Retn
0.5	29	24	2.15	12	82.8%	50.0%
1.0	145	80	2.00	38	55.2%	47.5%
1.5	11	7	1.42	3	63.6%	42.9%
2.0	24	12	1.67	6	50.0%	50.0%
2.5	5	2	2.95	2	40.0%	100.0%
3.0	8	6	1.49	1	75.0%	16.7%
4.0	4	4	2.16	1	100.0%	25.0%
Grand Total	**226**	**135**	**1.96**	**63**	**59.7%**	**46.7%**

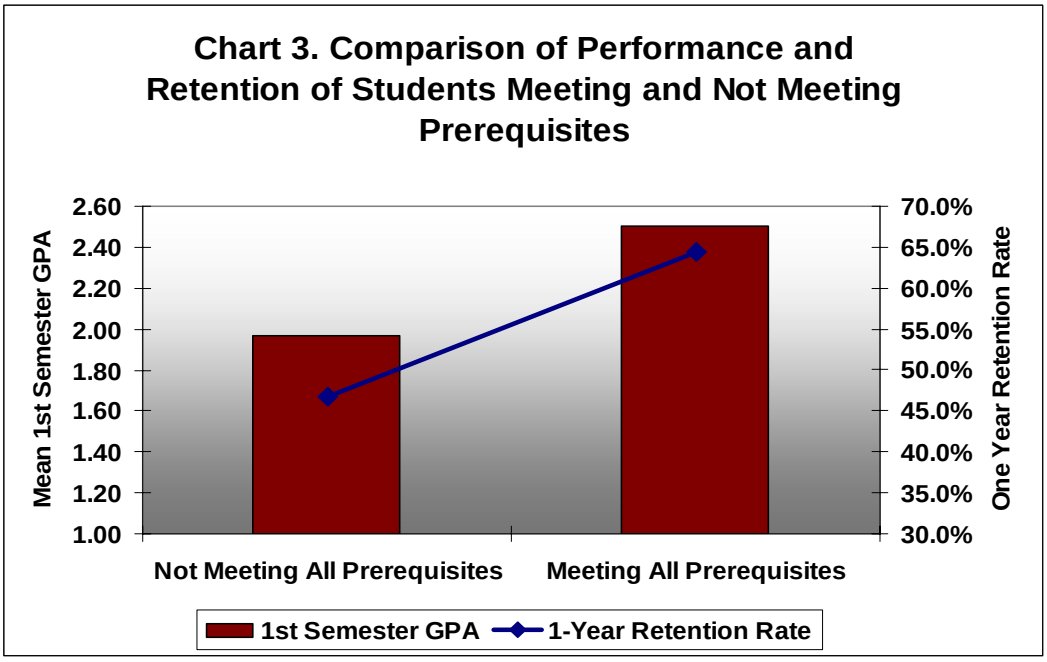


Table 7. Performance and Retention of Entering Students in Fall 2004 or Fall 2005 with Any Tech Prep Units

Tech Prep HS Units	Applicants	Matriculants	Mean 1st Sem GPA	Retained to 2nd Fall	Admission Yield	1 Yr Retn
Fall 2004						
1	76	45	2.00	23	59.2%	51.1%
2	19	11	1.44	4	57.9%	36.4%
3	6	5	2.15	1	83.3%	20.0%
2004 Total	**101**	**61**	**1.91**	**28**	**60.4%**	**45.9%**
Fall 2005						
1	56	36	--	--	64.3%	--
2	19	11	--	--	57.9%	--
3	6	5	--	--	83.3%	--
4	1	1	--	--	100.0%	--
2005 Total	**82**	**53**	--	--	**64.6%**	--

Cohort overall retention rate = 60.2%, average 1st semester GPA =2.4.

While an increased number of Tech Prep high school units appears to correspond with a lower retention rate, the findings from this study are insufficient to demonstrate a relationship between the two factors. First, the numbers of students in these categories are too low to apply traditional statistical tests, and second, the first semester GPA (a factor strongly related to one year retention) of 2.15 for the five students with three Tech Prep high school units is significantly higher than the 1.44 first semester GPA of the eleven students with only two Tech Prep high school units.

