2016 Freshman Cohort Retention Report

Executive Summary

This report summarizes the one-year retention of the 1,955 first-time full-time baccalaureate degree-seeking freshmen students in the University of South Alabama (USA) 2016 freshman cohort. The one-year retention rate for the 2016 freshman cohort was 78%.

Results indicated retention of students who have a lower high school GPA or lower ACT Composite, are from the Florida service area, or are first generation students may require additional resources and monitoring to enable and/or encourage them to persist towards successfully completing a degree at USA. Similar to previous studies, students attending the earlier freshman summer orientation sessions were more likely to return than students attending the later orientation sessions meaning that the orientation session attended could provide another key factor for identifying at-risk freshmen students early on in their college experience.

Freshmen who lived on campus were more likely to return so expanding the on campus housing capacity should receive further consideration. Similarly, students who participated in Greek life at USA were more likely to return to USA which emphasizes the importance of students becoming involved in student organizations at USA that allow them to connect with students with similar interests outside of the classroom as well.

The importance of financial support in the form of freshman scholarships or other types of scholarships was also clear, particularly since students with a higher unmet financial need were less likely to return to USA. Additional USA freshman scholarships should be considered to continue to attract top students to attend USA. In addition, need-based grants could be used to assist students in greater need of financial support to encourage them to return to and persist towards completing a degree at USA.

Results also showed students who received an at-risk midterm grade (D, F, or U) in the Fall 2016 semester in four or more courses for lack of attendance and/or poor academic performance and students who were placed on probation after the Fall 2016 semester ended were unlikely to return to USA one year later. These findings highlight the importance of intervening prior to the end of the fall semester with students who receive an at-risk midterm grade in order to prevent these students from subsequently receiving a low USA GPA and being placed on probation after the fall semester concludes.

Overview

The following report provides a detailed analysis about the one-year retention of the 1,955 first-time full-time baccalaureate degree-seeking freshmen students in the University of South Alabama (USA) 2016 freshman cohort. Retention in the context of this report is defined as whether freshmen students returned and enrolled one year later in the Fall 2017 semester. Similar to reports written by Institutional Research

about the 2007 through 2016 freshman cohorts, the input-environment-outcome (IEO) model developed by Alexander W. Astin[1] was used as a conceptual framework to guide this analysis.

Cross tabular results for each variable and whether

or lower (70%) returned at a lower rate than the cohort retention rate (78%). The mean difference between retention of students with a high school GPA of 3.51 or higher in comparison to both of the lower high school GPA groups was statistically significant (

Retention comparisons based on the college housing major the student initially selected showed Continuing Education (100%), Allied Health (81%), Nursing (79%), Business (78%), and Engineering (78%) students returned at an equal or higher rate than the overall cohort (78%). When using Continuing Education as a comparison group, there was a significant mean difference between students who initially selected a major in Continuing Education in comparison to students in all other colleges (see Appendix: ANOVA Tables). However, it should be noted only one student in the 2016 freshman cohort initially enrolled in a major in Continuing Education. In addition, in Spring 2017 Continuing Education was closed and the majors and all students enrolled in one of the Continuing Education majors were transferred over to Education instead.

Scholarship retention rate comparisons illustrated that receiving scholarships positively affected retention. Students receiving a USA freshman scholarship (82%) or some other type of scholarship (88%) returned at a higher rate than the cohort retention rate (78%). 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 received some other type of scholarship compared to students who did not was also statistically significant (see Appendix: Independent T-Test Tables).

Financial aid related comparisons showed a relationship between the financial resources of the student and/or the student's family and retention. Students who received a Pell Grant (75%), who had an expected family contribution of $0 (76%), or who received a NACAC fee waiver for ACT or SAT test-taking purposes due to meeting one of the indicators of economic need (70%) returned at a lower rate than the overall cohort (78%). On the other hand, students who had an unmet financial need of -$5,001 or lower (91%) returned at a much higher rate than the cohort retention rate (78%). The mean difference between retention of students with an unmet financial need of

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

The final step (step 4) of the first model showed the odds (Exp*B*) of a student *returning* was greater for a student who was not a first generation student (1.588) than for a first generation student. The confidence intervals (95%) also indicated the odds of a student *returning* was greater for a student who was not a first generation student than for a first generation student since the confidence intervals did not encompass an odds value less than one.

