# UNIVERSITY OF SOUTH ALABAMA 

## 2017 Freshman Cohort Retention Report

## Executive Summary

This report summarizes the one-year retention of 1,868 students in the University of South Alabama (USA) 2017 first-time full-time baccalaureate degree-seeking freshman cohort. The one-year retention rate for the 2017 freshman cohort was $74 \%$.

Results indicated retention of students with a lower high school GPA or lower ACT Composite score or students who are 19 years old or older may require additional resources and monitoring to enable and/or encourage them to persist towards successfully completing a degree at USA. 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. 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.

The importance of financial support in the form of freshman scholarships or other types of scholarships was also clear. Additional USA freshman scholarships should be considered to continue to attract top students to attend USA. In addition, need-based grants could be utilized 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 2017 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 2017 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 to help 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 1,868 first-time fulltime baccalaureate degree-seeking freshmen students in the University of South Alabama (USA) 2017 freshman cohort. Retention in the context of this report is defined as whether freshmen students returned and enrolled one year later in the Fall 2018 semester. Similar to reports written by Institutional Research, the input-environment-outcome (IEO) model developed by Alexander W. Astin ${ }^{1}$ was used as a conceptual framework to guide this analysis.

[^0]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 ( $74 \%$ ). 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 input ${ }^{2}$ variables. The second model included the input and the environmental ${ }^{3}$ variables. The third model included two outcome variables known midway through or after the end of the Fall 2017 semester ${ }^{4}$. The fourth model and fifth model tested a different outcome variable known after the end of the Summer 2018 semester ${ }^{5}$. The predictive power of each model for explaining whether the student would return ( $\mathrm{Yes} / \mathrm{No}$ ) is reported as well as which variables were significant in each of the five models.

## 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 one-year retention rate (74\%) of the 1,868 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 $74 \%$. In addition, significant mean differences for the input, environmental, and the outcome variables known midway through or after the end of the Fall 2017 semester and after the end of the Summer 2018 semester are reported.

## Input Variable Cross Tabular Results

For the input variables included in this analysis (see Table 1), female students (76\%) returned at a higher rate than male students (72\%). The mean difference between female students and male students was statistically significant (see Appendix: Independent T-Test Tables).

[^1]Table 1: Comparison of Input Variables to 2017 Cohort Retention Rate

| Variable | Retention Rate >= 74\% | Count | Retention Rate < 74\% | Count |
| :---: | :---: | :---: | :---: | :---: |
| *Gender |  |  |  |  |
|  | *Female (76\%) | 1,146 | Male (72\%) | 722 |
| *Race/Ethnicity |  |  |  |  |
|  | *Asian (100\%) | 34 | African-American (73\%) | 386 |
|  | Other (80\%) | 46 | Non-Resident Alien (73\%) | 22 |
|  | White (74\%) | 1,217 | Hispanic (72\%) | 86 |
|  |  |  | Multiracial (71\%) | 77 |
| *Age |  |  |  |  |
|  | *17 years old or younger (85\%) | 119 | 20 years old or older (66\%) | 38 |
|  | 18 years old (75\%) | 1,599 | 19 years old (63\%) | 112 |
| Region |  |  |  |  |
|  | Mobile or Baldwin County (75\%) | 769 | Rest of United States (73\%) | 168 |
|  | Mississippi service area (75\%) | 109 | International (73\%) | 22 |
|  | Florida service area (75\%) | 107 |  |  |
|  | Rest of Alabama (74\%) | 693 |  |  |
| First Generation |  |  |  |  |
|  | No (75\%) | 1,503 | Yes (73\%) | 365 |
| *High School GPA |  |  |  |  |
|  | *3.51 or higher (81\%) | 1,115 | 3.01-3.5 (68\%) | 489 |
|  |  |  | 3.0 or lower (58\%) | 256 |
| *ACT Composite Score |  |  |  |  |
|  | *30 or higher (85\%) | 165 | 22-23 (71\%) | 332 |
|  | 24-25 (80\%) | 326 | 19 or lower (71\%) | 322 |
|  | 26-27 (82\%) | 174 | 20-21 (67\%) | 347 |
|  | 28-29 (77\%) | 147 |  |  |

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.

In terms of race/ethnicity, African-American (73\%), Non-Resident Alien (73\%), Hispanic (72\%), and multiracial ( $71 \%$ ) students returned at a lower rate than the cohort retention rate ( $74 \%$ ). The mean difference between retention of Asian students and all other race/ethnicity groups besides Non-Resident Alien students was statistically significant (see Appendix: ANOVA Tables).

Retention comparisons based on age showed that students who were 18 years old or younger returned at a higher rate (at least 75\%) than the cohort retention rate (74\%). The mean difference between retention of student who were 17 years old or younger compared to students who were 18 years old or 19 years old was statistically significant (see Appendix: ANOVA Tables).