Table 8. Performance and Retention of Entering Students in Fall 2004 or Fall 2005 with Any Missing Units

MISSING HS UNITS	Applicants	Matriculants	Mean 1st Sem GPA	Retained to 2nd Fall	Admission Yield	1 Yr Retn
Fall 2004						
0.5	36	29	2.03	14	80.6%	48.3%
1.0	98	51	1.73	20	52.0%	39.2%
1.5	7	3	1.78	2	42.9%	66.7%
2.0	3	2	1.83	1	66.7%	50.0%
2.5	2	1	3.15	1	50.0%	100.0%
3.0	1	1	1.83	--	100.0%	0.0%
4.0	1	1	4.00	1	100.0%	100.0%
2004 Total	**148**	**88**	**1.88**	**39**	**59.5**	**44.3%**
Fall 2005						
0.5	17	8	--	--	47.1%	--
1.0	85	38	--	--	44.7%	--
1.5	2	1	--	--	50.0%	--
2.0	2	1	--	--	50.0%	--
2.5	1	1	--	--	100.0%	--
3.0	1	--	--	--	0.0%	--
13.0*	3	1	--	--	33.3%	--
2005 Total	**111**	**50**	--	--	**45.0%**	--

* The enrollee with 13 missing units in this study is a special case.

The Effect of Academic Inputs on Performance and Retention of Students with Admission Prerequisite Exceptions

For students who had Tech Prep high school units or were missing high school units, no significant correlations were observed between academic inputs and one year retention rates. While there was some correlation between collegiate academic performance of these students and their SAT scores and high school performance, high collegiate GPAs among this group did not correlate with high retention rates. Indeed, one year retention rates for students in most segmentations of combined SAT scores, high school class rank, and predicted GPA remained at or below 50%. Thus, while among the general population of entering freshmen at USCA, SAT scores and strong high school performance correlate positively with high collegiate GPAs and high retention rates (Hosch, 2005), these factors appear to have little or no predictive power for students who enter USCA having substituted one or more Tech Prep high school units for College Prep units or for those who are simply missing required units. This finding may also indicate that factors other than academic abilities and deficiencies play a more significant role in these students' success or failure in college.

Table 9. Performance and Retention of Entering Students with Tech Prep Units and/or Missing Units By Combined SAT Score*

Combined SAT Score*	Applicants	Matriculants	Mean 1st Sem GPA	Retained to 2nd Fall	Admission Yield	1 Yr Retn
Fall 2004						
Below 800	35	22	1.54	10	62.9%	45.5%
800- 890	59	34	1.73	18	57.6%	52.9%
900- 990	62	34	1.78	12	54.8%	35.3%
1000-1090	44	29	2.24	15	65.9%	51.7%
1100-1190	16	10	2.62	5	62.5%	50.0%
1200-1290	7	5	3.34	2	71.4%	40.0%
(blank)	3	1	4.00	1	33.3%	100.0%
2004 Total	**226**	**135**	**1.96**	**63**	**59.7%**	**46.7%**
Fall 2005						
Below 800	1	1	--	--	100.0%	--
800- 890	61	37	--	--	60.7%	--
900- 990	63	30	--	--	47.6%	--
1000-1090	40	20	--	--	50.0%	--
1100-1190	13	8	--	--	61.5%	--
1200-1290	4	2	--	--	50.0%	--
(blank)	2	1	--	--	50.0%	--
2005 Total	**184**	**99**	--	--	**53.8%**	--

* Includes converted ACT scores.