A review of the final step (step 4) of the first model showed the odds (Exp*B*) of a student *returning* was greater for a student with an ACT Composite score of 22-23 or higher (22-23=1.270, 24-25=1.634, 26-27=1.255, 28-29=1.119, and 30 or higher=2.981) than a student with an ACT Composite score of 19 or lower. In addition, the confidence intervals (95%) indicated the odds of a student *returning* was greater for a student with an ACT Composite score of 24-25 or 30 or higher than for a student with an ACT Composite score of 19 or lower since the confidence intervals did not encompass an odds value less than one.

In addition, the final step (step 4) results of the first model for the region the student came from showed the odds (Exp*B*) of a student *returning* was greater for students from Mobile or Baldwin County (1.280), the rest of Alabama (1.930), the Mississippi service area (1.260), and the rest of the United States (1.654) than for students from the Florida service area. In addition, the confidence intervals (95%) indicated the odds of a student *returning* was greater for a student who was from the rest of Alabama (CI=1.120-3.326) than for a student who was from the Florida service area 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 (number of USA Days attended=did not attend, orientation session attended=either the August Orientation session, a transfer orientation session, or an unknown orientation session, wu-r0004 Tw 0 - bTw -10.852as ar ison grou- 0.0003(mD the ander0fsignifecc5 Tc 0 Twas g Td (tervals (able inclu thende9 select(ipp Orixion wn)3.9(put)5. -30.765 Td [(on, wu-r0n5) 9onndicat8(anTmenta T5

When looking at the first generation status of the student, the final step (step 4) of the second model showed the odds (Exp(B)) of a student *returning* was greater for a student who was not a first generation student (1.488) than for a first generation student. Additionally, the confidence intervals (95%) indicated the odds of a student *returning* was greater for a student who was not a first generation than a first generation student since the confidence intervals did not encompass an odds value less than one.

Except for students with an ACT Composite score of 22-23, the final step (step 4) of the second model showed the odds (Exp(B)) of a student *returning* was greater for a student with an ACT Composite score of 22-23 or higher (22-23=1.408, 24-25=1.680, 26-27=1.716, and 30 or higher=1.708) than for a student with an ACT Composite score of 19 or lower. In addition, the confidence intervals (95%) indicated the odds of a student *returning* was greater for a student with an ACT Composite score of 24-25 (CI=1.078-2.619) than a student with an ACT Composite score of 19 or lower since the confidence intervals did not encompass an odds value less than one.

A review of the results of the final step (step 4) of the second model for the region the student came from showed the odds (Exp(B)) of a student *returning* was greater for students from Mobile or Baldwin County (2.074), the rest of Alabama (1.896), the Mississippi service area (1.270), and the rest of the United States (1.511)than for students from the Florida service area. In addition, the confidence intervals (95%) indicated the odds of a student *returning* was greater for a student from Mobile or Baldwin County (CI=1.133-3.796) or from the rest of Alabama (CI=1.065-3.375) than for a student from the Florida service area since the confidence intervals did not encompass an odds value less than one.

The final step (step 4) of the second model showed the odds (Exp(B)) of a student *returning* was greater for a student that lived on-campus (1.730) than for a student that lived off-campus. The confidence intervals (95%) also indicated the odds of a student *returning* was greater for a student that lived on-campus than for a student that lived off-campus since the confidence intervals did not encompass an odds

was greater for a student who attended the Freshman Session 1 orientation than for a student who attended either the August Orientation session, a transfer orientation session, or an unknown orientation session since the confidence intervals 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 after the Fall 2016 semester had already begun. The third model included outcome variables known midway through or after the Fall 2016 semester ended (number of at-risk midterm grades in Fall 2016 and probation status after Fall 2016). The fourth model (number of hours earned after Summer 2017) and fifth model (USA GPA the student attained after Summer 2017) included a different outcome variable known after the Summer 2017 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 2016 semester (third model) or Summer 2017 semester (fourth and fifth models) ended.

Model 3: Logistic Regression with Variables Midway Through or After Fall 2016

The third model included variables known midway through or after Fall 2016. For each variable included in the third model a comparison group was selected (number of at-risk midterm grades in Fall 2016=four or more at-risk midterm grades and whether the student was placed on probation after Fall 2016=yes).

