



U N I V E R S I T Y O F  
**SOUTH CAROLINA**<sup>®</sup>  
A I K E N

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USCA Academic Tracking Report #3  
First-Year Student Retention Fall '02 to Fall '03  
Conducted in Spring 2004

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## Executive Summary

This study continues the investigation of retention patterns among the Fall 2002 cohort of full-time, first-year students at the University of South Carolina Aiken (USCA) begun in *Academic Tracking Report #1* by focusing on factors that impact the first-year retention rate, a nationally accepted measure of institutional quality. The overarching findings indicate that low levels of academic performance in the first semester are directly related to high levels of attrition to the sophomore year, suggesting that efforts directed at improving the quality of learning outcomes will likely lead to higher retention rates.

- The overall one-year retention rate of the Fall 2002 cohort was 68.2%; 9.8% of the class left USCA after just one semester, while the remaining 23.0% of nonreturners left the university after Spring 2003. Women were retained at a rate of 71.1%, while the retention rate of men was lower at 62.9%; retention rates of women were generally higher than those of men even when controlling for academic performance. Overall levels of attrition were equal for white and black students, although the distribution of these retention patterns and levels of academic performance differed by race/ethnic group.
- Academic performance in the first semester was the most prominent factor related to persistence to the second year:
  - For the 159 students who earned a Fall 2002 semester GPA over 3.0, the retention rate to the second year was 87.4%.
  - For the 158 students earning a Fall 2002 GPA between 2.0 and 3.0, the one-year retention rate was over 75%.
  - Among the 142 students with a Fall 2002 GPA below 2.0, the first-year retention rate was 38.7%.
  - For those students who earned no grades of D, F, or W in their first semester, the one-year retention rate was 87.2%.
- Academic inputs correlated positively with student persistence. For the 42 entering students with combined SAT scores under 800, the first year retention rate was just 54.8%. Among the 84 entering students who were in the lower half of their graduating high school class, the retention rate was only 48.8%. For the students in this cohort, class rank appeared to be a better predictor of academic success and retention than did GPA in core high school courses. Academic performance for both of these groups was low, and even after broad attrition in these groups, semester GPAs of remaining students only increased slightly to around the 2.0 level.
- Enrollment in ASUP 101 correlated with high levels of academic performance and retention among the 31 white women who took the course; they were retained at a level over 90% and outperformed their predicted GPAs. Of the 34 men (all ethnicities) who took the course, the retention rate was 58.8%, slightly below the overall retention rate for men of 62.3%.
- While African American students were retained at rates comparable to white students after one year, their mean Fall semester GPA of 1.98 was significantly lower than that of whites (2.58), making them much more likely to drop out in a subsequent semester.

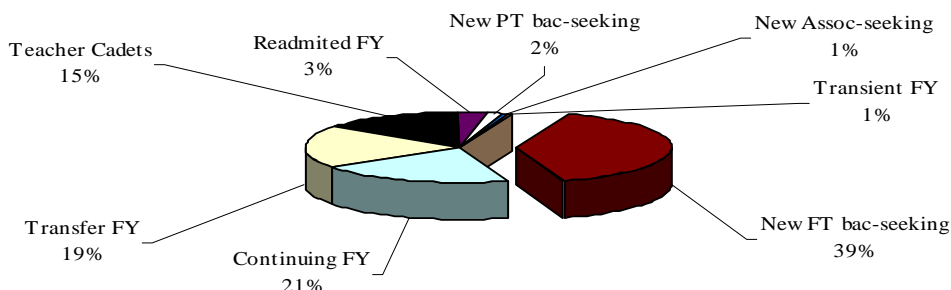
## Methodology and Population for Analysis

The 471 students included in this current analysis comprise all first-year, baccalaureate degree-seeking freshmen carrying a full-time load at USC Aiken on the data “freeze” date of October 26, 2002. While this group of students represents only 39% of USCA students classified as freshmen, it is the population tracked for institutional retention of first-year students and the population for which 6-year completion rates are typically reported. Demographic information for the group of students was harvested from the E02AIKN file on the CMS mainframe and matched using MS Access 2003 with grade data from the unofficial totals files for the Fall 2002, Spring 2003, and Fall 2003 semesters. Students who were not registered for courses in a semester following a semester for which they were registered were considered not to have been retained by the institution. One male student in the cohort was classified as a transient student at Aiken Technical College in Fall 2003; the rules governing retention reporting count this student as though he is still an active student at USCA.

**Table 1. All Freshmen by Enrollment Status (Fall 2002)**

	New Freshmen			New Freshmen Transfers			Freshmen Readmits			Continuing Freshmen			Transient Freshmen			H.S. Students	Total
	FT	PT	All	FT	PT	All	FT	PT	All	FT	PT	All	FT	PT	All	All	
Associate	7	1	8	6	20	26	2	7	9	7	2	9	--	--	--	--	52
Baccalaureate	471	18	489	135	65	200	17	12	29	111	49	160	--	--	--	--	878
Non-Degree	--	--	--	1	2	3	--	--	--	2	75	77	2	4	6	179	265
<b>Total</b>	<b>478</b>	<b>19</b>	<b>497</b>	<b>142</b>	<b>87</b>	<b>229</b>	<b>19</b>	<b>19</b>	<b>38</b>	<b>120</b>	<b>126</b>	<b>246</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>179</b>	<b>1195</b>

**Chart 1: All F02 First-Year Students by Enrollment Status (N=1,195)**



### *Methodological Differences from Academic Tracking Report #1*

The methodology of this report differs slightly from that of *Academic Tracking Report #1: First-Year Student Retention Fall 2002 to Spring 2003*, which included both students seeking associate's degrees as well as those who had registered for a full-time load but had dropped below 12 credits by the withdrawal date. The current study includes only full-time, first-year, baccalaureate-seeking students with 12 hours or more as of the October data freeze date. The justification for this adjustment in methodology is to make retention comparisons exactly mirror retention data generated by the Office of Institutional Planning and Analysis at USC Columbia and reported to the Consortium for the Study of Retention Data Exchange (CSRDE) at the University of Oklahoma. In this respect, this report includes only 471 students entering as full-time freshmen in Fall 2002 whereas *Academic Tracking Report #1* included 498 students. USCA's discontinuation of the associate's degree in nursing (ADN) program also prompts this methodological shift.

## Demographic Profile and Overall Retention

The demographic characteristics of the Fall 2002 cohort of first-year, full-time students do not represent a significant departure from other recent entering classes. Women made up almost two-thirds (65%) of the Fall 2002 entering full-time first-year cohort, and men comprised the remaining 35%. At the beginning of the Fall 2002 term, three students in this cohort were ages 15 or 16; five students were between the ages of 20 and 24; another three students were in their early 40s. The remaining 460 students were ages 17, 18, and 19, with a mean age of 18.3 years old.

Most students in the Fall 2002 first-year cohort were white, non-Hispanic (70%), while just over a fifth of the class (21%) was black or African-American, non-Hispanic. Other races or ethnicities comprised just 3% of the class. Because the proportion of these ethnicities is relatively small, they are not a primary focus of this study. The remaining 5% did not report their race or ethnicity.

The vast majority (90.9%) of the entering class indicated that their primary residence was located in South Carolina. The remainder of the class was composed of residents from Georgia (2.4%), fourteen other U.S. states (4.7%), and four English-speaking foreign countries (2.1%).

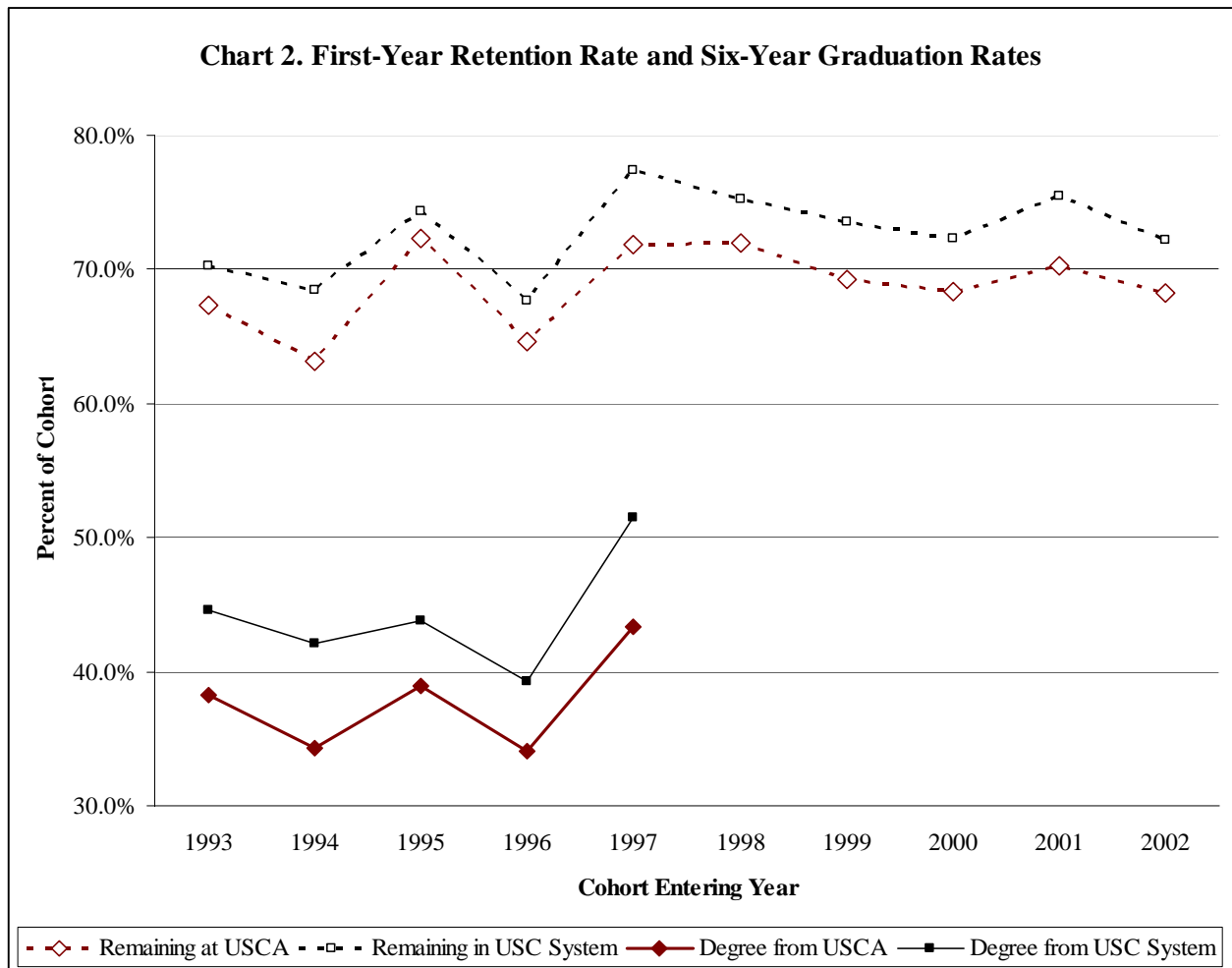
	Fall 2002	Spring 2003		Fall 2003	
	N	N	Pct Retention	N	Pct Retention
All	471	425	90.2%	321	68.2%
Gender:					
Male	167	146	87.4%	105	62.9%
Female	304	279	91.8%	216	71.1%
Race/Ethnicity:					
White, Non-Hispanic	331	299	90.3%	224	67.7%
Black or African American, Non-Hispanic	100	90	90.0%	69	69.0%
All others	15	14	93.3%	11	73.3%
Not Reported	25	22	88.0%	17	68.0%

The overall one-year retention rate of this class from Fall 2002 to Fall 2003 was 68.2%, with more than two-thirds of the attrition occurring over the summer between the Spring 2003 and Fall 2003 semesters. Women were retained at a rate of 71.1%, a level that is substantially higher than the retention rate of men, which was 62.9%. Race did not appear to be a substantial predictor of persistence to the second year; indeed the subpopulation of students who did not return in both Fall and Spring, mirrors the racial/ethnic composition of the entering class. There were too few out-of-state students to draw statistically reliable conclusions about their retention patterns.

**Table 2A. Retention by Location of Permanent Residence**

	Fall 2002	Spring 2003		Fall 2003	
	N	N	Pct Retention	N	Pct Retention
All	471	425	90.2%	321	68.2%
South Carolina Residents	428	384	89.7%	291	68.0%
Georgia Residents	11	11	100.0%	6	54.5%
Residents of Other States	22	20	90.9%	17	77.3%
International Students	10	10	100.0%	7	70.0%

While 68.2% of the Fall 2002 persisted at USCA, another 4.4% of the class continued their studies within the USC system, primarily at the Columbia campus. The retention rate represents an overall slow decline over the past five years, although still well over the lowest first-year retention rate of 63.2% in the past ten years in 1994.



*Note: The significantly higher retention rate in 1997 is likely related to the state-mandated removal of remedial courses from the USCA curriculum, which prompted a substantial number of accepted freshmen to take several hours of remedial courses through Aiken Technical College. As a result, these students with relatively weaker entering academic profiles were not counted as entering full-time students at USCA, and neither their retention nor graduation rates are tracked for reporting to the U.S. Department of Education, the South Carolina Commission on Higher Education, nor national publications such as U.S. News and World Report.*

Perhaps what is most significant is the historical correspondence between first-year retention rates and the six-year graduation rate. That is, when more students persist into the second year, more students receive degrees within six years of entering as full-time freshmen. The sharp upturn in graduation rates for the 1997 entering cohort of freshmen corresponds to a similar spike in this cohort's first-year retention rate. If all other factors remain constant, this pattern suggests that a gradual decline in the six-year graduation rates will be observed to mirror the decline in first-year retention rates through Fall 2002. Improving the first-year retention rate can be considered both a short-term and long-term investment, since later graduation rates will likely improve along with the retention rate.