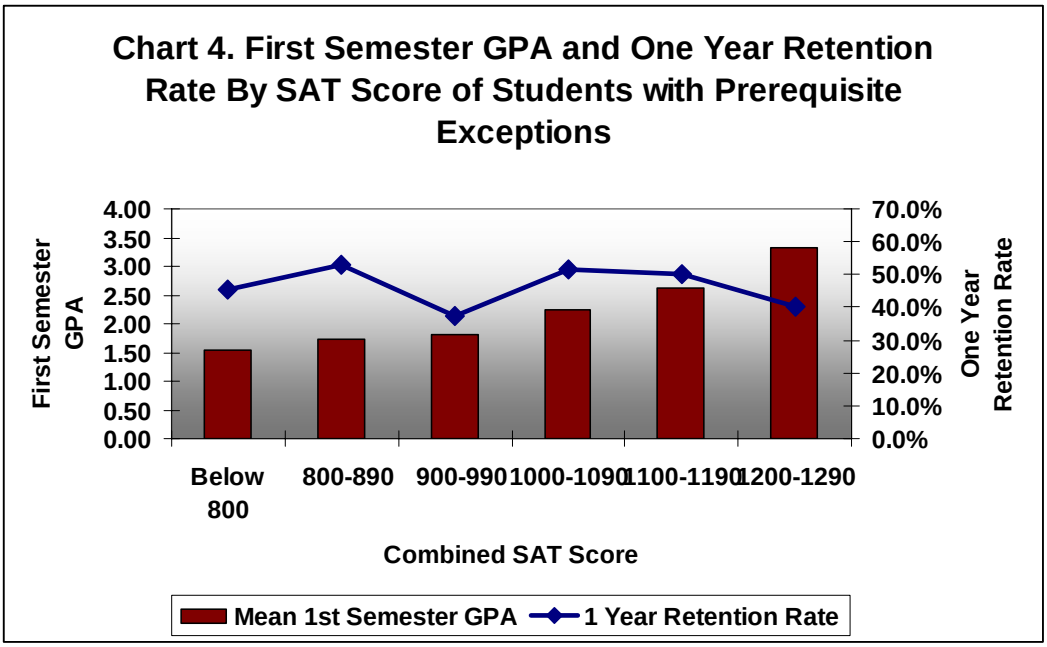
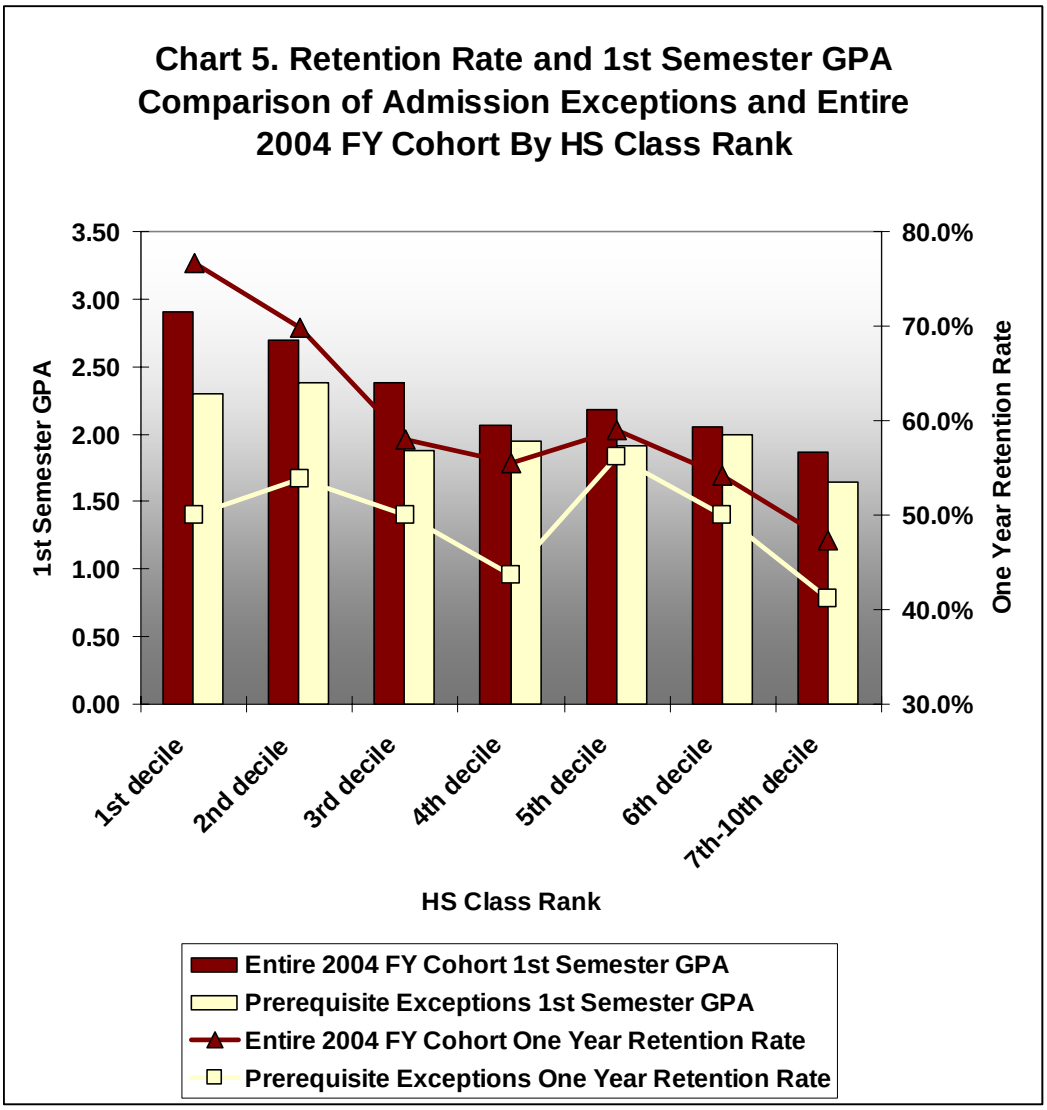