The third model (see Appendix: Logistic Regression Tables) consisted of two steps. In comparison to the first and second model, the correct classification rate for the third model slightly decreased to 92.2% for *returning* students. However, in comparison to the first and second model, the classification rate for the third model substantially increased to 43.6% for students who did not return since this snapshot included data known after the end of the Fall 2016 semester instead of pre-Fall 2016 semester data. The overall correct classification rate for the third model was 81.3%.

In the final step (step 2) of the third model, probation status after Fall 2016 and the number of at-risk midterm grades in Fall 2016 were significant (see Appendix: Logistic Regression Tables). The final step

students (94.1%) was slightly lower than the first and second models. However, in comparison to the other three models, the correct classification rate was much higher for students who did not return (61.9%) since this snapshot included data known after the end of the Summer 2017 semester. The overall correct classification rate for the fourth model was 87.1%.

The fourth model showed the odds (Exp(B)) of a student *returning* was greater for a student with 12.5-18 or more hours earned (12.5-18=3.130, 18.5-24=10.521, 24.5-30=37.836, 30.5 or more=90.417) than for a student with six or fewer hours earned at the end of Summer 2017 (see Appendix: Logistic Regression Tables). Additionally, the confidence intervals (95%) indicated the odds of a student *returning* was greater for a student in the four higher USA hours earned comparison groups than for a student with zero to six USA hours earned since the confidence intervals for the four higher USA hours earned comparison groups did not encompass an odds value less than one.

Model 5: Logistic Regression with USA GPA After Summer 2017 Variable

The fifth model included the USA GPA after the end of the Summer 2017 semester. The comparison group selected for the fifth model was an USA GPA of 2.0 or lower after the end of the Summer 2017 semester. Since the fifth model only included one variable, the model consisted of one step (see Appendix: Logistic Regression Tables). The correct classification rate for the fifth model for *returning* students (92.1%) was similar to the third model and slightly lower than the other three models. The correct classification rate for the fifth model for students who did not return (56.2%) was higher than the first, second, and third models since this snapshot included data known after the end of the Summer 2017 semester instead of pre-Fall 2016 semester data, but was lower than the fourth model. The overall correct classification rate for the fifth model was 84.3%.

The fifth model showed the odds (Exp(B)) of a student *returning* was greater for a student with an USA GPA of 2.01-2.5 or higher (2.01-2.5=9.440, 2.51-3=13.995, 3.01-3.5=17.198, 3.51-4.0=29.119) than for a student with an USA GPA of 2.0 or lower at the end of Summer 2017 (see Appendix: Logistic Regression Tables). 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 intervals for the four higher USA GPA comparison groups did not encompass an odds value less than one.

Peer Comparisons

Finally, to gain a better idea about how USA one-year retention rates compared to one-year retention at peer institutions, the National Center for Education Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS) Data Center was used to compare USA one-year retention rates to 13 peer institutions (see Table 5). A retention rate trend over a period of five years 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 same time period. The USA retention rate over this time period ranged from a low of 65% for the 2010 freshman cohort to a high of 73% for the 2014 freshman cohort. The retention rate of peer institutions over this same period ranged from a low of 62% for the University of New Orleans 2014 freshman cohort to a high of 88% for the Florida International University 2014 freshman cohort.

receive an at-risk midterm grade to help prevent these students from subsequently receiving a low USA GPA and being placed on probation after the fall semester concludes.

Future Retention Research

This report is the first of two one-year retention studies about the 2016 freshman cohort that will be completed by the Office of Institutional Research during the Fall 2017 semester. The second retention study will use National Student Clearinghouse data to explore the issue of “Where did non-returning freshmen in the 2016 cohort go?” This study will determine how many non-returning freshmen students transferred to another college or university or “stopped out” of college altogether.

