

2013 Freshman Cohort Retention Report

Executive Summary

This report summarizes the retention of 1,825 students in the University of South Alabama (USA) 2013 first-time full-time baccalaureate degree-seeking freshman cohort. The retention rate for the 2013 freshman cohort was 71%.

Similar to earlier studies, results indicated that retention of students with a lower high school GPA and students with a lower ACT Composite score is a concern. Once again, students attending the earlier freshman summer orientation sessions were more likely to return than students attending the later orientation sessions. The importance of scholarships for students was clear. Freshmen who participated in a learning community or lived on campus were more likely to return to USA the following year. Results also showed students who received a JagAlert during the Fall 2013 semester in multiple courses for lack of attendance and/or poor academic performance and students who were placed on probation after the Fall 2013 semester ended were unlikely to return to USA one year later.

Overview

The following report provides a detailed analysis about the retention of the 1,825 first-time full-time baccalaureate degree-seeking freshmen students in the University of South Alabama (USA) 2013 freshman cohort. Retention in the context of this report is defined as whether freshmen students returned and enrolled one year later in the Fall 2014 semester. Similar to reports written by Institutional Research about the 2007 through 2012 freshman cohorts, the input-environment-outcome (IEO) model developed by Alexander W. Astin¹ was used as a conceptual framework to guide this analysis.

Cross tabular results for each variable and whether the student returned are reported. Comparisons for each subgroup are made to the overall retention rate of the cohort (71%). Significant mean differences for the input, environmental, and outcome variables are also indicated.

Additionally, five logistic regression models were tested. The first model included the input² variables. The second model included the input and the environmental³ variables. The third model included two outcome variables known after the end of the Fall 2013 semester⁴. The fourth model and fifth model tested a different outcome variable known after the end of the Summer 2014 semester⁵. The predictive power of each model for explaining whether the student would return (Yes/No) is reported as well as which variables were significant in each of the five models.

Institutional Research

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 Input variables: Gender, race/ethnicity, age, region, high school GPA, and ACT Composite score.

³ Environmental variables: USA freshman scholarship, other scholarship, Pell Grant, housing, learning community, Freshman Seminar, college, and orientation session attended.

⁴ Outcome variables after Fall 2013: Number of courses received a JagAlert and probation status.

⁵ Outcome variables after Summer 2014: USA hours earned (model 4) and USA GPA (model 5).

Cross Tabular Results

Cross tabular results for each variable and whether the student returned are summarized in the following section. Comparisons are made for each subgroup of the variable to the retention rate (71%) of the 1,825 freshmen in the cohort. These comparisons illustrate which subgroups of students returned at higher, similar, or lower rates than the overall cohort retention rate of 71%. In addition, significant mean differences for the input, environmental, and both sets of outcome variables (after Fall 2013 and after Summer 2014) are reported.

Input Variable Cross Tabular Results

For the input variables included in this analysis (see Table 1), female students (72%) returned at a higher rate than male students (70%). In terms of race/ethnicity, African-American students (69%), and students included in the "Other" race/ethnicity subgroup⁶ (67%) returned at a rate lower than the cohort retention rate (71%). The mean difference between retention of Non-Resident Alien students compared to students in the Multiracial, White, and African-American race/ethnicity subgroups was statistically significant (see Appendix: ANOVA Tables).

Variable	Retention Rate >= 71%	Count	Retention Rate < 71%	Count
Gender				
	Female (72%)	1,027	Male (70%)	798
*Race/Ethnic	ity			
	*Non-Resident Alien (96%)	23	African-American (69%)	459
	Asian (82%)	51	Other (67%)	27
	Hispanic (74%)	54		
	Multiracial (74%)	65		
	White (71%)	1,146		
Age				
	18 years old (72%)	1,531	19 years old (69%)	132
			17 years old or younger (68%)	104
			20 years or older (66%)	58
*Region				
	*International (96%)	23	Mississippi Service Area (70%)	165
	Mobile or Baldwin County (72%)	798	Rest of United States (66%)	122
	Rest of Alabama (71%)	636	Florida Service Area (64%)	81
*High School	GPA			
	*3.51-4.0 (81%)	835	3.01-3.5 (66%)	546
			2.51-3.0 (59%)	333
			2.5 or lower (44%)	66
*ACT Compo	site Score			
	*30 or higher (82%)	116	18 or lower (67%)	208
	27-29 (77%)	226	19-20 (65%)	329
	24-26 (74%)	394		
	21-23 (71%)	420		
Note: *Signific	ant mean difference at .05 p level based on	Independe	nt T-Test for two group comparisons or	at least
one group with	significant mean difference at .05 p level b	ased on Ga	mes-Howell procedure for multiple gro	up
comparisons. S	ignificantly different group indicated by ora	ange fill co	for. Comparison group indicated by "*"	and gray

	Table 1: Comparison	n of Input `	Variables to 2013	Cohort Retention Rate
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fill color. Retention comparisons based on age showed students who were 20 or older (66%) returned at a lower rate than younger students. Comparisons based on what region the student came from showed that only

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

international students (96%) and students from the Mobile or Baldwin County area (72%) returned at a rate higher than the overall cohort (71%). The mean difference between retention of international students compared to students from all other regions was statistically significant (see Appendix: ANOVA Tables).

Finally, for the most part, as high school GPA or ACT Composite score decreased, retention also decreased. Students who had a high school GPA ranging between 3.01-3.5 or lower returned at a rate lower than the rate for the overall cohort (71%). Similarly, students who had an ACT Composite score of 19-20 or lower returned at a rate lower than the cohort retention rate (71%). 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). The mean difference between retention of students with an ACT Composite score of 30 or higher in comparison to students with an ACT Composite score of 19-20 or lower was also statistically significant (see Appendix: ANOVA Tables). The mean difference between retention of students with an ACT Composite score of 30 or higher in comparison to students with an ACT Composite score of 19-20 or lower was also statistically significant (see Appendix: ANOVA Tables).

Environmental Variable Cross Tabular Results

For the environmental variables included in this analysis, retention rates illustrated that receiving scholarships positively affected retention (see Table 2). Students receiving a USA freshman scholarship (78%) or some other type of scholarship⁷ (82%) returned at a rate higher than the cohort retention rate (71%). Additionally, the mean difference between students who received a USA freshman scholarship compared to students who did not receive a USA freshman scholarship was statistically significant (see Appendix: Independent T-Test Tables). Similarly, the mean difference between students who did not received some other type of scholarship compared to students who did not received to students who did not received some other type of scholarship compared to students who did not receive this other type of scholarship was statistically significant (see Appendix: Independent T-Test Tables).