Table 10. Performance and Retention of Entering Students with Tech Prep Units and/or Missing Units By High School Class Rank

HS Class Rank	Applicants	Matriculants	Mean 1st Sem GPA	Retained to 2nd Fall	Admission Yield	1 Yr Retn
Fall 2004						
1st decile	26	16	2.30	8	61.5%	50.0%
2nd decile	26	13	2.38	7	50.0%	53.8%
3rd decile	32	22	1.88	11	68.8%	50.0%
4th decile	28	16	1.95	7	57.1%	43.8%
5th decile	24	16	1.91	9	66.7%	56.3%
6th decile	29	23	1.96	11	79.3%	47.8%
7th-10th decile	34	17	1.64	7	50.0%	41.2%
(blank)	27	12	1.73	3	44.4%	25.0%
2004 Total	**226**	**135**	**1.96**	**63**	**59.7%**	**46.7%**
Fall 2005						
1st decile	10	7	--	--	70.0%	--
2nd decile	21	11	--	--	52.4%	--
3rd decile	25	10	--	--	40.0%	--
4th decile	31	18	--	--	58.1%	--
5th decile	23	15	--	--	65.2%	--
6th decile	17	13	--	--	76.5%	--
7th-10th decile	39	22	--	--	56.4%	--
(blank)	18	3	--	--	16.7%	--
2005 Total	**184**	**99**	--	--	**53.8%**	--

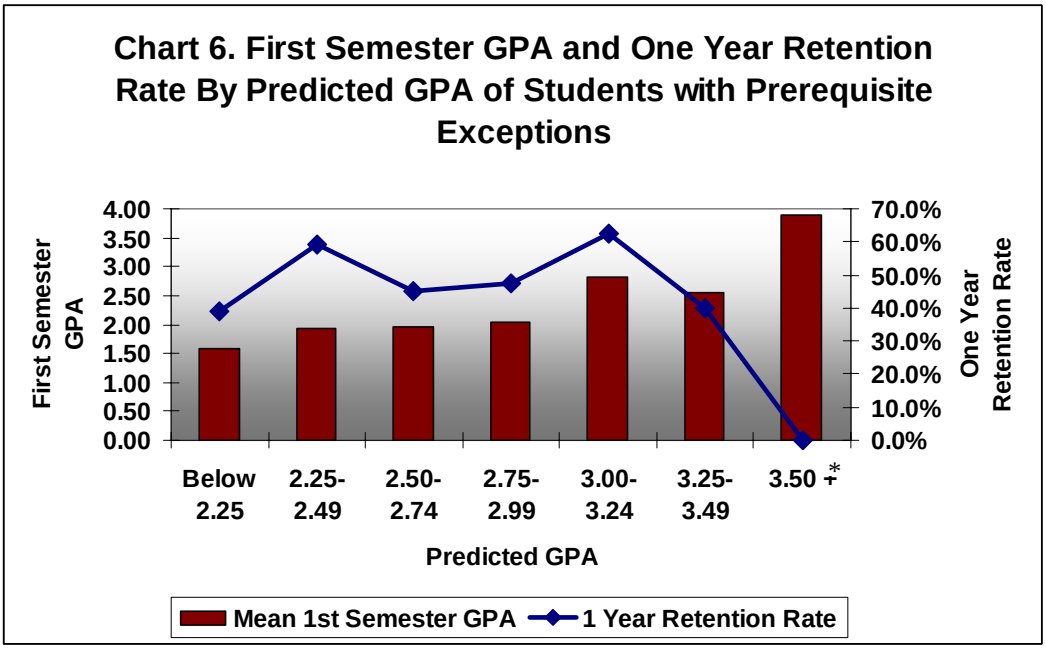
Students who were missing high school units or had Tech Prep units substitute for College Prep units but who graduated in the top two deciles of their high school class earned a mean first semester collegiate GPA of about 2.33. This level of performance is comparable to the cohort average of 2.38, but far below the performance of all students in the 2004 First Year Cohort with similar high school class ranks. Indeed, students with any exceptions made to admission prerequisites underperformed their classmates across all levels of academic inputs, including high school class rank (see Chart 5).