## Entering Academic Profile and Retention

The entering academic profile of students who did not persist into either Spring 2003 or Fall 2003 was slightly lower than those students who did return in Fall 2003. For the entire Fall 2002 first-year cohort, the mean math SAT score was 499 ( $\sigma = 79$ ); the mean verbal SAT score was 492 ( $\sigma = 80$ ), and the combined SAT score was 991 ( $\sigma = 142$ ). On average, entering students were ranked in the top third (top 34%) of their graduating high school class, and the mean predicted GPA was 2.70 ( $\sigma = 0.42$ ). Exhibiting a marginally weaker entering academic profile, non-returning students had a slightly lower mean combined SAT score of 974 (491 math, 483 verbal); they had a lower average high school class ranking (top 41%); and their mean predicted GPA for admission was 2.61. While these indicators for nonreturners register below the class mean for all measures, the wide distribution as evidenced by the standard deviations indicates some of the inherent difficulty in identifying students who will be successful at USCA.

**Table 3. Academic Profile of Fall 2002 FY Cohort**

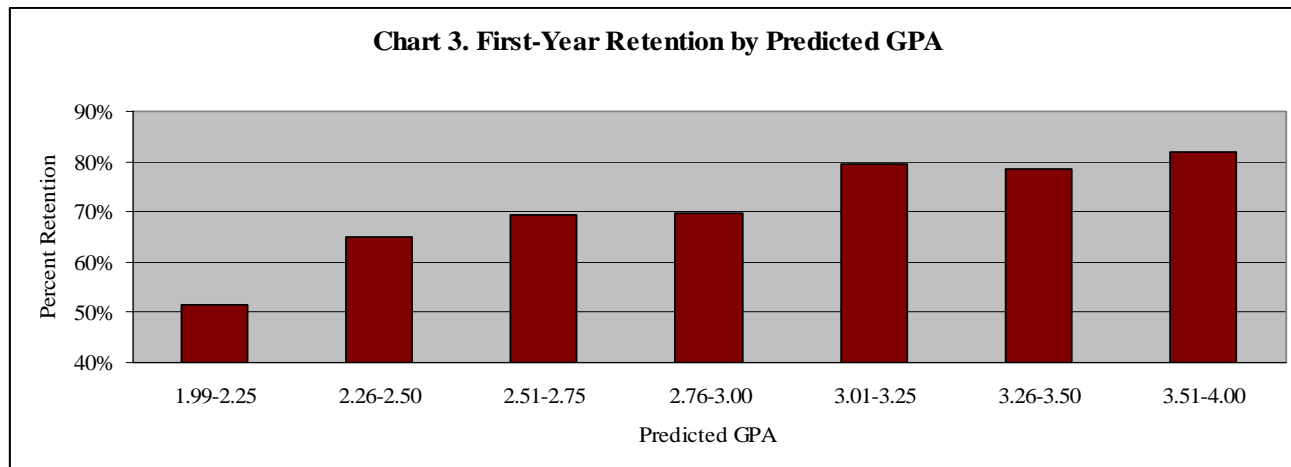
	N	SAT Math Score	SAT Verbal Score	SAT Comb. Score	ACT Comp. Score	HS Rank (top %)	Predicted GPA <sup>1</sup>
Entire Fall 2002 FY Cohort	471	499	492	991	18.6	34%	2.70
Nonreturners Spring 2003	46	497	490	987	17.9	43%	2.58
Nonreturners Fall 2003	104	488	480	968	17.5	39%	2.61
All Nonreturners	150	491	483	974	17.7	41%	2.61
All Persisters through Fall 2003	321	502	496	998	18.9	29%	2.75

The quality of academic inputs corresponds positively with first-year retention rates; USCA's predicted GPA formula represented the most closely linked of these factors. Persistence of the 113 students admitted with a predicted GPA above 3.00, had a retention rate of about 80%. For the 174 students admitted with a predicted GPA of 2.51-3.00, the retention rate was just under 70%, which is comparable to the average retention rate for the cohort of 68.2%. Below the threshold of 2.50 predicted GPA, retention rates dropped below the average cohort retention rate of 68.2%. Students admitted with a predicted GPA of 2.26 to 2.50 were retained at a rate of 65.0%, and those below 2.26 were retained to the second year at a rate of only 51.4%. These linkages are indicative of the correlation between predicted GPA and actual first semester GPA, which is discussed below.<sup>2</sup>

<sup>1</sup> Excludes predicted GPA based on Composite ACT scores.

<sup>2</sup> The Pearson product moment ( $r$ ) of predicted GPA and actual first semester GPA is 0.499. The magnitude of this correlation increases in subsequent semesters as low-performing students do not return to the university and are removed from the sample. In other words, predicted GPA appears to correlate more and more closely to actual GPA as the cohort advances through the university, and students with GPAs below 2.0 drop out.





**Table 4. First-Year Retention by Predicted GPA\***

Predicted GPA	Fall 2002		Spring 2003			Fall 2003		
	N	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
1.99-2.25	70	1.66	59	1.50	84.3%	36	1.92	51.4%
2.26-2.50	103	2.12	91	2.01	88.3%	67	2.25	65.0%
2.51-2.75	98	2.51	87	2.34	88.8%	68	2.61	69.4%
2.76-3.00	76	2.60	71	2.49	93.4%	53	2.99	69.7%
3.01-3.25	63	2.94	61	2.84	96.8%	50	3.14	79.4%
3.26-3.50	28	3.13	26	3.16	92.9%	22	3.18	78.6%
3.51-3.75	20	3.58	19	3.64	95.0%	16	3.54	80.0%
3.76-4.00	2	3.23	2	3.02	100.0%	2	2.68	100.0%
(blank)	11	2.44	9	2.74	81.8%	7	2.96	63.6%
Cohort Total	471	2.46	425	2.37	90.2%	321	2.70	68.2%

\* Includes the higher of Predicted GPA based on SAT or ACT scores.

Significantly, the application of the predicted GPA formula to students in this cohort tended to overestimate actual performance of students in their first semester, and the width of this gap was related to demographic factors (see Table 5). While the mean predicted GPA for the Fall 2002 first-year cohort as a whole was 2.70, the mean actual semester GPA in Fall 2002 of these students was 2.46. Among white students, the mean predicted GPA was higher at 2.75, and the gap in actual and predicted performance was smaller with a mean first semester GPA of 2.58. For African American students, mean predicted GPA was lower at 2.51, yet overall African American students had a mean first semester GPA of 1.98 indicating a significantly wider gap between predicted and actual performance.

Further, wide individual variations in the difference between predicted GPA and actual first semester GPA were observed. A total of 204 students earned a Fall 2002 GPA that was higher than their predicted GPA (mean = 0.48), while 252 students earned Fall GPAs below their predicted GPA (mean = -0.83). A study planned for Summer 2004 of the predicted GPA formula should help elucidate these issues in more detail.

**Table 5. Difference Between Predicted GPA and Fall 2002 GPA**

	N	Mean Predicted GPA	Mean Fall 2002 Semester GPA	Gap Betw Mean Predicted & Mean Actual GPA	One Year Retention Rate
Entire Cohort	471	2.70	2.46	-0.24	68.2%
Black or African American	100	2.51	1.98	-0.53	69.0%
White	331	2.75	2.58	-0.17	67.4%
All Men	167	2.66	2.48	-0.18	62.3%
Black or African American	22	2.40	2.05	-0.35	68.2%
White	128	2.70	2.53	-0.17	60.2%
All Women	304	2.72	2.44	-0.28	71.1%
Black or African American	78	2.54	1.95	-0.59	69.2%
White	203	2.79	2.61	-0.18	71.9%

*SAT Scores and Impact on Retention*

Since SAT scores and high school performance comprise the predicted GPA formula, similar correlations appear among the component scores. For instance, among the 23 students who earned a combined SAT score below 800, the first-year retention rate was about 55%. By contrast, for the 99 students scoring over 1100 combined on the SAT, the retention rate was over 75%. It is important to note that given size of the subpopulations, these findings fall just outside the generally accepted levels of statistical significance ( $p=0.0567$ ); nevertheless, the general trend clearly indicates that students who score higher on the SAT are 1) better prepared to handle the intellectual challenges they encounter at USCA, and 2) persist into their second year at USCA at higher rates than those with lower scores.

**Table 6. First-Year Retention by SAT Score (Composite)\***

SAT Score (Composite)	Fall 2002		Spring 2003			Fall 2003		
	N	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
600-690	7	1.59	7	1.78	100.0%	4	2.55	57.1%
700-790	35	1.99	32	1.76	91.4%	19	2.05	54.3%
800-890	66	2.14	60	2.17	90.9%	45	2.59	68.2%
900-990	102	2.44	95	2.24	93.1%	72	2.61	70.6%
1000-1090	117	2.66	106	2.61	90.6%	78	2.89	66.7%
1100-1190	67	3.01	63	2.84	94.0%	51	3.06	76.1%
1200-1290	24	2.84	21	2.79	87.5%	18	2.94	75.0%
1300-1390	7	2.84	7	2.32	100.0%	6	2.57	85.7%
1400-1490	1	4.00	1	4.00	100.0%	0	--	0.0%
(blank)	45	1.82	33	1.83	73.3%	28	2.24	62.2%
Cohort Total	471	2.46	425	2.37	90.2%	321	2.70	68.2%

\* Does not include converted ACT scores

It is worth noting, however, that when taken separately, scores on the verbal and math sections of the SAT do not present readily discernible retention patterns. Some notable retention weakness is apparent among the 100 students who scored between 350 and 440 on the math portion of the SAT, with a one-year retention rate of 58.0%, although the ten students who had even lower

math scores (200-340) had a 70% retention rate over the same period. For the fifteen students who earned under 350 on the verbal portion of the SAT, the retention rate was only 40%. These retention rates appear to be more closely linked to first semester GPA than to the academic inputs of isolated verbal or math section scores on the SAT. One explanation for this finding is that students who are weak in either math or verbal skills can manage their curricular experiences in their first year to minimize the impact of their weaker area. Students who have low scores in both areas, however, as reflected by a low composite score, are less likely to be able to accomplish this sort of balancing act.

**Table 7. First-Year Retention by SAT Score (Math)**

SAT Score (Math)	Fall 2002		Spring 2003			Fall 2003		
	N	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
200-240	1	2.27	1	1.27	100.0%	1	2.13	100.0%
300-340	9	2.29	9	2.42	100.0%	7	2.86	77.8%
350-390	27	1.97	23	1.83	85.2%	14	2.54	51.9%
400-440	73	2.14	68	2.04	93.2%	44	2.43	60.3%
450-490	96	2.53	90	2.34	93.8%	68	2.63	70.8%
500-540	95	2.60	85	2.56	89.5%	71	2.83	74.7%
550-590	84	2.76	77	2.73	91.7%	57	2.96	67.9%
600-640	27	2.89	25	2.47	92.6%	20	2.92	74.1%
650-690	9	3.28	9	3.26	100.0%	8	3.20	88.9%
700-740	4	2.84	4	2.74	100.0%	3	2.21	75.0%
750-800	1	3.37	1	2.66	100.0%	0	--	0.0%
(blank)	45	1.82	33	1.83	73.3%	28	2.24	62.2%
Cohort Total	471	2.46	425	2.37	90.2%	321	2.70	68.2%

**Table 8. First-Year Retention by SAT Score (Verbal)**

SAT Score (Verbal)	Fall 2002		Spring 2003			Fall 2003		
	N	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
250-290	1	1.54	1	1.90	100.0%	0	--	0.0%
300-340	14	1.71	14	1.47	100.0%	6	2.18	42.9%
350-390	36	2.12	32	2.31	88.9%	26	2.32	72.2%
400-440	74	2.15	67	2.06	90.5%	48	2.42	64.9%
450-490	90	2.47	86	2.26	95.6%	66	2.77	73.3%
500-540	105	2.72	93	2.64	88.6%	72	2.92	68.6%
550-590	63	2.91	59	2.81	93.7%	43	2.98	68.3%
600-640	29	2.85	26	2.70	89.7%	21	2.98	72.4%
650-690	11	2.71	11	2.41	100.0%	9	2.73	81.8%
700-740	3	3.58	3	3.49	100.0%	2	2.68	66.7%
(blank)	45	1.82	33	1.83	73.3%	28	2.24	62.2%
Cohort Total	471	2.46	425	2.37	90.2%	321	2.70	68.2%

*High School Performance and Impact on Retention*

High levels of performance in high schools also appeared to have a positive impact on first year retention at USCA. The most apparent finding is that incoming students with high rankings in their graduating high school class exhibited higher rates of persistence at USCA through the first year. Significantly, class rank appeared to be a better predictor of academic success and retention for the Fall 2002 cohort than did grades in core high school classes. Indeed, those who graduated in the top quintile of their high school class had a first year retention rate of 85.0%. By contrast, among the 84 entering students who graduated in the lower half of their high school class, the retention rate was substantially lower at 48.8%.