APPENDIX

2016 Freshman Cohort Retention Report Independent T-Test Tables

2016 Cohort * Gender * Group Statistics

Gender T-Test		N	Mean	Std. Deviation	Std. Error Mean
One-Year Retention	Male	907	.76	.428	.014
	Female	1048	.79	.407	.013

2016 Cohort * Gender * Independent Samples Test

		Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Lower	95% Confidence Upper
One-Year Retention	Equal variances assumed	11.742	.001	-1.718	1953	.086	-.032	.019	-.070	.005
	Equal variances not assumed			-1.712	1880.973	.087	-.032	.019	-.070	.005

2016 Cohort * First Generation * Group Statistics

First Generation		N	Mean	Std. Deviation	Std. Error Mean
One-Year Retention	No	1570	.79	.405	.010
	Yes	385	.70	.457	.023

2016 Cohort * First Generation * Independent Samples Test

		Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Lower	95% Confidence Upper
One-Year Retention	Equal variances assumed	47.187	.000	3.796	1953	.000	.090	.024	.043	.136
	Equal variances not assumed			3.527	541.005	.000	.090	.025	.040	.140

2016 Cohort * USA Freshman Scholarship * Group Statistics

Freshman Scholarship		N	Mean	Std. Deviation	Std. Error Mean
One-Year Retention	No	879	.72	.451	.015
	Yes	1076	.82	.381	.012

2016 Cohort * USA Freshman Scholarship * Independent Samples Test

		Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Lower	95% Confidence Upper
One-Year Retention	Equal variances assumed	129.337	.000	-5.722	1953	.000	-.108	.019	-.145	-.071
	Equal variances not assumed			-5.626	1721.649	.000	-.108	.019	-.145	-.070

2016 Freshman Cohort Retention Report Independent T-Test Tables

2016 Cohort * Other Scholarship * Group Statistics

Other Scholarship		N	Mean	Std. Deviation	Std. Error Mean
One-Year Retention	No	875	.71	.453	.015
	Yes	1080	.83	.378	.011

2016 Cohort * Other Scholarship * Independent Samples Test

		Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Lower	95% Confidence Upper
One-Year Retention	Equal variances assumed	149.840	.000	-6.161	1953	.000	-.116	.019	-.153	-.079
	Equal variances not assumed			-6.046	1699.089	.000	-.116	.019	-.153	-.078

2016 Cohort * Pell Grant * Group Statistics

Pell Grant		N	Mean	Std. Deviation	Std. Error Mean
One-Year Retention	No	1232	.79	.408	.012
	Yes	723	.75	.432	.016

2016 Cohort * Pell Grant * Independent Samples Test

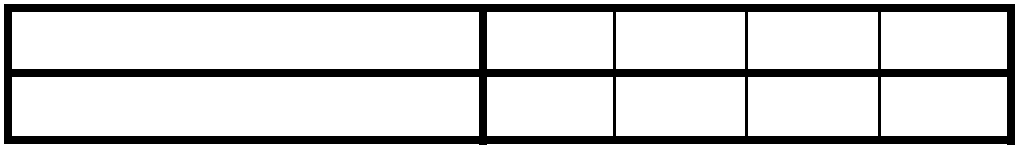
		Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Lower	95% Confidence Upper
One-Year Retention	Equal variances assumed	14.169	.000	1.913	1953	.056	.037	.020	-.001	.076
	Equal variances not assumed			1.884	1442.891	.060	.037	.020	-.002	.076

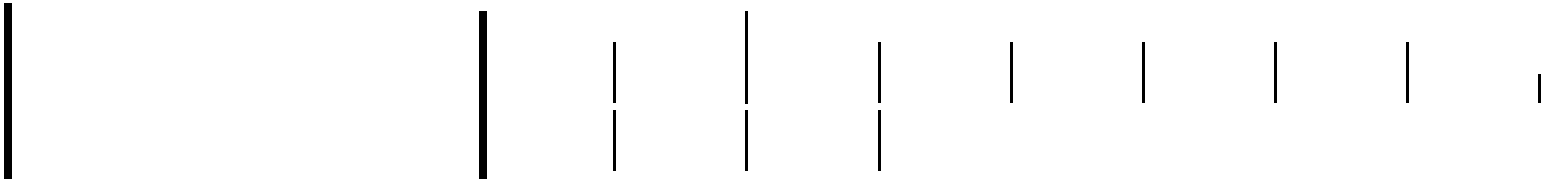
2016 Cohort * Received Test Fee Waiver * Group Statistics

Received Test Fee Waiver		N	Mean	Std. Deviation	Std. Error Mean
One-Year Retention	No	1895	.78	.415	.010
	Yes	60	.70	.462	.060

2016 Cohort * Received Test Fee Waiver * Independent Samples Test

		Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Lower	95% Confidence Upper
One-Year Retention	Equal variances assumed	6.178	.013	1.433	1953	.152	.078	.055	-.029	.186
	Equal variances not assumed			1.297	62.057	.199	.078	.060	-.042	.199





2016 Freshman Cohort Retention Report Independent T-Test Tables

2016 Cohort * Greek Life Participation * Group Statistics

Greek Life Participation		N	Mean	Std. Deviation	Std. Error Mean
One-Year Retention	No	1728	.76	.425	.010
	Yes	227	.87	.335	.022

2016 Cohort * Greek Life Participation * Independent Samples Test

		Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Lower	95% Confidence Upper
One-Year Retention	Equal variances assumed	74.686	.000	-3.712	1953	.000	-.109	.029	-.166	-.051
	Equal variances not assumed			-4.456	330.130	.000	-.109	.024	-.157	-.061

2016 Cohort * Probation After Fall 2016 * Group Statistics

Probation After Fall 2016		N	Mean	Std. Deviation	Std. Error Mean
One-Year Retention	No	1637	.85	.356	.009
	Yes	318	.39	.488	.027

2016 Cohort * Probation After Fall 2016 * Independent Samples Test

		Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Lower	95% Confidence Upper
One-Year Retention	Equal variances assumed	240.438	.000	19.946	1953	.000	.465	.023	.419	.510
	Equal variances not assumed			16.176	385.056	.000	.465	.029	.408	.521

2016 Freshman Cohort Retention Report ANOVA Tables

2016 Cohort * Region * Multiple Comparisons

Dependent Variable:

Games-Howell

(I) Region		Mean Difference (I-J)	Std. Error	Sig.	Interval Bound	Interval Bound
Mobile or Baldwin County	Rest of Alabama	-.053	.022	.144	-.12	.01
	Mississippi Service Area	-.018	.044	.999	-.14	.11
	Florida Service Area	.047	.052	.946	-.10	.20
	Rest of United States	-.036	.036	.919	-.14	.07
	International	-.014	.037	.999	-.12	.09
Rest of Alabama	Mobile or Baldwin County	.053	.022	.144	-.01	.12
	Mississippi Service Area	.036	.043	.962	-.09	.16
	Florida Service Area	.100	.052	.386	-.05	.25
	Rest of United States	.017	.035	.996	-.08	.12
	International	.040	.036	.878	-.06	.14
Mississippi Service Area	Mobile or Baldwin County	.018	.044	.999	-.11	.14
	Rest of Alabama	-.036	.043	.962	-.16	.09
	Florida Service Area	.065	.064	.914	-.12	.25
	Rest of United States	-.018	.052	.999	-.17	.13
	International	.004	.052	1.000	-.15	.15
Florida Service Area	Mobile or Baldwin County	-.047	.052	.946	-.20	.10
	Rest of Alabama	-.100	.052	.386	-.25	.05
	Mississippi Service Area	-.065	.064	.914	-.25	.12
	Rest of United States	-.083	.059	.727	-.25	.09
	International	-.061	.060	.912	-.23	.11
Rest of United States	Mobile or Baldwin County	.036	.036	.919	-.07	.14
	Rest of Alabama	-.017	.035	.996	-.12	.08
	Mississippi Service Area	.018	.052	.999	-.13	.17
	Florida Service Area	.083	.059	.727	-.09	.25
	International	.022	.046	.997	-.11	.15
International	Mobile or Baldwin County	.014	.037	.999	-.09	.12
	Rest of Alabama	-.040	.036	.878	-.14	.06
	Mississippi Service Area	-.004	.052	1.000	-.15	.15
	Florida Service Area	.061	.060	.912	-.11	.23
	Rest of United States	-.022	.046	.997	-.15	.11

2016 Cohort * High School GPA * Multiple Comparisons

Dependent Variable:

Games-Howell

(I) HS GPA Logistic		Mean Difference (I-J)	Std. Error	Sig.	Interval Bound	Interval Bound
3.0 or lower	3.01-3.5	-.112*	.033	.002	-.19	-.03
	3.51 or higher	-.226*	.030	.000	-.30	-.16
3.01-3.5	3.0 or lower	.112*	.033	.002	.03	.19
	3.51 or higher	-.114*	.021	.000	-.16	-.07
3.51 or higher	3.0 or lower	.226*	.030	.000	.16	.30
	3.01-3.5	.114*	.021	.000	.07	.16

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

2016 Freshman Cohort Retention Report ANOVA Tables

2016 Cohort * USA Day * Multiple Comparisons

Dependent Variable:

Games-Howell

(I) Number USA Days Attended		Mean Difference (I-J)	Std. Error	Sig.	Interval	
					Bound	Bound
Did Not Attend	Attended 1 USA Day	-.073*	.020	.001	-.12	-.03
	Attended Multiple USA Days	-.125	.067	.172	-.29	.04
Attended 1 USA Day	Did Not Attend	.073*	.020	.001	.03	.12
	Attended Multiple USA Days	-.052	.068	.729	-.22	.12
Attended Multiple USA Days	Did Not Attend					

Sig.

2016 Freshman Cohort Retention Report ANOVA Tables

2016 Cohort * College * Multiple Comparisons

Dependent Variable:

Games-Howell

(I) College Logistic					

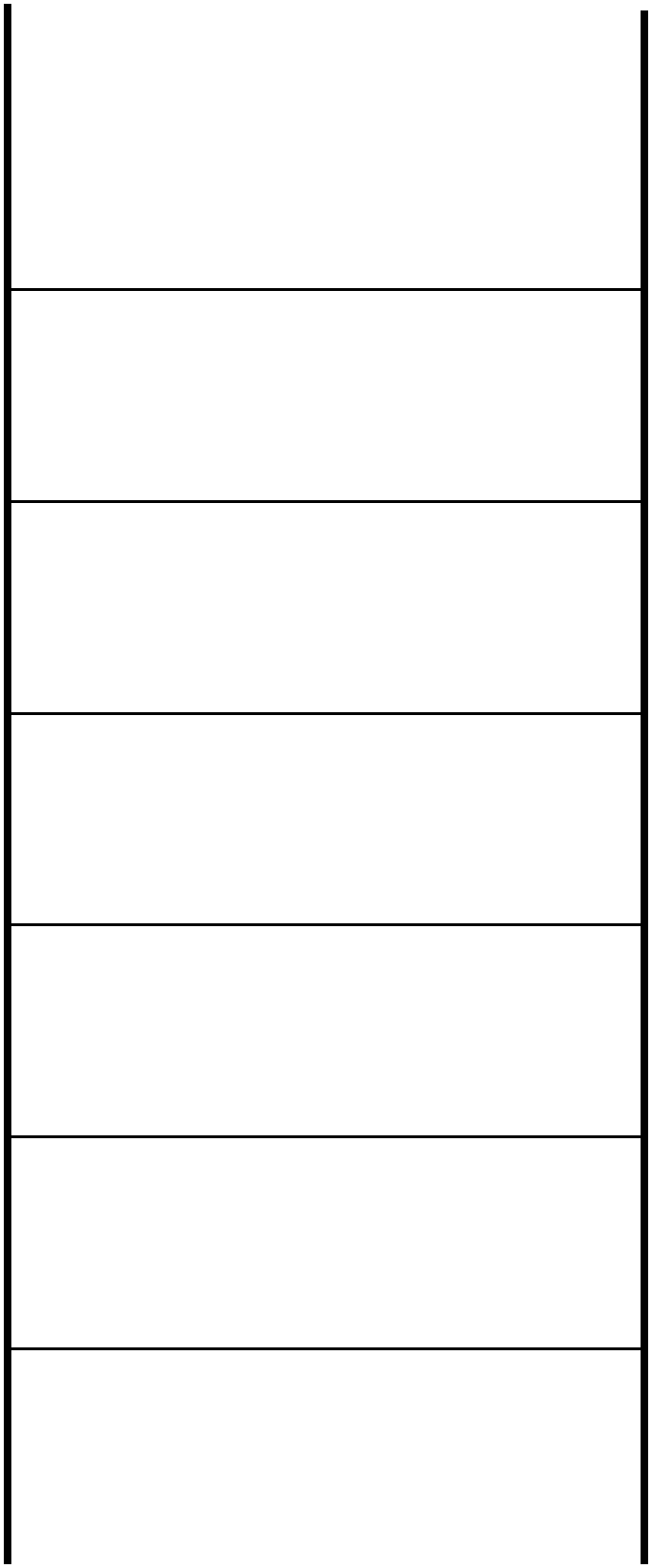
2016 Freshman Cohort Retention Report ANOVA Tables