Comparisons based on what region the student came from showed students from Mobile or Baldwin County (75\%), students from the Mississippi service area (75\%), and students from the Florida service area ( $75 \%$ ) returned at a higher rate than the overall cohort ( $74 \%$ ). The retention rate of students who indicated they were a first generation student (73\%) on the Free Application for Federal Student Aid (FAFSA) application was slightly lower than the overall cohort (74\%).

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 (at most 68\%) returned at a lower rate than the overall cohort (74\%). Similarly, students who had an ACT Composite score of 22-23 or lower (at most $71 \%$ ) returned at a lower rate than the cohort retention rate ( $74 \%$ ). 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 (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 22-23 or lower was also statistically significant (see Appendix: ANOVA Tables).

## Environmental Variable Cross Tabular Results

For the environmental variables included in this analysis, USA Day attendance results (see Table 2) showed students who attended one or more USA Day (at least 79\%) returned at a higher rate than the overall cohort (74\%). There was a significant mean difference between students who attended one USA Day in comparison to students who did not attend an USA Day (see Appendix: ANOVA Tables).

Table 2: Comparison of Environmental Variables to 2017 Cohort Retention Rate

| Variable | Retention Rate >= 74\% | Count | Retention Rate < 74\% | Count |
| :---: | :---: | :---: | :---: | :---: |
| *USA Day Attendance |  |  |  |  |
|  | Attended Multiple USA Days (80\%) | 15 | *Did Not Attend (73\%) | 1,396 |
|  | Attended 1 USA Day (79\%) | 457 |  |  |
| *Orientation Session |  |  |  |  |
|  | *Freshman Session 1 (88\%) | 189 | Freshman Session 6 (72\%) | 170 |
|  | Freshman Session 4 (81\%) | 181 | Freshman Session 8 (71\%) | 151 |
|  | Freshman Session 3 (80\%) | 183 | Freshman Session 9 (68\%) | 151 |
|  | Freshman Session 5 (80\%) | 180 | Freshman Session 7 (66\%) | 189 |
|  | Freshman Session 2 (78\%) | 189 | Freshman Session 10 (64\%) | 131 |
|  | May Orientation (75\%) | 24 | August/Other Orientation (63\%) | 130 |
| *College |  |  |  |  |
|  | *Allied Health (82\%) | 300 | Arts and Sciences (72\%) | 587 |
|  | Education (77\%) | 186 | Nursing (72\%) | 316 |
|  | Computing (77\%) | 81 | Business (70\%) | 173 |
|  | Engineering (75\%) | 225 |  |  |
| *USA Freshman Scholarship |  |  |  |  |
|  | *Yes (79\%) | 920 | No (70\%) | 948 |
| *Other Scholarship |  |  |  |  |
|  | *Yes (79\%) | 1,118 | No (68\%) | 750 |
| *Pell Grant |  |  |  |  |
|  | No (77\%) | 1,090 | *Yes (71\%) | 778 |
| Test Fee Waiver |  |  |  |  |
|  | No (75\%) | 1,765 | Yes (71\%) | 103 |
| Housing |  |  |  |  |
|  | On campus (75\%) | 1,128 | Off campus (74\%) | 740 |
| *Learning Community |  |  |  |  |
|  | *Yes (76\%) | 1,423 | No (70\%) | 445 |
| Freshman Seminar |  |  |  |  |
|  | No (75\%) | 510 | Yes (74\%) | 1,358 |
| *Greek Life Participation |  |  |  |  |
|  | *Yes (88\%) | 290 | No (72\%) | 1,578 |

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.

In terms of the orientation session attended, the retention rate of students who attended one of the first five freshman summer orientation sessions was at least $78 \%$. Retention rates based on the orientation session attended ranged from a high of $88 \%$ for students who attended the Freshman Session 1 to a low of $63 \%$ for students who attended either the August Orientation session, a transfer orientation session, or an unknown orientation session. When using the Freshman Session 1 orientation session as a comparison
group, there was a significant mean difference between the Freshman Session 1 group in comparison to Freshman Sessions 6, 7, 8, 9, and 10 and the combined group that attended either the August Orientation session, a transfer orientation session, or an unknown orientation session (see Appendix: ANOVA Tables).

Retention comparisons based on the college housing the major the student initially selected showed Allied Health (82\%), Education (77\%), Computing (77\%), and Engineering (75\%) students returned at a higher rate than the overall cohort (74\%). When using Allied Health as a comparison group, there was a significant mean difference between students who initially selected a major in Allied Health in comparison to students in Arts and Sciences, Nursing, and Business (see Appendix: ANOVA Tables).