Certainly, academic ability plays a large role in this disparity, but the differences between the high- and low-ranked students may also be due to dispositions and habits internalized by students who were in the top fifth of their high school class that those toward the lower end of their class have not acquired. The self-image associated with being among the top students in one’s high school class may also play some role in later academic success in college.

**Table 9. First Year Retention by High School Class Rank\***

High School Class Rank	Fall 2002		Spring 2003			Fall 2003		
	N	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
top 5%	16	3.63	16	3.55	100.0%	16	3.40	100.0%
top 6-10%	47	3.03	45	3.04	95.7%	40	3.20	85.1%
top 11-20%	77	2.71	74	2.52	96.1%	63	2.85	81.8%
top 21-30%	83	2.44	75	2.36	90.4%	56	2.74	67.5%
top 31-40%	77	2.35	69	2.19	89.6%	51	2.74	66.2%
top 41-50%	56	2.12	48	2.15	85.7%	34	2.27	60.7%
top 51-60%	38	1.95	30	1.77	78.9%	15	2.11	39.5%
top 61-70%	24	1.86	21	1.65	87.5%	16	1.76	66.7%
top 71-80%	16	1.90	13	1.55	81.3%	8	1.93	50.0%
top 80-99%	6	1.55	5	1.72	83.3%	2	2.27	33.3%
(blank)	31	2.84	29	2.71	93.5%	20	2.66	64.5%
Cohort Total	471	2.46	425	2.37	90.2%	321	2.70	68.2%

\* Excludes all students whose graduating high school class had fewer than 10 students.

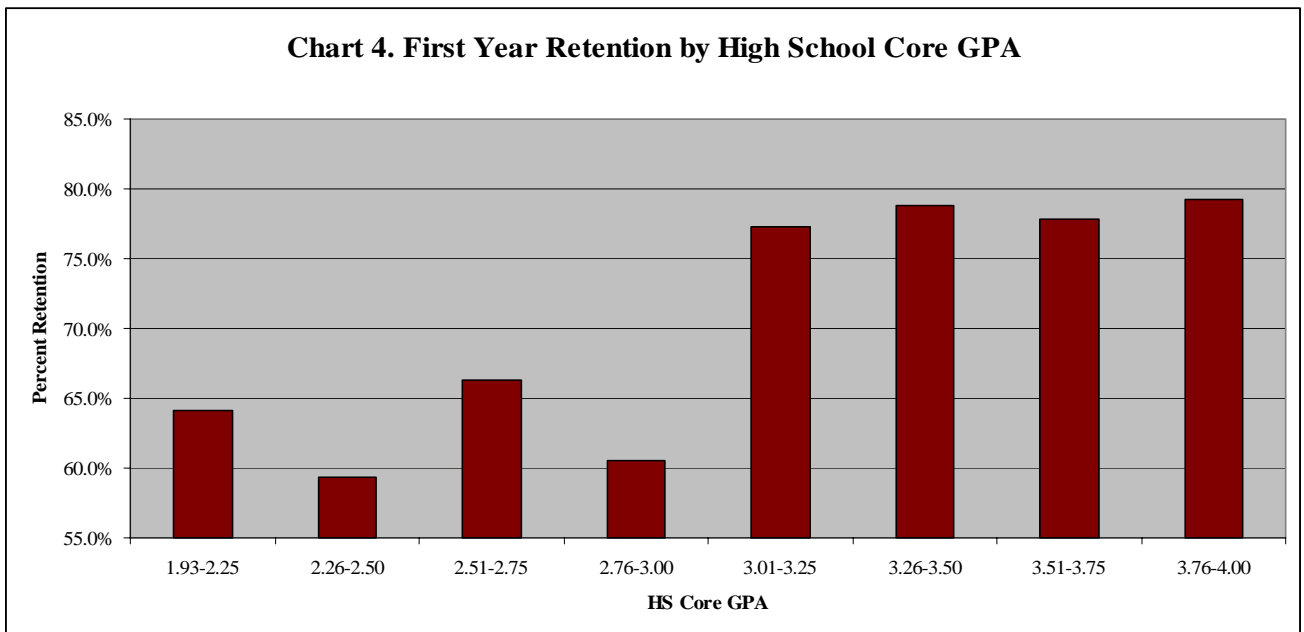
Even while high school class rank appeared to provide a stronger indicator of academic success and persistence at USCA for the Fall 2002 cohort, students’ GPA in core high school classes also influenced their college success and first year retention. The 169 students in the cohort who earned a core high school GPA over 3.0 had a first year retention rate of over 75%, while those with a core high school GPA of less than 3.0 (n=293) had a retention rate between about 60% and 65%. Some of this difference may be attributable to the self image, dispositions, study habits, and approaches to academics associated with being an “A” or “B” student versus those of the “C” students. If this were the case, it would support the need for increased communication about study skills and time management for students early in their first term.

The reduced utility of core high school GPA for predicting success and retention may result from high school grade inflation, for which the availability of Hope and LIFE Scholarships provide some financial incentive. While overall grades increase for all students, however, the ranked order in classes would still remain relatively constant, perhaps explaining why high school class rank appears to represent an academic input that better predicts retention and academic success.

**Table 10. First Year Retention by High School Core GPA**

High School Core GPA	Fall 2002		Spring 2003			Fall 2003		
	N	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
1.93-2.25	39	2.01	36	1.63	92.3%	25	2.11	64.1%
2.26-2.50	86	2.01	74	1.96	86.0%	51	2.17	59.3%
2.51-2.75	92	2.18	79	2.14	85.9%	61	2.35	66.3%
2.76-3.00	76	2.39	67	2.41	88.2%	46	2.84	60.5%
3.01-3.25	66	2.82	63	2.60	95.5%	51	3.03	77.3%
3.26-3.50	52	2.92	51	2.56	98.1%	41	3.15	78.8%
3.51-3.75	27	2.76	24	3.07	88.9%	21	2.84	77.8%
3.76-4.00	24	3.56	23	3.59	95.8%	19	3.52	79.2%
(blank)	9	2.67	8	2.84	88.9%	6	3.01	66.7%
Cohort Total	471	2.46	425	2.37	90.2%	321	2.70	68.2%

**Chart 4. First Year Retention by High School Core GPA**



Some interesting differences emerge from retention rates among students from various high schools that contribute substantial numbers of students to the entering freshman class at USCA, although further study is required to determine statistically significant results. Students from four of the five local high schools that sent the largest number of students to USCA (South Aiken HS, Midland Valley HS, Aiken HS, and Silver Bluff HS) exhibited a one year retention rate of 77.8%. The mean predicted GPA of students from Midland Valley HS and Silver Bluff HS exceeded the class average predicted GPA of 2.70, and so increased retention can be expected. Students from South Aiken HS, Aiken HS, Strom Thurmond HS, and Wagener-Salley HS, however, entered USCA with mean predicted GPAs about in line with the average, yet they all exhibited first-year retention rates higher than the cohort average of 68.2%. Some of this increased retention may be an effect of coming to college with enough acquaintances from high school to form a ready-made support system. Another possibility is that their proximity to their permanent residence and familiarity with the local area helped ease their transition to college life.

One important exception is the retention rate of students from North Augusta High School. Thirty-seven North Augusta High School students entered USCA in Fall 2002 with a mean predicted GPA of 2.70, yet the first year retention rate of these incoming students was only 54.1%. It is possible that given the tuition remission agreements with Augusta State University, that these students opted to attend that institution, since it is closer to their permanent residence.

Retention by zip code of permanent residence unsurprisingly mirrors patterns observed in retention by high school. For instance, the 53.7% retention rate for zip code 29841 (N. Augusta), closely matches the 54.1% retention rate of students from North Augusta HS. Variations between zip codes and high school service areas are attributable to private school attendance.

High School Name	Fall 2003		Spring 2003		Fall 2003	
	N	Mean Prdctd GPA	N	Pct Retention	N	Pct Retention
SOUTH AIKEN HS	48	2.62	44	91.7%	36	75.0%
MIDLAND VALLEY HS	38	2.90	36	94.7%	30	78.9%
AIKEN HS	37	2.70	34	91.9%	28	75.7%
NORTH AUGUSTA HS	37	2.73	32	86.5%	20	54.1%
SILVER BLUFF HS	21	2.89	20	95.2%	18	85.7%
STROM THURMOND HS	18	2.67	17	94.4%	14	77.8%
WAGENER-SALLEY HS	12	2.78	11	91.7%	9	75.0%
BARNWELL HS	11	2.36	10	90.9%	6	54.5%
LEXINGTON HS	10	2.75	9	90.0%	6	60.0%
BEAUFORT HS	9	2.49	9	100.0%	6	66.7%
BATTERY CREEK HS	8	2.62	7	87.5%	4	50.0%
GILBERT HS	8	2.56	8	100.0%	6	75.0%
BATESBURG-LEESVILLE HS	7	2.93	7	100.0%	6	85.7%
BLACKVILLE-HILDA HS	7	2.60	7	100.0%	5	71.4%
SALUDA HS	7	2.87	5	71.4%	3	42.9%

Permanent Zip Code	Fall 2003		Spring 2003		Fall 2003	
	N	Mean Prdctd GPA	N	Pct Retention	N	Pct Retention
29803	74	2.69	68	91.9%	54	73.0%
29801	44	2.75	40	90.9%	30	68.2%
29841	41	2.76	33	80.5%	22	53.7%
29829	15	2.77	14	93.3%	13	86.7%
29860	13	2.60	11	84.6%	7	53.8%
29072	12	2.71	9	75.0%	7	58.3%
29817	11	2.74	10	90.9%	8	72.7%
29070	8	3.00	8	100.0%	8	100.0%
29824	8	2.87	6	75.0%	4	50.0%
29842	8	2.96	8	100.0%	5	62.5%
29805	7	2.85	7	100.0%	7	100.0%
29851	7	2.94	6	85.7%	6	85.7%
29138	6	2.70	4	66.7%	3	50.0%
29831	6	2.85	6	100.0%	4	66.7%

### *Retention by Intended Major*

Retention patterns by intended major of first-year students entering in Fall 2002 exhibited few significant results, with the exceptions of education and lower division engineering. The weak level of retention of engineering students from Fall 2002 to Spring 2003 (78%) continued into the Fall 2003 term, with an overall retention rate of 52% for 27 initial students, a difference that is statistically significant ( $p < 0.05$ ). This comparatively low level of retention is unsurprising given that students pursuing engineering may complete only the first two years of their curriculum at USCA, and so they are faced not with the decision of if to transfer but when to transfer.

The retention of all 82 education majors was 76.8% ( $p < 0.05$ ). Since the mean predicted GPA of this group is 2.70 (the same as the mean predicted GPA for the cohort as a whole), it is somewhat unlikely that academic inputs such as high school performance and GPA account for this higher retention rate. Further, only the early childhood education majors (those with the 86% retention rate) exhibited a markedly higher level of academic performance with a mean first semester GPA of 2.74. The rest of these students had a mean GPA below the cohort average first semester GPA of 2.46. Career commitment to education is one possible explanation for the higher retention rate of this group.

<i>Intended Majors</i>	<b>Fall 2002</b>		<b>Spring 2003</b>		<b>Fall 2003</b>	
	N	Pct of Cohort	N	Pct Retention	N	Pct Retention
Education (Special)	1	0%	1	100%	1	100%
Education (Early Childhood)	19	4%	19	100%	17	89%
History	4	1%	3	75%	3	75%
Education (Elementary)	36	8%	34	94%	27	75%
Biology	46	10%	42	91%	34	74%
Undecided	86	18%	78	91%	63	73%
Math and Computer Science	13	3%	12	92%	9	69%
Education (Secondary)	26	6%	24	92%	18	69%
Psychology	19	4%	17	89%	13	68%
Business Administration	69	15%	65	94%	47	68%
Nursing (BSN Generic)	51	11%	43	84%	33	65%
Exercise and Sports Science	17	4%	15	88%	11	65%
Communications	14	3%	13	93%	9	64%
Fine Arts	12	3%	10	83%	7	58%
Sociology	13	3%	12	92%	7	54%
Lower Division Engineering	27	6%	21	78%	14	52%
Pre-Pharmacy	4	1%	4	100%	2	50%
Political Science	8	2%	8	100%	4	50%
English	4	1%	3	75%	2	50%
Chemistry	2	0%	1	50%	0	0%
<b>Cohort Total</b>	<b>471</b>	<b>100%</b>	<b>425</b>	<b>90%</b>	<b>321</b>	<b>68%</b>

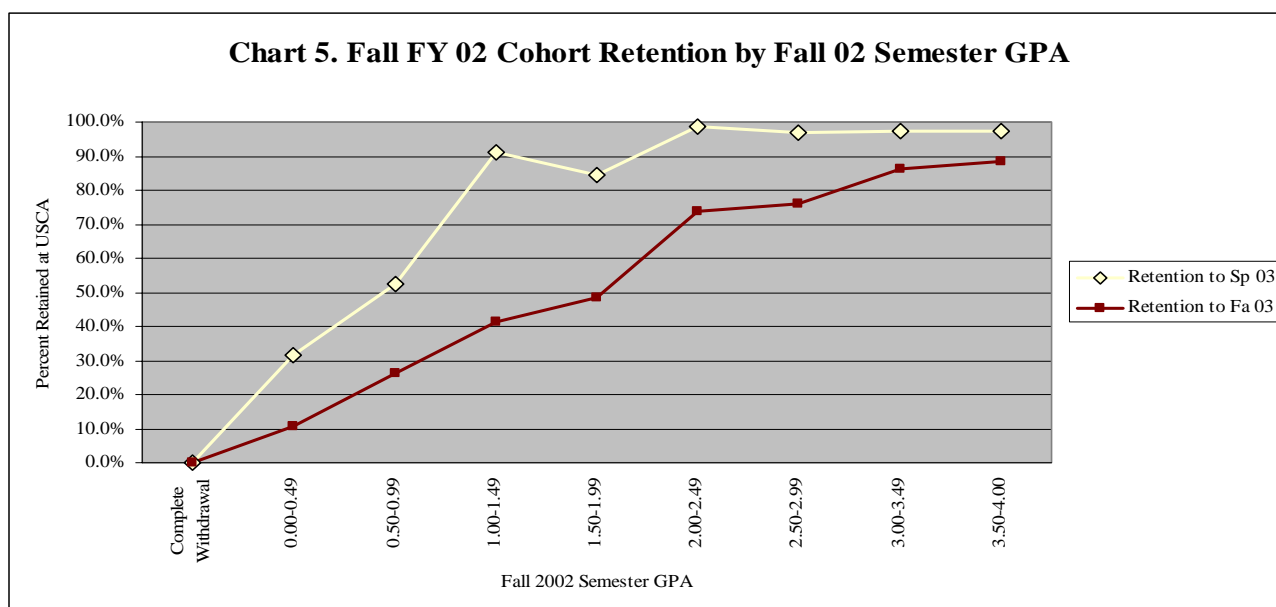
Students who entered USCA with an undecided major did not exhibit significant differences in retention rates. Indeed, the one-year retention rate of all of these students was 73%, which is five percentage points higher than the 68.2% average for the entire cohort. While this difference does not rise to the level of statistical significance, it suggests that students who have not decided upon a major when they enter USCA are not at an increased risk to leave after the first year. This analysis does not take into account patterns involving how students change majors.