Students who were admitted with exceptions to admission prerequisites exhibited the weakest academic performance and retention rates when their predicted GPAs were below 2.25. For this group, the mean first semester GPA was just 1.57 and the retention rate was 39.0%. While academic performance of students who did not meet all admissions perquisites was higher for those with higher predicted GPAs, the one year retention of these students was still generally less than 50%. While this finding is consistent with other results reported for this group of students in this study, it stands in stark contrast to the general population of students, for whom a linear relationship between first semester GPA and one year retention rates has typically been observed (Hosch, 2005).

Table 11. Performance and Retention of Entering Students with Tech Prep Units and/or Missing Units By Predicted GPA

Predicted GPA	Applicants	Matriculants	Mean 1st Sem GPA	Retained to 2nd Fall	Admission Yield	1 Yr Retn
Fall 2004						
Below 2.25	66	41	1.57	16	62.1%	39.0%
2.25-2.49	54	31	1.91	18	57.4%	58.1%
2.50-2.74	35	20	1.95	9	57.1%	45.0%
2.75-2.99	37	21	2.05	10	56.8%	47.6%
3.00-3.24	14	8	2.82	5	57.1%	62.5%
3.25-3.49	12	10	2.54	4	83.3%	40.0%
3.50 +	3	1	3.89		33.3%	0.0%
(blank)	5	3	2.72	1	80.0%	33.3%
2004 Total	**226**	**135**	**1.96**	**63**	**59.7%**	**46.7%**
Fall 2005						
Below 2.25	40	19	--	--	47.5%	--
2.25-2.49	54	41	--	--	75.9%	--
2.50-2.74	39	13	--	--	33.3%	--
2.75-2.99	20	12	--	--	60.0%	--
3.00-3.24	20	8	--	--	40.0%	--
3.25-3.49	7	4	--	--	57.1%	--
3.50 +	1	1	--	--	100.0%	--
(blank)	3	1	--	--	33.3%	--
2005 Total	**184**	**99**	--	--	**53.8%**	--



* There was only one student with a predicted GPA above 3.50 who was allowed exceptions to admission prerequisites, and this lone student was not retained. This result should not be interpreted as a trend.

Table 12. Performance and Retention of Entering Students with Tech Prep Units and/or Missing Units By Entering Major