2016 Cohort * Expected Family Contribution * Multiple Comparisons

Dependent Variable:

Games-Howell

(I) Expected Family Contribution (EFC)		Mean Difference (I-J)	Std. Error	Sig.	Interval Bound	Interval Bound
$0	$1 to $3,750	-.030	.029	.900	-.11	.05
	$3,751 to $7,500	-.042	.036	.842	-.14	.06
	$7,501 to $15,000	-.036	.032	.883	-.13	.06
	$15,001 to $25,000	-.047	.034	.728	-.14	.05
	$25,001 or higher	-.026	.033	.967	-.12	.07
$1 to $3,750	$0	.030	.029	.900	-.05	.11



2016 Freshman Cohort Retention Report ANOVA Tables

2016 Cohort * USA Hours Earned After Summer 2017 * Multiple Comparisons

Dependent Variable:

2016 Freshman Cohort Retention Report ANOVA Tables

2016 Cohort * USA GPA After Summer 2017 * Multiple Comparisons

Dependent Variable:

Games-Howell

(I) USA Hours Earned After Summer 2017		Mean Difference (I-J)	Std. Error	Sig.	Interval Bound	Interval Bound
0-6 hours	6.5-12 hours	.028	.051	.994	-.12	.17
	12.5-18 hours	-.225*	.055	.001	-.38	-.07
	18.5-24 hours	-.516*	.049	.000	-.66	-.37
	24.5-30 hours	-.714*	.037	.000	-.82	-.61
	30.5 or more hours	-.774*	.036	.000	-.88	-.67
6.5-12 hours	0-6 hours	-.028	.051	.994	-.17	.12
	12.5-18 hours	-.253*	.056	.000	-.41	-.09
	18.5-24 hours	-.544*	.051	.000	-.69	-.40
	24.5-30 hours	-.741*	.039	.000	-.85	-.63
	30.5 or more hours	-.802*	.038	.000	-.91	-.69
12.5-18 hours	0-6 hours	.225*	.055	.001	.07	.38
	6.5-12 hours	.253*	.056	.000	.09	.41
	18.5-24 hours	-.291*	.054	.000	-.45	-.14
	24.5-30 hours	-.489*	.044	.000	-.62	-.36
	30.5 or more hours	-.549*	.043	.000	-.67	-.43
18.5-24 hours	0-6 hours	.516*	.049	.000	.37	.66
	6.5-12 hours	.544*	.051	.000	.40	.69
	12.5-18 hours	.291*	.054	.000	.14	.45
	24.5-30 hours	-.197*	.037	.000	-.30	-.09
	30.5 or more hours	-.258*	.035	.000	-.36	-.16
24.5-30 hours	0-6 hours	.714*	.037	.000	.61	.82
	6.5-12 hours	.741*	.039	.000	.63	.85
	12.5-18 hours	.489*	.044	.000	.36	.62
	18.5-24 hours	.197*	.037	.000	.09	.30
	30.5 or more hours	-.061*	.015	.001	-.10	-.02
30.5 or more hours	0-6 hours	.774*	.036	.000	.67	.88
	6.5-12 hours	.802*	.038	.000	.69	.91
	12.5-18 hours	.549*	.043	.000	.43	.67
	18.5-24 hours	.258*	.035	.000	.16	.36
	24.5-30 hours	.061*	.015	.001	.02	.10

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

2016 Freshman Cohort Retention Report Logistic Regression Tables

Input and Environmental Model Classification Table [a]