## First Semester Academic Performance and First Year Retention

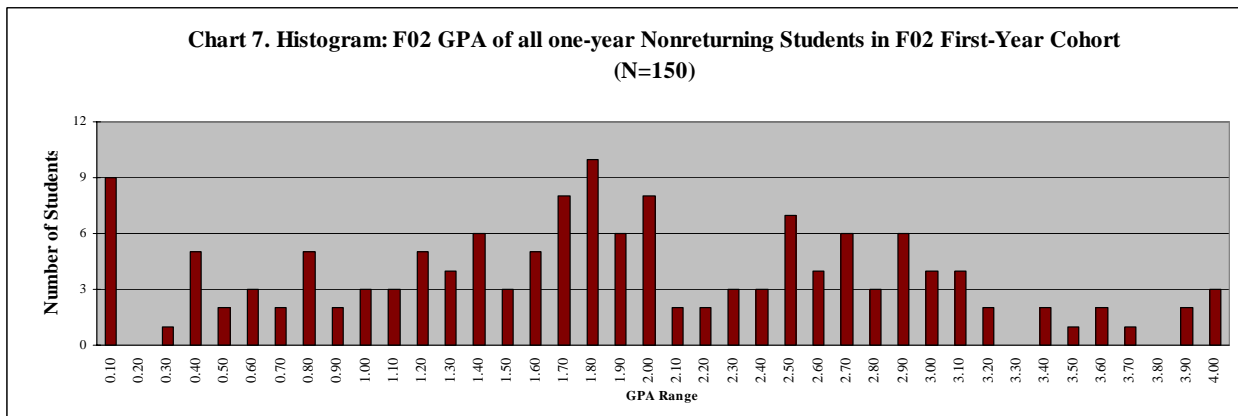
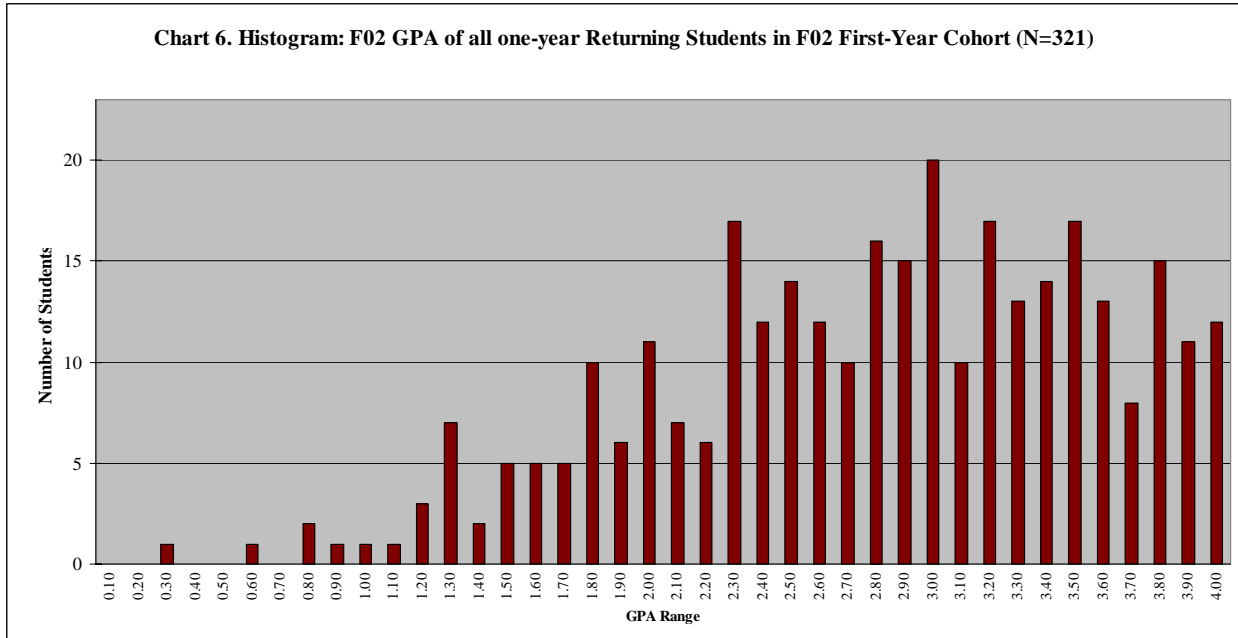
For the first semester at USCA for the Fall 2002 entering cohort, the mean semester GPA was 2.46 ( $\sigma = 0.97$ ), with 142 students or just over 30% of the class earning below a 2.0 GPA. A total of 91 students in this low performing group earned a semester GPA of over 1.2 and would not have received a suspension or probation notice for weak academic performance. At the other end of the spectrum, 159 students earned a Fall 2002 semester GPA above 3.0.

Fall 2002 GPA	Fall 2002	Spring 2003		Fall 2003	
	N	N	Pct Retention	N	Pct Retention
0.00-0.49	19	6	31.6%	2	10.5%
0.50-0.99	19	10	52.6%	5	26.3%
1.00-1.49	34	31	91.2%	14	41.2%
1.50-1.99	70	59	84.3%	34	48.6%
2.00-2.49	73	72	98.6%	55	75.3%
2.50-2.99	95	92	96.8%	72	75.8%
3.00-3.49	80	78	97.5%	69	86.3%
3.50-4.00	79	77	97.5%	70	88.6%
Complete withdrawal	2				
Grand Total	471	425	90.2%	321	68.2%

Academic performance in the first semester at USCA was the most prominent predictor of retention to the second year among the Fall 2002 freshman cohort. Indeed, a linear relationship was observed between first semester grade point average and retention to the following fall (see Chart 5). For the 159 students who earned over a 3.0 semester GPA in their first semester, first year retention rates were over 85%. The 143 students with a GPA between 2.0 and 3.0 had a retention rate of about 75%, and the 142 students below 2.0 had a combined retention rate of 38.7%. These findings clearly point to the critical role of academic success in the first semester in prompting student persistence at USCA.







Within first semester GPA ranges of 0.50, the level of academic performance in the first semester of students in these groups was generally indicative of academic performance in the following two terms. While attrition among students with a GPA below 2.0 for the Fall 2002 semester was very high, as a group, the students who chose to remain at USCA to try to overcome their academic difficulties did not exhibit marked improvement. Of the 143 students who earned a semester GPA below 2.0 in Fall 2002, only 55 of them remained in Fall 2003; only 24 of these had earned a Fall 2003 semester GPA of above 2.0, and only 15 (about 10.5% of the original low-performing group) had raised their cumulative GPAs above 2.0. This finding that semester GPAs remain relatively bounded suggests it is unlikely that students with low or marginal GPAs will be able to raise their cumulative GPAs significantly. Nevertheless, individual variations in academic performance from semester to semester averaged about one quarter of a grade (+/- 0.23) for the middle quartiles of the class (ranked by change in semester GPA), while the top and bottom quartiles evidenced a semester GPA change of about a full grade point (+/- 0.94). Overall, the trend among the first-year students was to earn lower grades in their second semester at USCA; 66 students earned a Spring GPA 0.50 or more higher than their Fall GPA, and 179 students earned a Spring GPA 0.50 or more lower than their Fall GPA.

**Table 15. First-Year Retention by Fall 2002 GPA with Semester GPA**

Fall 2002 GPA	Fall 2002		Spring 2003			Fall 2003		
	N	Mean F02 SEM GPA	N	Mean SP03 SEM GPA	Pct Retention	N	Mean F03 SEM GPA	Pct Retention
0.00-0.49	19	0.15	6	1.15	31.6%	2	0.73	10.5%
0.50-0.99	19	0.72	10	0.75	52.6%	5	1.20	26.3%
1.00-1.49	34	1.23	31	1.36	91.2%	14	1.86	41.2%
1.50-1.99	70	1.73	59	1.44	84.3%	34	1.78	48.6%
2.00-2.49	73	2.23	72	2.01	98.6%	55*	2.24	75.3%
2.50-2.99	95	2.73	92	2.40	96.8%	72	2.62	75.8%
3.00-3.49	80	3.20	78	2.94	97.5%	69	3.10	86.3%
3.50-4.00	79	3.73	77	3.51	97.5%	70	3.52	88.6%
Complete WD	2	NA	--	--	--	--	--	--
Grand Total	471	2.46	425	2.37	90.2%	320	2.70	68.2%

\* Includes one transient student taking course work at Aiken Technical College during Fall 2003.

Patterns of academic performance and attrition varied slightly by race or ethnicity (see Tables 16 and 17). Black or African American students in the cohort were more likely to persist in the face of low grades than were white students with grades in the same range. Among white students, failing to earn a first semester GPA over 2.0 significantly impacted the decision to return. The average one-year retention rate of all white students earning a Fall 2002 GPA below 2.0 was 29.3%, while the retention rate for those earning over 2.0 was 80.6%. The 2.0 GPA level appears to represent a significant threshold for these students in their decision to return to USCA. Indeed, 41 white students earned a semester GPA in the 1.50-1.99 range, with a one year retention rate of 39.0%, whereas 45 students earned a GPA in the 2.00-2.49 range, and the retention rate among these students was nearly double at 73.3%.

By contrast, black or African American students earning a first semester GPA below 2.0 had a one year retention rate of 49.0%, while those earning above 2.0 had an 88.2% retention rate. This level of persistence is generally higher than that of whites at every GPA range, yet because so many black or African American students earned poor first semester grades (49 out of 100 earned a first semester GPA below 2.0 and the mean Fall 2002 semester GPA for all African Americans was 1.98), the overall retention rates appear the same as whites. This low level of academic performance, however, may be indicative of lower graduation rates among black or African American students and likely places them at risk of dropping out of USCA before earning a bachelor's degree.