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

Variable	Retention Rate >= 71%	Count	Retention Rate < 71%	Count
*USA Freshman Schola	rship			
	*Yes (78%)	960	No (63%)	865
*Other Scholarship				
	*Yes (82%)	235	No (69%)	1,590
*Pell Grant				
	No (73%)	1,062	*Yes (68%)	763
*Housing				
	*On campus (73%)	1,063	Off campus (68%)	762
*Learning Community				
	*Yes (74%)	839	No (69%)	986
Freshman Seminar				
	No (72%)	590		
	Yes (71%)	1,235		
College ⁸				
	Business (78%)	138	Arts & Sciences (69%)	631
	Computing (76%)	71		
	Education (72%)	93		
	Nursing (72%)	254		
	Allied Health (71%)	353		
	Engineering (71%)	282		
*Orientation Session				
	May Session (83%)	40	Summer Session 5 (65%)	217
	Summer Session 1 (79%)	312	Summer Session 6 (61%)	175
	Summer Session 2 (75%)	307	*August/Other Orientation (59%)	151
	Summer Session 3 (74%)	327		
	Summer Session 4 (71%)	296		
Note: *Significant mean di	fference at .05 p level based on In	ndependen	t T-Test for two group comparisons or at	least one
group with significant mea	n difference at .05 p level based o	on Games-l	Howell procedure for multiple group	
comparisons. Significantly	different group indicated by orar	ige fill colo	or. Comparison group indicated by "*" and	id gray
till color				

On the other hand, students receiving a Pell Grant (68%) returned at a lower rate than the overall cohort (71%). The mean difference between students who received a Pell Grant compared to students who did not receive a Pell Grant was statistically significant (see Appendix: Independent T-Test Tables).

Students who lived on campus (73%) or participated in a learning community (74%) returned at a higher rate than the overall cohort (71%). In both of these comparisons, the mean difference between retention of 1) students who lived on campus and students who did not live on campus and 2) 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).

A comparison of students who took freshman seminar (71%) to students who did not take freshman seminar (72%) showed almost no difference in retention. Retention comparisons based on the college housing the major the student initially selected showed Business (78%), Computing (76%), Education (72%), and Nursing (72%) students returned at a higher rate than the overall cohort (71%). However, no college based comparison was statistically significant (see Appendix: ANOVA Tables).

Finally, in terms of the orientation session attended, the retention rate of students who attended the May Orientation session or one of the first three Freshman Summer orientation sessions was higher than the

⁸ Continuing Education retention is not reported since there were only three students from Continuing Education in this cohort. Institutional Research
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retention rate of the overall cohort (71%). Retention rates based on the orientation session attended ranged from a high of 83% for students who attended the May orientation session to a low of 59% for students who attended either the August, Adult, a Transfer, or an unknown⁹ orientation session (AATU). When using the AATU students as a comparison group, there was a significant mean difference between the AATU group in comparison to the May orientation session and the first three Freshman Summer orientation sessions (see Appendix: ANOVA Tables).

Outcome Variable After Fall 2013 Cross Tabular Results

Outcome variables incorporated into this analysis included whether the student received a JagAlert during Fall 2013 and whether the student was placed on probation after Fall 2013 (see Table 3). Students who did not receive a JagAlert or who only received a JagAlert in one course during Fall 2013 returned at a higher rate (at least 75%) than the overall cohort (71%). The mean difference for students who did not receive a JagAlert during Fall 2013 compared to students who received a JagAlert during Fall 2013 in one or multiple courses was statistically significant (see Appendix: ANOVA Tables).

Variable	Retention Rate >= 71%	Count	Retention Rate < 71%	Count		
*Number of Courses with JagAlert during Fall 2013						
	*No JagAlert (83%)	787	Multiple Course JagAlert (51%)	538		
	1 Course JagAlert (75%)	500				
*Probation Status after Fall 2013						
No (81%) 1,443 *Yes (34%) 382						
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.						

Table 3: Comparison of Outcome Variables After Fall 2013 to 2013 Cohort Retention Rate

Students who were not on probation after Fall 2013 returned at a much higher rate (81%) compared to students who were placed on probation after the Fall 2013 semester ended (34%). The mean difference between students who were not on probation compared to students who were placed on probation was statistically significant (see Appendix: Independent T-Test Tables).

Outcome Variable After Summer 2014 Cross Tabular Results

Outcome variables incorporated into this analysis also included the number of hours earned after Summer 2014 at USA and the USA GPA after Summer 2014 (see Table 4). Unsurprisingly, as the number of USA hours earned increased the retention rate also increased. Similarly, students with a higher USA GPA were more likely to return than students with a lower USA GPA.

⁹ Eleven students attended the Adult orientation session or a Transfer orientation session held in the evening to accommodate adult/working students while 64 students either attended an unknown orientation session or did not attend any of the orientation sessions held for new 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.

Variable	Retention Rate >= 71%	Count	Retention Rate < 71%	Count
*USA Hours Earned aft	ter Summer 2014			
	*30.5 or more (96%)	635	12.5-18 (43%)	164
	24.5-30 (87%)	466	6.5-12 (19%)	138
	18.5-24 (72%)	235	0-6 (11%)	153
*USA GPA after Summ	er 2014			
	3.51-4.0 (90%)	360	*2.0 or lower (37%)	446
	3.01-3.5 (87%)	396		
	2.51-3.0 (83%)	328		
	2.01-2.5 (72%)	261		
Note: *At least one group multiple group comparison by "*" and gray fill color	with significant mean difference a ns. Significantly different group ir	at .05 p level b adicated by ora	based on Games-Howell procedure ange fill color. Comparison group in	for ndicated

	Table 4: Comparison	of Outcome	Variables After	Summer 2014 to	o 2013 Cohort	Retention Rate
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Students who completed 18.5-24 or more hours at USA after Summer 2014 returned at a higher rate (at least 72%) compared to students completing 12.5-18 or fewer hours (at most 43%). 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).

Students with a USA GPA ranging between 2.01-2.5 or higher after Summer 2014 returned at a much higher rate (at least 72%) compared to students with a USA GPA of 2.0 or lower (37%). 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 this study was to determine which student characteristics (inputs) and environmental characteristics (institutional/other support characteristics) can be used to best predict the retention 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, five 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 two outcome variables known after the Fall 2013 semester: 1) whether the student received a JagAlert during Fall 2013 and 2) whether the student was placed on probation after Fall 2013 to see what happened when these outcomes were used as predictors of retention. The fourth and fifth models tested a different outcome variable known after the Summer 2014 semester. The fourth model tested the number of USA hours earned after Summer 2014 and the fifth model tested the USA GPA after Summer 2014 to see what happened when these outcomes were used as individual 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 1,684 students for the first and second models to a high of 1,825 students for the third model. The retention rate for this subset of 1,684 students was 72%. With a similar retention rate (72% compared to 71%) and 1,684 students representing 92% 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 only one step (see Table 5). The final step (step 1) of the first model showed the model correctly classified students in this cohort who *returned* 98.2% of the time and students who did not return 6.1% of the time for an overall classification rate of 72.1%.

			Predicted			
Observed		Retu	rned	Percentage		
			No	Yes	Correct	
Step 1	Returned	No	29	448	6.1	
		Yes	22	1185	98.2	
	Overall Per	centage			72.1	

Table 5	Innut	Model	Classification	Table
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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=Florida 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*) was higher compared to the selected comparison group. Values less than "1" indicated the odds of the outcome (student *returning*) was lower compared to the selected comparison group.

In the first model (see Table 6), high school GPA was significant in the first step. The first step of the model showed the odds (Exp *B*) of a student *returning* was greater for a student in the three higher high school GPA comparison groups (2.51-3.0=1.875, 3.01-3.5=2.659, and 3.51-4.0=5.692) than for a student with a high school GPA of 2.5 or lower. Additionally, the confidence intervals (95%) indicated the odds of a student *returning* was greater for a student in the three higher high school GPA comparison groups than for a student in the three higher high school GPA comparison groups than for a student with a high school GPA of 2.5 or lower since the confidence intervals for the three higher high school GPA comparison groups did not encompass an odds value less than one.

		В	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1 ^a	HS GPA 2.5 or lower			82.920	3	.000			
	HS GPA 2.51-3.0	.629	.306	4.217	1	.040	1.875	1.029	3.418
	HS GPA 3.01-3.5	.978	.298	10.788	1	.001	2.659	1.484	4.767
	HS GPA 3.51-4.0	1.739	.297	34.394	1	.000	5.692	3.183	10.179
	Constant	276	.283	.955	1	.329	.759		

Table 6: Input Model Final Variables in the Equation

a. Variable(s) entered on step 1: HS GPA.

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 USA freshman scholarship=no, whether the student received some other type of scholarship=no, whether the student received a Pell Grant=no, whether the student lived on or off campus=off campus, whether the student participated in a learning community=no, whether the student took Freshman Seminar=no, which college housed the major the student selected at initial enrollment=Arts & Sciences, and orientation session attended=either the August, Adult, a transfer, or an unknown orientation session).

The second model consisted of three steps (see Table 7). In comparison to the first model, the correct classification rate for the second model increased to 98.7% for *returning* students while the classification rate for the second model decreased to 5.0% for students who did not return. The overall correct classification rate for the second model was 72.1%.

	Predicted				
	Retu	rned	Percentage		
	No	Yes	Correct		
No	25	452	5.2		
Yes	16	1191	98.7		
ercentage			72.2		
No	25	452	5.2		
Yes	16	1191	98.7		
ercentage			72.2		
No	24	453	5.0		
Yes	16	1191	98.7		
ercentage			72.1		
	I No Yes Percentage I No Yes I No Yes Percentage	RetuNoYesYes10Percentage10Yes16Percentage10Percentage10Yes16Percentage10Percentage11No24Yes16Percentage	Predicte Returned No Yes No 25 452 Yes 16 1191 Percentage		

Table 7: Input and E	Environmental Model	Classification	Table ^a
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a. The cut value is .500

Once again, high school GPA was significant in the final step (step 3) of the second model (see Table 8). In addition, received USA freshman scholarship, received some other type of scholarship, and housing on campus were significant in the final step of the second model (step 3).

								95% (EXF	C.I. for P(B)
		В	S.E.	Wald	Df	Sig.	Exp(B)	Lower	Upper
Step 1 ^a	HS GPA 2.5 or lower			84.797	3	.000			
	HS GPA 2.51-3.0	.677	.309	4.788	1	.029	1.967	1.073	3.606
	HS GPA 3.01-3.5	1.045	.301	12.042	1	.001	2.843	1.576	5.129
	HS GPA 3.51-4.0	1.803	.300	36.165	1	.000	6.068	3.372	10.920
	Received Other Scholarship	.666	.190	12.271	1	.000	1.946	1.341	2.824
	Constant	409	.288	2.023	1	.155	.664		
Step 2 ^b	HS GPA 2.5 or lower			86.482	3	.000			
	HS GPA 2.51-3.0	.683	.310	4.871	1	.027	1.980	1.080	3.632
	HS GPA 3.01-3.5	1.058	.301	12.333	1	.000	2.882	1.596	5.203
	HS GPA 3.51-4.0	1.826	.300	36.975	1	.000	6.209	3.447	11.185
	No Other Scholarship	.657	.190	11.898	1	.001	1.929	1.328	2.802
	Housing On Campus	.271	.113	5.782	1	.016	1.312	1.051	1.636
	Constant	579	.297	3.807	1	.051	.561		
Step 3 ^c	HS GPA 2.5 or lower			48.213	3	.000			
	HS GPA 2.51-3.0	.634	.310	4.167	1	.041	1.885	1.026	3.463
	HS GPA 3.01-3.5	.930	.306	9.229	1	.002	2.534	1.391	4.617
	HS GPA 3.51-4.0	1.592	.315	25.504	1	.000	4.912	2.648	9.110
	Received USA Freshman Scholarship	.314	.130	5.861	1	.015	1.369	1.062	1.766
	Received Other Scholarship	.675	.191	12.466	1	.000	1.963	1.350	2.855
	Housing On Campus	.302	.114	7.040	1	.008	1.352	1.082	1.690
	Constant	608	.297	4.185	1	.041	.544		

Table 8: Input and Environmental Model Final Variables in the Equation

a. Variable(s) entered on step 1: Received Other Scholarship.

b. Variable(s) entered on step 2: Housing On Campus.

c. Variable(s) entered on step 3: Received USA Freshman Scholarship.

The final step (step 3) of the second model showed the odds (Exp *B*) of a student *returning* was greater for a student in the three higher high school GPA comparison groups (2.51-3.0=1.885, 3.01-3.5=2.534, and 3.51-4.0=4.912) than for a student with a high school GPA of 2.5 or lower. Additionally, the confidence intervals (95%) indicated the odds of a student *returning* was greater for a student in the three higher high school GPA comparison groups than for a student with a high school GPA of 2.5 or lower since the confidence intervals for the three higher high school GPA comparison groups did not encompass an odds value less than one.

When considering the impact of USA freshman scholarships, the final step (step 3) of the second model showed the odds (Exp *B*) of a student *returning* was greater for a student who received a USA freshman scholarship (1.369) than for a student who did not receive a USA freshman scholarship. The confidence interval (95%) also supported this finding because the odds for a student *returning* who received a USA freshman scholarship did not encompass an odds value less than one.

Similarly, a review of the impact of other scholarships showed in the final step (step 3) of the second model the odds (Exp *B*) of a student *returning* was greater for a student who received some other type of scholarship (1.963) than for a student who did not receive some other type of scholarship. The confidence interval (95%) also supported this finding because the odds for a student *returning* who received some other type of scholarship did not encompass an odds value less than one.

Lastly, when considering the impact of housing, the final step (step 3) of the second model showed the odds (Exp *B*) of a student *returning* was greater for a student who lived in housing on campus (1.352) than for a student who did not live on campus. The confidence interval (95%) also supported this finding because the odds for a student *returning* who lived in housing on campus did not encompass an odds value less than one.

Model 3, Model 4, and Model 5: Logistic Regression Outcome Variable Models

Since outcomes of student success are different from inputs (student characteristics or institutional/other support characteristics), the third, fourth, and fifth models only included outcomes of interest at two different points in time after the Fall 2013 semester had already begun. The third model included outcomes known after the Fall 2013 semester ended (number of courses the student received a JagAlert during Fall 2013 and probation status after Fall 2013). The fourth model (number of hours earned after Summer 2014) and fifth model (USA GPA the student attained after Summer 2014) included a different outcome variable known after the Summer 2014 semester ended. 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, the third, fourth, and fifth models can only be used after the Fall 2013 semester (third model) or Summer 2014 semester (fourth and fifth models) ended.

Model 3: Logistic Regression with Outcome Variables After Fall 2013

The third model included outcome variables known after Fall 2013. For each outcome variable included in the third model a comparison group was selected (JagAlert during Fall 2013=received a JagAlert in multiple courses and whether the student was placed on probation=yes).

The third model (see Table 9) consisted of two steps. In comparison to the first and second model, the correct classification rate for the third model decreased to 89.9% for *returning* students. However, in comparison to the previous two models, the classification rate for the third model dramatically increased to 47.5% for students who did not return since this snapshot included data known after the end of the Fall 2013 semester instead of pre-Fall 2013 semester data based on student characteristics and institutional or other support characteristics. The overall correct classification rate for the third model was 77.6%.

				Predicted							
Observed	b		Retu	rned	Percentage						
			No	Yes	Correct						
Step 1	Returned	No	251	277	47.5						
		Yes	131	1166	89.9						
	Overall Per	centage			77.6						
Step 2	Returned	No	251	277	47.5						
		Yes	131	1166	89.9						
	Overall Per	centage			77.6						

Table 9: End of Fall 2013 Outcome Model Classification Table^a

a. The cut value is .500

In the final step (step 2) of the third model, the probation status and JagAlert variables were significant (see Table 10). The final step (step 2) of the third model showed the odds (Exp B) of a student *returning* was much greater for a student who was not on probation (5.743) than for a student who was placed on probation after Fall 2013. The confidence interval (95%) also supported this finding because the odds for a student *returning* who was not on probation did not encompass an odds value less than one.

The final step (step 2) of the third model also showed the odds (Exp B) of a student *returning* was greater for a student who did not receive a JagAlert (2.267) and for a student who received a JagAlert in only one course (1.749) than for a student who received a JagAlert in multiple courses during Fall 2013. The confidence intervals (95%) also supported this finding because the odds for a student *returning* who did not receive a JagAlert or who received a JagAlert in only one course did not encompass an odds value less than one.

Table 10: End of Fall 2013 Outcome Model Final Variables in the Equation
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								95% (EXF	C.I. for P(B)
		В	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1 ^a	Not On Probation After Fall 2013	2.088	.127	270.926	1	.000	8.065	6.290	10.341
Step 2 ^b	Constant Multiple Course JagAlert During Fall 2013	650	.108	36.396 32.775	1 2	.000 .000	.522		
	No JagAlert During Fall 2013	.818	.146	31.581	1	.000	2.267	1.704	3.016
	1 Course JagAlert During Fall 2013	.559	.148	14.215	1	.000	1.749	1.308	2.339
	Not On Probation After Fall 2013	1.748	.138	159.307	1	.000	5.743	4.378	7.533
	Constant	868	.118	53.742	1	.000	.420		

a. Variable(s) entered on step 1: Probation Status After Fall 2013.

b. Variable(s) entered on step 2: Received JagAlert During Fall 2013.

Model 4: Logistic Regression with USA Hours Earned After Summer 2014 Outcome Variable

The fourth model included the USA hours earned after the end of the Summer 2014 semester. The comparison group selected for the fourth model was zero to six hours earned after the end of the Summer 2014 semester. Since the fourth model only included one variable, the model consisted of one step (see Table 11). The correct classification rate for the fourth model for *returning* students (91.3%) was lower than the first and second models, but higher than the third model. However, in comparison to the other three models, the correct classification rate was much higher for students who did not return (69.0%) since this snapshot included data known after the end of the Summer 2014 semester instead of pre-Fall 2013 semester data based on student characteristics and institutional or other support characteristics. The overall correct classification rate for the fourth model was 85.1%.

			Predicted						
Observed			Retu	Irned	Percentage Correct				
			No	Yes					
Step 1	Returned	No	343	154	69.0				
		Yes	112	1182	91.3				
	Overall Per	centage			85.1				

Table 11: USA Hours Earned Outcome Model Classification Table^a

a. The cut value is .500

The fourth model showed the odds (Exp *B*) of a student *returning* was greater for a student with more hours earned (6.5-12=1.988, 12.5-18=6.376, 18.5-24=21.925, 24.5-30=55.794, 30.5 or more=200.560) than for a student with six or fewer hours earned at the end of Summer 2014 (see Table 12). Additionally, the confidence intervals (95%) indicated the odds of a student *returning* was greater for a student in the five higher USA hours earned comparison groups than for a student with zero to six USA hours earned since the confidence intervals for the five higher USA hours earned comparison groups did not encompass an odds value less than one.

Table 12: USA Hours Earned After Summer 2014 Model Final Variables in the Equation

								95% C.I.for EXP(B	
		В	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1 ^a	USA Hours Earned 0-6			480.899	5	.000		-	
	USA Hours Earned 6.5-12	.687	.342	4.027	1	.045	1.988	1.016	3.888
	USA Hours Earned 12.5-18	1.853	.308	36.233	1	.000	6.376	3.488	11.656
	USA Hours Earned 18.5-24	3.088	.301	104.916	1	.000	21.925	12.144	39.585
	USA Hours Earned 24.5-30	4.022	.297	182.955	1	.000	55.794	31.153	99.925
	USA Hours Earned 30.5 or more	5.301	.332	255.697	1	.000	200.560	104.727	384.089
	Constant	-2.147	.264	66.065	1	.000	.117		

a. Variable(s) entered on step 1: USA Hours Earned After Summer 2014.

Model 5: Logistic Regression with USA GPA After Summer 2014 Outcome Variable

The fifth model included the USA GPA after the end of the Summer 2014 semester. The comparison group selected for the fifth model was an USA GPA of 2.0 or lower after the end of the Summer 2014 semester. Since the fifth model only included one variable, the model consisted of one step (see Table 13). The correct classification rate for the fifth model for *returning* students (87.2%) was lower than the other four models. The correct classification rate for the fifth models, but lower than the fourth model. The overall correct classification rate for the fifth models, but lower than the fourth model. The overall correct classification rate for the fifth model was 78.7%.

			Predicted						
Observed			Retu	Irned	Percentage				
			No	Yes	Correct				
Step 1	Returned	No	281	216	56.5				
		Yes	165	1129	87.2				
	Overall Per	centage			78.7				

Table 13: USA GPA Outcome Model Classification Table^a

a. The cut value is .500

The fifth model showed the odds (Exp *B*) of a student *returning* was greater for a student with a higher USA GPA (2.01-2.5=4.386, 2.51-3.0=8.097, 3.01-3.5=11.520, 3.51-4.0=15.814) than for a student with an USA GPA of 2.0 or lower at the end of Summer 2014 (see Table 14). In addition, the confidence intervals (95%) indicated the odds of a student *returning* was greater for a student in the four higher USA GPA comparison groups than for a student with an USA GPA of 2.0 or lower since the confidence Institutional Research Page 11

intervals for the four higher USA GPA comparison groups did not encompass an odds value less than one.

								95% C.I.for EXP(B	
		В	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1 ^a	USA GPA 2.0 or lower			332.201	4	.000			
	USA GPA 2.01-2.5	1.478	.169	76.322	1	.000	4.386	3.148	6.111
	USA GPA 2.51-3.0	2.091	.176	141.777	1	.000	8.097	5.739	11.424
	USA GPA 3.01-3.5	2.444	.179	185.950	1	.000	11.520	8.108	16.370
	USA GPA 3.51-4.0	2.761	.203	184.709	1	.000	15.814	10.620	23.548
	Constant	532	.098	29.468	1	.000	.587		

Table 14: USA GPA After Summer 2014 Model Final Variables in the Equation

a. Variable(s) entered on step 1: USA GPA After Summer 2014.

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 USA retention rates to 13 peer institutions (see Table 15). A five year retention rate trend based on the latest available retention rate data in IPEDS showed the USA retention rate was low compared to the other peer institutions over this five year time period. The USA retention rate over this five year time period ranged from a low of 65% for the 2010 freshman cohort to a high of 67% for the 2007 and 2008 freshman cohorts. The retention rate of peer institutions over this five year time period ranged from a low of 60% for the University of Texas at Arlington 2007 freshman cohort to a high of 83% for the Florida International University 2009 freshman cohort and the University of North Florida 2008, 2009, and 2011 freshman cohorts.

Table 15: Five Year Retention Rate Peer Comparisons * Ranked by 2011 Cohort Retention Rate * High to Low

	2011	2010	2009	2008	2007
	Cohort	Cohort	Cohort	Cohort	Cohort
Institution Name	Retention	Retention	Retention	Retention	Retention
University of North Florida	83	81	83	83	78
Florida International University	82	82	83	81	81
Old Dominion University	80	80	80	80	80
University of Massachusetts-Boston	79	75	75	77	75
Florida Atlantic University	78	79	80	79	75
Texas State University - San Marcos	76	79	79	79	77
University of Memphis	76	77	78	76	75
University of North Texas	76	78	78	76	75
The University of Montana	74	72	74	73	72
Indiana University-Purdue University-Indianapolis	72	72	74	72	68
University of Texas at Arlington	72	71	70	65	60
University of Nebraska at Omaha	72	73	73	72	69
University of South Alabama	66	65	66	67	67
University of New Orleans	65	67	64	69	69

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 support and other support provided to a student (environmental variables), just like with the 2007 through 2012 freshman cohorts, the orientation session students in the 2013 cohort attended provided a significant predictor of student retention, with students attending the earlier Freshman Summer orientation sessions more likely to return 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 Institutional Research studies have looked at the contribution of USA freshman scholarships to recruitment and retention goals. As with earlier studies, the importance of awarding USA freshman scholarships for students was clear. Additional USA freshman scholarships should also be considered in order to attract top students to the institution since the data suggests students with USA freshman scholarships are more likely to return to continue their studies at USA the following year.

This annual retention study also compared retention of freshmen who participated in a learning community to freshmen who did not participate in a learning community. Freshmen who participated in a learning community were significantly more likely to return to USA the following year. Additionally, freshmen who lived on campus were also significantly more likely to return to USA. Therefore, expanding the number of learning communities for freshmen to participate in and on campus housing for freshmen to live in should also receive further consideration.

Finally, results showed students who received a JagAlert during the Fall 2013 semester in multiple courses for lack of attendance and/or poor academic performance were unlikely to return to USA one year later. A JagAlert is recorded in the middle of the semester which allows time to intervene before the semester concludes. As a result, interventions to assist students who receive a JagAlert are also important, because students who were placed on probation after the Fall 2013 semester ended (34%) or who had a USA GPA of 2.0 or lower due to poor academic performance after the Summer 2014 semester was completed (37%) were less likely to return to USA one year later than students who received a JagAlert in multiple courses during the Fall 2013 semester (51%).

Future Retention Research

This report is the first of two retention studies about the 2013 freshman cohort that will be completed by the Office of Institutional Research during the Fall 2014 semester. The second retention study will use National Student Clearinghouse data to explore the issue of "Where did non-returning freshmen in the 2013 cohort go?" This study will determine how many non returning freshmen students transferred to another college or university or "stopped out" of college altogether.

A P P E N D I X

Independent T-Test Tables

	Gender * Group Statistics										
	Gender T-Test	N	Mean	Std. Deviation	Std. Error Mean						
Returned	Male	798	.70	.459	.016						
	Female	1027	.72	.449	.014						

Gender * Independent Samples Test

	Levene's Equalit Varian	Test for y of ces			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	4.379	.037	-1.054	1823	.292	023	.021	065	.019
Equal variances not assumed			-1.051	1694.054	.294	023	.021	065	.020

USA Freshman Scholarship * Group Statistics

	USA Freshman Scholarship	Ν	Mean	Std. Deviation	Std. Error Mean
Returned	No	865	.63	.482	.016
	Yes	960	.78	.415	.013

USA Freshman Scholarship * Independent Samples Test

		Levene's for Equa Variar	s Test ality of nces			t-test	for Equality	of Means		
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Cor Interva Differ	nfidence I of the ence
									Lower	Upper
Returned	Equal variances assumed	179.619	.000	-6.881	1823	.000	144	.021	186	103
	Equal variances not assumed			-6.828	1714.902	.000	144	.021	186	103

	Other	Scholarship	Group Sta	ITISTICS	
	Other Scholarship	N	Mean	Std. Deviation	Std. Error Mean
Returned	No	1590	.69	.461	.012
	Yes	235	.82	.384	.025

Other Scholarship * Group Statistics

Other Scholarship * Independent Samples Test

		Levene for Equ Varia	e's Test ality of inces			t-test	for Equality	of Means		
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Cor Interval Differ	nfidence of the ence
									Lower	Upper
Returned	Equal variances assumed	98.061	.000	-4.021	1823	.000	127	.032	189	065
	Equal variances not assumed			-4.602	341.976	.000	127	.028	181	073

Pell Grant * Group Statistics

	Pell Grant	Ν	Mean	Std. Deviation	Std. Error Mean
Returned	No	1062	.73	.443	.014
	Yes	763	.68	.467	.017

Pell Grant * Independent Samples Test

		Levene for Equ Varia	e's Test uality of ances			t-test	for Equality	of Means		
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Cor Interval Differ	nfidence of the ence
									Lower	Upper
Returned	Equal variances assumed	22.727	.000	2.436	1823	.015	.052	.021	.010	.095
	Equal variances not assumed			2.415	1589.076	.016	.052	.022	.010	.095

		Housing *	Group Stati	ISTICS								
	Housing N Mean Std. Deviation Std. Error Mean											
Returned	Off Campus	762	.68	.466	.017							
	On Campus	1063	.73	.444	.014							

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Housing * Independent Samples Test

		Leven for Equ Varia	e's Test uality of ances			t-test	for Equality	of Means		
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Cor Interva Differ Lower	nfidence of the ence Upper
Returned	Equal variances assumed	19.56 6	.000	-2.257	1823	.024	049	.022	091	006
	Equal variances not assumed			-2.239	1590.531	.025	049	.022	091	006

Learning Community * Group Statistics

	Learning Community	Ν	Mean	Std. Deviation	Std. Error Mean
Returned	No	986	.69	.464	.015
	Yes	839	.74	.439	.015

Learning Community * Independent Samples Test

		Levene's Equal Variai	Test for ity of nces			t-test	for Equality	of Means		
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Cor Interval Differ	nfidence of the ence
									Lower	Upper
Returne	Equal variances assumed	24.676	.000	-2.461	1823	.014	052	.021	094	011
d	Equal variances not assumed			-2.472	1802.317	.014	052	.021	094	011

	Freshman	Seminar	Group Statis	STICS	
	Took Freshman Seminar	Ν	Mean	Std. Deviation	Std. Error Mean
Returned	No	590	.72	.450	.019
	Yes	1235	.71	.455	.013

Freshman Seminar * Group Statistics

Freshman Seminar * Independent Samples Test

		Levene for Equ Varia	e's Test ality of inces			t-test	for Equality	of Means		
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Cor Interval Differ	nfidence of the ence
									Lower	Upper
Returned	Equal variances assumed	1.095	.296	.518	1823	.604	.012	.023	033	.056
	Equal variances not assumed			.520	1172.241	.603	.012	.023	033	.056

Probation After Fall 2013 * Group Statistics

	Probation After Fall 2013	Ν	Mean	Std. Deviation	Std. Error Mean
Returned	No	1443	.81	.394	.010
	Yes	382	.34	.475	.024

Probation After Fall 2013 * Independent Samples Test

	Levene's Test for Equality of Variances					t-test	for Equality	of Means		
						Sig. (2-	Mean	Std. Error	95% Cor Interva Differ	nfidence I of the rence
		F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper
Returned	Equal variances assumed	116.20 8	.000	19.605	1823	.000	.465	.024	.419	.512
	Equal variances not assumed			17.592	527.586	.000	.465	.026	.413	.517

ANOVA Tables

Race * Multiple Comparisons

Dependent Variable: Returned

		Games-Howell				
	-				95% Confid	lence Interval
		Mean	Std.		Lower	Upper
(I) Race	(J) Race	Difference (I-J)	Error	Sig.	Bound	Bound
White	African-American	.019	.025	.989	06	.09
	Asian	116	.056	.375	29	.05
	Hispanic	033	.062	.998	22	.16
	Multiracial	031	.057	.998	20	.14
	Non-Resident Alien	249 [*]	.046	.000	39	10
	Other	.041	.093	.999	26	.34
African-American	White	019	.025	.989	09	.06
	Asian	135	.058	.248	31	.04
	Hispanic	052	.064	.982	25	.14
	Multiracial	050	.059	.979	23	.13
	Non-Resident Alien	268 [*]	.049	.000	42	12
	Other	.022	.095	1.000	28	.32
Asian	White	.116	.056	.375	05	.29
	African-American	.135	.058	.248	04	.31
	Hispanic	.083	.081	.947	16	.33
	Multiracial	.085	.077	.925	15	.32
	Non-Resident Alien	133	.069	.474	34	.08
	Other	.157	.107	.763	17	.49
Hispanic	White	.033	.062	.998	16	.22
	African-American	.052	.064	.982	14	.25
	Asian	083	.081	.947	33	.16
	Multiracial	.002	.081	1.000	24	.25
	Non-Resident Allen	216	.074	.069	44	.01
Multirocial	White	.074	.110	.994	27	.41
wulliaciai	African-American	.031	.057	.990	14	.20
	Anican-American Asian	- 085	.033	925	10	.25
	Hispanic	003	.077	1 000	02	.13
	Non-Resident Alien	- 218	070	040	- 43	- 01
	Other	.072	.108	.994	26	.40
Non-Resident Alien	White	.249	.046	.000	.10	.39
	African-American	.268	.049	.000	.12	.42
	Asian	.133	.069	.474	08	.34
	Hispanic	.216	.074	.069	01	.44
	Multiracial	.218 [*]	.070	.040	.01	.43
	Other	.290	.102	.095	03	.61
Other	White	041	.093	.999	34	.26
	African-American	022	.095	1.000	32	.28
	Asian	157	.107	.763	49	.17
	Hispanic	074	.110	.994	41	.27
	Multiracial	072	.108	.994	40	.26
	Non-Resident Alien	290	.102	.095	61	.03

Age * Multiple Comparisons

Depen	dent '	Variable:	Returned
	Gan	nes-Howa	الد

	Games-nowen								
(I) Age		Mean	Std.		95% Confid	ence Interval			
Logistic	(J) Age Logistic	Difference (I-J)	Error	Sig.	Lower Bound	Upper Bound			
20 years	17 years or younger	028	.078	.985	23	.18			
or older	18 years old	061	.064	.773	23	.11			
	19 years old	034	.075	.968	23	.16			
17 years	20 years or older	.028	.078	.985	18	.23			
or	18 years old	034	.047	.891	16	.09			
younger	19 years old	007	.061	1.000	16	.15			
18 years	20 years or older	.061	.064	.773	11	.23			
old	17 years or younger	.034	.047	.891	09	.16			
	19 years old	.027	.042	.917	08	.14			
19 years	20 years or older	.034	.075	.968	16	.23			
old	17 years or younger	.007	.061	1.000	15	.16			
	18 years old	027	.042	.917	14	.08			

Region * Multiple Comparisons Dependent Variable: Returned Games-Howell

	-	Mean	Std.		95% Confide	ence Interval
(I) Region	(J) Region	Difference (I-J)	Error	Sig.	Lower Bound	Upper Bound
Mobile or	Rest of Alabama	.004	.024	1.000	06	.07
Baldwin	Mississippi Service Area	.015	.039	.999	10	.13
County	Florida Service Area	.076	.056	.750	09	.24
	Rest of United States	.062	.046	.755	07	.20
	International	238 [*]	.046	.000	38	10
Rest of	Mobile or Baldwin County	004	.024	1.000	07	.06
Alabama	Mississippi Service Area	.011	.040	1.000	10	.13
	Florida Service Area	.072	.057	.800	09	.24
	Rest of United States	.058	.047	.815	08	.19
	International	243 [*]	.047	.000	39	10
Mississippi	Mobile or Baldwin County	015	.039	.999	13	.10
Service Area	Rest of Alabama	011	.040	1.000	13	.10
	Florida Service Area	.061	.064	.933	12	.25
	Rest of United States	.047	.056	.959	11	.21
	International	253 [*]	.056	.000	42	09
Florida	Mobile or Baldwin County	076	.056	.750	24	.09
Service Area	Rest of Alabama	072	.057	.800	24	.09
	Mississippi Service Area	061	.064	.933	25	.12
	Rest of United States	014	.069	1.000	21	.18
	International	315	.069	.000	52	11
Rest of	Mobile or Baldwin County	062	.046	.755	20	.07
United	Rest of Alabama	058	.047	.815	19	.08
States	Mississippi Service Area	047	.056	.959	21	.11
	Florida Service Area	.014	.069	1.000	18	.21
	International	301	.061	.000	48	12
International	Mobile or Baldwin County	.238	.046	.000	.10	.38
	Rest of Alabama	.243	.047	.000	.10	.39
	Mississippi Service Area	.253 [*]	.056	.000	.09	.42
	Florida Service Area	.315 [*]	.069	.000	.11	.52
	Rest of United States	.301 [*]	.061	.000	.12	.48

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

			-				
		Mean	Std.		95% Confidence Interva		
(I) HS GPA	(J) HS GPA	Difference (I-J)	Error	Sig.	Lower Bound	Upper Bound	
2.5 or lower	2.51-3.0	155	.067	.103	33	.02	
	3.01-3.5	225 [*]	.065	.004	40	06	
	3.51-4.0	371 [*]	.063	.000	54	21	
2.51-3.0	2.5 or lower	.155	.067	.103	02	.33	
	3.01-3.5	070	.034	.159	16	.02	
	3.51-4.0	216 [*]	.030	.000	29	14	
3.01-3.5	2.5 or lower	.225	.065	.004	.06	.40	
	2.51-3.0	.070	.034	.159	02	.16	
	3.51-4.0	146 [*]	.024	.000	21	08	
3.51-4.0	2.5 or lower	.371	.063	.000	.21	.54	
	2.51-3.0	.216 [*]	.030	.000	.14	.29	
	3.01-3.5	.146 [*]	.024	.000	.08	.21	

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

ACT Composite * Multiple Comparisons Dependent Variable: Returned

Games-Howell								
	-	Mean	Std.		95% Confidence Interval			
(I) ACT	(J) ACT	Difference (I-J)	Error	Sig.	Lower Bound	Upper Bound		
18 or lower	19-20	.018	.042	.998	10	.14		
	21-23	046	.039	.853	16	.07		
	24-26	068	.040	.524	18	.05		
	27-29	102	.043	.174	23	.02		
	30 or higher	151 [*]	.049	.026	29	01		
19-20	18 or lower	018	.042	.998	14	.10		
	21-23	064	.034	.429	16	.03		
	24-26	086	.034	.130	18	.01		
	27-29	119 [*]	.038	.024	23	01		
	30 or higher	169 [*]	.045	.003	30	04		
21-23	18 or lower	.046	.039	.853	07	.16		
	19-20	.064	.034	.429	03	.16		
	24-26	022	.031	.983	11	.07		
	27-29	056	.036	.627	16	.05		
	30 or higher	105	.042	.134	23	.02		
24-26	18 or lower	.068	.040	.524	05	.18		
	19-20	.086	.034	.130	01	.18		
	21-23	.022	.031	.983	07	.11		
	27-29	034	.036	.934	14	.07		
	30 or higher	083	.042	.367	20	.04		
27-29	18 or lower	.102	.043	.174	02	.23		
	19-20	.119 [°]	.038	.024	.01	.23		
	21-23	.056	.036	.627	05	.16		
	24-26	.034	.036	.934	07	.14		
	30 or higher	049	.046	.890	18	.08		
30 or higher	18 or lower	.151	.049	.026	.01	.29		
	19-20	.169 [*]	.045	.003	.04	.30		
	21-23	.105	.042	.134	02	.23		
	24-26	.083	.042	.367	04	.20		
	27-29	.049	.046	.890	08	.18		
*. The mean of	difference is sig	nificant at the 0.0	5 level.					

College * Multiple Comparisons Dependent Variable: Returned Games-Howell

Game						
(I) College	(J) College	Mean	Std.		95% Confid	ence Interval
Logistic	Logistic	Difference (I-J)	Error	Sig.	Lower Bound	Upper Bound
AS	AH	013	.030	1.000	11	.08
	BU	083	.040	.442	21	.04
	CS	- 068	054	913	- 24	10
	ED	- 028	.001	000	- 18	.10
		020	.000	1 000	10	.13
	EG	017	.033	1.000	12	.08
	NU	024	.034	.997	13	.08
	CE	.359	.334	.918	-2.69	3.41
АН	AS	.013	.030	1.000	08	.11
	BU	070	.043	./3/	20	.06
		055	.056	.977	23	.12
	ED	015	.053	1.000	18	.15
	EG	004	.036	1.000	11	.11
	NU	011	.037	1.000	12	.10
DU		.372	.334	.908	-2.67	3.41
BO	AS	.083	.040	.442	04	.21
	AH	.070	.043	./3/	06	.20
		.015	.062	1.000	18	.21
	ED	.055	.059	.982	13	.24
	EG	.066	.045	.819	07	.20
	NU	.059	.046	.901	08	.20
	CE	.442	.335	.844	-2.56	3.45
CS	AS	.068	.054	.913	10	.24
	AH	.055	.056	.977	12	.23
	BU	015	.062	1.000	21	.18
	ED	.040	.069	.999	17	.25
	EG	.051	.058	.987	13	.23
		.044	.058	.995	14	.22
50		.427	.337	.861	-2.52	3.37
ED	AS	.028	.050	.999	13	.18
		.015	.053	1.000	15	.18
	BU	055	.059	.982	24	.13
		040	.069	.999	20	.17
	EG	.011	.054	1.000	15	.10
		.004	.000	1.000	10	.17
FG	<u> </u>	.307	.337	.090	-2.30	3.33
EG	АЗ ^ Ц	.017	.033	1.000	00	.12
	ALL BLI	.004	.030	910	11	.11
	B0 CS	000	.045	.019	20	.07
		051	.050	.907	23	.13
		011	.004	1.000	10	.15
		007	.039	1.000	13	۱۱. ۱۸ د
NILI		.370	.334	.905	-2.00	3.41
NU	АЗ АЦ	.024	.034	1 000	00	.13
		.011	.037	1.000	10	.12
	00	059	.040	.901	20	.08
		044	.050	1 000	22	.14
		004	.000	1.000	17	.10
		.007	.039	1.000	11	.13
		.383	.335	.899	-2.65	3.41