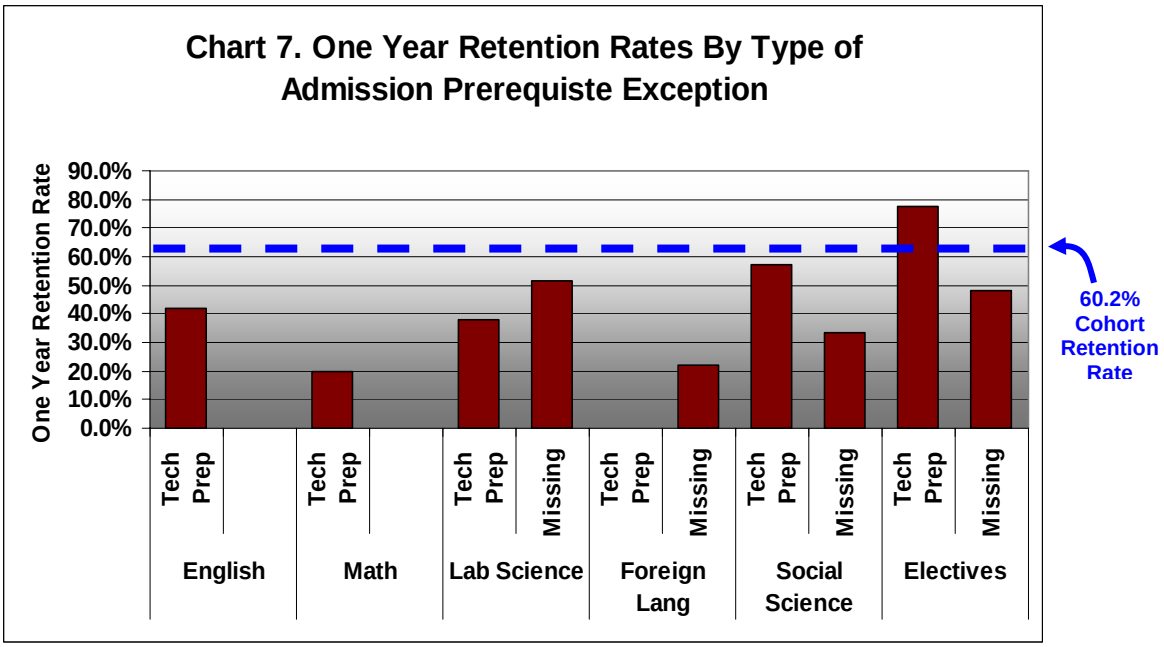
	Entering Fall 2004					Entering Fall 2005	
Major	**Applicants***	**Matriculants**	**Mean 1st Sem GPA**	**Retained 2nd Fall**	**1 Year Retn**	**Applicants***	**Matriculants**
Biology	6	6	1.42	2	33.3%	7	7
Business	25	25	1.83	7	28.0%	18	18
Chemistry	2	2	2.08	1	50.0%	1	1
Communications	4	4	1.76	1	25.0%	5	5
Education, Early Child	5	5	1.54	3	60.0%	4	4
Education, Elementary	3	3	2.87	2	66.7%	5	5
Education, Music	2	2	1.73	1	50.0%	0	0
Education, Secondary	2	2	1.33	1	50.0%	5	5
Education, Special	1	1	1.06	1	100.0%	0	0
Engineering	2	2	2.84	2	100.0%	6	6
Exercise Science	12	12	2.12	2	16.7%	5	5
Fine Arts	3	3	2.47	1	33.3%	4	4
Math & Comp Sci	3	3	2.53	1	33.3%	2	2
Nursing	28	28	1.85	15	53.6%	2	2
Political Science	3	3	1.94	2	66.7%	10	10
Pre-Pharmacy	3	3	2.46	2	66.7%	5	5
Psychology	4	4	2.95	3	75.0%	8	8
Sociology	9	9	2.13	6	66.7%	2	2
Undecided	18	18	1.88	10	55.6%	10	10
(blank)	91	--	--	--	--	85	--
Grand Total	**226**	**135**	**1.96**	**63**	**46.7%**	**184**	**99**

Collegiate performance and one year retention rates of students who were allowed exceptions to admission prerequisites were uneven across intended academic majors, and small numbers of students preclude detailed analysis of these differences. Nevertheless, among the professional schools (which house the largest numbers of majors), entering Nursing majors in Fall 2004 who had Tech Prep high school units or were missing high school units were retained at a rate of 53.6% to the following Fall, although their mean first semester grade point average was just 1.85, almost an entire grade point below the minimum for admission into the School of Nursing. Entering Business majors who had been admitted with exceptions to admission prerequisites earned a comparable mean first semester GPA of 1.83, but their retention rate was just 28.0%. There were only 13 entering education majors with Tech Prep or missing prerequisite high school units, and these students were retained at a rate of 61.5%, just slightly above the cohort average of 60.2%. The 12 Exercise Science majors in this category in 2004, however, were retained at a rate of just 16.7%, even though their mean first semester GPA was 2.12.