Scholarship retention rate comparisons illustrated that receiving scholarships positively affected retention. Students receiving a USA freshman scholarship (79\%) or some other type of scholarship ${ }^{6}$ ( $79 \%$ ) returned at a higher rate than the cohort retention rate (74\%). 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 (71\%) or received a NACAC fee waiver for ACT or SAT test-taking purposes (71\%), due to meeting one of the indicators of economic need, returned at a lower rate than the overall cohort (74\%).

Students who lived on campus ( $75 \%$ ) or participated in a learning community ( $76 \%$ ) returned at a higher rate than the overall cohort (74\%). 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 did not take Freshman Seminar (75\%) returned at a slightly higher rate compared to students who took Freshman Seminar (74\%). However, students who participated in Greek life (88\%) returned at a higher rate than the overall cohort ( $74 \%$ ). In addition, the mean difference between retention of students who participated in Greek life and students who did not participate in Greek life was statistically significant (see Appendix: Independent T-Test Tables).

## Outcome Variable Midway Through or After Fall 2017 Cross Tabular Results

Outcome variables incorporated into this analysis that were known midway through or after Fall 2017 included the number of at-risk midterm grades (D, F, or U) a student had in Fall 2017 and whether the student was placed on probation after Fall 2017 (see Table 3). Students who did not have an at-risk midterm grade ( $85 \%$ ) returned at a higher rate than the overall cohort ( $74 \%$ ). The mean difference for students who did not have an at-risk midterm grade in Fall 2017 compared to students who had an at-risk midterm grade in one or more courses was statistically significant (see Appendix: ANOVA Tables).

[^2]Table 3: Comparison of Outcome Variables Midway Through/After Fall 2017 to 2017 Cohort Retention Rate

| Variable | Retention Rate >=74\% | Count | Retention Rate < 74\% | Count |
| :--- | :--- | :---: | :--- | ---: |
| *Number of At-Risk Midterm Grades in Fall 2017 |  |  |  |  |
|  | *No At-Risk MT Grades (85\%) | 1,004 | 2 At-Risk MT Grades (66\%) | 213 |
|  | 1 At-Risk MT Grade (74\%) | 428 | 3 At-Risk MT Grades (50\%) | 105 |
|  |  |  | 4 or More At-Risk MT Grades (25\%) | 118 |
| *Probation Status after Fall 2017 | No (83\%) | 1,566 | *Yes (32\%) | 302 |
|  |  |  |  |  |

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 were not on probation after Fall 2017 returned at a much higher rate (83\%) compared to students who were placed on probation after the Fall 2017 semester ended (32\%). The mean difference between students who were not on probation and students who were placed on probation was statistically significant (see Appendix: Independent T-Test Tables).

## Outcome Variable After Summer 2018 Cross Tabular Results

Outcome variables incorporated into this analysis that were known after Summer 2018 included the number of hours earned after Summer 2018 at USA and the USA GPA after Summer 2018 (see Table 4). 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.

Table 4: Comparison of Outcome Variables After Summer 2018 to 2017 Cohort Retention Rate

| Variable | Retention Rate >= 74\% | Count | Retention Rate < 74\% | Count |
| :---: | :---: | :---: | :---: | :---: |
| *USA Hours Earned after Summer 2018 |  |  |  |  |
|  | *30.5 or more (95\%) | 804 | 18.5-24 (72\%) | 162 |
|  | 24.5-30 (87\%) | 515 | 12.5-18 (24\%) | 148 |
|  |  |  | 6.5-12 (17\%) | 87 |
|  |  |  | 0-6 (8\%) | 127 |
| *USA GPA after Summer 2018 |  |  |  |  |
|  | 3.51-4.0 (90\%) | 567 | *2.0 or lower (27\%) | 321 |
|  | 3.01-3.5 (87\%) | 427 |  |  |
|  | 2.51-3.0 (82\%) | 331 |  |  |
|  | 2.01-2.5 (76\%) | 197 |  |  |

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 earned 24.5 to 30 or more hours at USA after Summer 2018 returned at a higher rate (at least $87 \%$ ) compared to students who earned 18.5 to 24 or fewer hours (at most $72 \%$ ). The mean difference between students who earned 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 of 2.01 to 2.5 or higher after Summer 2018 returned at a much higher rate (at least $76 \%$ ) compared to students with a USA GPA of 2.0 or lower ( $27 \%$ ). Furthermore, the mean difference between 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 midway through or after the Fall 2017 semester: 1) the number of at-risk midterm grades a student had in Fall 2017 and 2) whether the student was placed on probation after Fall 2017 to see what happened when these variables were used as predictors of retention. The fourth and fifth models tested a different outcome variable known after the Summer 2018 semester. The fourth model tested the number of USA hours earned after Summer 2018 and the fifth model tested the USA GPA after Summer 2018 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 because some students in the cohort had missing data, such as a high school GPA and/or an 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 1,812 students for the first and second models to a high of 1,868 students for the third model. The total number of students without any missing data for any of the variables used in the five different models was 1,787 . The retention rate for this subset of 1,787 students was $76 \%$. With a similar retention rate ( $76 \%$ compared to $74 \%$ ) and 1,787 students representing $96 \%$ 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 four steps (see Appendix: Logistic Regression Tables). The final step (step 4) of the first model showed the model correctly classified students in this cohort who returned $99.3 \%$ of the time and students who did not return $2.0 \%$ of the time for an overall classification rate of $74.7 \%$.