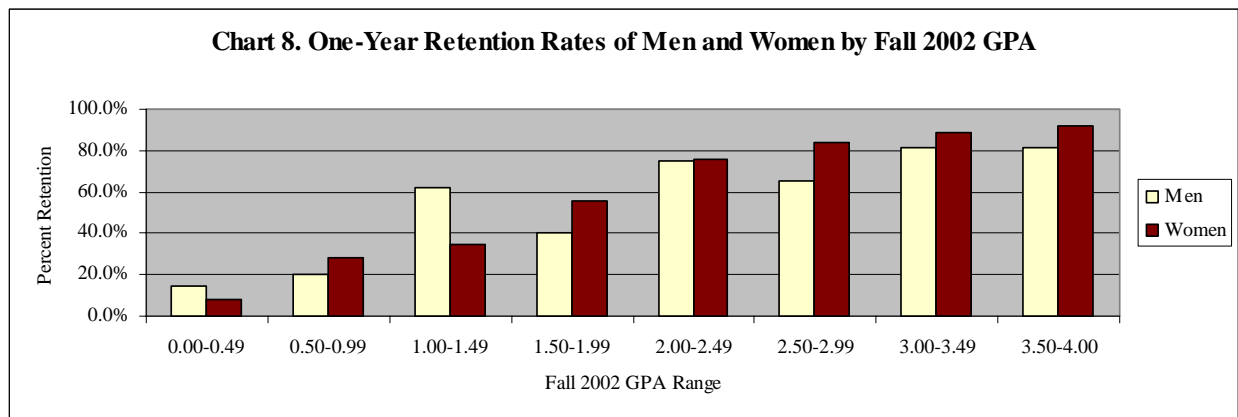
**Table 16. First-Year Retention of White Students by Fall 2002 GPA with Semester GPA**

Fall 2002 GPA	Fall 2002		Spring 2003			Fall 2003		
	N	Mean F02 SEMGPA	N	Mean SP03 SEMGPA	Pct Retention	N	Mean F03 SEMGPA	Pct Retention
0.00-0.49	14	0.13	4	1.19	28.6%	1	1.15	7.1%
0.50-0.99	9	0.70	3	0.87	33.3%	1	1.75	11.1%
1.00-1.49	18	1.23	16	1.61	88.9%	6	2.17	33.3%
1.50-1.99	41	1.75	34	1.38	82.9%	16	1.76	39.0%
2.00-2.49	45	2.22	45	1.99	100.0%	33	2.26	73.3%
2.50-2.99	70	2.73	68	2.45	97.1%	52	2.66	74.3%
3.00-3.49	70	3.19	68	2.98	97.1%	60	3.13	85.7%
3.50-4.00	62	3.73	61	3.52	98.4%	54	3.52	87.1%
Complete WD	2	NA	0	NA	0.0%	0	NA	0.0%
Grand Total	331	2.58	299	2.52	90.3%	223	2.85	67.4%

**Table 17. First-Year Retention of Black or African American Students by Fall 2002 GPA With Semester GPA**

Fall 2002 GPA	Fall 2002		Spring 2003			Fall 2003		
	N	Mean F02 SEMGPA	N	Mean SP03 SEMGPA	Pct Retention	N	Mean F03 SEMGPA	Pct Retention
0.00-0.49	5	0.21	2	1.07	40.0%	1	0.31	20.0%
0.50-0.99	10	0.74	7	0.69	70.0%	4	1.07	40.0%
1.00-1.49	13	1.22	12	1.05	92.3%	6	1.75	46.2%
1.50-1.99	21	1.70	19	1.56	90.5%	13	1.88	61.9%
2.00-2.49	22	2.24	21	2.01	95.5%	19	2.22	86.4%
2.50-2.99	17	2.73	17	2.16	100.0%	14	2.73	82.4%
3.00-3.49	5	3.15	5	2.70	100.0%	5	2.78	100.0%
3.50-4.00	7	3.73	7	3.40	100.0%	7	3.44	100.0%
Grand Total	100	1.98	90	1.84	90.0%	69	2.29	69.0%

Weaker academic performance of men overall did not seem to explain their overall lower retention rates. Retention of men was lower in all GPA ranges except the 1.00-1.49 range (n=8, the small number in this range may account for this variation), even though mean semester GPAs within the ranges were comparable to those of women. These findings suggest that a factor in addition to weak academic performance may account for attrition among men.



*First Semester Course Grades and Retention Patterns*

In addition to the linear relationship observed between first semester GPA and student persistence, especially strong or weak academic performance in one or two courses was also found to be related to retention. For instance, students who earned just one course grade of A (n=112) had a one-year retention rate of 70.5%, just slightly above the cohort average of 68.2%, but students who earned two to four A's (n=125) had a retention rate of about 90%. This level of academic performance was directly linked to predicted GPA; the mean predicted GPA of students who earned two A's or more was over 2.90.

Fall 2002 Course Grades of A	Fall 2002	Spring 2003		Fall 2003	
	N	N	Pct Retention	N	Pct Retention
Zero A's	225	187	83.1%	123	54.7%
One A	112	107	95.5%	79	70.5%
Two A's	63	62	98.4%	56	88.9%
Three A's	42	40	95.2%	38	90.5%
Four A's	20	20	100.0%	18	90.0%
Five A's	6	6	100.0%	5	83.3%
Six A's	3	3	100.0%	2	66.7%
Grand Total	471	425	90.2%	321	68.2%

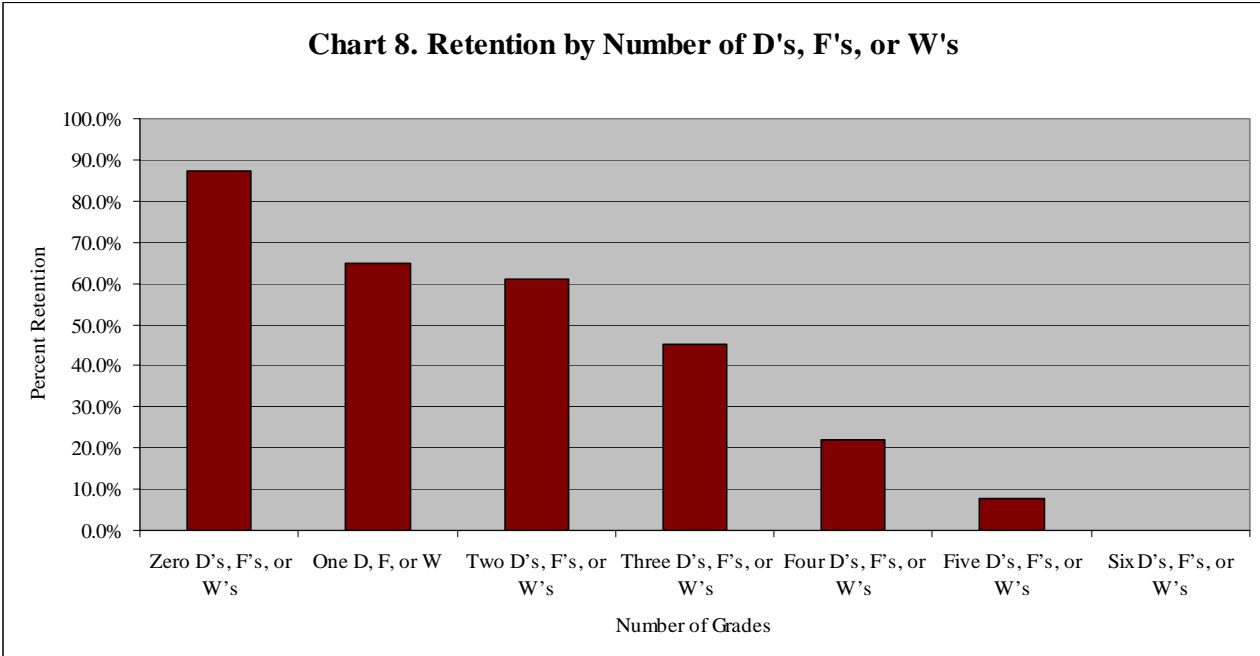
Likewise, the retention rate was substantially lower for students who earned grades of F in their first semester. For the 63 students who failed just one course in Fall 2002, the one-year retention rate was 52.4%; for those who earned two F's or more, the retention rate was under 35%. Significantly, the one year retention rate for students who earned no failing course grades in their first semester was 76.9%, suggesting that failing a course is an important risk factor for attrition.

Fall 2002 Course Grades of F	Fall 2002	Spring 2003		Fall 2003	
	N	N	Pct Retention	N	Pct Retention
Zero F's	360	345	95.8%	277	76.9%
One F	63	54	85.7%	33	52.4%
Two F's	23	17	73.9%	8	34.8%
Three F's	9	6	66.7%	2	22.2%
Four F's	11	3	27.3%	1	9.1%
Five F's	5		0.0%		0.0%
Grand Total	471	425	90.2%	321	68.2%

In fact, student persistence rises to an even higher level among students who earned no D's or F's and withdrew from no courses. For these students who made it through their first semester with no major blemishes on their transcripts, the one-year retention rate was 87.2%. As might be expected, retention rates were substantially lower for students who earned several D's, F's or W's; indeed, the 87 students who earned three or more of these marks had a one-year retention rate of below 30%. These findings indicate that improving academic success, especially by assisting students failing one or more courses, could help raise retention rates. Further, these results suggest that the significant number of students who experience academic difficulties to the point that they earn under a "C" in several classes may become discouraged by their lack of success and make the decision not to return to USCA.

**Table 20. First-Year Retention by Number of D's F's and W's in Fall 2002 Courses**

Fall 2002 Course Grades of D, F, or W	Fall 2002	Spring 2003		Fall 2003	
	N	N	Pct Retention	N	Pct Retention
Zero D's, F's, or W's	218	214	98.2%	190	87.2%
One D, F, or W	97	92	94.8%	63	64.9%
Two D's, F's, or W's	69	62	89.9%	42	60.9%
Three D's, F's, or W's	40	34	85.0%	18	45.0%
Four D's, F's, or W's	32	19	59.4%	7	21.9%
Five D's, F's, or W's	13	3	23.1%	1	7.7%
Six D's, F's, or W's	2	1	50.0%	0	0.0%
Grand Total	471	425	90.2%	321	68.2%



*Performance in Specific First Semester Courses and Retention*

Among the courses with the largest enrollments of first-year students in Fall 2002, noteworthy one-year retention patterns were observed for ASUP 101 (n = 82, retention = 75.6%), ABIO 102 (n = 42, retention = 78.6%), ASUP 110 (N = 42, retention = 78.6%), and those who did not take AEGL 101 (n = 68, retention = 77.9%). Except for ASUP 101, which is discussed in detail below, higher predicted GPA accounts for a great deal of the observed higher one-year retention rates. For instance, a large proportion of the students who did not take AEGL 101 in general had placed out of this course and had a predicted GPA of 2.94 (the cohort mean was 2.70). Likewise, the high retention rate of students who took ABIO 102, despite the low course average grade of 1.96 among these students, is in part due to their high predicted GPA of 2.85. Students willing and qualified to take ABIO 102 in their first semester may also exhibit greater commitment to pursuing higher education. See Appendix for details by course.

**Table 21. Retention by Enrollment in Fall Courses (Top Ten for Cohort)**

Fall Course	Fall 2002				Spring 2003			Fall 2003		
	N	Mean Crse Grade	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
ABIO 102	42	2.01	2.85	2.45	39	2.39	92.9%	33	2.70	78.6%
AEGL 101	403	2.41	2.66	2.40	364	2.23	90.3%	268	2.53	66.5%
AHST 102	72	2.10	2.72	2.45	62	2.34	86.1%	45	2.52	62.5%
AMTH 108	236	2.44	2.59	2.32	210	2.11	89.0%	159	2.42	67.4%
AMUS 173	59	3.04	2.70	2.40	52	2.16	88.1%	40	2.60	67.8%
APSY 101	224	2.12	2.66	2.44	203	2.17	90.6%	152	2.57	67.9%
ASCY 101	153	2.33	2.65	2.46	139	2.17	90.8%	104	2.52	68.0%
ASUP 101	82	3.39	2.71	2.55	79	2.29	96.3%	62	2.64	75.6%
ASUP 110	42	3.31	2.63	2.70	40	2.53	95.2%	33	2.58	78.6%
ATHE 161	82	2.65	2.71	2.46	77	2.34	93.9%	59	2.37	72.0%
Cohort Total	471	--	2.70	2.46	425	2.37	90.2%	321	2.70	68.2%

Results from this study suggest that ASUP 101 had an overall positive effect on retention and academic performance, but this pattern appears to be most prevalent among women, especially white women, and is diminished if not absent among students who do not earn an A in the course. The overall retention rate of 75.6% of all the students who took the course falls just outside of the realm of generally accepted statistical reliability ( $p = 0.0735$ ), but the retention rate among the 31 white women who took the course was 90.3%, which is statistically significant ( $p = 0.0116$ ). Of the 24 white women who earned a B+ or an A in ASUP 101, 23 of them returned in the following Fall, or a retention rate of 95.8%. Academic inputs do not appear to be a major contributing factor for this difference, for while the white women who took ASUP 101 had a mean predicted GPA of 2.83, the mean predicted GPA for all white women in the cohort was 2.79, with an overall retention rate of 71.9%. Of the ten Black or African American women who took ASUP 101, eight of them returned the following Fall, although the size of the sample is not large enough to verify that the course produced a statistically significant effect on retention among this group. Tables 22A through 22G provide retention rates by course grades for relevant demographic groups.

Course Grade	Fall 2002			Spring 2003			Fall 2003		
	N	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
C	5	2.38	1.77	5	1.59	100.0%	2	2.21	40.0%
C+	8	2.52	1.62	7	1.26	87.5%	5	1.67	62.5%
B	23	2.59	2.33	22	1.93	95.7%	15	2.46	65.2%
B+	7	2.66	2.52	7	2.43	100.0%	7	2.68	100.0%
A	37	2.91	3.02	36	2.81	97.3%	32	3.02	86.5%
W	2	2.29	2.33	2	2.01	100.0%	1	2.50	50.0%
Total ASUP 101	82	2.71	2.56	79	2.30	96.3%	62	2.70	75.6%
Did not take course	389	2.69	2.43	346	2.39	88.9%	259	2.70	66.6%
Cohort Total	471	2.70	2.46	425	2.37	90.2%	321	2.70	68.2%

Thirty-four men took ASUP, but a statistically significant difference in their retention rates was not observed. White men who took the course (n=19) had a retention rate of 68.4%, which is higher than the 60.2% rate for all white men. Among the black or African American men who took the course, the retention rate was 44.4% (notably no black men earned grades above that of B for the course).

The best evidence that ASUP 101 provides students with the tools to improve their learning and academic success is that some students exhibited higher Fall 2002 semester GPAs than their predicted GPA; this increase in performance, however was noticed only among women, especially white women, who took ASUP 101 (see Tables 22B-22D). While on average, Fall 2002 GPA was 0.17 lower than predicted GPA for white students and 0.53 lower for black or African American students (see Table 5 above), on average the women who earned A's in ASUP 101 outperformed their predicted GPAs by 0.24. This correlation suggests that students who did well in ASUP 101 may have applied the skills they learned to their other classes.

