2008 Freshman Cohort Retention Report

Executive Summary

This report summarizes the retention of the University of South Alabama (USA) Fall 2008 freshman student cohort. Results indicated retention of male students, students with lower high school GPAs, or students with lower ACT scores are of concern. As with the Fall 2007 cohort, the orientation session that the student attended provided a significant predictor of student persistence. Students attending the earlier orientation sessions were much more likely to persist than students attending the later orientation sessions. The importance of awarding freshman scholarships for students was also evident. Although Freshman Seminar is no longer a required course for USA freshmen, there was a significant difference between the persistence of students who took Freshman Seminar and students who did not take the course.

Overview

The following report provides a detailed analysis about the retention of the 1,495 first-time full-time baccalaureate degree seeking freshmen students in the USA Fall 2008 freshman student cohort. Retention in the context of this report is defined as whether or not freshmen students persisted and enrolled one year later in the Fall 2009 semester. Similar to a report written last year by Institutional Research, Planning, and Assessment about the Fall 2007 freshman student cohort, the input-environment-outcome (IEO) model developed by Alexander W. Astin[1] was used as a conceptual framework to guide this analysis[2]. Cross tabular results for each variable and whether or not the student returned are reported. Comparisons for each subgroup are made to the overall retention rate of the cohort (67%). Additionally, three logistic regression models were tested. The first model included the input[3] variables. The second model included the input and the environmental[4] variables. The final model included the two outcome[5] variables. The predictive power of each model for explaining whether or not the student returned (Yes/No) is reported as well as which variables were significant in each of the three models.

Cross Tabular Results

Cross tabular results for each variable and whether or not the student returned are summarized in the following section. Comparisons are made for each subgroup of the variable to the retention rate (67%) of the 1,495 first-time full-time baccalaureate degree seeking freshmen in the cohort. These comparisons illustrate which subgroups of students persisted at higher, similar, or lower rates than the overall cohort retention rate (67%). In addition, significant mean differences for the environmental variable comparisons are reported.

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[1] Astin, A. W. (2002). *Assessment for excellence: The philosophy and practice of assessment and evaluation in higher education*. American Council on Education, Oryx Press.

[2] University of South Alabama Fall 2007 Freshman Cohort Retention Report available for reference at http://www.southalabama.edu/irpa/highpriority/fall07cohortfreshretenreport.pdf

[3] Input variables: Gender, race/ethnicity, age, region, high school GPA, and composite ACT score.

[4] Environmental variables: Freshman scholarship, other scholarship, housing, Freshman Seminar, college, and orientation session attended.

[5] Outcome variables: USA hours earned and USA GPA.

Input Variable Cross Tabular Results

For the input variables included in this analysis (see Table 1: Comparisons of Input Variables to Fall 2008 Cohort Retention Rate), female students (72%) persisted at a higher rate than male students (59%). In terms of race/ethnicity, Hispanic (65%), African-American (61%), and students included in the "Other" race/ethnicity subgroup[6] (60%) persisted at a rate lower than the cohort retention rate (67%). Retention comparisons based on age showed that other than the 21 year old students, students who were 19 or older persisted at rates less than 60 percent. Persistence rates based on the region the student came from were for the most part similar although students from the Florida service area (78%) and international students (83%) persisted at much higher rates than the cohort. Finally, as high school GPA or ACT score declined, retention decreased. Students who had a high school GPA of 3.0 or below or who had an ACT score of 20 or below persisted at rates lower than the cohort retention rate (67%).

Table 1: Comparisons of Input Variables to Fall 2008 Cohort Retention Rate

Variable	Retention Rate >= 67%	Count	Retention Rate < 67%	Count
Gender				
	Females (72%)	851	Males (59%)	644
Race/Ethnicity				
	Non-Resident Alien (83%)	29	Hispanic (65%)	40
	Asian (70%)	50	African-American (61%)	282
	White (68%)	1,022	Other (60%)	72
Age				
	21 years old (73%)	15	19 years old (59%)	138
	17 years old (71%)	116	20 years old (58%)	26
	18 years old (68%)	1,143	22 years or older (56%)	57
Region				
	International (83%)	29	Mobile or Baldwin County (65%)	946
	Florida Service Area (78%)	49		
	Mississippi Service Area (69%)	126		
	Rest of Alabama (67%)	245		
	Rest of United States (67%)	100		
HS GPA				
	GPA of 3.51-4.0 (82%)	448	GPA of 2.51-3.0 (57%)	305
	GPA of 3.01-3.5 (67%)	382	GPA of 2.01-2.5 (51%)	101
			GPA of 2.0 or below (32%)	22
ACT Composite Score				
	30 or above (81%)	62	19-20 (61%)	323
	27-29 (76%)	136	18 or below (56%)	243
	24-26 (75%)	248		
	21-23 (68%)	382		