For each variable included in the first model, a comparison group was selected (gender=male, race/ethnicity=multiracial, age=19 years old, region=rest of United States, high school GPA=3.0 or lower, first generation status=No, and ACT Composite score=19 or lower). In the first model (see Appendix: Logistic Regression Tables), high school GPA, age, race/ethnicity, and ACT Composite score were significant in the final step (step 4) of the model. The final step (step 4) of the first model showed the odds $(\operatorname{Exp} B)$ of a student returning was greater for African-American (1.259), Asian (533,057,388), NonResident Alien (2.165), White (1.016), and students of some other race/ethnicity (1.506) than for multiracial students.

When looking at the age of a student, the final step (step 4) of the first model showed the odds (Exp B) of a student returning was greater for a student of all other age groups ( 17 years or younger=2.699, 18 years old=1.539, 20 years or older=2.402) than for a student who was 19 years old. The confidence intervals (95\%) also indicated the odds of a student returning was greater for a student who was 17 years or younger or 18 years old than for a student who was 19 years old.

The final step (step 4) of the first model showed the odds ( $\operatorname{Exp} B$ ) of a student returning was greater for a student in the two higher high school GPA comparison groups (3.01-3.5=1.530 and 3.51-4.0=2.823) than for a student with a high school GPA of 3.0 or lower. Additionally, the confidence intervals (95\%)
indicated the odds of a student returning was greater for a student in the two higher high school GPA comparison groups than for a student with a high school GPA of 3.0 or lower.

In addition, except for students with an ACT Composite score of 28-29, the final step (step 4) of the first model showed the odds $(\operatorname{Exp} B)$ of a student returning was greater for a student with an ACT Composite score of $24-25$ or higher ( $24-25=1.271,26-27=1.334$, and 30 or higher=1.497) than for a student with an ACT Composite score of 19 or lower. However, the confidence intervals (95\%) did not indicate the odds of a student returning was greater for a student in any ACT Composite score comparison group higher than an ACT Composite score of 19 or lower.

## 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, the college housing the major the student selected at initial enrollment in Fall 2017=Arts and Sciences, 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, and whether the student participated in Greek life=no).

The second model consisted of two steps (see Appendix: Logistic Regression Tables). In comparison to the first model, the correct classification rate for the second model slightly decreased to $96.3 \%$ for returning students while the classification rate for the second model increased to $12.0 \%$ for students who did not return. The overall correct classification rate for the second model was $75.0 \%$.

Once again, high school GPA, age, race/ethnicity, and ACT Composite score were significant in the final step (step 2) of the second model (see Appendix: Logistic Regression Tables). In addition, participation in Greek life and the orientation session attended were significant in the final step (step 2) of the second model.

The final step (step 2) of the second model showed the odds $(\operatorname{Exp} B)$ of a student returning was greater for African-American (1.537), Asian (514,994,730), Non-Resident Alien (3.404), and students of some other race/ethnicity (1.446) than for multiracial students. When looking at the age of the student, the final step (step 2) of the second model showed the odds $(\operatorname{Exp} B)$ of a student returning was greater for a student of all other age groups ( 17 years or younger=2.569, 18 years old=1.383, 20 years or older=3.203) than for a student who was 19 years old. The confidence intervals (95\%) also indicated the odds of a student returning was greater for a student who was 17 years or younger than for a student who was 19 years old.

The final step (step 2) of the second model showed the odds ( $\operatorname{Exp} B$ ) of a student returning was greater for a student in the two higher high school GPA comparison groups (3.01-3.5=1.487 and 3.51-4.0=2.618) than for a student with a high school GPA of 3.0 or lower. Additionally, the confidence intervals (95\%) indicated the odds of a student returning was greater for a student in the two higher high school GPA comparison groups than for a student with a high school GPA of 3.0 or lower.

A review of the ACT Composite score results in the final step (step 2) of the second model showed the odds $(\operatorname{Exp} B)$ of a student returning was greater for a student with an ACT Composite score of 24-25 (1.240) or 26-27 (1.313) than for a student with an ACT Composite score of 19 or lower. However, the confidence intervals (95\%) did not indicate the odds of a student returning was greater for a student in any ACT Composite score comparison group higher than an ACT Composite score of 19 or lower.

When looking at participation in Greek life, the final step (step 2) of the second model showed the odds (Exp B) of a student returning was greater for a student that participated in Greek life (3.011) than for a student that did not participate. The confidence intervals (95\%) also indicated the odds of a student returning was greater for a student that participated in Greek life than non-participants.