					05% Confide	anco Intorval
(I) Orientation		Mean	Std.	Sig	95% Connue	Lippor Bound
(I) Orientation	(J) Orientation	Difference (I-J)		Sig.		
August/Other	May Orientation	230	.073	.037	46	01
Transfer or	Freshman Session 1	199	.046	.001	34	06
Unknown)	Freshman Session 2	157	.047	.023	30	01
/	Freshman Session 3	154	.047	.026	30	01
	Freshman Session 4	117	.048	.234	26	.03
	Freshman Session 5	065	.052	.913	22	.09
	Freshman Session 6	016	.055	1.000	18	.15
May Orientation	August/Other Orientation	.236	.073	.037	.01	.46
	Freshman Session 1	.037	.065	.999	17	.24
	Freshman Session 2	.079	.066	.928	13	.29
	Freshman Session 3	.082	.065	.912	12	.29
	Freshman Session 4	.119	.066	.628	09	.33
	Freshman Session 5	.171	.069	.225	05	.39
	Freshman Session 6	.219	.071	.056	.00	.44
Freshman	August/Other Orientation	.199	.046	.001	.06	.34
Session 1	May Orientation	037	.065	.999	24	.17
	Freshman Session 2	.043	.034	.916	06	.15
	Freshman Session 3	.045	.033	.878	06	.15
	Freshman Session 4	.082	.035	.274	02	.19
	Freshman Session 5	.134	.040	.019	.01	.20
Freehman	August/Other Orientation	.103	.044	.001	.05	.32
Session 2	August/Other Orientation	.157	.047	.023	.01	.30
06331011 2	Freshman Session 1	079	.000	.920	29	.13
	Freshman Session 3	043	034	1 000	13	.00
	Freshman Session 4	.003	.035	058	10	.11
	Freshman Session 5	.040	.000	328	- 03	.10
	Freshman Session 6	.002 140 [*]	045	038	.00	.22
Freshman	August/Other Orientation	154	047	026	.00	.20
Session 3	May Orientation	082	.065	.912	- 29	.12
	Freshman Session 1	045	.033	.878	15	.06
	Freshman Session 2	003	.035	1.000	11	.10
	Freshman Session 4	.037	.036	.970	07	.15
	Freshman Session 5	.089	.040	.356	03	.21
	Freshman Session 6	.137 [*]	.044	.043	.00	.27
Freshman	August/Other Orientation	.117	.048	.234	03	.26
Session 4	May Orientation	119	.066	.628	33	.09
	Freshman Session 1	082	.035	.274	19	.02
	Freshman Session 2	040	.036	.958	15	.07
	Freshman Session 3	037	.036	.970	15	.07
	Freshman Session 5	.052	.042	.921	08	.18
	Freshman Session 6	.100	.046	.353	04	.24
Freshman	August/Other Orientation	.065	.052	.913	09	.22
Session 5	May Orientation	171	.069	.225	39	.05
	Freshman Session 1	134	.040	.019	26	01
	Freshman Session 2	092	.041	.328	22	.03
	Freshman Session 3	089	.040	.356	21	.03
	Freshman Session 4	052	.042	.921	18	.08
Freehman	Freshman Session 6	.049	.049	.976	10	.20
Freshman Session 6	August/Other Orientation	.016	.055	1.000	15	.18
0000000	iviay Orientation	219	.0/1	.056	44	.00
	⊢reshman Session 1	183 _.	.044	.001	32	05
	Freshman Session 2	140	.045	.038	28	.00
	Freshman Session 3	137	.044	.043	27	.00
	Freshman Session 4	100	.046	.353	24	.04
	Freshman Session 5	049	.049	.976	20	.10

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

JagAlert Fall 2013 * Multiple Comparisons

Dependent Variable:	Returned
Cames-How	

		Ournes nowen					
	-	Mean	Std.		95% Confide	ence Interval	
(I) JagAlert Fall 2013	(J) JagAlert Fall 2013	Difference (I-J)	Error	Sig.	Lower Bound	Upper Bound	
No JagAlert Fall 2013	1 Course w/ JagAlert Fall 2013	.081 [*]	.024	.002	.03	.14	
	Multiple Courses w/ JagAlert Fall 2013	.320 [*]	.025	.000	.26	.38	
1 Course w/ JagAlert	No JagAlert Fall 2013	081	.024	.002	14	03	
Fall 2013	Multiple Courses w/ JagAlert Fall 2013	.239 [*]	.029	.000	.17	.31	
Multiple Courses w/	No JagAlert Fall 2013	320	.025	.000	38	26	
JagAlert Fall 2013	1 Course w/ JagAlert Fall 2013	239 [*]	.029	.000	31	17	

Games-Howell									
		Mean	Std.		95% Confidence Interval				
(I) USA Hours Earned	(J) USA Hours Earned	Difference (I-J)	Error	Sig.	Lower Bound	Upper Bound			
0-6 hours	6.5-12 hours	084	.042	.337	20	.04			
	12.5-18 hours	322 [*]	.046	.000	45	19			
	18.5-24 hours	615 [*]	.038	.000	72	50			
	24.5-30 hours	762 [*]	.029	.000	85	68			
	30.5 or more hours	854 [*]	.026	.000	93	78			
6.5-12 hours	0-6 hours	.084	.042	.337	04	.20			
	12.5-18 hours	238 [*]	.051	.000	39	09			
	18.5-24 hours	531 [*]	.044	.000	66	40			
	24.5-30 hours	679 [*]	.037	.000	78	57			
	30.5 or more hours	771 [*]	.034	.000	87	67			
12.5-18 hours	0-6 hours	.322	.046	.000	.19	.45			
	6.5-12 hours	.238 [*]	.051	.000	.09	.39			
	18.5-24 hours	292 [*]	.049	.000	43	15			
	24.5-30 hours	440 [*]	.042	.000	56	32			
	30.5 or more hours	532 [*]	.040	.000	65	42			
18.5-24 hours	0-6 hours	.615	.038	.000	.50	.72			
	6.5-12 hours	.531	.044	.000	.40	.66			
	12.5-18 hours	.292	.049	.000	.15	.43			
	24.5-30 hours	148 [*]	.033	.000	24	05			
	30.5 or more hours	240	.030	.000	33	15			
24.5-30 hours	0-6 hours	.762	.029	.000	.68	.85			
	6.5-12 hours	.679	.037	.000	.57	.78			
	12.5-18 hours	.440	.042	.000	.32	.56			
	18.5-24 hours	.148	.033	.000	.05	.24			
	30.5 or more hours	092	.018	.000	14	04			
30.5 or more hours	0-6 hours	.854	.026	.000	.78	.93			
	6.5-12 hours	.771	.034	.000	.67	.87			
	12.5-18 hours	.532 [*]	.040	.000	.42	.65			
	18.5-24 hours	.240 [*]	.030	.000	.15	.33			
	24.5-30 hours	.092 [*]	.018	.000	.04	.14			

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

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

					95% Confidence Interval		
		Mean	Std.			Upper	
(I) USA GPA	(J) USA GPA	Difference (I-J)	Error	Sig.	Lower Bound	Bound	
2.0 or lower	2.01-2.5	350 [*]	.036	.000	45	25	
	2.51-3.0	456 [*]	.031	.000	54	37	
	3.01-3.5	501 [*]	.028	.000	58	42	
	3.51-4.0	533 [*]	.028	.000	61	46	
2.01-2.5	2.0 or lower	.350	.036	.000	.25	.45	
	2.51-3.0	106 [*]	.035	.021	20	01	
	3.01-3.5	151	.033	.000	24	06	
	3.51-4.0	182 [*]	.032	.000	27	10	
2.51-3.0	2.0 or lower	.456	.031	.000	.37	.54	
	2.01-2.5	.106 [*]	.035	.021	.01	.20	
	3.01-3.5	045	.027	.451	12	.03	
	3.51-4.0	077 [*]	.026	.029	15	01	
3.01-3.5	2.0 or lower	.501 [*]	.028	.000	.42	.58	
	2.01-2.5	.151	.033	.000	.06	.24	
	2.51-3.0	.045	.027	.451	03	.12	
	3.51-4.0	032	.023	.645	09	.03	
3.51-4.0	2.0 or lower	.533*	.028	.000	.46	.61	
	2.01-2.5	.182 [*]	.032	.000	.10	.27	
	2.51-3.0	.077 [*]	.026	.029	.01	.15	
	3.01-3.5	.032	.023	.645	03	.09	