Environmental Variable Cross Tabular Results

For the environmental variables included in this analysis, persistence rates illustrated that receiving scholarships positively affected retention (see Table 2: Comparison of Environmental Variables to Fall 2008 Cohort Retention Rate). Students receiving a freshman scholarship (77%) or other scholarship[7] (69%) persisted at higher rates compared to the cohort rate (67%). Mean differences were statistically significant for freshman scholarship (.000 p value) compared to students who did not receive a freshman scholarship (see Appendix: T-Test Tables).

[6] Due to the small number of students with a Hawaiian/Pacific Islander, Multiracial, Native-American, or Unknown IPEDS race/ethnicity, these four subgroups were combined into an "Other" race/ethnicity group.

[7] Other scholarship includes third party private scholarships that are not considered a USA Freshman scholarship.

Table 2: Comparisons of Environmental Variables to Fall 2008 Cohort Retention Rate

Variable	Retention Rate >= 67%	Count	Retention Rate < 67%	Count
**Freshman Scholarship*				
	Yes (77%)	564	*No (60%)	931
Other Scholarship				
	Yes (69%)	238	No (66%)	1,257
Housing				
	On campus (69%)	661	Off campus (65%)	834
**Freshman Seminar*				
	Yes (68%)	1,409	*No (44%)	86
College[8]				
	Allied Health (72%)	223	Arts & Sciences (66%)	618
	Education (70%)	107	Computer Science (65%)	54
	Business (69%)	173	Engineering (64%)	138
			Nursing (63%)	178
**Orientation Session*				
	*May Session (77%)	35	Summer Session 5 (62%)	337
	*Summer Session 1 (77%)	207	August/Adult Session (52%)	259
	*Summer Session 2 (73%)	208		
	*Summer Session 3 (71%)	235		
	*Summer Session 4 (70%)	213		

Note: *Statistically significant mean difference at .05 p level or less (comparison group indicated by gray fill color).

Students living on campus[9] persisted at a higher rate (69%) than students living off campus (65%). Also, students who took Freshman Seminar persisted at a much higher rate (68%) than students who did not take Freshman Seminar (44%) during the year. In addition, the mean difference for students taking Freshman Seminar (.000 p value) was statistically significant compared to students not taking Freshman Seminar (see Appendix: T-Test Tables).

Retention comparisons based on the college housing the major the student initially selected showed that Allied Health (72%), Education (70%), and Business (69%) students persisted at a higher rate than the overall cohort (67%). In terms of the orientation session attended, persistence rates of students decreased for every orientation session compared to the previous orientation session over the course of the summer with a high of 77 percent for the May orientation session and low of 52 percent for the Adult/August orientation[10] sessions. When using the Adult/August orientation sessions as a comparison group, there was a significant mean difference between the Adult/August orientation sessions in comparison to the May orientation and all five Freshman orientation sessions (see Appendix: ANOVA Tables).

Outcome Variable Cross Tabular Results

The outcome variables incorporated into this analysis included number of earned hours through Summer 2009 at USA and the USA GPA through Summer 2009. Unsurprisingly, as number of USA earned hours increased or as the USA GPA increased, persistence rates also increased (see Table 3: Comparison of Outcome Variables to Fall 2008 Cohort Retention Rate). Students completing 12.5 or more hours through Summer 2009 persisted at a higher rate (at least 83%) compared to students completing 12 or fewer hours

[8] Continuing Education retention is not reported due to the small number of students from Continuing Education in this cohort.

[9] On campus housing includes students living in the Grove.

[10] The orientation session of 120 students in the Fall 2008 cohort was unknown. The Office of New Student Orientation indicated these 120 students most likely attended the Adult Student orientation but could have also attended the August orientation. Since the persistence rates were similar for the 1) definitely August group and the 2) Adult or August group, the two groups were combined for this analysis. Due to cost and also to better track students attending the Adult Student orientation in Summer 2009 the Adult Student orientation was combined with a Transfer Student orientation. Therefore, differentiating between these two groups in the future should be easier.

(at most 62%). Students with a USA GPA of 2.51 or above through Summer 2009 persisted at a higher rate (at least 82%) compared to the cohort rate (67%) while students with a USA GPA of 2.0 or below persisted at a much lower rate (40%).

Table 3: Comparisons of Outcome Variables to Fall 2008 Cohort Retention Rate

Variable	Retention Rate >= 67%	Count	Retention Rate < 67%	Count
USA Hours Earned				
	24.5-30 hours (90%)	49	6.5-12 hours (62%)	382
	18.5-24 hours (90%)	117	0-6 hours (25%)	296
	30.5 or more hours (85%)	46		
	12.5-18 hours (83%)	605		
USA GPA				
	3.51-4.0 (92%)	263	2.0 or below (40%)	489
	3.01-3.5 (89%)	226		
	2.51-3.0 (82%)	256		
	2.01-2.5 (67%)	213		

Logistic Regression Results

The focus of the study was to determine which student characteristics (inputs) and environmental characteristics (institutional/other support characteristics) can be used to best predict the persistence of USA freshmen students. Since the focus of this study was prediction and classification of a dichotomous outcome variable, stepwise logistic regression was used. This technique allows for the identification of significant variables that contribute to the classification of individuals by using an algorithm to determine the importance of predictor variables. Stepwise logistic regression was used to identify significant variables in the model for predicting the outcome variable. Results of the final step for the model are reported including the classification rate for the model. Additionally, an analysis of the proportionate change in odds for significant variables is provided.

As a part of this study, three logistic models were tested. The first model included the input variables. The second model included the input variables and the environmental variables. The third model tested the outcome variables of number of USA earned hours through Summer 2009 and USA GPA through Summer 2009 to see what happened when these outcomes were used as predictors of retention.

The number of students (selected cases) included for each model varied based on what variables were included in the final model. A number of students had missing data on one or more variable, typically high school GPA and/or ACT score. Because complete cases were required to compute the results, the final number of students used for each model ranged from a low of 1,226 for the second model to a high of 1,447 students for the third model. The retention rate for this subset of 1,226 students was 68% compared to 67%. With a similar retention rate (68% compared to 67%) and 1,226 students representing 82% of the entire cohort, the models tested provided a solid representation of retention for this population. Since the focus for the models tested was to predict *returning* students, the outcome was coded with students not returning as a "0" and students *returning* as a "1". This focus meant results would predict the odds of whether the student would *return* one year later.

Model 1: Logistic Regression with Input Variables Only

The first model consisted of two steps (see Table 4: Input Model Classification Table). The final step (step 2) of the first model showed that the model predicted students in this cohort who returned 96% of the time and students who did not return nine percent of the time for an overall prediction rate of 68%.

Table 4: Input Model Classification Table[a]

Observed			Predicted		
			Returned for Logistic Regression		Percentage Correct
			No	Yes	
Step 1	Returned	No	58	331	14.9
		Yes	55	782	93.4
	Overall Percentage				68.5
Step 2	Returned	No	35	354	9.0
		Yes	34	803	95.9
	Overall Percentage				68.4

a. The cut value is .500

For each variable included in the first model, a comparison group was selected (gender=male, race/ethnicity=White, age=18, region=Mobile or Baldwin County, high school GPA=2.5 or below, and ACT score=18 or below). Values greater than "1" (Exp *B*) indicated that the odds of the outcome (student *returning*) were higher compared to the selected comparison group. Values less than "1" indicated that the odds of the outcome (student *returning*) were lower compared to the selected comparison group.

In the first model (see Table 5: Input Model Final Variables in the Equation), only high school GPA and gender were significant in the final model (step 2). The final model showed that the odds (Exp *B*) of a student *returning* were greater for students with the higher high school GPAs (2.51-3.0=1.33, 3.01-3.5=1.94, and 3.51-4.0=4.13) than for students with a high school GPA of 2.5 or below. Additionally, except for a high school GPA of 2.51-3.0 (CI=.86-2.07) the confidence intervals (95%) indicated that the odds of a student with a higher high school GPA *returning* are greater than students with a high school GPA of 2.5 or below since the confidence intervals did not encompass an odds value less than one. In terms of gender, the odds of a female (1.68) student *returning* were greater than for male students *returning*. The confidence interval (95%) of the gender based comparison did not encompass an odds value less than one.

Table 5: Input Model Final Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	HS_GPA **(2.5 or below)**			67.034	3	.000			
	HS_GPA **(2.51-3.0)**	.361	.222	2.637	1	.104	1.434	.928	2.216
	HS_GPA **(3.01-3.5)**	.770	.218	12.507	1	.000	2.160	1.410	3.310
	HS_GPA **(3.51-4.0)**	1.527	.225	46.249	1	.000	4.604	2.965	7.149
	Constant	-.053	.188	.080	1	.778	.948		
Step 2[b]	Gender **(Female)**	.520	.128	16.396	1	.000	1.682	1.308	2.164
	HS_GPA **(2.5 or below)**			59.321	3	.000			
	HS_GPA **(2.51-3.0)**	.288	.224	1.646	1	.200	1.334	.859	2.071
	HS_GPA **(3.01-3.5)**	.664	.221	9.056	1	.003	1.943	1.261	2.995
	HS_GPA **(3.51-4.0)**	1.417	.227	38.897	1	.000	4.126	2.643	6.440
	Constant	-.256	.196	1.701	1	.192	.774		

a. Variable(s) entered on step 1: HS_GPA.

b. Variable(s) entered on step 2: GENDER.

c. Comparison group for HSGPA=2.5 or below and Gender=Male.

Model 2: Logistic Regression with Input and Environmental Variables

The second model included the input and also the environmental variables. For each environmental variable included in the second model a comparison group was selected (whether the student received a freshman scholarship=no, whether the student received an "other" scholarship=no, whether the student attended freshman seminar=no, orientation session attended=Adult/August orientation sessions, whether the student lived on or off campus=off campus, and which college housed the major the student selected at initial enrollment=Arts & Sciences). The correct classification rate for this second model (see Table 6: Input and Environmental Model Classification Table) slightly decreased to 92% for *returning* students. However, the classification rate slightly increased to 19% for students who did not return. The overall correct classification rate for this model was 69%.

Table 6: Input and Environmental Model Classification Table[a]

			Predicted		
			Returned for Logistic Regression		Percentage Correct
	Observed		No	Yes	
Step 1	Returned	No	68	321	17.5
		Yes	67	770	92.0
	Overall Percentage				68.4
Step 2	Returned	No	74	315	19.0
		Yes	71	766	91.5
	Overall Percentage				68.5

a. The cut value is .500

The second model consisted of two steps (see Table 7: Input and Environmental Model Final Variables in the Equation). Similar to the first model, high school GPA and gender were significant in the final model. The final version (step 2) of the second model showed that the odds (Exp *B*) of a student *returning* were

greater for students with the higher high school GPAs (2.51-3.0=1.27, 3.01-3.5=1.78, 3.51-4.0=3.60) than for students with a high school GPA of 2.5 or below. The confidence intervals (95%) indicated that the odds of a student *returning* with a high school GPA of 3.01 or higher are greater than students with a high school GPA of 2.5 or below since the confidence intervals did not encompass an odds value less than one. In terms of gender, the odds of a female (1.70) student *returning* were higher than for male students and the confidence interval did not encompass an odds value less than one.

Table 7: Input and Environmental Model Final Variables in the Equation

								95% C.I.for EXP(B)	
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1[a]	GENDER **(Female)**	.527	.130	16.550	1	.000	1.694	1.314	2.184
	HS_GPA **(2.5 or below)**			44.733	3	.000			
	HS_GPA **(2.51-3.0)**	.243	.232	1.096	1	.295	1.275	.809	2.008
	HS_GPA **(3.01-3.5)**	.575	.229	6.295	1	.012	1.777	1.134	2.785
	HS_GPA **(3.51-4.0)**	1.273	.240	28.110	1	.000	3.570	2.230	5.715
	Orientation **(Adult/August)**			17.342	6	.008			
	Orientation **(May)**	2.230	.776	8.263	1	.004	9.302	2.033	42.558
	Orientation **(Freshman 1)**	.719	.253	8.067	1	.005	2.052	1.250	3.370
	Orientation **(Freshman 2)**	.645	.247	6.833	1	.009	1.906	1.175	3.092
	Orientation **(Freshman 3)**	.554	.237	5.479	1	.019	1.740	1.094	2.768
	Orientation **(Freshman 4)**	.678	.241	7.887	1	.005	1.970	1.227	3.162
	Orientation **(Freshman 5)**	.390	.220	3.148	1	.076	1.477	.960	2.274
	Constant	-.698	.241	8.347	1	.004	.498		
Step 2[b]	GENDER **(Female)**	.529	.130	16.617	1	.000	1.697	1.316	2.189
	HS_GPA **(2.5 or below)**			45.205	3	.000			
	HS_GPA **(2.51-3.0)**	.241	.232	1.075	1	.300	1.272	.807	2.005
	HS_GPA **(3.01-3.5)**	.579	.229	6.360	1	.012	1.784	1.138	2.797
	HS_GPA **(3.51-4.0)**	1.280	.240	28.340	1	.000	3.596	2.245	5.761
	Orientation **(Adult/August)**			17.533	6	.008			
	Orientation **(May)**	2.409	.795	9.190	1	.002	11.118	2.343	52.761
	Orientation **(Freshman 1)**	.682	.254	7.190	1	.007	1.978	1.201	3.257
	Orientation **(Freshman 2)**	.632	.248	6.506	1	.011	1.881	1.158	3.057
	Orientation **(Freshman 3)**	.508	.238	4.536	1	.033	1.662	1.041	2.651
	Orientation **(Freshman 4)**	.641	.243	6.992	1	.008	1.899	1.181	3.055
	Orientation **(Freshman 5)**	.353	.221	2.539	1	.111	1.423	.922	2.196
	Freshman_Seminar **(Yes)**	.780	.395	3.897	1	.048	2.181	1.006	4.732
	Constant	-1.432	.446	10.298	1	.001	.239		

a. Variable(s) entered on step 1: Orientation.

b. Variable(s) entered on step 2: Freshman_Seminar.

c. Comparison group for HSGPA=2.0 or below, Gender=Male, Orientation=Adult/August, and Freshman Seminar=No.

In relation to the orientation session attended, the odds of a student *returning* were the greatest for students attending the earlier orientation sessions. Students attending the earlier orientation sessions had

greater odds for *returning* than the odds of a student who attended the Adult/August orientation sessions (May=11.12, Summer 1=1.98, Summer 2=1.88, Summer 3=1.66, Summer 4=1.89, Summer 5=1.42). Additionally, only the Summer session five (CI=.92-2.20) had a confidence interval with an odds ratios that captured an odds value less than one. Therefore, it was clear after looking at the confidence intervals that the odds of students attending the May or Summer one, two, three, and four orientation sessions of *returning* were greater than the odds for students attending the Adult/August sessions. In addition, the odds were likely greater for students attending the Summer five orientation session for *returning* compared to the odds of students attending the Adult/August sessions of orientation. It also appeared that the odds of a student who took Freshman Seminar for *returning* were likely greater than the odds of a student who did not take Freshman Seminar (2.18 with CI=1.01-4.73) since the confidence interval did not capture an odds value less than one.

Model 3: Logistic Regression with Outcome Variables Only
Since outcomes of student success are different from inputs (student characteristics or institutional/other support characteristics), the third model only included the outcomes of interest: number of hours earned through the Summer of 2009 and USA GPA the student attained through the Summer of 2009. The first and second models can be used based on data known before or at least early on after the student comes to campus. However, this third model can only be used after Summer 2009 has ended.

The correct classification rate for this third model (see Table 8: Outcome Mode Classification Table) once again decreased to 85% for *returning* students. However, the model dramatically increased the correct classification rate to 60% for students who did not return since this snapshot was based on data representing Summer 2009 student success outcomes instead of pre-Fall 2008 student and institutional/other support characteristics. The overall correct classification rate for this model was 77%.

Table 8: Outcome Model Classification Table[a]

			Predicted		
			Returned		Percentage Correct
	Observed		No	Yes	
Step 1	Returned	No	293	162	64.4
		Yes	196	796	80.2
	Overall Percentage				75.3
Step 2	Returned	No	275	180	60.4
		Yes	148	844	85.1
	Overall Percentage				77.3

a. The cut value is .500

In the third model (see Table 9: Outcome Model Final Variables in the Equation) both USA GPA and earned hours at USA were significant. As expected, the third model showed that the odds (Exp *B*) of a student *returning* were greater for students with higher USA GPAs (2.01-2.5=1.60, 2.51-3.0=3.25, 3.01-3.5=5.22, 3.51-4.0=7.60) than for students with a USA GPA of 2.0 or below. In addition, the odds of a student *returning* were greater for students with more earned hours (6.5-12=2.77, 12.5-18=4.35, 18.5-24=7.15, 24.5-30=6.70, 30.5 or more=3.14) than for students with six or fewer earned hours completed by Summer 2009. Furthermore, all confidence intervals (95%) for both the USA GPA and USA earned hours comparisons did not include a comparison subgroup that encompassed an odds value less than one.

Table 9: Outcome Model Final Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	USA_GPA **(2.0 or below)**			264.251	4	.000			
	USA_GPA **(2.01-2.5)**	1.116	.173	41.833	1	.000	3.054	2.177	4.283
	USA_GPA **(2.51-3.0)**	1.921	.187	105.335	1	.000	6.825	4.729	9.848
	USA_GPA **(3.01-3.5)**	2.442	.228	114.758	1	.000	11.499	7.355	17.977
	USA_GPA **(3.51-4.0)**	2.899	.250	134.223	1	.000	18.163	11.122	29.663
	Constant	-.402	.092	18.984	1	.000	.669		
Step 2[b]	USA_GPA **(2.0 or below)**			75.575	4	.000			
	USA_GPA **(2.01-2.5)**	.470	.197	5.704	1	.017	1.600	1.088	2.354
	USA_GPA **(2.51-3.0)**	1.177	.217	29.468	1	.000	3.246	2.122	4.965
	USA_GPA **(3.01-3.5)**	1.653	.257	41.448	1	.000	5.223	3.158	8.640
	USA_GPA **(3.51-4.0)**	2.028	.292	48.313	1	.000	7.601	4.290	13.466
	USA_Hours_Earned **(0-6)**			51.781	5	.000			
	USA_Hours_Earned **(6.5-12)**	1.020	.194	27.551	1	.000	2.772	1.894	4.057
	USA_Hours_Earned **(12.5-18)**	1.470	.226	42.167	1	.000	4.349	2.791	6.777
	USA_Hours_Earned **(18.5-24)**	1.968	.370	28.290	1	.000	7.153	3.464	14.770
	USA_Hours_Earned **(24.5-30)**	1.902	.525	13.132	1	.000	6.697	2.394	18.733
	USA_Hours_Earned **(30.5 +)**	1.145	.487	5.528	1	.019	3.142	1.210	8.162
	Constant	-1.029	.144	51.371	1	.000	.357		

a. Variable(s) entered on step 1: USA_GPA.

b. Variable(s) entered on step 2: USA_Hours_Earned.

c. Comparison group for USA GPA=2.0 or below and USA Hours Earned=0-6.

Peer Comparisons

Finally, to gain a better idea about how USA graduation rates and retention rates compared to peer institutions the Integrated Postsecondary Education Data System (IPEDS) was used to compare USA to 27 peer institutions[11] (see National Center for Education Statistics IPEDS Data Feedback Report 2008). Compared to this group of peer institutions, USA had a lower but somewhat similar full-time enrollment in Fall 2007 compared to the peer group median at all levels except full-time first-professional. The percentage of White students (67% for USA and 71% for peers), African-American students (18% for USA and 14% for peers), and female students (62% for USA and 59% for peers) was also very similar compared to the peer group median. The percentile composite ACT, English ACT, and Math ACT scores of first-time degree/certificate seeking undergraduate students were almost identical at the 25th and 75th percentiles compared to the peer group median. However, retention rates (70% for USA and 73% for peers) and six year graduation rates (37% for USA and 44% for peers) were lower for USA compared to the peer group median.

[11] List of 27 IPEDS Peer Institutions used is included at the end of the Appendix.

National Center for Education Statistics

IPEDS Data Feedback Report 2008

Focus institution=University of South Alabama

Variable Name	USA	Comparison Group Median
Full--time fall enrollment (Fall 2007)		
Full-time fall enrollment (N=28)	10,203	11,374
Enrollment by student level (Fall 2007)		
Total (N=28)	13,779	15,419
Undergraduate (N=28)	10,690	11,543
First-time, degree/certificate-seeking undergraduate (N=28)	1,529	2,004
Graduate (N=28)	2,810	2,938
First-professional (N=28)	279	0
Percent of all students enrolled, by race/ethnicity, and percent who are women (Fall 2007)		
White (N=28)	67%	71%
African-American (N=28)	18%	14%
Female (N=28)	62%	59%
Percentile ACT scores of first-time, degree/certificate-seeking undergraduate students (Fall 2007)		
25th percentile Composite (N=27)	19	20
75th percentile Composite (N=27)	24	24
25th percentile English (N=26)	19	20
75th percentile English (N=26)	25	25
25th percentile Math (N=26)	17	19
75th percentile Math (N=26)	23	24
Graduation rate (2001 cohort) and retention rate (Fall 2007)		
Full-time retention rate (N=28)	70%	73%
Graduation rate, overall, degree/certificate-seekers (N=28)	37%	44%
Note: Red fill color indicates higher #/% between USA and the comparison peer median for the variable.		

Implications

Retention of male students, students with lower high school GPAs, and students with lower ACT scores is a concern based on what we know about the student before he/she steps foot on campus (input variables). When looking at the environment and support USA provided to students in the Fall 2008 cohort after arriving on campus, just as with the previous Fall 2007 cohort, the orientation session the student attended provided a significant predictor of student persistence. Students attending the earlier orientation sessions were much more likely to persist than students attending the later orientation sessions. The orientation session attended by the student continues to provide a key indicator for identifying at risk freshmen students early on that can be utilized to design interventions for freshmen students in the future.

In addition, the importance of awarding freshman scholarships for students was evident. Efforts should be made to continue to explore the possibility of awarding freshman leadership scholarships and scholarships

based on other characteristics of students. Current freshman scholarships are merit based and tied to the high school GPA and ACT scores of students.

Although Freshman Seminar is no longer a required course for USA freshmen, it is clear there was a significant difference in the Fall 2008 cohort between the persistence of students who took Freshman Seminar and students who did not take the course. Providing learning communities for freshmen students may provide a way for freshmen to develop relationships with other students, which was an important part of the Freshman Seminar course. Expanding service learning opportunities may also be another important component of increasing student retention from the freshman to sophomore year. Current efforts to provide additional intrusive advising and to expand upon the JagSuccess early academic alert system to require a midterm grade for freshmen students may help as well.

Future Retention Research

This report is the first of two retention studies about the Fall 2008 freshman cohort studies that will be completed by Institutional Research, Planning and Assessment during the Fall 2009 semester. The second retention study will use National Student Clearinghouse data to explore the issue of "Where did USA Fall 2008 freshman non returning students go?" This study will determine how many non returning students transferred to another college or university and how many of the non returning students "stopped out" of college altogether.

APPENDIX

T-Test Tables

Group Statistics

	Freshman Scholarship	N	Mean	Std. Deviation	Std. Error Mean
Returned Fall 2009	No	931	.60	.489	.016
	Yes	564	.77	.419	.018

Group Statistics

	Other Scholarship	N	Mean	Std. Deviation	Std. Error Mean
Returned Fall 2009	No	1257	.66	.472	.013
	Yes	238	.68	.466	.030

Group Statistics

	Housing	N	Mean	Std. Deviation	Std. Error Mean
Returned Fall 2009	No	834	.65	.477	.017
	Yes	661	.69	.464	.018

Group Statistics

	Took Freshman Seminar	N	Mean	Std. Deviation	Std. Error Mean
Returned Fall 2009	No	86	.44	.500	.054
	Yes	1409	.68	.466	.012

Independent Samples Test

Freshman Scholarship		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Returned Fall 2009	Equal variances assumed	218.545	.000	-6.839	1493	.000	-.169	.025	-.218	-.121
	Equal variances not assumed			-7.102	1328.263	.000	-.169	.024	-.216	-.123

Independent Samples Test

Other Scholarship		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Returned Fall 2009	Equal variances assumed	1.657	.198	-.618	1493	.537	-.021	.033	-.086	.045
	Equal variances not assumed			-.624	336.021	.533	-.021	.033	-.085	.044

Independent Samples Test

Housing		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Returned Fall 2009	Equal variances assumed	9.419	.002	-1.519	1493	.129	-.037	.025	-.085	.011
	Equal variances not assumed			-1.524	1432.913	.128	-.037	.024	-.085	.011

Independent Samples Test

Took Freshman Seminar		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Returned Fall 2009	Equal variances assumed	10.396	.001	-4.606	1493	.000	-.239	.052	-.341	-.137
	Equal variances not assumed			-4.332	94.259	.000	-.239	.055	-.349	-.130

ANOVA Tables

Descriptives

Returned

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Adult/August Orientation	259	.52	.501	.031	.46	.58	0	1
May Orientation	35	.77	.426	.072	.63	.92	0	1
Freshman Session 1	207	.77	.423	.029	.71	.83	0	1
Freshman Session 2	208	.73	.445	.031	.67	.79	0	1
Freshman Session 3	235	.71	.454	.030	.65	.77	0	1
Freshman Session 4	213	.70	.460	.031	.64	.76	0	1
Freshman Session 5	337	.62	.487	.027	.57	.67	0	1
Total	1494	.67	.471	.012	.64	.69	0	1

Test of Homogeneity of Variances

Returned

Levene Statistic	df1	df2	Sig.
21.353	6	1487	.000

Robust Tests of Equality of Means

Returned

	Statistic[a]	df1	df2	Sig.
Welch	7.648	6	348.986	.000
Brown-Forsythe	8.302	6	899.310	.000

a. Asymptotically F distributed.

Returned

	Orientation Logistic	N	Subset for alpha = 0.05		
			1	2	3
Tukey HSD[a,,b]	Adult/August Orientation	259	.52		
	Freshman Session 5	337	.62	.62	
	Freshman Session 4	213		.70	
	Freshman Session 3	235		.71	
	Freshman Session 2	208		.73	
	Freshman Session 1	207		.77	
	May Orientation	35		.77	
	Sig.		.641	.106	
Ryan-Einot-Gabriel-Welsch Range[c]	Adult/August Orientation	259	.52		
	Freshman Session 5	337	.62	.62	
	Freshman Session 4	213		.70	.70
	Freshman Session 3	235		.71	.71
	Freshman Session 2	208			.73
	Freshman Session 1	207			.77
	May Orientation	35			.77
	Sig.		.065	.167	.685

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 129.657.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Critical values are not monotonic for these data. Substitutions have been made to ensure monotonicity. Type I error is therefore smaller.

Descriptives

Returned

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
AS	618	.66	.474	.019	.62	.70	0	1
AH	223	.72	.451	.030	.66	.78	0	1
BU	173	.69	.462	.035	.62	.76	0	1
CS	54	.65	.482	.066	.52	.78	0	1
ED	107	.70	.460	.044	.61	.79	0	1
EG	138	.64	.482	.041	.56	.72	0	1
NU	178	.63	.484	.036	.56	.70	0	1
Total	1491	.67	.471	.012	.65	.69	0	1

Test of Homogeneity of Variances

Returned

Levene Statistic	df1	df2	Sig.
3.914	6	1484	.001

Robust Tests of Equality of Means

Returned

	Statistic[a]	df1	df2	Sig.
Welch	.935	6	360.231	.470
Brown-Forsythe	.921	6	789.187	.479

a. Asymptotically F distributed.

Returned

	College	N	Subset for alpha = 0.05
			1
Tukey HSD[a,,b]	NU	178	.63
	EG	138	.64
	CS	54	.65
	AS	618	.66
	BU	173	.69
	ED	107	.70
	AH	223	.72
	Sig.		.727
Ryan-Einot-Gabriel-Welsch Range	NU	178	.63
	EG	138	.64
	CS	54	.65
	AS	618	.66
	BU	173	.69
	ED	107	.70
	AH	223	.72
	Sig.		.569

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 133.051.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

USA Peer Comparison Group

Institution Name	City	State	Unitid
Auburn University Main Campus	Auburn University	AL	100858
East Carolina University	Greenville	NC	198464
East Tennessee State University	Johnson City	TN	220075
Florida Gulf Coast University	Fort Myers	FL	433660
Georgia State University	Atlanta	GA	139940
Jacksonville State University	Jacksonville	AL	101480
James Madison University	Harrisonburg	VA	232423
Kennesaw State University	Kennesaw	GA	140164
Louisiana Tech University	Ruston	LA	159647
Marshall University	Huntington	WV	237525
Middle Tennessee State University	Murfreesboro	TN	220978
Old Dominion University	Norfolk	VA	232982
The University of Alabama	Tuscaloosa	AL	100751
The University of West Florida	Pensacola	FL	138354
Troy University	Troy	AL	102368
University of Alabama at Birmingham	Birmingham	AL	100663
University of Alabama in Huntsville	Huntsville	AL	100706
University of Arkansas at Little Rock	Little Rock	AR	106245
University of Louisville	Louisville	KY	157289
University of Missouri-Kansas City	Kansas City	MO	178402
University of New Orleans	New Orleans	LA	159939
University of North Carolina at Charlotte	Charlotte	NC	199139
University of North Carolina at Greensboro	Greensboro	NC	199148
University of North Texas	Denton	TX	227216
University of Southern Mississippi	Hattiesburg	MS	176372
Valdosta State University	Valdosta	GA	141264
Wichita State University	Wichita	KS	156125