Finally, the final step (step 2) of the second model showed the odds $(\operatorname{Exp} B)$ of a student returning was greater for a student who attended all orientation sessions (May Orientation=2.198, Freshman Session 1=3.146, Freshman Session 2=1.587, Freshman Session 3=2.105, Freshman Session 4=2.057, Freshman Session 5=1.982, Freshman Session 6=1.316, Freshman Session 7=1.084, Freshman Session 8=1.488, and Freshman Session 9=1.142), except for Freshman Session 10, than for a student who attended either the August Orientation session, a transfer orientation session, or an unknown orientation session. In addition, the confidence intervals ( $95 \%$ ) indicated the odds of a student returning was greater for a student who attended the Freshman Session 1, Freshman Session 3, Freshman Session 4, or Freshman Session 5 orientation than for a student who attended either the August Orientation session, a transfer orientation session, or an unknown orientation session.

## 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 2017 semester had already begun. The third model included outcome variables known midway through or after the Fall 2017 semester ended (number of at-risk midterm grades in Fall 2017 and probation status after Fall 2017). The fourth model (number of hours earned after Summer 2018) and fifth model (USA GPA the student attained after Summer 2018) included a different outcome variable known after the Summer 2018 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 2017 semester (third model) or Summer 2018 semester (fourth and fifth models) ended.

Model 3: Logistic Regression with Variables Midway Through or After Fall 2017
The third model included variables known midway through or after Fall 2017. For each variable included in the third model a comparison group was selected (number of at-risk midterm grades in Fall 2017=four or more at-risk midterm grades and whether the student was placed on probation after Fall 2017=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 $93.1 \%$ for returning students. However, in comparison to the first and second model, the classification rate for the third model substantially increased to $40.0 \%$ for students who did not return since this snapshot included data known after the end of the Fall 2017 semester instead of pre-Fall 2017 semester data. The overall correct classification rate for the third model was $79.5 \%$.

In the final step (step 2) of the third model, probation status after Fall 2017 and the number of at-risk midterm grades in Fall 2017 were significant (see Appendix: Logistic Regression Tables). The final step (step 2) of the third model showed the odds $(\operatorname{Exp} B)$ of a student returning was greater for a student who was not placed on probation after Fall 2017 (5.654) than for a student who was placed on probation after Fall 2017. The confidence intervals ( $95 \%$ ) also supported this finding because the odds for a student returning was greater for a student who was not on probation after Fall 2017 than a student who was placed on probation after Fall 2017.

When looking at the number of at-risk (D, F, or U) midterm grades in Fall 2017, the final step (step 2) of the third model showed the odds $(\operatorname{Exp} B)$ of a student returning was greater for a student who had three or fewer at-risk midterm grades in Fall 2017 (three at-risk midterm grades=2.097, two at-risk midterm
grades=3.108, one at-risk midterm grade=2.814, no at-risk midterm grades=4.392) than for a student who had four or more at-risk midterm grades in Fall 2017. The confidence intervals (95\%) also indicated the odds of a student returning was greater for a student with three or fewer at-risk midterm grades in Fall 2017 than a student who had four or more at-risk midterm grades in Fall 2017.

Model 4: Logistic Regression with USA Hours Earned After Summer 2018 Variable The fourth model included the USA hours earned after the end of the Summer 2018 semester. The comparison group selected for the fourth model was zero to six hours earned after the end of the Summer 2018 semester. Since the fourth model only included one variable, the model consisted of one step (see Appendix: Logistic Regression Tables). The correct classification rate for the fourth model for returning students ( $95.7 \%$ ) 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 (66.5\%) since this snapshot included data known after the end of the Summer 2018 semester. The overall correct classification rate for the fourth model was $88.5 \%$.

The fourth model showed the odds $(\operatorname{Exp} B)$ of a student returning was greater for a student with 6.5-12 or more hours earned $(6.5-12=2.437,12.5-18=3.624,18.5-24=30.420,24.5-30=79.595,30.5$ or more=217.734) than for a student with six or fewer hours earned at the end of Summer 2018 (see Appendix: Logistic Regression Tables). 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.

## Model 5: Logistic Regression with USA GPA After Summer 2018 Variable

The fifth model included the USA GPA after the end of the Summer 2018 semester. The comparison group selected for the fifth model was an USA GPA of 2.0 or lower after the end of the Summer 2018 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 $(93.8 \%)$ 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 (51.8\%) was higher than the first, second, and third models since this snapshot included data known after the end of the Summer 2018 semester instead of pre-Fall 2017 semester data, but was lower than the fourth model. The overall correct classification rate for the fifth model was $83.5 \%$.