These results, however, do not eliminate the possibility that students who decided to take ASUP 101 and did well in it were not already predisposed to remain at USCA. Indeed, individuals enrolled in ASUP 101 were a self-selected population of students who believed that their study skills could use improvement and committed themselves to improving them; in all likelihood, this commitment is especially high among those who earned an A in the course. Thus, these students may have been predisposed to focus on their studies, and because of this predisposition, they simply applied themselves intently to succeed in ASUP 101 and in their other courses. It is not clear, then, to what extent the course content contributed to this level of academic success, nor is it apparent that students who do not apply themselves in ASUP 101 gain any benefit from the course. Neither is it clear why other demographic groups did not exhibit a similar pattern of academic success. Such results might indicate that requiring students to take a study skills course could have little effect on retention or academic performance if the students are not affectively committed to applying themselves in to improve their study habits.

	Fall 2002			Spring 2003			Fall 2003		
	N	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
C	2	2.41	1.54	2	1.63	100.0%	2	2.21	100.0%
C+	3	2.75	1.39	3	1.18	100.0%	2	1.58	66.7%
B	12	2.65	2.17	12	1.80	100.0%	7	2.28	58.3%
B+	6	2.71	2.47	6	2.28	100.0%	6	2.59	100.0%
A	25	2.92	3.16	25	2.79	100.0%	24	3.11	96.0%
W	0	--	--	--	--	--	--	--	--
Total ASUP 101	48	2.79	2.65	48	2.33	100.0%	41	2.77	85.4%
Did not take course	256	2.71	2.40	231	2.40	90.2%	175	2.73	68.4%
All Women Total	304	2.72	2.44	279	2.39	91.8%	216	2.74	71.1%

	Fall 2002			Spring 2003			Fall 2003		
	N	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
C	1	2.47	1.08	1	1.75	100.0%	1	2.25	100.0%
C+	0	--	--	--	--	--	--	--	--
B	6	2.89	2.37	6	2.28	100.0%	4	2.45	66.7%
B+	4	2.87	2.73	4	2.38	100.0%	4	2.82	100.0%
A	20	2.83	3.06	20	2.67	100.0%	19	3.05	95.0%
W	0	--	--	--	--	--	--	--	--
Total ASUP 101	31	2.83	2.82	31	2.53	100.0%	28	2.90	90.3%
Did not take course	172	2.78	2.57	156	2.62	90.7%	118	2.93	68.6%
White Women Total	203	2.79	2.61	187	2.61	92.1%	146	2.93	71.9%

	Fall 2002			Spring 2003			Fall 2003		
	N	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
C	1	2.36	2.00	1	1.50	100.0%	1	2.17	100.0%
C+	2	2.87	1.45	2	0.95	100.0%	1	2.15	50.0%
B	4	2.41	2.22	4	1.89	100.0%	3	2.05	75.0%
B+	2	2.40	1.95	2	2.07	100.0%	2	2.13	100.0%
A	1	3.03	2.50	1	2.22	100.0%	1	2.60	100.0%
W	0	--	--	--	--	--	--	--	--
Total ASUP 101	10	2.56	2.02	10	1.73	100.0%	8	2.16	80.0%
Did not take course	68	2.54	1.95	60	1.80	88.2%	46	2.30	67.6%
Black Women Total	78	2.54	1.95	70	1.79	89.7%	54	2.28	69.2%



**Table 22E. Retention of ASUP 101 Students (All Men) by Course Grade**

	Fall 2002			Spring 2003			Fall 2003		
	N	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
C	3	2.36	1.93	3	1.57	100.0%	0	--	0.0%
C+	5	2.37	1.76	4	1.32	80.0%	3	1.74	60.0%
B	11	2.52	2.50	10	2.07	90.9%	7	2.65	63.6%
B+	1	2.35	2.82	1	3.38	100.0%	1	3.25	100.0%
A	12	2.90	2.73	11	2.85	91.7%	8	2.74	66.7%
W	2	2.29	2.33	2	2.01	100.0%	1	2.50	50.0%
Total ASUP 101	34	2.60	2.43	31	2.24	91.2%	20	2.57	58.8%
Did not take course	133	2.67	2.50	115	2.36	86.5%	84	2.62	63.2%
All Men Total	167	2.66	2.48	146	2.34	87.4%	104	2.61	62.3%

**Table 22F. Retention of ASUP 101 Students (White Men ) by Course Grade**

	Fall 2002			Spring 2003			Fall 2003		
	N	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
C	1	3.00	2.46	1	2.00	100.0%			0.0%
C+	2	2.54	2.31	2	0.85	100.0%	1	1.50	50.0%
B	6	2.48	2.60	6	1.90	100.0%	5	3.26	83.3%
B+	1	2.35	2.82	1	3.38	100.0%	1	3.25	100.0%
A	9	2.85	2.70	9	2.82	100.0%	6	2.59	66.7%
W	0	--	--	--	--	--	--	--	--
Total ASUP 101	19	2.68	2.62	19	2.31	100.0%	13	2.81	68.4%
Did not take course	109	2.70	2.51	93	2.39	85.3%	65	2.68	59.6%
White Men Total	128	2.70	2.53	112	2.38	87.5%	77	2.70	60.2%

**Table 22G. Retention of ASUP 101 Students (African American Men) by Course Grade**

	Fall 2002			Spring 2003			Fall 2003		
	N	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
C	2	2.05	1.66	2	1.35	100.0%	0	--	0.0%
C+	3	2.26	1.39	2	1.80	66.7%	2	1.86	66.7%
B	3	2.84	2.59	3	2.36	100.0%	2	2.70	66.7%
B+	0	--	--	--	--	--	--	--	--
A	0	--	--	--	--	--	--	--	--
W	1	2.32	1.78	1	1.15	100.0%	0	--	0.0%
Total ASUP 101	9	2.41	1.91	8	1.82	88.9%	4	2.28	44.4%
Did not take course	13	2.39	2.15	12	2.13	92.3%	11	2.34	84.6%
Black Men Total	22	2.40	2.05	20	2.00	90.9%	15	2.33	68.2%

## Second Semester Academic Performance and First Year Retention

Academic performance in the second semester was lower on the whole for all the students remaining in the cohort, but students who were successful in Fall 2002 were generally also successful in the following semester. About two-thirds of the 425 students remaining in the cohort earned a Spring 2003 semester GPA over 2.0. In this group of successful students, 153 students earned a semester GPA of 3.0 or higher, and 138 students earned a semester GPA of between 2.00 and 2.99.

At the low end of the spectrum, however, 136 students remaining in the cohort earned a Spring semester GPA below 2.0. In this group, 35 students earned a Spring 2003 semester GPA of less than 0.50; of these, 24 students earned a semester GPA of exactly 0.00, and an additional four students withdrew from all their courses. Retention for this lowest-performing group of students was a mere 5.7%. It is likely that many of the students with semester GPAs of 0.0 had made the decision not to return in the Fall after the date to withdraw or simply did not bother to drop their courses. An additional 101 students earned a semester GPA of below 2.0.

**Table 23. Spring Semester GPA and Retention**

Spring 2003 Semester GPA	N	Mean Pr GPA	Mean F02 Sem GPA	N	Fall 2003	Pct Retention
					Mean F03 Sem GPA	
0.00-0.49	35	2.59	1.57	2	1.75	5.7%
0.50-0.99	15	2.39	1.60	10	1.88	66.7%
1.00-1.49	41	2.45	1.99	27	1.58	65.9%
1.50-1.99	45	2.48	2.17	31	2.11	68.9%
2.00-2.49	59	2.57	2.31	44	2.09	74.6%
2.50-2.99	77	2.66	2.63	70	2.70	90.9%
3.00-3.49	85	2.89	3.05	77	3.19	90.6%
3.50-4.00	68	3.13	3.55	60	3.47	88.2%
Cohort Total	425	2.70	2.46	321	2.70	75.5%

**Table 24. Spring Semester Cumulative GPA and Retention**

Spring 2003 Cumulative GPA	N	Mean Pr GPA	Mean F02 Sem GPA	N	Fall 2003	Pct Retention
					Mean F03 Sem GPA	
0.00-0.49	4	2.34	0.41	0	--	0.0%
0.50-0.99	23	2.50	1.19	2	1.47	8.7%
1.00-1.49	31	2.44	1.55	18	1.53	58.1%
1.50-1.99	68	2.45	1.84	42	1.76	61.8%
2.00-2.49	71	2.55	2.37	54	2.14	76.1%
2.50-2.99	74	2.74	2.70	66	2.68	89.2%
3.00-3.49	89	2.85	3.19	81	3.24	91.0%
3.50-4.00	65	3.18	3.74	58	3.54	89.2%
Cohort Total	425	2.70	2.46	321	2.70	75.5%

Spring to Fall retention for the cohort was 75.5%, and retention was about 90% for the 230 students who had a semester or cumulative GPA over 2.50 (only 33 students of these students did not have both of these averages over 2.50). Attrition was significantly higher among students whose cumulative GPA fell below 2.0; the retention rate of these 126 students was 49.2%. Very low retention was observed among the 35 students who earned a semester GPA of under 0.50; the retention rate among this group was just over 5%.

Of the 104 students in the Fall 2002 cohort who did not return from Spring 2003 to Fall 2003, only 28 of them showed improvement in the semester GPA from their first semester grades to their second semester. On the whole, however, this pattern reflects the fact that most students in the cohort exhibited a decline in the level of their academic performance from first to second semester. Large declines in semester GPA did seem to make some difference, however. Fewer than half (48%) of students whose Spring 2003 semester GPA was 0.75 or more below their Fall 2002 semester GPA returned for the subsequent semester.

Among students who earned a GPA below 2.0 in their first semester but managed to earn above 2.0 in their second semester, the retention rate was 78.8%, suggesting that academic improvement to satisfactory levels corresponds with an increase in persistence. By contrast, the retention rate was 39.2% for students who earned a semester GPA below 2.0 for both the first and second semesters. As a caveat, this retention rate improves to 53.7% when excluding the 19 students in this group who earned spring semester GPAs of 0.00 (all Fs) – a substantial portion of these students may have made a decision to leave in the middle of the second semester and abandoned their academic endeavors.

*Cumulative GPA, Academic Probation & Suspension, and Retention*

Cumulative GPAs of the 425 students who completed the Spring 2003 semester unsurprisingly resemble the distribution patterns of semester GPAs. There were 154 students in the 3.0 to 4.0 range, 145 students in the 2.0 to 3.99 range, and 126 students (29.6% of the remaining cohort) with a cumulative GPA below 2.0.

USCA’s probation and suspension policies account for some of this attrition. According to the current policies, students who have attempted 15-30 hours receive probation when their cumulative GPA falls below 1.40, and they are suspended when their cumulative GPA falls below 1.0. Following the Spring 2003 term, 25 students qualified for probation, 27 students qualified for suspension, leaving 74 students who had earned a cumulative GPA below the 2.0 level, yet received no official notification from the university that their academic progress was unsatisfactory other than their official grade report.

Student	Fall 2002		Spring 2003		Fall 2003			
	Fall '02 Sanction	Spring '03 Sanction	Sem GPA	Cum GPA	Sem GPA	Cum GPA	Sem GPA	Cum GPA
Student A	Probation	Suspension	0.58	0.58	0.50	0.55	1.17	1.07
Student B	Probation	Suspension	0.81	0.81	0.77	0.79	1.77	1.41
Student C	Probation	Probation	0.97	0.97	1.07	1.00	0.00	0.98
Student D	None	Probation	1.50	1.50	0.58	1.04	2.75	1.36
Student E	Probation	Probation	0.77	0.77	1.39	1.08	1.33	1.14
Student F	Probation	Probation	0.25	0.25	2.14	1.15	0.31	0.85
Student G	None	Probation	1.23	1.23	1.14	1.19	2.63	1.67
Student H	None	Probation	1.94	1.94	0.40	1.19	0.00	1.08
Student I	None	Probation	1.50	1.50	0.88	1.22	1.85	1.39
Student J	None	Probation	1.40	1.40	1.00	1.22	2.17	1.46
Student K	None	Probation	2.08	2.08	0.59	1.23	--*	1.23
Student L	Probation	Probation	1.19	1.19	1.33	1.25	1.17	1.23
Student M	None	Probation	1.50	1.50	1.00	1.32	0.50	1.08
Student N	None	Probation	1.80	1.80	0.81	1.34	1.75	1.46
Student O	None	Probation	1.88	1.88	0.69	1.35	1.35	1.35
Suspension & Probation Average			1.29	1.29	0.95	1.13	1.34	1.25

\* USCA Transient student taking courses at Aiken Technical College in Fall 2003

Further, students who received academic sanctions and chose to return to USCA often did not demonstrate improvement in Fall 2003 significant enough to change their academic status. In many other cases, these students performed worse and became increasingly in danger of never raising their cumulative GPAs to a satisfactory level.

*Second Semester Course Grades and Retention Patterns*

Second semester academic performance was related to performance in the first semester, and so observed patterns of retention and academic performance for the two semesters appear similar. In part, the results of this study suggest that students' study habits and patterns of academic performance that are developed in the first semester at USCA may be maintained for at least the following two terms and quite possibly longer. Just as was observed for first semester academic performance, students who did not experience the broad failures of earning a D, F, or W in a course during the Spring 2003 term exhibited a high retention rate (90.4%) from Spring to Fall. By contrast, students who earned three or more D's, F's, or W's had a retention rate of 44.2%.