Student Performance and Retention by Area of Prerequisite Exception

Previous research has indicated that students who substituted Tech Prep high school units for College Prep units in areas other than social studies and electives were retained at lower rates earned lower grades than students who completed the entire College Prep high school curriculum (Hosch, 2005). Results from this study indicate that missing units in any area, even just half a unit, is a strong indicator for poor performance at USCA and subsequent attrition. Additionally, this study confirms that students who substitute Tech Prep courses in any area other than electives are also at significant risk of performing poorly.

There were only seven students in this study with units in Tech Prep social studies, but their performance was also quite weak with a one year retention rate of 57.1% and a first semester GPA of 1.60, a level of performance that is lower than the cohort mean first semester GPA of 2.38 (significant at $p < 0.05$).



The nine students entering in Fall 2004 who substituted Tech Prep electives for College Prep electives actually returned to USCA the following Fall at a rate of 77.8%, but they too exhibited low levels of academic performance, with a mean first semester GPA of just 2.13, although this difference is not statistically significant.

Table 13. Performance and Retention of Entering Students with Tech Prep Units and/or Missing Units By Area and Type

Prerequisite Exception Type	# of HS Units	Fall 2004 Applicants	Matriculants	Mean 1st Sem GPA	Retained 1 Year	% Retained	Fall 2005 Applicants	Matriculants
English								
Tech Prep	1	23	16	2.04	7	43.8%	24	12
	2	3	3	2.45	1	33.3%	6	4
	All	26	19	2.11	8	42.1%	30	16
Math								
Tech Prep	1	12	5	1.21	1	20.0%	18	12
	2	--	--	--	--	--	3	2
	All	12	5	1.21	1	20.0%	21	14
Lab Science								
Tech Prep	1	33	24	1.84	10	41.7%	32	22
	2	4	4	0.89	1	25.0%	5	5
	3	1	1	2.47	0	0.0%	1	
	All	38	29	1.73	11	37.9%	38	27
Missing	0.5	6	4	2.82	1	25.0%	--	--
	1	57	32	2.10	17	53.1%	51	25
	1.5	1	1	2.70	1	100.0%	--	--
	3	--	--	--	--	--	3	1
	All	64	37	2.19	19	51.4%	54	26
Foreign Lang								
Tech Prep	1	2	2	3.64	0	0.0%	2	2
	All	2	2	3.64	0	0.0%	2	2
Missing	0.5	--	--	--	--	--	2	1
	1	12	9	0.89	2	22.2%	14	11
	2	--	--	--	--	--	4	1
	All	12	9	0.89	2	22.2%	20	13
Social Studies								
Tech Prep	1	7	6	1.41	3	50.0%	6	5
	2	1	1	2.75	1	100.0%	--	--
	All	8	7	1.60	4	57.1%	6	5
Missing	0.5	4	2	2.63	1	50.0%	1	1
	1	8	1	1.00	0	0.0%	2	0
	3	--	--	--	--	--	3	1
	All	12	3	2.09	1	33.3%	6	2
Electives								
Tech Prep	1	28	8	2.24	7	87.5%	3	2
	2	4	1	1.25	0	0.0%	--	--
	All	32	9	2.13	7	77.8%	3	2
Missing	0.5	34	25	1.80	13	52.0%	16	8
	1	38	20	1.85	8	40.0%	26	7
	1.5	2	1	3.15	1	100.0%	1	0
	2	1	1	1.83	0	0.0%	--	--
	3+	1	1	4.00	1	100.0%	3	1
	All	76	48	1.90	23	47.9%	46	16

Discussion and Conclusions

Findings from this study indicate that with only a few possible exceptions, students who entered USCA who had not completed all of the prerequisite high school units required for admission or have substituted Tech Prep courses for College Prep courses on average performed at lower levels, with a mean first semester GPA of 1.96, and just 46.7% were retained to the second year, a rate about ten to twelve percentage points lower than students who completed the full range of College Prep courses. Even in the areas of Social Studies and Electives, in which students who took Tech Prep courses were retained at rates approaching or exceeding the cohort average of about 60.2%, their first semester grade point averages were lower than other entering freshmen.