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 $=8.721,2.51-3.0=12.095,3.01-3.5=18.482,3.51-4.0=24.935$ ) than for a student with an USA GPA of 2.0 or lower at the end of Summer 2018 (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.

## Peer Comparisons

Finally, to better understand how USA one-year retention rates compared to 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 the rates of 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 lower in comparison to most of these peer institutions. The USA one-year retention rate over this period ranged from a low of $66 \%$ for the 2011 freshman cohort to a high of $73 \%$ for the 2014 and 2015 freshman cohorts. The one-year 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 and 2015 freshman cohorts.

Table 5: One-Year Retention Rate Peer Comparisons * Ranked by 2015 Cohort Retention Rate * High to Low

| Institution Name | $\mathbf{2 0 1 5}$ <br> Cohort <br> Retention | $\mathbf{2 0 1 4}$ <br> Cohort <br> Retention | $\mathbf{2 0 1 3}$ <br> Cohort <br> Retention | $\mathbf{2 0 1 2}$ <br> Cohort <br> Retention | $\mathbf{2 0 1 1}$ <br> Cohort <br> Retention |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Florida International University | 88 | 88 | 84 | 84 | 82 |
| University of Memphis | 80 | 77 | 78 | 76 | 76 |
| University of North Florida | 80 | 80 | 83 | 82 | 83 |
| University of North Texas | 80 | 79 | 78 | 75 | 76 |
| University of Massachusetts-Boston | 79 | 78 | 80 | 77 | 79 |
| Old Dominion University | 78 | 82 | 81 | 80 | 80 |
| Florida Atlantic University | 77 | 78 | 75 | 77 | 78 |
| Texas State University | 77 | 78 | 76 | 77 | 76 |
| University of Nebraska at Omaha | 77 | 77 | 77 | 75 | 72 |
| Indiana University-Purdue University-Indianapolis | 74 | 74 | 71 | 72 | 72 |
| University of South Alabama | 73 | 73 | 71 | 68 | 66 |
| University of Montana | 69 | 73 | 73 | 73 | 74 |
| University of Texas at Arlington | 69 | 71 | 69 | 71 | 72 |
| University of New Orleans | 64 | 62 | 69 | 67 | 65 |

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), oneyear 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. In addition, students who are 19 years old or older may require additional resources and monitoring to enable and/or encourage them to persist towards successfully completing a degree at USA.

When we look at the institutional support and other support provided to a student (environmental variables), the orientation session students in the 2017 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 provides a key factor for identifying at-risk freshmen students early in their college experience.

Students who participated in Greek life at USA were more likely to return to USA. This 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. Additional USA freshman scholarships should be considered to continue to attract top students to attend USA. In addition, need-based grants could be utilized to assist students in greater need of financial support to encourage them to return to and persist towards completing a degree at USA.

Finally, results showed students who received four or more at-risk midterm grades (D, F, or U) in the Fall 2017 semester for lack of attendance and/or poor academic performance and students who were placed on probation after the Fall 2017 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 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 2017 freshman cohort that will be completed by the Office of Institutional Research during the Fall 2018 semester. The second retention study will use National Student Clearinghouse data to explore the issue of "Where did non-returning
freshmen in the 2017 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

2017 Freshman Cohort Retention Report Cross Tabs

2017 Cohort * Gender * One-Year Retention Crosstabulation

|  |  |  | One-Year Retention |  |  |
| :--- | :--- | :--- | ---: | ---: | ---: |
|  |  |  | No | Yes | Total |
| Gender | Female | Count | 273 | 873 | 1146 |
|  |  | \% within Gender | $23.8 \%$ | $76.2 \%$ | $100.0 \%$ |
|  | Male | Count | 205 | 517 | 722 |
|  |  | \% within Gender | $28.4 \%$ | $71.6 \%$ | $100.0 \%$ |
| Total | Count | 478 | 1390 | 1868 |  |
|  | \% within Gender | $25.6 \%$ | $74.4 \%$ | $100.0 \%$ |  |

2017 Cohort * Race * One-Year Retention Crosstabulation

|  |  |  | One-Year | ention |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | No | Yes | Total |
| Race | White | Count | 314 | 903 | 1217 |
|  |  | \% within Race | 25.8\% | 74.2\% | 100.0\% |
|  | African-American | Count | 103 | 283 | 386 |
|  |  | \% within Race | 26.7\% | 73.3\% | 100.0\% |
|  | Asian | Count | 0 | 34 | 34 |
|  |  | \% within Race | 0.0\% | 100.0\% | 100.0\% |
|  | Hispanic | Count | 24 | 62 | 86 |
|  |  | \% within Race | 27.9\% | 72.1\% | 100.0\% |
|  | Multiracial | Count | 22 | 55 | 77 |
|  |  | \% within Race | 28.6\% | 71.4\% | 100.0\% |
|  | Non-Resident Alien | Count | 6 | 16 | 22 |
|  |  | \% within Race | 27.3\% | 72.7\% | 100.0\% |
|  | Other | Count | 9 | 37 | 46 |
|  |  | \% within Race | 19.6\% | 80.4\% | 100.0\% |
| Total |  | Count | 478 | 1390 | 1868 |
|  |  | \% within Race | 25.6\% | 74.4\% | 100.0\% |