**Table 26. First-Year Retention by Number of A's in Spring 2003 Courses**

Spring 2003 Course Grades of A	Spring 2003		Fall 2003	
	N	N	Sem GPA	Pct Retention
Zero A's	190	121	2.15	63.7%
One A	107	86	2.67	80.4%
Two A's	60	54	3.15	90.0%
Three A's	40	35	3.28	87.5%
Four A's	19	19	3.59	100.0%
Five A's	8	6	3.80	75.0%
Six A's	0	--	--	--
Seven A's	1	0	--	0.0%
Cohort Total	425	321	2.70	75.5%

**Table 27. First-Year Retention by Number of D's, F's, and W's in Spring 2003 Courses**

Spring 2003 Course Grades of D, F, or W	Spring 2003		Fall 2003	
	N	N	Sem GPA	Pct Retention
Zero D's, F's, or W's	197	178	3.07	90.4%
One D, F, or W	73	57	2.66	78.1%
Two D's, F's, or W's	60	44	2.12	73.3%
Three D's, F's, or W's	41	22	1.89	53.7%
Four D's, F's, or W's	38	16	1.37	42.1%
Five D's, F's, or W's	14	4	2.88	28.6%
Six D's, F's, or W's	2	0	--	0.0%
Cohort Total	425	321	2.70	75.5%

## Conclusions

This analysis of first-year retention for the Fall 2002 first-year full-time cohort confirms and extends findings from earlier research on this cohort, and the conclusions of this report tend to reinforce national trends indicating that the quality of student learning is directly related to student persistence. Improving the level at which entering USCA students learn (not simply awarding higher grades that are unmerited) will likely improve the first year retention rate as well as corresponding graduation rates.

1. Poor academic performance, especially in the first semester, is a common characteristic of two-thirds of the students in the Fall 2002 cohort who did not return to USCA. While it is important to observe that some proportion of this level of academic performance may only be a symptom rather than a cause of attrition, it would seem clear that for a significant population, persistence at the university is a function of the quality of student learning and academic success. Early detection of poor academic performance as soon as possible in the first semester could assist in developing intervention strategies to improve retention. Additionally, a review of academic probation and suspension policies that considers higher thresholds for each sanction could prompt higher retention of students who might be successful and a quicker exit for those who likely will not be successful.
2. At the point of entry, two academic factors (low combined SAT score and low high school class rankings) can be used to identify many students unlikely to be academically successful and persist at the institution beyond the first year. In the Fall 2002 cohort, students who graduated in the bottom half of their high school class were retained at a rate of just below 50% (mean Fall 2002 semester GPA = 1.88) and those with combined SAT scores below 800 were retained at about 55% (mean Fall 2002 semester GPA = 1.92).
3. Additional focus on academic support may increase learning outcomes and improve retention. White women who enrolled in ASUP 101 and earned A's and B+'s in the course exhibited higher levels of academic success were retained at a rate of over 90%. It is unclear why similar patterns were not observed among other demographic groups, nor can the possibility be eliminated that students who did well in this study skills class were simply predisposed to devote more time and effort to their academics. In this regard, further study of this course's effectiveness should involve measurement of learning outcomes at a level that is more specific than course grades.
4. Further research projects of this nature should be conducted to confirm the trends observed in these first two studies of the Fall 2002 first year cohort. In addition to the examination of predicted GPA and the study of student learning outcomes in ASUP 101 mentioned above, these projects should include:
  - a. A study of the Fall 2003 cohort's persistence to Spring 2004
  - b. Research that links financial aid data to qualitative retention data
  - c. A longitudinal study of average class size among the 10-12 courses with highest freshman enrollments linked to retention rates
  - d. A study of factors that impact academic success of black or African American students

## Appendix

### Student One Year Retention by Grades in Cohort's Most Enrolled Fall 2002 Courses

Course Grade	Fall 2002			Spring 2003			Fall 2003		
	N	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
F	4	2.33	1.08	3	1.60	75.0%	1	1.20	25.0%
D	11	2.68	1.94	10	1.85	90.9%	9	2.36	81.8%
D+	0	--	--	--	--	--	--	--	--
C	12	2.86	2.45	12	2.61	100.0%	11	2.90	91.7%
C+	2	2.82	2.88	2	2.58	100.0%	2	3.22	100.0%
B	4	2.97	3.29	4	2.48	100.0%	3	3.53	75.0%
B+	3	3.10	3.29	3	2.89	100.0%	2	3.32	66.7%
A	5	3.44	3.79	5	3.71	100.0%	5	3.48	100.0%
W	1	2.38	--	--	--	0.0%	--	--	0.0%
Total for Course	42	2.85	2.45	39	2.39	92.9%	33	2.70	78.6%
<i>Mean Cohort Course Grade: 2.01</i>									
Did not take course	429	2.68	2.45	386	2.36	90.0%	288	2.68	67.1%
Cohort Total	471	2.70	2.46	425	2.37	90.2%	321	2.70	68.2%

Course Grade	Fall 2002			Spring 2003			Fall 2003		
	N	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
F	25	2.46	0.56	11	1.37	44.0%	8	1.75	32.0%
D	40	2.45	1.49	36	1.17	90.0%	17	1.81	42.5%
D+	28	2.52	1.75	25	1.70	89.3%	14	1.53	50.0%
C	82	2.51	2.09	79	1.89	96.3%	54	2.23	65.9%
C+	45	2.71	2.61	42	2.41	93.3%	31	2.69	68.9%
B	87	2.71	2.82	82	2.51	94.3%	69	2.87	79.3%
B+	41	2.91	3.16	39	2.97	95.1%	34	3.06	82.9%
A	47	2.91	3.45	46	3.20	97.9%	39	3.39	83.0%
W	8	2.68	2.14	4	2.25	50.0%	2	2.89	25.0%
Total for Course	403	2.66	2.40	364	2.23	90.3%	268	2.53	66.5%
<i>Mean Cohort Course Grade: 2.41</i>									
Did not take course	68	2.94	2.80	61	2.93	89.7%	53	2.93	77.9%
Cohort Total	471	2.70	2.46	425	2.37	90.2%	321	2.70	68.2%

Course Grade	Fall 2002			Spring 2003			Fall 2003		
	N	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
F	12	2.59	1.05	6	1.08	50.0%	2	1.19	16.7%
D	8	2.49	1.53	7	1.66	87.5%	4	1.50	50.0%
D+	0	--	--	--	--	--	--	--	--
C	16	2.83	2.52	16	2.40	100.0%	12	2.69	75.0%
C+	4	2.74	2.49	3	2.46	75.0%	2	3.03	50.0%
B	16	2.74	3.16	16	2.84	100.0%	15	3.03	93.8%
B+	2	2.98	3.32	2	3.50	100.0%	1	3.31	50.0%
A	9	2.80	3.69	8	3.65	88.9%	6	3.68	66.7%
W	5	2.75	2.13	4	1.76	80.0%	3	2.39	60.0%
Total for Course	72	2.72	2.45	62	2.34	86.1%	45	2.52	62.5%
<i>Mean Cohort Course Grade: 2.10</i>									
Did not take course	399	2.69	2.46	363	2.35	91.0%	276	2.69	69.2%
Cohort Total	471	2.70	2.46	425	2.37	90.2%	321	2.70	68.2%

**Table A-4. Retention of Fall 2002 FY Cohort by Fall Course Grade in AMTH 108**

	Fall 2002			Spring 2003			Fall 2003		
	N	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
F	29	2.43	0.90	18	1.08	62.1%	7	1.29	24.1%
D	13	2.60	1.49	12	1.25	92.3%	7	2.44	53.8%
D+	7	2.58	2.07	5	1.26	71.4%	2	2.53	28.6%
C	53	2.52	2.12	49	2.07	92.5%	35	2.40	66.0%
C+	17	2.43	2.33	17	2.06	100.0%	13	1.69	76.5%
B	44	2.64	2.64	40	2.44	90.9%	34	2.49	77.3%
B+	14	2.59	2.75	14	2.33	100.0%	11	2.79	78.6%
A	50	2.80	3.22	49	2.87	98.0%	46	3.13	92.0%
W	9	2.43	2.22	6	1.55	66.7%	4	2.66	44.4%
Total for Course	236	2.59	2.32	210	2.11	89.0%	159	2.42	67.4%
<i>Mean Cohort Course Grade: 2.44</i>									
Did not take course	235	2.80	2.59	215	2.56	91.5%	162	2.83	68.9%
Cohort Total	471	2.70	2.46	425	2.37	90.2%	321	2.70	68.2%

**Table A-5. Retention of Fall 2002 FY Cohort by Fall Course Grade in AMUS 173**

	Fall 2002			Spring 2003			Fall 2003		
	N	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
F	6	2.42	0.64	3	1.28	50.0%	2	1.95	33.3%
D	1	2.34	1.61	1	2.18	100.0%	1	1.50	100.0%
D+	2	2.98	1.73	2	1.39	100.0%	1	2.54	50.0%
C	4	2.53	1.44	4	0.63	100.0%	1	0.88	25.0%
C+	2	2.58	1.76	1	2.70	50.0%	1	2.93	50.0%
B	10	2.60	2.39	10	1.88	100.0%	8	2.71	80.0%
B+	5	2.82	2.62	5	2.63	100.0%	5	2.19	100.0%
A	28	2.80	3.08	26	2.68	92.9%	21	3.14	75.0%
W	1	2.38				0.0%			0.0%
Total for Course	59	2.70	2.40	52	2.16	88.1%	40	2.60	67.8%
<i>Mean Cohort Course Grade: 3.04</i>									
Did not take course	412	2.70	2.46	373	2.39	90.5%	281	2.69	68.2%
Cohort Total	471	2.70	2.46	425	2.37	90.2%	321	2.70	68.2%

**Table A-6. Retention of Fall 2002 FY Cohort by Fall Course Grade in APSY 101**

	Fall 2002			Spring 2003			Fall 2003		
	N	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
F	25	2.40	0.98	17	1.11	68.0%	8	1.42	32.0%
D	31	2.48	1.68	23	1.51	74.2%	15	1.95	48.4%
D+	14	2.47	2.01	12	1.52	85.7%	6	2.59	42.9%
C	57	2.58	2.38	56	2.16	98.2%	45	2.62	78.9%
C+	12	2.75	2.82	12	2.41	100.0%	9	2.55	75.0%
B	47	2.78	2.99	47	2.56	100.0%	37	2.87	78.7%
B+	16	2.90	3.40	15	3.05	93.8%	13	3.37	81.3%
A	19	3.14	3.52	19	3.42	100.0%	17	3.48	89.5%
W	3	2.76	3.14	2	1.49	66.7%	2	3.31	66.7%
Total for Course	224	2.66	2.44	203	2.17	90.6%	152	2.57	67.9%
<i>Mean Cohort Course Grade: 2.12</i>									
Did not take course	247	2.73	2.48	222	2.48	89.9%	169	2.68	68.4%
Cohort Total	471	2.70	2.46	425	2.37	90.2%	321	2.70	68.2%

**Table A-7. Retention of Fall 2002 FY Cohort by Fall Course Grade in ASCY 101**

	Fall 2002			Spring 2003			Fall 2003		
	N	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
F	6	2.32	0.70	3	1.13	50.0%	2	0.67	33.3%
D	25	2.54	1.55	23	1.44	92.0%	13	1.84	52.0%
D+	8	2.37	1.86	7	2.06	87.5%	5	2.42	62.5%
C	32	2.51	2.17	28	1.85	87.5%	19	2.19	59.4%
C+	24	2.55	2.58	22	2.03	91.7%	17	2.63	70.8%
B	27	2.73	2.95	27	2.69	100.0%	21	2.81	77.8%
B+	12	2.84	3.31	12	2.62	100.0%	10	3.12	83.3%
A	17	3.14	3.74	16	3.56	94.1%	16	3.67	94.1%
W	2	2.83	1.83	1	0.00	50.0%	1	3.50	50.0%
Total for Course	153	2.65	2.46	139	2.17	90.8%	104	2.52	68.0%
<i>Mean Cohort Course Grade: 2.33</i>									
Did not take course	318	2.72	2.45	286	2.44	89.9%	217	2.72	68.2%
Cohort Total	471	2.70	2.46	425	2.37	90.2%	321	2.70	68.2%

**Table A-8. Retention of Fall 2002 FY Cohort by Fall Course Grade in ASUP 101**

	Fall 2002			Spring 2003			Fall 2003		
	N	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
F	--	--	--	--	--	--	--	--	--
D	--	--	--	--	--	--	--	--	--
D+	--	--	--	--	--	--	--	--	--
C	5	2.38	1.77	5	1.59	100.0%	2	2.21	40.0%
C+	8	2.52	1.62	7	1.26	87.5%	5	1.67	62.5%
B	23	2.59	2.33	22	1.93	95.7%	15	2.46	65.2%
B+	7	2.66	2.52	7	2.43	100.0%	7	2.68	100.0%
A	37	2.91	3.02	36	2.81	97.3%	32	3.02	86.5%
W	2	2.29	2.33	2	2.01	100.0%	1	2.50	50.0%
Total for Course	82	2.71	2.55	79	2.29	96.3%	62	2.64	75.6%
<i>Mean Cohort Course Grade: 3.39</i>									
Did not take course	389	2.69	2.43	346	2.39	88.9%	259	2.70	66.6%
Cohort Total	471	2.70	2.46	425	2.37	90.2%	321	2.70	68.2%