Observed			Predicted		
			Retention		Percentage Correct
			No	Yes	
Step 1	One-Year Retention	No	27	336	7.4
		Yes	12	1298	99.1
	Overall Percentage				79.2
Step 2	One-Year Retention	No	31	332	8.5
		Yes	23	1287	98.2
	Overall Percentage				78.8
Step 3	One-Year Retention	No	41	322	11.3
		Yes	22	1288	98.3
	Overall Percentage				79.4
Step 4	One-Year Retention	No	50	313	13.8
		Yes	34	1276	97.4
	Overall Percentage				79.3

a. The cut value is .500

2016 Freshman Cohort Retention Report Logistic Regression Tables

Input and Environmental Model Final Variables in the Equation

2016 Freshman Cohort Retention Report Logistic Regression Tables

Midway Through or After Fall 2016 Classification Table [a]

Observed			Predicted		
			Retention		Percentage Correct
			No	Yes	
Step 1	One-Year Retention	No	195	243	44.5
		Yes	123	1394	91.9
	Overall Percentage				81.3
Step 2	One-Year Retention	No	191	247	43.6
		Yes	119	1398	92.2
	Overall Percentage				81.3

a. The cut value is .500

Midway Through or After Fall 2016 Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	EXP(B)	
								Lower	Upper
Step 1[a]	Not on Probation After Fall 2016	2.208	.135	269.411	1	.000	9.095	6.987	11.838
	Constant	-.461	.115	16.016	1	.000	.631		
Step 2[b]	4 or More At Risk MT Grades			23.529	4	.000			
	3 At Risk MT Grades	.098	.276	.127	1	.722	1.103	.642	1.897
	2 At Risk MT Grades	.089	.262	.116	1	.734	1.093	.654	1.828
	1 At Risk MT Grade	.402	.264	2.329	1	.127	1.496	.892	2.508
	No At Risk MT Grades	.865	.273	10.024	1	.002	2.375	1.390	4.058
	Not on Probation After Fall 2016	1.778	.175	103.337	1	.000	5.915	4.199	8.333
	Constant	-.599	.199	9.004	1	.003	.550		

a. Variable(s) entered on step 1: Probation After Fall 2016.

b. Variable(s) entered on step 2: At-Risk Midterm Grades in Fall 2016.

USA Hours Earned After Summer 2017 Classification Table [a]

Observed			Predicted		
			Retention		Percentage Correct
			No	Yes	
Step 1	One-Year Retention	No	260	160	61.9
		Yes	90	1426	94.1
	Overall Percentage				87.1

a. The cut value is .500

2016 Freshman Cohort Retention Report Logistic Regression Tables

USA Hours Earned After Summer 2017 Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	EXP(B) Lower	EXP(B) Upper
Step 1[a]	USA Hours Earned 0-6			482.542	5	.000			
	USA Hours Earned 6.5-12	-.203	.376	.289	1	.591	.817	.390	1.708
	USA Hours Earned 12.5-18	1.141	.297	14.762	1	.000	3.130	1.749	5.602
	USA Hours Earned 18.5-24	2.353	.290	65.880	1	.000	10.521	5.960	18.572
	USA Hours Earned 24.5-30	3.633	.274	175.761	1	.000	37.836	22.112	64.741
	USA Hours Earned 30.5 or more	4.504	.290	241.220	1	.000	90.417	51.213	159.631
	Constant	-1.540	.240	41.038	1	.000	.214		

a. Variable(s) entered on step 1: USA Hours Earned After Summer 2017.

USA GPA After Summer 2017 Classification Table [a]

Observed			Predicted		
			Retention		Percentage Correct
			No	Yes	
Step 1	One-Year Retention	No	236	184	56.2
		Yes	120	1396	92.1
	Overall Percentage				84.3

a. The cut value is .500

USA GPA After Summer 2017 Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	EXP(B) Lower	EXP(B) Upper
Step 1[a]	USA GPA 2.0 or lower			395.171	4	.000			
	USA GPA 2.01-2.5	2.245	.199	127.841	1	.000	9.440	6.397	13.931
	USA GPA 2.51-3.0	2.302	.179	164.629	1	.000	9.995	7.031	14.206
	USA GPA 3.01-3.5	2.845	.190	223.063	1	.000	17.198	11.840	24.981
	USA GPA 3.51-4.0	3.371	.217	241.800	1	.000	29.119	19.038	44.538
	Constant	-.676	.112	36.389	1	.000	.508		

a. Variable(s) entered on step 1: USA GPA After Summer 2017.