2017 Cohort * Age * One-Year Retention Crosstabulation

|  |  |  | One-Year | ention |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | No | Yes | Total |
| Age | 17 years or younger | Count | 18 | 101 | 119 |
|  |  | \% within Age | 15.1\% | 84.9\% | 100.0\% |
|  | 18 years old | Count | 405 | 1194 | 1599 |
|  |  | \% within Age | 25.3\% | 74.7\% | 100.0\% |
|  | 19 years old | Count | 42 | 70 | 112 |
|  |  | \% within Age | 37.50\% | 62.50\% | 100.0\% |
|  | 20 years or older | Count | 13 | 25 | 38 |
|  |  | \% within Age | 34.2\% | 65.8\% | 100.0\% |
| Total |  | Count | 478 | 1390 | 1868 |
|  |  | \% within Age | 25.6\% | 74.4\% | 100.0\% |

2017 Cohort * Region * One-Year Retention Crosstabulation


2017 Cohort * HS GPA Logistic * One-Year Retention Crosstabulation

|  |  |  | One-Year | ention |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | No | Yes | Total |
| HS GPA | 3.0 or lower | Count | 107 | 149 | 256 |
| Logistic |  | \% within HS GPA Logistic | 41.8\% | 58.2\% | 100.0\% |
|  | 3.01-3.5 | Count | 157 | 332 | 489 |
|  |  | \% within HS GPA Logistic | 32.1\% | 67.9\% | 100.0\% |
|  | 3.51 or higher | Count | 210 | 905 | 1115 |
|  |  | \% within HS GPA Logistic | 18.8\% | 81.2\% | 100.0\% |
| Total |  | Count | 474 | 1386 | 1860 |
|  |  | \% within HS GPA Logistic | 25.48\% | 74.52\% | 100.0\% |

2017 Cohort * ACT * One-Year Retention Crosstabulation


2017 Cohort * First Generation * One-Year Retention Crosstabulation

|  |  |  | One-Year Retention |  |  |
| :--- | :--- | :--- | ---: | ---: | ---: |
|  |  | Count | No | Yes | Total |
| First | No | \% within First Generation | 380 | 1123 | 1503 |
|  |  | Count | $25.3 \%$ | $74.7 \%$ | $100.0 \%$ |
|  | Yes | \% within First Generation | 98 | 267 | 365 |
|  |  | Count | $26.8 \%$ | $73.2 \%$ | $100.0 \%$ |
| Total | \% within First Generation | 478 | 1390 | 1868 |  |
|  |  |  | $25.6 \%$ | $74.4 \%$ | $100.0 \%$ |

2017 Cohort * Number USA Days Attended * One-Year Retention Crosstabulation


Orientation * One-Year Retention Crosstabulation


2017 Cohort * Orientation Logistic * One-Year Retention Crosstabulation


2017 Cohort * College * One-Year Retention Crosstabulation


2017 Cohort * Freshman Scholarship * One-Year Retention Crosstabulation

|  |  |  | One-Year Retention |  |  |
| :--- | :--- | :--- | ---: | ---: | ---: |
|  |  | No | Yes | Total |  |
| Freshman | No | Count | 288 | 660 | 948 |
| Scholarship | \% within Freshman Scholarship | $30.4 \%$ | $69.6 \%$ | $100.0 \%$ |  |
|  |  | Count | 190 | 730 | 920 |
|  | Yes | \% within Freshman Scholarship | $20.7 \%$ | $79.3 \%$ | $100.0 \%$ |
| Total | Count | 478 | 1390 | 1868 |  |
|  |  | \% within Freshman Scholarship | $25.6 \%$ | $74.4 \%$ | $100.0 \%$ |

2017 Cohort * Other Scholarship * One-Year Retention Crosstabulation


2017 Cohort * Pell Grant * One-Year Retention Crosstabulation


2017 Cohort * Received Test Fee Waiver * One-Year Retention Crosstabulation

|  |  |  | One-Year Retention |  |  |
| :--- | :--- | :--- | ---: | ---: | ---: |
|  |  |  | No | Yes | Total |
| Received | No | Count | 448 | 1317 | 1765 |
| Test Fee | \% within Received Test Fee Waiver | $25.4 \%$ | $74.6 \%$ | $100.0 \%$ |  |
| Waiver | Yes | Count | 30 | 73 | 103 |
|  |  | \% within Received Test Fee Waiver | $29.1 \%$ | $70.9 \%$ | $100.0 \%$ |
| Total | Count | 478 | 1390 | 1868 |  |
|  |  | \% within Received Test Fee Waiver | $25.6 \%$ | $74.4 \%$ | $100.0 \%$ |