**Table A-9. Retention of Fall 2002 FY Cohort by Fall Course Grade in ASUP 110**

	Fall 2002			Spring 2003			Fall 2003		
	N	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
F	1	2.64	0.38	1	0.00	100.0%	--	--	0.0%
D	1	2.28	2.69	1	1.75	100.0%	--	--	0.0%
D+	--	--	--	--	--	--	--	--	--
C	3	2.43	1.36	3	0.84	100.0%	1	1.17	33.3%
C+	5	2.34	2.21	4	1.77	80.0%	2	2.81	40.0%
B	5	2.44	2.74	5	2.70	100.0%	5	2.36	100.0%
B+	7	2.61	2.80	7	2.67	100.0%	7	2.86	100.0%
A	20	2.81	3.09	19	3.05	95.0%	18	2.95	90.0%
W	--	--	--	--	--	--	--	--	--
Total for Course	42	2.63	2.70	40	2.53	95.2%	33	2.58	78.6%
<i>Mean Cohort Course Grade: 3.31</i>									
Did not take course	429	2.70	2.43	385	2.35	89.7%	288	2.69	67.1%
Cohort Total	471	2.70	2.46	425	2.37	90.2%	321	2.70	68.2%



	Fall 2002			Spring 2003			Fall 2003		
	N	Mean Prd GPA	Mean Sem GPA	N	Mean Sem GPA	Pct Retention	N	Mean Sem GPA	Pct Retention
F	9	2.56	0.78	6	0.79	66.7%	--	--	--
D	10	2.72	1.45	9	1.94	90.0%	6	2.13	60.0%
D+	0	--	--	--	--	--	--	--	--
C	15	2.46	2.25	15	2.30	100.0%	11	2.22	73.3%
C+	0	--	--	--	--	--	--	--	--
B	13	2.53	2.51	13	1.99	100.0%	12	2.30	92.3%
B+	3	2.87	3.18	2	3.23	66.7%	2	3.31	66.7%
A	32	2.93	3.27	32	2.98	100.0%	28	3.13	87.5%
W	0	--	--	--	--	--	--	--	--
Total for Course	82	2.71	2.46	77	2.34	93.9%	59	2.37	72.0%
<i>Mean Cohort Course Grade: 2.65</i>									
Did not take course	389	2.69	2.45	348	2.36	89.5%	262	2.70	67.4%
Cohort Total	471	2.70	2.46	425	2.37	90.2%	321	2.70	68.2%

*Student Spring to Fall Retention by Grades in Cohort's Most Enrolled Spring 2003 Courses*

**Note: For all of the following tables, the retention rates refer to Spring 2003 to Fall 2003 retention. Of the 425 students in the cohort in Spring 2003, 321 returned for the Fall, for an overall retention rate of 75.5%.**

**Table A-11. Retention of Fall 2002 FY Cohort by Spring Course Grade in ABIO 102**

Spring ABIO 102 Grade	Sp 03 N	Mean F 02 Sem GPA	Mean Sp 03 Sem GPA	F 03 N	Mean F 03 Sem GPA	Pct Retention
F	16	1.88	0.85	9	1.72	56.3%
D	6	2.07	1.74	2	1.96	33.3%
D+	0	--	--	--	--	--
C	10	2.86	2.43	8	2.45	80.0%
C+	2	3.72	3.44	2	3.71	100.0%
B	11	3.20	3.20	10	3.50	90.9%
B+	1	3.75	3.80	1	4.00	100.0%
A	6	3.70	3.78	5	3.36	83.3%
W	3	2.57	2.07	2	2.00	66.7%
All Spring ABIO 102	55	2.68	2.24	39	2.73	70.9%
<i>Mean Cohort Course Grade: 1.76</i>						
Did not take course	370	2.57	2.39	282	2.69	76.2%
Cohort Total	425	2.58	2.37	321	2.70	75.5%

**Table A-12. Retention of Fall 2002 FY Cohort by Spring Course Grade in AEGL 101**

Spring AEGL 101 Grade	Sp 03 N	Mean F 02 Sem GPA	Mean Sp 03 Sem GPA	F 03 N	Mean F 03 Sem GPA	Pct Retention
F	16	1.41	0.45	4	1.62	25.0%
D	2	0.88	1.25	1	0.31	50.0%
D+	4	1.29	1.41	3	1.63	75.0%
C	11	1.72	1.85	7	1.38	63.6%
C+	6	1.44	2.08	5	1.63	83.3%
B	10	1.84	2.05	8	1.67	80.0%
B+	3	2.03	2.72	0	--	0.0%
A	5	2.74	3.40	4	3.29	80.0%
W	4	1.04	0.00	0	--	0.0%
All Spring AEGL 101	61	1.63	1.54	32	1.75	52.5%
<i>Mean Cohort Course Grade: 1.85</i>						
Did not take course	364	2.74	2.51	289	2.80	79.4%
Cohort Total	425	2.58	2.37	321	2.70	75.5%

**Table A-13. Retention of Fall 2002 FY Cohort by Spring Course Grade in AEGL 102**

Spring AEGL 102 Grade	Sp 03 N	Mean F 02 Sem GPA	Mean Sp 03 Sem GPA	F 03 N	Mean F 03 Sem GPA	Pct Retention
F	20	2.11	0.48	8	1.52	40.0%
D	22	1.91	1.50	15	2.02	68.2%
D+	7	1.98	1.59	4	1.97	57.1%
C	72	2.42	2.13	57	2.34	79.2%
C+	43	2.74	2.53	36	2.63	83.7%
B	71	3.06	3.04	60	3.12	84.5%
B+	37	3.31	3.32	34	3.38	91.9%
A	22	3.62	3.54	19	3.58	86.4%
W	3	2.72	0.42	2	1.94	66.7%
All Spring AEGL 102	297	2.75	2.47	235	2.78	79.1%
<i>Mean Cohort Course Grade: 2.43</i>						
Did not take course	128	2.19	2.13	86	2.47	67.2%
Cohort Total	425	2.58	2.37	321	2.70	75.5%

**Table A-14. Retention of Fall 2002 FY Cohort by Spring Course Grade in AHST 102**

Spring AHST 102 Grade	Sp 03 N	Mean F 02 Sem GPA	Mean Sp 03 Sem GPA	F 03 N	Mean F 03 Sem GPA	Pct Retention
F	6	1.31	0.90	3	1.17	50.0%
D	2	2.49	1.39	1	3.38	50.0%
D+	8	2.34	2.11	7	2.26	87.5%
C	15	2.17	2.28	13	2.19	86.7%
C+	6	2.56	2.53	4	2.57	66.7%
B	11	2.60	2.83	11	2.66	100.0%
B+	7	2.97	3.24	7	3.16	100.0%
A	15	3.51	3.47	14	3.58	93.3%
W	8	1.80	0.91	5	1.93	62.5%
All Spring AHST 102	78	2.51	2.40	65	2.66	83.3%
<i>Mean Cohort Course Grade: 2.52</i>						
Did not take course	347	2.60	2.36	256	2.71	73.8%
Cohort Total	425	2.58	2.37	321	2.70	75.5%

**Table A-15. Retention of Fall 2002 FY Cohort by Spring Course Grade in AMTH 108**

Spring AMTH 108 Grade	Sp 03 N	Mean F 02 Sem GPA	Mean Sp 03 Sem GPA	F 03 N	Mean F 03 Sem GPA	Pct Retention
F	14	1.92	0.92	5	1.97	35.7%
D	10	1.95	1.57	7	2.15	70.0%
D+	2	2.16	2.40	2	2.46	100.0%
C	13	2.36	1.91	8	1.97	61.5%
C+	9	2.14	2.50	8	2.42	88.9%
B	11	2.24	2.47	9	2.80	81.8%
B+	2	0.73	3.00	2	1.83	100.0%
A	19	3.26	3.35	16	3.19	84.2%
W	5	1.58	0.27	2	2.33	40.0%
All Spring AMTH 108	85	2.31	2.10	59	2.54	69.4%
<i>Mean Cohort Course Grade: 2.22</i>						
Did not take course	340	2.65	2.44	262	2.73	77.1%
Cohort Total	425	2.58	2.37	321	2.70	75.5%

**Table A-16. Retention of Fall 2002 FY Cohort by Spring Course Grade in AMUS 173**

Spring AMUS 173 Grade	Sp 03 N	Mean F 02 Sem GPA	Mean Sp 03 Sem GPA	F 03 N	Mean F 03 Sem GPA	Pct Retention
F	3	2.39	0.63	2	1.75	66.7%
D	2	2.04	0.94	1	1.85	50.0%
D+	3	2.19	1.56	3	2.49	100.0%
C	3	2.43	2.04	2	2.88	66.7%
C+	5	2.06	2.31	5	2.08	100.0%
B	10	2.45	2.19	10	2.54	100.0%
B+	6	2.77	2.81	6	2.09	100.0%
A	31	2.99	3.21	28	2.98	90.3%
W	0					--
All Spring AMUS 173	63	2.69	2.61	57	2.64	90.5%
<i>Mean Cohort Course Grade: 3.17</i>						
Did not take course	362	2.56	2.33	264	2.71	72.9%
Cohort Total	425	2.58	2.37	321	2.70	75.5%

**Table A-17. Retention of Fall 2002 FY Cohort by Spring Course Grade in APLS 201**

Spring APLS 201 Grade	Sp 03 N	Mean F 02 Sem GPA	Mean Sp 03 Sem GPA	F 03 N	Mean F 03 Sem GPA	Pct Retention
F	14	1.37	0.66	3	1.56	21.4%
D	6	1.77	1.37	3	1.52	50.0%
D+	2	1.68	1.61	1	3.12	50.0%
C	8	2.05	2.37	6	2.51	75.0%
C+	15	2.67	2.50	14	2.61	93.3%
B	9	2.46	2.76	8	2.74	88.9%
B+	14	3.10	3.29	14	3.26	100.0%
A	10	3.68	3.73	10	3.70	100.0%
W	11	2.87	1.98	10	2.88	90.9%
All Spring APLS 201	89	2.51	2.33	69	2.86	77.5%
<i>Mean Cohort Course Grade: 2.29</i>						
Did not take course	336	2.60	2.38	252	2.65	75.0%
Cohort Total	425	2.58	2.37	321	2.70	75.5%

**Table A-18. Retention of Fall 2002 FY Cohort by Spring Course Grade in APSY 101**

Spring APSY 101 Grade	Sp 03 N	Mean F 02 Sem GPA	Mean Sp 03 Sem GPA	F 03 N	Mean F 03 Sem GPA	Pct Retention
F	9	1.63	0.73	2	0.25	22.2%
D	13	1.68	1.52	8	2.30	61.5%
D+	3	1.50	1.84	3	1.44	100.0%
C	18	2.53	2.38	18	2.60	100.0%
C+	6	2.51	2.63	6	2.27	100.0%
B	18	2.84	2.99	17	2.64	94.4%
B+	5	3.42	3.40	4	2.98	80.0%
A	7	3.74	3.69	7	3.48	100.0%
W	1	0.75	0.00			0.0%
All Spring APSY 101	80	2.46	2.34	65	2.54	81.3%
<i>Mean Cohort Course Grade: 2.13</i>						
Did not take course	345	2.61	2.38	256	2.74	74.2%
Cohort Total	425	2.58	2.37	321	2.70	75.5%

**Table A-19. Retention of Fall 2002 FY Cohort by Spring Course Grade in ASCY 101**

Spring ASCY 101 Grade	Sp 03 N	Mean F 02 Sem GPA	Mean Sp 03 Sem GPA	F 03 N	Mean F 03 Sem GPA	Pct Retention
F	11	1.89	0.73	4	1.49	36.4%
D	8	1.81	1.28	5	1.99	62.5%
D+	4	2.53	2.16	4	1.85	100.0%
C	16	1.98	2.11	11	2.45	68.8%
C+	10	2.29	2.34	8	2.36	80.0%
B	14	2.88	3.01	12	2.65	85.7%
B+	5	3.62	3.47	5	3.45	100.0%
A	11	3.51	3.64	9	3.48	81.8%
W	1	3.00	0.00	0	--	0.0%
All Spring ASCY 101	80	2.50	2.29	58	2.58	72.5%
<i>Mean Cohort Course Grade: 2.21</i>						
Did not take course	345	2.60	2.39	263	2.72	76.2%
Cohort Total	425	2.58	2.37	321	2.70	75.5%

**Table A-20. Retention of Fall 2002 FY Cohort by Spring Course Grade in ATHE 161**

<b>Spring ATHE 161 Grade</b>	<b>Sp 03 N</b>	<b>Mean F 02 Sem GPA</b>	<b>Mean Sp 03 Sem GPA</b>	<b>F 03 N</b>	<b>Mean F 03 Sem GPA</b>	<b>Pct Retention</b>
F	12	1.56	0.75	3	1.08	25.0%
D	4	2.58	2.08	2	1.34	50.0%
D+	0	--	--	--	--	--
C	9	2.62	2.14	5	2.02	55.6%
C+	1	1.70	1.44	1	0.67	100.0%
B	14	2.57	2.62	11	2.76	78.6%
B+	1	1.54	1.90			0.0%
A	31	3.08	3.26	29	3.20	93.5%
W	0	--	--	--	--	--
All Spring ATHE 161	72	2.60	2.47	51	2.74	70.8%
<i>Mean Cohort Course Grade: 2.69</i>						
Did not take course	353	2.58	2.35	270	2.69	76.5%
Cohort Total	425	2.58	2.37	321	2.70	75.5%