Three significant findings suggest that the performance and retention gap exhibited by students who have not completed all of the College Prep courses required for admission may result from factors other than academic preparation. First, while in other studies a linear relationship has been observed between academic preparation in high school and subsequent performance and persistence in college, students for whom exceptions to admission prerequisite had been made were retained at about the same rate regardless of their SAT scores, high school class rank, and predicted GPA. Second, no significant differences were observed among students regardless of the area in which they were missing College Prep units. If specific curricular areas had significant impact on subsequent collegiate performance, then more variation in retention rates should have been observed. Third, students who were missing just half a unit of high school work exhibited similar performance and retention rates to those missing one unit or more.

The similarity in performance among students who had been granted admission prerequisite exceptions, regardless of the magnitude or area of the prerequisite exception, suggests that the failure to complete the full range of the prescribed prerequisite courses may in fact be more indicative of a lower level of commitment to going to college than a deficiency in specific academic skills or curricular areas. For instance, students who were missing one unit of foreign language – a discipline pursued by only about 10% of the entering cohort in their first semester – earned a first semester GPA of just 0.89 and were retained at a rate of just 22%. Similarly, it is hard to believe that missing half a unit of an elective would adversely impact the knowledge base needed to successfully navigate their first semester in college, yet retention rates for students missing half a unit were about 10% lower and first semester GPA was about half a point lower than those who met all prerequisites. Such disparities in both performance and retention point to other forces at work.

Indeed, students who have met almost all prerequisites except for one or two have already demonstrated that they have difficulty meeting a set of curricular requirements of the course of their high school careers. What things need to change for these students in college to promote a different set of behaviors that would prompt them to fulfill all curricular requirements and earn a degree? In addition to demonstrating a track record of not completing academic requirements, failure to meet these well-known high school prerequisites for College may also be indicative of a lower level of commitment to attending any four-year college or their propensity to see long-term projects through to a conclusion. In considering such students for admission, are there specific factors in individual cases, such as athletic or artistic skill, high SAT scores, or other factors, that might provide better insight into a students' commitment or qualifications? Results from this study suggest that information beyond that which is collected in the standard admission process may be required to make an informed judgment about the potential of these students to succeed at USCA.

Admission processes may need to be examined and perhaps restructured to flag students with any missing high school units or Tech Prep high school units to scrutinize these applications more closely. Such scrutiny would likely require more holistic evaluation procedures for these applications, a process that is more labor intensive than using a simple mathematical formula for predicted GPA because it typically involves the evaluation of extracurricular activities or an

admission essay. Holistic admissions also require the development of objective criteria to provide for fair and equitable admission to the University.

Decisions to place greater limits on admission of students who are missing prerequisite courses or students who will substitute Tech Prep courses for College Prep courses may be warranted, but such decisions will likely need to balance various and often competing factors that include:

- Providing for the needs of all admitted students, both those with deficiencies in their high school course work and/or preparation and those without them.
- Maintaining enrollment levels to sustain revenue streams.
- Shaping the freshman class to fashion a student body that meets strategic goals to "attract and retain an increasingly diverse and qualified student body" (USCA Strategic Planning Report, 2003, Goal 6).
- Demonstrating compliance with policies regarding the admission of undergraduate students.

Works Cited

Hosch, B. (2005). *USCA academic tracking report #5: Fall 2003 first year cohort retention to fall 2004*. Aiken, SC: Office of Institutional Effectiveness, University of South Carolina Aiken. Retrieved November 26, 2005 from http://ie.usca.edu/research/ATReports/AT_Report5.pdf.

South Carolina Commission on Higher Education (2003). College preparatory course prerequisite requirements, effective date: Academic year 2003-04. Retrieved November 23, 2005 from http://www.che.sc.gov/AcademicAffairs/CollegePreparatoryCourses.doc.

South Carolina Commission on Higher Education. (2005). Report on admission standards for first-time entering freshmen fall 2004. Retrieved November 28, 2005 from http://www.che.sc.gov/Commission%20Calendar&Materials/Oct2005MtgMaterials/AgendaItem_4.02K_AdmisStudy.pdf.

University of South Carolina Aiken (2003). Strategic planning report. Retrieved November 27, 2005 from http://www.usca.edu/strategicplan/FinalfinalReportWeb.htm.