2017 Cohort * Housing * One-Year Retention Crosstabulation


2017 Cohort * Learning Community * One-Year Retention Crosstabulation

|  |  |  | One-Year Retention |  |
| :--- | :--- | ---: | ---: | ---: |
|  |  | No | Yes | Total |
| Learning | No | Count | 134 | 311 |

## 2017 Freshman Cohort Retention Report Cross Tabs

2017 Cohort * Took Freshman Seminar * One-Year Retention Crosstabulation

|  |  |  | One-Year Retention |  |
| :--- | :--- | ---: | ---: | ---: |
|  |  |  | No | Yes |
| Total |  |  |  |  |
| Took | No | Count | 125 | 385 |
| Freshman | \% within Took Freshman Seminar | 510 |  |  |
| Seminar |  | Count | $24.51 \%$ | $75.49 \%$ |
|  | Yes | \% within Took Freshman Seminar | $100.0 \%$ |  |
| Total | Count | 353 | 1005 | 1358 |
|  |  | \% within Took Freshman Seminar | $26.0 \%$ | $74.0 \%$ |

2017 Cohort * Greek Life Participation * One-Year Retention Crosstabulation

|  |  |  | One-Year Retention |  |  |
| :--- | :--- | :--- | ---: | ---: | ---: |
|  |  | No | Yes | Total |  |
| Greek Life | No | Count | 443 | 1135 | 1578 |
| Participation | \% within Greek Life Participation | $28.1 \%$ | $71.9 \%$ | $100.0 \%$ |  |
|  | Yes | Count | 35 | 255 | 290 |
|  |  | \% within Greek Life Participation | $12.1 \%$ | $87.9 \%$ | $100.0 \%$ |
| Total | Count | 478 | 1390 | 1868 |  |
|  |  | \% within Greek Life Participation | $25.6 \%$ | $74.4 \%$ | $100.0 \%$ |

2017 Cohort * Number At Risk Midterm Grades in Fall 2017 * One-Year Retention Crosstabulation


2017 Cohort * Probation After Fall 2017 * One-Year Retention Crosstabulation

|  |  |  | One-Year Retention |  |  |
| :--- | :--- | :--- | ---: | ---: | ---: |
|  |  |  | No | Yes | Total |
| Probation | No | Count | 274 | 1292 | 1566 |
| After Fall | \% within Probation After Fall 2017 | $17.50 \%$ | $82.50 \%$ | $100.0 \%$ |  |
| 2017 | Yes | Count | 204 | 98 | 302 |
|  | \% within Probation After Fall 2017 | $67.55 \%$ | $32.45 \%$ | $100.0 \%$ |  |
| Total | Count | 478 | 1390 | 1868 |  |
|  |  | \% within Probation After Fall 2017 | $25.6 \%$ | $74.4 \%$ | $100.0 \%$ |

2017 Cohort * USA Hours Earned After Summer 2018 * One-Year Retention Crosstabulation

|  |  | One-Year Retention |  | Total |
| :---: | :---: | :---: | :---: | :---: |
|  |  | No | Yes |  |
| USA Hours 0-6 hours | Count | 117 | 10 | 127 |
| Earned After | \% within USA Hours Earned After Summer | 92.1\% | 7.9\% | 100.0\% |
| Summer 2018 6.5-12 hours | Count | 72 | 15 | 87 |
|  | \% within USA Hours Earned After Summer | 82.8\% | 17.2\% | 100.0\% |
| 12.5-18 hours | Count | 113 | 35 | 148 |
|  | \% within USA Hours Earned After Summer | 76.4\% | 23.6\% | 100.0\% |
| 18.5-24 hours | Count | 45 | 117 | 162 |
|  | \% within USA Hours Earned After Summer | 27.8\% | 72.2\% | 100.0\% |
| 24.5-30 hours | Count | 66 | 449 | 515 |
|  | \% within USA Hours Earned After Summer | 12.8\% | 87.2\% | 100.0\% |
| 30.5 or more hours | Count | 41 | 763 | 804 |
|  | \% within USA Hours Earned After Summer | 5.1\% | 94.9\% | 100.0\% |
| Total | Count | 454 | 1389 | 1843 |
|  | \% within USA Hours Earned After Summer | 24.6\% | 75.4\% | 100.0\% |

2017 Cohort * USA GPA After Summer 2018 * One-Year Retention Crosstabulation

|  |  |  | One-Year | ention |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | No | Yes | Total |
| USA GPA | 2.0 or lower | Count | 235 | 86 | 321 |
| After Summer |  | \% within USA GPA After Summer 2018 | 73.2\% | 26.8\% | 100.0\% |
|  | 2.01-2.5 | