Fall 2011 Freshman Cohort Retention Report

Executive Summary

This report summarizes the retention of 1,826 students in the University of South Alabama (USA) Fall 2011 first-time full-time baccalaureate degree-seeking freshman cohort. The retention rate for the Fall 2011 freshman cohort was 66%. Results indicated retention of students with lower high school GPAs and students with lower ACT Composite scores is a concern. As with the Fall 2007, Fall 2008, Fall 2009, and Fall 2010 cohorts, the orientation session the student attended provided a significant predictor of student persistence. Students attending the earlier Freshman Summer orientation sessions were more likely to persist than students attending the later orientation sessions. As with earlier studies, the importance of awarding freshman scholarships for students was clear. In addition, freshmen who participated in a learning community and freshmen who took Freshman Seminar were significantly more likely to return to USA the following year.

Overview

The following report provides a detailed analysis about the retention of the 1,826 first-time full-time baccalaureate degree-seeking freshmen students in the University of South Alabama (USA) Fall 2011 freshman 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 2012 semester. Similar to reports written by Institutional Research, Planning & Assessment about the Fall 2007, Fall 2008, Fall 2009, and Fall 2010 freshman cohorts, 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 (66%). Significant mean differences for the input, environmental, and outcome variables are also indicated.

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 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 (66%) of

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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 ACT Composite score.

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

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

the 1,826 freshmen in the cohort. These comparisons illustrate which subgroups of students persisted at higher, similar, or lower rates than the overall cohort retention rate of 66 percent. In addition, significant mean differences for the input, environmental, and outcome variables are reported.

Input Variable Cross Tabular Results
For the input variables included in this analysis (see Table 1), female students (70%) persisted at a higher rate than male students (61%) and the retention rate mean difference was statistically significant (see Appendix: Independent T-Test Tables). In terms of race/ethnicity, African-American students (63%) and students included in the "Other" race/ethnicity subgroup[6] (56%) persisted at a rate lower than the cohort retention rate (66%). The mean difference between retention of Asian students to African-American students and students in the "Other" race/ethnicity subgroup was statistically significant (see Appendix: ANOVA Tables).

Table 1: Comparisons of Input Variables to Fall 2011 Cohort Retention Rate

Variable	Retention Rate >= 66%	Count	Retention Rate < 66%	Count
Gender				
	*Female (70%)	977	Male (61%)	849
Race/Ethnicity				
	*Asian (80%)	56	African-American (63%)	531
	Non-Resident Alien (78%)	45	Other (56%)	121
	Hispanic (69%)	49		
	White (67%)	1,024		
Age				
	17 years old or younger (71%)	113	21 years old (64%)	11
	18 years old (67%)	1,448	22 years or older (61%)	44
			19 years old (57%)	173
			20 years old (49%)	37
Region				
	International (78%)	45	Rest of Alabama (65%)	532
	Mobile or Baldwin County (66%)	931	Rest of United States (65%)	89
			Florida Service Area (64%)	99
			Mississippi Service Area (63%)	130
High School GPA				
	*3.51-4.0 (78%)	758	3.01-3.5 (64%)	517
			2.24 or lower (58%)	33
			2.51-3.0 (51%)	388
			2.25-2.5 (48%)	81
ACT Composite Score				
	*30 or higher (86%)	77	21-23 (64%)	397
	27-29 (76%)	183	19-20 (62%)	358
	24-26 (71%)	360	18 or lower (58%)	293
Note: *Significant mean difference at .05 p level based on Independent T-Test for two group comparisons or at least one group with significant mean difference at .05 p level based on Games-Howell procedure for multiple group comparisons. Significantly different group indicated by orange fill color. Comparison group indicated by "*" and gray fill color.				

Retention comparisons based on age showed students who were 19 or older persisted at rates less than 65 percent. Comparisons based on what region the student came from showed that only international students (78%) returned at a rate higher than the overall cohort (66%).

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[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.

Finally, for the most part as high school GPA or ACT Composite score declined, retention also decreased. Students who had a high school GPA ranging between 3.01-3.5 or lower persisted at rates lower than the rate for the overall cohort (66%). Similarly, students who had an ACT Composite score ranging between 21-23 or lower persisted at rates lower than the cohort retention rate (66%). With the exception of students with a high school GPA of 2.24 or lower, the mean difference between retention of students with a high school GPA of 3.51 or higher in comparison to all other high school GPA groups was statistically significant (see Appendix: ANOVA Tables). Except for students with an ACT Composite score of 27-29, the mean difference between retention of students with an ACT Composite score of 30 or higher in comparison to all other ACT Composite score groups was also statistically significant.

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). Students receiving a freshman scholarship (76%) or other scholarship[7] (72%) persisted at rates higher than the cohort retention rate (66%). Additionally, the mean difference between students who received a freshman scholarship compared to students who did not receive a freshman scholarship was statistically significant (see Appendix: Independent T-Test Tables). Similarly, the mean difference between students who received some other type of scholarship compared to students who did not receive this other type of scholarship was statistically significant.

Table 2: Comparisons of Environmental Variables to Fall 2011 Cohort Retention Rate

Variable	Retention Rate >= 66%	Count	Retention Rate < 66%	Count
Freshman Scholarship				
	*Yes (76%)	786	No (58%)	1,040
Other Scholarship				
	*Yes (72%)	296	No (65%)	1,530
Housing				
	On campus (66%)	1,022		
	Off campus (66%)	804		
Learning Community				
	*Yes (72%)	447	No (64%)	1,379
Freshman Seminar				
	*Yes (68%)	1,112	No (63%)	714
College[8]				
	Allied Health (70%)	347	Arts & Sciences (64%)	666
	Engineering (70%)	233	Business (64%)	154
	Nursing (68%)	267	Computing (61%)	64
			Education (58%)	95
Orientation Session				
	Summer Session 1 (81%)	255	May Session (65%)	68
	Summer Session 2 (77%)	241	Summer Session 5 (62%)	265
	Summer Session 3 (73%)	250	Summer Session 6 (51%)	297
	Summer Session 4 (68%)	251	*August/Adult/Transfer Sessions (49%)	199
Note: *Significant mean difference at .05 p level based on Independent T-Test for two group comparisons or at least one group with significant mean difference at .05 p level based on Games-Howell procedure for multiple group comparisons. Significantly different group indicated by orange fill color. Comparison group indicated by "*" and gray fill color.				

Students living on campus (66%) persisted at the same rate as students living off campus (66%). Students who participated in a learning community in Fall 2011 persisted at a higher rate (72%) than students who

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

[8] Continuing Education retention is not reported since there was not a student from Continuing Education in this cohort.

did not participate in a learning community (64%). The mean difference between retention of students who participated in a learning community and students who did not participate in a learning community was statistically significant (see Appendix: Independent T-Test Tables).

Students who took Freshman Seminar in Fall 2011 persisted at a higher rate (68%) than students who did not take Freshman Seminar (63%). The mean difference between retention of students who took Freshman Seminar and students who did not take Freshman Seminar was statistically significant (see Appendix: Independent T-Test Tables). Retention comparisons based on the college housing the major the student initially selected showed Allied Health (70%), Engineering (70%), and Nursing (68%) students persisted at a higher rate than the overall cohort (66%).

Finally, in terms of the orientation session attended, persistence rates of students who attended the first four Freshman Summer orientation sessions were higher than the persistence rate of the overall cohort (66%). Persistence rates based on the orientation session attended ranged from a high of 81 percent for students who attended the Freshman Session one orientation to a low of 49 percent for students who attended either the August, Adult, or a Transfer[9] orientation session. When using the students who attended either the August, Adult, or a Transfer orientation session as a comparison group, there was a significant mean difference between the August, Adult, or Transfer orientation session group in comparison to the first four Freshman Summer orientation sessions (see Appendix: ANOVA Tables).

Outcome Variable Cross Tabular Results
The outcome variables incorporated into this analysis included the number of hours earned through Summer 2012 at USA and the USA GPA through Summer 2012. Unsurprisingly, as the number of USA hours earned increased the persistence rate also increased (see Table 3). Similarly, students with a higher USA GPA were more likely to return than students with a lower USA GPA.

Table 3: Comparisons of Outcome Variables to Fall 2011 Cohort Retention Rate

Variable	Retention Rate >= 66%	Count	Retention Rate < 66%	Count
USA Hours Earned				
	*30.5 or more (93%)	537	12.5-18 (35%)	188
	24.5-30 (87%)	437	6.5-12 (21%)	168
	18.5-24 (77%)	261	0-6 (11%)	200
USA GPA				
	3.51-4.0 (88%)	307	*2.0 or lower (32%)	576
	3.01-3.5 (86%)	313		
	2.51-3.0 (85%)	328		
	2.01-2.5 (74%)	267		
Note: *At least one group with significant mean difference at .05 p level based on Games-Howell procedure for multiple group comparisons. Significantly different group indicated by orange fill color. Comparison group indicated by "*" and gray fill color.				

Students who completed 18.5-24 or more hours at USA through Summer 2012 persisted at a higher rate (at least 77%) compared to students completing 12.5-18 or fewer hours (at most 35%). Except for students who completed 24.5-30 hours at USA, the mean difference for students who completed 30.5 or more hours at USA compared to students in all other USA hours earned groups was statistically significant (see Appendix: ANOVA Tables).

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[9] Ten students attended the Adult orientation session or one of three Transfer orientation sessions held in the evening to accommodate adult/working students. As with previous freshman cohort retention reports, the retention results for students who attended one of these orientation sessions were combined for this analysis.

Students with a USA GPA ranging between 2.01-2.5 or higher through Summer 2012 persisted at a higher rate (at least 74%) than the cohort rate (66%) while students with a USA GPA of 2.0 or lower persisted at a much lower rate (32%). Furthermore, the mean difference for students who had a USA GPA of 2.0 or lower compared to students in all other USA GPA groups was statistically significant (see Appendix: ANOVA Tables).

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 which were number of USA hours earned through Summer 2012 and USA GPA through Summer 2012 to see what happened when these outcomes were used as predictors of retention.

The number of students (selected cases) included in each model varied based on what variables were included in the final model. Some students in the cohort had missing data, typically high school GPA and/or ACT Composite score. Because complete cases were required to compute the results, the final number of students used for each model ranged from a low of 1,649 students for the first and second models to a high of 1,791 students for the third model. The retention rate for this subset of 1,649 students was 67 percent. With a similar retention rate (67% compared to 66%) and 1,649 students representing 90 percent 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 three steps (see Table 4). The final step (step 3) of the first model showed the model correctly classified students in this cohort who *returned* 88.7 percent of the time and students who did not return 24.7 percent of the time for an overall classification rate of 67.4 percent.

Table 4: Input Model Classification Table[a]

Observed			Predicted		
			Returned		Percentage Correct
			No	Yes	
Step 1	Returned	No	47	500	8.6
		Yes	46	1056	95.8
	Overall Percentage				66.9
Step 2	Returned	No	128	419	23.4
		Yes	125	977	88.7
	Overall Percentage				67.0
Step 3	Returned	No	135	412	24.7
		Yes	125	977	88.7
	Overall Percentage				67.4

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=20 years or older, region=Mississippi service area, high school GPA=2.5 or lower, and ACT Composite score=18 or lower). Values greater than "1" (Exp *B*) indicated the odds of the outcome (student *returning*) were higher compared to the selected comparison group. Values less than "1" indicated the odds of the outcome (student *returning*) were lower compared to the selected comparison group.

In the first model (see Table 5), high school GPA, gender, and age were significant in the final step of the model (step 3). The final step of the model showed the odds (Exp *B*) of a student *returning* were greater for students with a higher high school GPA (2.51-3.0=1.017, 3.01-3.5=1.709, and 3.51-4.0=3.184) than for students with a high school GPA of 2.5 or lower. Additionally, the confidence intervals (95%) indicated that except for students with a high school GPA of 2.51-3.0 (CI=.640-1.617), the odds of a student *returning* were greater for students with a higher high school GPA than for students with a high school GPA of 2.5 or lower since the confidence intervals did not encompass an odds value less than one (3.01-3.5 CI=1.085-2.692 and 3.51-4.0 CI=2.025-5.007).

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 lower			89.777	3	.000			
	HS_GPA 2.51-3.0	.067	.233	.084	1	.773	1.070	.677	1.691
	HS_GPA 3.01-3.5	.626	.228	7.529	1	.006	1.870	1.196	2.925
	HS_GPA 3.51-4.0	1.289	.226	32.553	1	.000	3.631	2.331	5.654
	Constant	-.022	.207	.011	1	.917	.979		
Step 2[b]	Gender Female	.329	.109	9.156	1	.002	1.390	1.123	1.721
	HS_GPA 2.5 or lower			81.212	3	.000			
	HS_GPA 2.51-3.0	.033	.234	.020	1	.886	1.034	.653	1.637
	HS_GPA 3.01-3.5	.563	.230	6.004	1	.014	1.756	1.119	2.754
	HS_GPA 3.51-4.0	1.212	.228	28.273	1	.000	3.359	2.149	5.250
	Constant	-.135	.211	.406	1	.524	.874		
Step 3[c]	Gender Female	.309	.110	7.854	1	.005	1.362	1.097	1.690
	Age 20 or older			8.641	3	.034			
	Age 17 years or younger	1.241	.432	8.252	1	.004	3.459	1.483	8.068
	Age 18 years	.962	.366	6.904	1	.009	2.616	1.277	5.360
	Age 19 years	.868	.398	4.754	1	.029	2.383	1.092	5.202
	HS_GPA 2.5 or lower			73.784	3	.000			
	HS_GPA 2.51-3.0	.017	.237	.005	1	.943	1.017	.640	1.617
	HS_GPA 3.01-3.5	.536	.232	5.336	1	.021	1.709	1.085	2.692
	HS_GPA 3.51-4.0	1.158	.231	25.147	1	.000	3.184	2.025	5.007
	Constant	-1.037	.407	6.501	1	.011	.354		

a. Variable(s) entered on step 1: HS_GPA.
b. Variable(s) entered on step 2: Gender.
c. Variable(s) entered on step 3: Age.

When looking at the gender of the student, the final step (step 3) of the first model showed the odds (Exp *B*) of a student *returning* were greater for female students (1.362) than for male students. The confidence intervals (95%) also supported this finding because the odds of a female student *returning* were greater than for male students since the confidence intervals did not encompass an odds value less than one.

In terms of the age of the student, the final step (step 3) of the first model showed the odds (Exp *B*) of a student *returning* were greater for younger students (17 years or younger=3.459, 18 years=2.616, and 19 years=2.383) than for students who were 20 years or older. Additionally, the confidence intervals (95%) indicated in all cases that the odds of a student *returning* were greater for younger students than for students who were 20 years or older since the confidence intervals did not encompass an odds value less than one.

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 took Freshman Seminar=no, whether the student participated in a learning community=no, orientation session attended=August, Adult, or a Transfer orientation session, whether the student lived on or off campus=off campus, and which college housed the major the student selected at initial enrollment=Arts & Sciences). In comparison to the first model, the correct classification rate for the second model (see Table 6) increased to 90.6 percent for *returning* students while the classification rate for the second model increased to 27.6 percent for students who did not return. The overall correct classification rate for the second model was 69.7 percent.

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

Observed			Predicted		
			Returned		Percentage Correct
			No	Yes	
Step 1	Returned	No	151	396	27.6
		Yes	104	998	90.6
	Overall Percentage				69.7

a. The cut value is .500

The second model consisted of one step (see Table 7). Similar to the first model, high school GPA, gender, and age were significant in the final model. Orientation session was also significant in the final version of the second model.

Table 7: Input and Environmental 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]	Gender Female	.341	.113	9.174	1	.002	1.406	1.128	1.753
	Age 20 or older			4.508	3	.212			
	Age 17 years or younger	.940	.444	4.478	1	.034	2.560	1.072	6.114
	Age 18 years	.652	.378	2.974	1	.085	1.920	.915	4.031
	Age 19 years	.669	.408	2.694	1	.101	1.953	.878	4.343
	HS_GPA 2.5 or lower			39.669	3	.000			
	HS_GPA 2.51-3.0	-.058	.242	.057	1	.811	.944	.588	1.515
	HS_GPA 3.01-3.5	.403	.237	2.890	1	.089	1.497	.940	2.382
	HS_GPA 3.51-4.0	.839	.239	12.302	1	.000	2.314	1.448	3.698
	August/Adult/Transfer			54.315	7	.000			
	May Orientation	1.074	.349	9.450	1	.002	2.926	1.476	5.801
	Freshman Session 1	1.526	.260	34.433	1	.000	4.599	2.763	7.656
	Freshman Session 2	1.267	.256	24.519	1	.000	3.551	2.150	5.863
	Freshman Session 3	1.095	.248	19.420	1	.000	2.988	1.836	4.861
	Freshman Session 4	1.021	.243	17.667	1	.000	2.776	1.724	4.468
	Freshman Session 5	.783	.240	10.670	1	.001	2.189	1.368	3.503
	Freshman Session 6	.434	.232	3.493	1	.062	1.543	.979	2.431
	Constant	-1.486	.437	11.561	1	.001	.226		

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

The final version (step 1) of the second model showed that except for students with a high school GPA of 2.51-3.0 (.944) the odds (Exp *B*) of a student *returning* were greater for students with a higher high school GPA (3.01-3.5=1.497 and 3.51-4.0=2.314) than for students with a high school GPA of 2.5 or lower. However, the confidence intervals (95%) only showed that the odds of a student *returning* were greater for students with a high school GPA of 3.51-4.0 (CI=1.448-3.698) than students with a high school GPA of 2.5 or lower, because the confidence intervals did not encompass an odds value less than one.

When looking at the gender of the student, the final step (step 1) of the second model showed the odds (Exp *B*) of a student *returning* were greater for female students (1.406) than for male students. The confidence intervals (95%) also supported this finding because the odds of a female student *returning* were greater than for male students since the confidence intervals did not encompass an odds value less than one.

In terms of the age of the student, the final step (step 1) of the second model showed the odds (Exp *B*) of a student *returning* were greater for younger students (17 years or younger=2.560, 18 years=1.920, and 19 years=1.953) than for students who were 20 years or older. However, the confidence intervals (95%) showed that the odds of a student *returning* were greater only for students who were 17 years or younger (CI=1.072-6.114) than for students who were 20 years or older because the confidence intervals did not encompass an odds value less than one.

In relation to the orientation session attended, the final step (step 1) of the second model showed the odds of a student *returning* were the greatest for students attending the earlier Freshman Summer orientation sessions. Students attending the earlier orientation sessions had greater odds for *returning* than a student who attended the either the August, Adult, or a Transfer orientation session (May=2.926, Summer 1=4.599, Summer 2=3.551, Summer 3=2.988, Summer 4=2.776, Summer 5=2.189, and Summer

6=1.543). Additionally, only the Freshman Session 6 (CI=.979-2.431) orientation session had a confidence interval with an odds ratio that captured 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 2012 and the USA GPA the student attained through the Summer of 2012. 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 2012 has ended.

For the third model a comparison group was selected for the number of hours earned and the USA GPA the student attained through the Summer of 2012 (number of hours earned=0-6 hours and USA GPA=2.0 or lower). Compared to the second model the correct classification rate for the third model (see Table 8) decreased to 89.8 percent for *returning* students. However, in comparison to the other two models the correct classification rate of the third model dramatically increased to 73.5 percent for students who did not return since this snapshot was based on data representing Summer 2012 student success outcomes instead of pre-Fall 2011 student and institutional or other support characteristics. The overall correct classification rate for the third model was 84.4 percent.

Table 8: Outcome Model Classification Table[a]

Observed			Predicted		
			Returned		Percentage Correct
			No	Yes	
Step 1	Returned	No	433	156	73.5
		Yes	123	1079	89.8
	Overall Percentage				84.4

a. The cut value is .500

For the third model (see Table 9) only hours earned at USA was significant. The third model showed the odds (Exp *B*) of a student *returning* were greater for students with more hours earned (6.5-12=2.129, 12.5-18=4.377, 18.5-24=26.528, 24.5-30=56.195, 30.5 or more=100.530) than for students with six or fewer hours earned by Summer 2012. Furthermore, confidence intervals (95%) for all USA hours earned comparison groups did not encompass 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]	USAHoursEarned (0-6)			547.219	5	.000			
	USAHoursEarned (6.5-12)	.756	.295	6.553	1	.010	2.129	1.194	3.798
	USAHoursEarned (12.5-18)	1.476	.273	29.289	1	.000	4.377	2.564	7.471
	USAHoursEarned (18.5-24)	3.278	.269	148.297	1	.000	26.528	15.652	44.961
	USAHoursEarned (24.5-30)	4.029	.268	225.838	1	.000	56.195	33.228	95.038
	USAHoursEarned (30.5 or more)	4.610	.279	272.221	1	.000	100.530	58.135	173.840
	Constant	-2.091	.226	85.588	1	.000	.124		

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

Peer Comparisons
Finally, to gain a better idea about how USA retention rates compared to retention at peer institutions, the National Center for Education Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS) Data Center was used to compare retention at USA to 47 peer institutions (see Table 10). A five

year retention rate trend based on the latest available retention rate data in IPEDS showed USA had lower retention rates than most peer institutions over this five year time period. The USA retention rate over this five year time period ranged from a low of 66% for the 2009 freshman cohort to a high of 72% for the 2005 freshman cohort. The retention rate of peer institutions over this five year time period ranged from a low of 54% for the 2006 and 2009 Auburn University at Montgomery freshman cohorts to a high of 94% for the 2008 and 2009 University of Georgia freshman cohorts.

Table 10: Five Year Retention Rate Peer Comparisons * Ranked by 2009 Cohort Retention Rate * High to Low

Institution Name	2009 Cohort Retention	2008 Cohort Retention	2007 Cohort Retention	2006 Cohort Retention	2005 Cohort Retention
University of Georgia	94	94	93	93	93
Florida State University	92	91	89	89	88
University of South Florida-Main Campus	88	86	88	81	81
Auburn University	87	86	87	86	87
University of Central Florida	87	87	86	84	82
Georgia College & State University	85	84	84	81	84
University of Alabama	85	83	84	87	85
Georgia State University	84	83	82	82	79
Louisiana State University	84	84	85	85	83
Florida International University	83	81	81	84	78
University of Mississippi	83	81	78	80	80
University of North Florida	83	83	78	77	78
Mississippi State University	82	82	84	83	82
Florida Atlantic University	80	79	75	74	73
University of Alabama at Birmingham	80	82	80	75	75
University of Memphis	78	76	75	73	72
Kennesaw State University	77	75	76	75	73
University of Southern Mississippi	77	74	72	73	73
Tennessee Technological University	76	72	71	73	74
University of Alabama in Huntsville	75	76	77	77	77
Louisiana Tech University	74	74	72	72	72
Southern Polytechnic State University	74	75	79	76	72
Middle Tennessee State University	73	73	71	70	81
University of West Florida	73	79	71	73	75
Troy University	73	72	75	68	69
University of Louisiana at Lafayette	73	76	74	75	73
University of West Georgia	73	74	75	73	71
Armstrong Atlantic State University	72	71	69	69	70
East Tennessee State University	72	70	67	69	71
University of Louisiana Monroe	72	72	66	66	63
University of Montevallo	72	79	74	75	70
Northwestern State University of Louisiana	71	69	69	66	63
University of Tennessee-Martin	71	72	71	71	70
Columbus State University	70	66	70	71	67
Augusta State University	69	70	69	64	67
Austin Peay State University	69	67	68	66	64
Louisiana State University-Shreveport	69	62	61	60	64
University of Tennessee at Chattanooga	68	67	61	65	63
Valdosta State University	68	72	71	72	74
Southeastern Louisiana University	67	67	64	62	66
Georgia Southwestern State University	66	69	76	64	65
University of South Alabama	66	67	67	70	72
University of North Alabama	65	71	66	65	68
University of New Orleans	64	69	69	69	79
University of West Alabama	63	65	62	71	62
Clayton State University	60	66	59	61	60
Delta State University	59	63	64	61	64
Auburn University at Montgomery	54	58	61	54	63

Source: National Center for Education Statistics IPEDS Data Center

Implications

Based on what we know about a student before the student steps foot on campus (input variables), retention of students with lower high school GPAs and students with lower ACT Composite scores is a

concern. This prompts further reflection regarding admission standards and the allocation of resources to support at risk students.

When we look at the institutional and other support provided to a student (environmental variables), just like with the Fall 2007, Fall 2008, Fall 2009, and Fall 2010 cohorts, the orientation session students in the Fall 2011 cohort attended provided a significant predictor of student persistence, with students attending the earlier Freshman Summer orientation sessions more likely to persist than students attending the later orientation sessions. The orientation session attended by students continues to provide a key factor for identifying at-risk freshmen students early in their college experience.

Previous IRPA studies have looked at the contribution of freshman scholarships to recruitment and retention goals. As with earlier studies, the importance of awarding freshman scholarships for students was clear. Additional merit based freshman scholarships should also be considered in order to attract top students to the institution since the data suggests students with freshman scholarships are also very likely to return to continue their studies at USA the following year.

For the first time, this annual retention study compared retention of freshmen who participated in a learning community to freshmen who did not participate in a learning community in his/her first fall semester at USA. Freshmen who participated in a learning community were significantly more likely to return to USA the following year. Additionally, freshmen who took Freshman Seminar were also significantly more likely to return to USA. Expanding the number of learning communities for freshmen to participate in, which typically include a Freshman Seminar, should also receive further consideration.

Future Retention Research
This report is the first of two retention studies about the Fall 2011 freshman cohort that will be completed by Institutional Research, Planning & Assessment during the Fall 2012 semester. The second retention study will use National Student Clearinghouse data to explore the issue of "Where did USA Fall 2011 freshmen non returning students go?" This study will determine how many non returning freshmen students transferred to another college or university or "stopped out" of college altogether.

APPENDIX

Independent T-Test Tables

Gender * Group Statistics

Gender T-Test		N	Mean	Std. Deviation	Std. Error Mean
Returned	Male	849	.61	.488	.017
	Female	977	.70	.458	.015

Gender * Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
									Lower	Upper	
Returned	Equal variances assumed	63.366	.000	-4.159	1824	.000	-.092	.022	-.136	-.049	
	Equal variances not assumed			-4.141	1751.057	.000	-.092	.022	-.136	-.049	

Freshman Scholarship * Group Statistics

Freshman Scholarship		N	Mean	Std. Deviation	Std. Error Mean
Returned	No	1040	.58	.493	.015
	Yes	786	.76	.429	.015

Freshman Scholarship * Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
									Lower	Upper	
Returned	Equal variances assumed	251.559	.000	-7.858	1824	.000	-.173	.022	-.217	-.130	
	Equal variances not assumed			-8.011	1788.145	.000	-.173	.022	-.216	-.131	

Other Scholarship * Group Statistics

Other Scholarship		N	Mean	Std. Deviation	Std. Error Mean
Returned	No	1530	.65	.478	.012
	Yes	296	.72	.448	.026

Other Scholarship * Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
									Lower	Upper	
Returned	Equal variances assumed	35.325	.000	-2.567	1824	.010	-.077	.030	-.136	-.018	
	Equal variances not assumed			-2.683	435.263	.008	-.077	.029	-.134	-.021	

Housing * Group Statistics

Housing		N	Mean	Std. Deviation	Std. Error Mean
Returned	Off Campus	804	.66	.475	.017
	On Campus	1022	.66	.474	.015

Housing * Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
									Lower	Upper	
Returned	Equal variances assumed	.061	.804	-.124	1824	.901	-.003	.022	-.047	.041	
	Equal variances not assumed			-.124	1722.540	.901	-.003	.022	-.047	.041	

Learning Community * Group Statistics

Learning Community		N	Mean	Std. Deviation	Std. Error Mean
Returned	No	1379	.64	.480	.013
	Yes	447	.72	.451	.021

Learning Community * Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
									Lower	Upper	
Returned	Equal variances assumed	43.411	.000	-2.961	1824	.003	-.076	.026	-.127	-.026	
	Equal variances not assumed			-3.056	798.435	.002	-.076	.025	-.125	-.027	

Freshman Seminar * Group Statistics

Took Freshman Seminar		N	Mean	Std. Deviation	Std. Error Mean
Returned	No	714	.63	.484	.018
	Yes	1112	.68	.467	.014

Freshman Seminar * Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
									Lower	Upper	
Returned	Equal variances assumed	18.216	.000	-2.227	1824	.026	-.051	.023	-.095	-.006	
	Equal variances not assumed			-2.210	1482.088	.027	-.051	.023	-.096	-.006	

ANOVA Tables

Race * Multiple Comparisons
Dependent Variable: Returned
Games-Howell

(I) Race	(J) Race	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
White	African-American	.041	.026	.601	-.03	.11
	Asian	-.134	.056	.170	-.30	.03
	Hispanic	-.024	.068	.999	-.23	.18
	Non-Resident Alien	-.108	.064	.554	-.30	.08
	Other	.108	.048	.215	-.03	.25
African-American	White	-.041	.026	.601	-.11	.03
	Asian	-.175*	.058	.038	-.34	-.01
	Hispanic	-.065	.070	.937	-.27	.14
	Non-Resident Alien	-.149	.066	.232	-.34	.05
	Other	.067	.050	.761	-.08	.21
Asian	White	.134	.056	.170	-.03	.30
	African-American	.175*	.058	.038	.01	.34
	Hispanic	.110	.085	.793	-.14	.36
	Non-Resident Alien	.026	.082	1.000	-.21	.27
	Other	.242*	.070	.010	.04	.44
Hispanic	White	.024	.068	.999	-.18	.23
	African-American	.065	.070	.937	-.14	.27
	Asian	-.110	.085	.793	-.36	.14
	Non-Resident Alien	-.084	.091	.941	-.35	.18
	Other	.132	.080	.575	-.10	.37
Non-Resident Alien	White	.108	.064	.554	-.08	.30
	African-American	.149	.066	.232	-.05	.34
	Asian	-.026	.082	1.000	-.27	.21
	Hispanic	.084	.091	.941	-.18	.35
	Other	.216	.077	.068	-.01	.44
Other	White	-.108	.048	.215	-.25	.03
	African-American	-.067	.050	.761	-.21	.08
	Asian	-.242*	.070	.010	-.44	-.04
	Hispanic	-.132	.080	.575	-.37	.10
	Non-Resident Alien	-.216	.077	.068	-.44	.01

*. The mean difference is significant at the 0.05 level.

Age * Multiple Comparisons
Dependent Variable: Returned
Games-Howell

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
17 years or younger	18 years old	.037	.045	.960	-.09	.17
	19 years old	.136	.057	.170	-.03	.30
	20 years old	.221	.094	.187	-.06	.50
	21 years old	.072	.158	.997	-.46	.61
	22 years or older	.094	.086	.880	-.16	.35
18 years old	17 years or younger	-.037	.045	.960	-.17	.09
	19 years old	.098	.040	.136	-.02	.21
	20 years old	.184	.084	.268	-.07	.44
	21 years old	.034	.153	1.000	-.49	.56
	22 years or older	.057	.075	.973	-.17	.28
19 years old	17 years or younger	-.136	.057	.170	-.30	.03
	18 years old	-.098	.040	.136	-.21	.02
	20 years old	.086	.091	.935	-.18	.36
	21 years old	-.064	.157	.998	-.60	.47
	22 years or older	-.041	.083	.996	-.29	.20
20 years old	17 years or younger	-.221	.094	.187	-.50	.06
	18 years old	-.184	.084	.268	-.44	.07
	19 years old	-.086	.091	.935	-.36	.18
	21 years old	-.150	.173	.950	-.71	.41
	22 years or older	-.127	.112	.863	-.45	.20
21 years old	17 years or younger	-.072	.158	.997	-.61	.46
	18 years old	-.034	.153	1.000	-.56	.49
	19 years old	.064	.157	.998	-.47	.60
	20 years old	.150	.173	.950	-.41	.71
	22 years or older	.023	.169	1.000	-.53	.57
22 years or older	17 years or younger	-.094	.086	.880	-.35	.16
	18 years old	-.057	.075	.973	-.28	.17
	19 years old	.041	.083	.996	-.20	.29
	20 years old	.127	.112	.863	-.20	.45
	21 years old	-.023	.169	1.000	-.57	.53

Region * Multiple Comparisons
Dependent Variable: Returned
Games-Howell

(I) Region	(J) Region	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Mobile or Baldwin County	Rest of Alabama	.010	.026	.999	-.06	.08
	Mississippi Service Area	.032	.045	.981	-.10	.16
	Florida Service Area	.026	.051	.995	-.12	.17
	Rest of United States	.011	.053	1.000	-.14	.17
	International	-.115	.065	.486	-.31	.08
Rest of Alabama	Mobile or Baldwin County	-.010	.026	.999	-.08	.06
	Mississippi Service Area	.021	.047	.998	-.11	.16
	Florida Service Area	.016	.053	1.000	-.14	.17
	Rest of United States	.001	.055	1.000	-.16	.16
	International	-.126	.066	.412	-.32	.07
Mississippi Service Area	Mobile or Baldwin County	-.032	.045	.981	-.16	.10
	Rest of Alabama	-.021	.047	.998	-.16	.11
	Florida Service Area	-.006	.065	1.000	-.19	.18
	Rest of United States	-.021	.066	1.000	-.21	.17
	International	-.147	.076	.384	-.37	.07
Florida Service Area	Mobile or Baldwin County	-.026	.051	.995	-.17	.12
	Rest of Alabama	-.016	.053	1.000	-.17	.14
	Mississippi Service Area	.006	.065	1.000	-.18	.19
	Rest of United States	-.015	.070	1.000	-.22	.19
	International	-.141	.079	.481	-.37	.09
Rest of United States	Mobile or Baldwin County	-.011	.053	1.000	-.17	.14
	Rest of Alabama	-.001	.055	1.000	-.16	.16
	Mississippi Service Area	.021	.066	1.000	-.17	.21
	Florida Service Area	.015	.070	1.000	-.19	.22
	International	-.126	.081	.625	-.36	.11
International	Mobile or Baldwin County	.115	.065	.486	-.08	.31
	Rest of Alabama	.126	.066	.412	-.07	.32
	Mississippi Service Area	.147	.076	.384	-.07	.37
	Florida Service Area	.141	.079	.481	-.09	.37
	Rest of United States	.126	.081	.625	-.11	.36

High School GPA * Multiple Comparisons
Dependent Variable: Returned
Games-Howell

(I) High School GPA	(J) High School GPA	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
2.24 or lower	2.25-2.5	.094	.104	.892	-.20	.39
	2.51-3.0	.068	.091	.944	-.19	.33
	3.01-3.5	-.066	.090	.946	-.32	.19
	3.51-4.0	-.207	.089	.160	-.46	.05
2.25-2.5	2.24 or lower	-.094	.104	.892	-.39	.20
	2.51-3.0	-.026	.061	.993	-.20	.14
	3.01-3.5	-.161	.060	.062	-.33	.01
	3.51-4.0	-.301[*]	.058	.000	-.46	-.14
2.51-3.0	2.24 or lower	-.068	.091	.944	-.33	.19
	2.25-2.5	.026	.061	.993	-.14	.20
	3.01-3.5	-.134[*]	.033	.000	-.22	-.04
	3.51-4.0	-.275[*]	.030	.000	-.36	-.19
3.01-3.5	2.24 or lower	.066	.090	.946	-.19	.32
	2.25-2.5	.161	.060	.062	-.01	.33
	2.51-3.0	.134[*]	.033	.000	.04	.22
	3.51-4.0	-.140[*]	.026	.000	-.21	-.07
3.51-4.0	2.24 or lower	.207	.089	.160	-.05	.46
	2.25-2.5	.301[*]	.058	.000	.14	.46
	2.51-3.0	.275[*]	.030	.000	.19	.36
	3.01-3.5	.140[*]	.026	.000	.07	.21

*. The mean difference is significant at the 0.05 level.

ACT Composite * Multiple Comparisons
Dependent Variable: Returned
Games-Howell

(I) ACT	(J) ACT	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
18 or lower	19-20	-.046	.039	.840	-.16	.06
	21-23	-.066	.038	.505	-.17	.04
	24-26	-.137*	.037	.004	-.24	-.03
	27-29	-.183*	.043	.000	-.31	-.06
	30 or higher	-.280*	.049	.000	-.42	-.14
19-20	18 or lower	.046	.039	.840	-.06	.16
	21-23	-.019	.035	.994	-.12	.08
	24-26	-.091	.035	.099	-.19	.01
	27-29	-.137*	.041	.011	-.25	-.02
	30 or higher	-.234*	.048	.000	-.37	-.10
21-23	18 or lower	.066	.038	.505	-.04	.17
	19-20	.019	.035	.994	-.08	.12
	24-26	-.072	.034	.282	-.17	.03
	27-29	-.117*	.040	.040	-.23	.00
	30 or higher	-.215*	.047	.000	-.35	-.08
24-26	18 or lower	.137*	.037	.004	.03	.24
	19-20	.091	.035	.099	-.01	.19
	21-23	.072	.034	.282	-.03	.17
	27-29	-.046	.040	.859	-.16	.07
	30 or higher	-.143*	.047	.031	-.28	-.01
27-29	18 or lower	.183*	.043	.000	.06	.31
	19-20	.137*	.041	.011	.02	.25
	21-23	.117*	.040	.040	.00	.23
	24-26	.046	.040	.859	-.07	.16
	30 or higher	-.098	.051	.401	-.24	.05
30 or higher	18 or lower	.280*	.049	.000	.14	.42
	19-20	.234*	.048	.000	.10	.37
	21-23	.215*	.047	.000	.08	.35
	24-26	.143*	.047	.031	.01	.28
	27-29	.098	.051	.401	-.05	.24

*. The mean difference is significant at the 0.05 level.

College * Multiple Comparisons
Dependent Variable: Returned
Games-Howell

(I) College	(J) College	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
AS	AH	-.061	.031	.439	-.15	.03
	BU	.000	.043	1.000	-.13	.13
	CS	.027	.064	1.000	-.17	.22
	ED	.058	.054	.937	-.10	.22
	EG	-.063	.035	.564	-.17	.04
	NU	-.041	.034	.891	-.14	.06
AH	AS	.061	.031	.439	-.03	.15
	BU	.061	.046	.840	-.08	.20
	CS	.088	.066	.836	-.11	.29
	ED	.118	.057	.363	-.05	.29
	EG	-.002	.039	1.000	-.12	.11
	NU	.020	.038	.999	-.09	.13
BU	AS	.000	.043	1.000	-.13	.13
	AH	-.061	.046	.840	-.20	.08
	CS	.027	.073	1.000	-.19	.25
	ED	.057	.064	.973	-.13	.25
	EG	-.063	.049	.858	-.21	.08
	NU	-.042	.048	.978	-.18	.10
CS	AS	-.027	.064	1.000	-.22	.17
	AH	-.088	.066	.836	-.29	.11
	BU	-.027	.073	1.000	-.25	.19
	ED	.030	.080	1.000	-.21	.27
	EG	-.090	.068	.842	-.30	.12
	NU	-.069	.068	.950	-.27	.14
ED	AS	-.058	.054	.937	-.22	.10
	AH	-.118	.057	.363	-.29	.05
	BU	-.057	.064	.973	-.25	.13
	CS	-.030	.080	1.000	-.27	.21
	EG	-.121	.059	.394	-.30	.06
	NU	-.099	.058	.621	-.27	.08
EG	AS	.063	.035	.564	-.04	.17
	AH	.002	.039	1.000	-.11	.12
	BU	.063	.049	.858	-.08	.21
	CS	.090	.068	.842	-.12	.30
	ED	.121	.059	.394	-.06	.30
	NU	.022	.042	.999	-.10	.14
NU	AS	.041	.034	.891	-.06	.14
	AH	-.020	.038	.999	-.13	.09
	BU	.042	.048	.978	-.10	.18
	CS	.069	.068	.950	-.14	.27
	ED	.099	.058	.621	-.08	.27
	EG	-.022	.042	.999	-.14	.10

Orientation * Multiple Comparisons
Dependent Variable: Returned
Games-Howell

(I) Orientation	(J) Orientation	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
August/Adult/Transfer	May Orientation	-.155	.068	.323	-.37	.06
	Freshman Session 1	-.315*	.043	.000	-.45	-.18
	Freshman Session 2	-.275*	.045	.000	-.41	-.14
	Freshman Session 3	-.240*	.045	.000	-.38	-.10
	Freshman Session 4	-.189*	.046	.001	-.33	-.05
	Freshman Session 5	-.130	.046	.096	-.27	.01
	Freshman Session 6	-.013	.046	1.000	-.15	.13
May Orientation	August/Adult/Transfer	.155	.068	.323	-.06	.37
	Freshman Session 1	-.161	.063	.194	-.36	.04
	Freshman Session 2	-.121	.064	.574	-.32	.08
	Freshman Session 3	-.085	.065	.893	-.29	.12
	Freshman Session 4	-.034	.065	1.000	-.24	.17
	Freshman Session 5	.024	.066	1.000	-.18	.23
	Freshman Session 6	.142	.065	.374	-.06	.34
Freshman Session 1	August/Adult/Transfer	.315*	.043	.000	.18	.45
	May Orientation	.161	.063	.194	-.04	.36
	Freshman Session 2	.040	.037	.958	-.07	.15
	Freshman Session 3	.076	.037	.464	-.04	.19
	Freshman Session 4	.127*	.038	.024	.01	.24
	Freshman Session 5	.185*	.039	.000	.07	.30
	Freshman Session 6	.303*	.038	.000	.19	.42
Freshman Session 2	August/Adult/Transfer	.275*	.045	.000	.14	.41
	May Orientation	.121	.064	.574	-.08	.32
	Freshman Session 1	-.040	.037	.958	-.15	.07
	Freshman Session 3	.036	.039	.985	-.08	.15
	Freshman Session 4	.086	.040	.384	-.04	.21
	Freshman Session 5	.145*	.040	.009	.02	.27
	Freshman Session 6	.263*	.040	.000	.14	.38
Freshman Session 3	August/Adult/Transfer	.240*	.045	.000	.10	.38
	May Orientation	.085	.065	.893	-.12	.29
	Freshman Session 1	-.076	.037	.464	-.19	.04
	Freshman Session 2	-.036	.039	.985	-.15	.08
	Freshman Session 4	.051	.041	.918	-.07	.17
	Freshman Session 5	.109	.041	.134	-.02	.23
	Freshman Session 6	.227*	.040	.000	.10	.35
Freshman Session 4	August/Adult/Transfer	.189*	.046	.001	.05	.33
	May Orientation	.034	.065	1.000	-.17	.24
	Freshman Session 1	-.127*	.038	.024	-.24	-.01
	Freshman Session 2	-.086	.040	.384	-.21	.04
	Freshman Session 3	-.051	.041	.918	-.17	.07
	Freshman Session 5	.059	.042	.858	-.07	.19
	Freshman Session 6	.176*	.041	.001	.05	.30
Freshman Session 5	August/Adult/Transfer	.130	.046	.096	-.01	.27
	May Orientation	-.024	.066	1.000	-.23	.18
	Freshman Session 1	-.185*	.039	.000	-.30	-.07
	Freshman Session 2	-.145*	.040	.009	-.27	-.02
	Freshman Session 3	-.109	.041	.134	-.23	.02
	Freshman Session 4	-.059	.042	.858	-.19	.07
	Freshman Session 6	.118	.042	.091	-.01	.24
Freshman Session 6	August/Adult/Transfer	.013	.046	1.000	-.13	.15
	May Orientation	-.142	.065	.374	-.34	.06
	Freshman Session 1	-.303*	.038	.000	-.42	-.19
	Freshman Session 2	-.263*	.040	.000	-.38	-.14
	Freshman Session 3	-.227*	.040	.000	-.35	-.10
	Freshman Session 4	-.176*	.041	.001	-.30	-.05
	Freshman Session 5	-.118	.042	.091	-.24	.01

*. The mean difference is significant at the 0.05 level.

USA Hours Earned * Multiple Comparisons
Dependent Variable: Returned
Games-Howell

(I) USA Hours Earned	(J) USA Hours Earned	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0-6 hours	6.5-12 hours	-.098	.038	.111	-.21	.01
	12.5-18 hours	-.241*	.041	.000	-.36	-.12
	18.5-24 hours	-.656*	.034	.000	-.75	-.56
	24.5-30 hours	-.764*	.027	.000	-.84	-.69
	30.5 or more hours	-.816*	.025	.000	-.89	-.74
6.5-12 hours	0-6 hours	.098	.038	.111	-.01	.21
	12.5-18 hours	-.143*	.047	.030	-.28	-.01
	18.5-24 hours	-.558*	.041	.000	-.68	-.44
	24.5-30 hours	-.666*	.035	.000	-.77	-.56
	30.5 or more hours	-.717*	.033	.000	-.81	-.62
12.5-18 hours	0-6 hours	.241*	.041	.000	.12	.36
	6.5-12 hours	.143*	.047	.030	.01	.28
	18.5-24 hours	-.415*	.044	.000	-.54	-.29
	24.5-30 hours	-.523*	.038	.000	-.63	-.41
	30.5 or more hours	-.574*	.037	.000	-.68	-.47
18.5-24 hours	0-6 hours	.656*	.034	.000	.56	.75
	6.5-12 hours	.558*	.041	.000	.44	.68
	12.5-18 hours	.415*	.044	.000	.29	.54
	24.5-30 hours	-.108*	.031	.006	-.20	-.02
	30.5 or more hours	-.159*	.029	.000	-.24	-.08
24.5-30 hours	0-6 hours	.764*	.027	.000	.69	.84
	6.5-12 hours	.666*	.035	.000	.56	.77
	12.5-18 hours	.523*	.038	.000	.41	.63
	18.5-24 hours	.108*	.031	.006	.02	.20
	30.5 or more hours	-.051	.020	.091	-.11	.00
30.5 or more hours	0-6 hours	.816*	.025	.000	.74	.89
	6.5-12 hours	.717*	.033	.000	.62	.81
	12.5-18 hours	.574*	.037	.000	.47	.68
	18.5-24 hours	.159*	.029	.000	.08	.24
	24.5-30 hours	.051	.020	.091	.00	.11

*. The mean difference is significant at the 0.05 level.

USA GPA * Multiple Comparisons
Dependent Variable: Returned
Games-Howell

(I) USA GPA	(J) USA GPA	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
2.0 or lower	2.01-2.5	-.413*	.033	.000	-.50	-.32
	2.51-3.0	-.526*	.028	.000	-.60	-.45
	3.01-3.5	-.538*	.028	.000	-.61	-.46
	3.51-4.0	-.552*	.027	.000	-.63	-.48
2.01-2.5	2.0 or lower	.413*	.033	.000	.32	.50
	2.51-3.0	-.113*	.033	.007	-.20	-.02
	3.01-3.5	-.125*	.033	.002	-.22	-.03
	3.51-4.0	-.138*	.033	.000	-.23	-.05
2.51-3.0	2.0 or lower	.526*	.028	.000	.45	.60
	2.01-2.5	.113*	.033	.007	.02	.20
	3.01-3.5	-.012	.028	.993	-.09	.06
	3.51-4.0	-.026	.027	.881	-.10	.05
3.01-3.5	2.0 or lower	.538*	.028	.000	.46	.61
	2.01-2.5	.125*	.033	.002	.03	.22
	2.51-3.0	.012	.028	.993	-.06	.09
	3.51-4.0	-.014	.027	.987	-.09	.06
3.51-4.0	2.0 or lower	.552*	.027	.000	.48	.63
	2.01-2.5	.138*	.033	.000	.05	.23
	2.51-3.0	.026	.027	.881	-.05	.10
	3.01-3.5	.014	.027	.987	-.06	.09

*. The mean difference is significant at the 0.05 level.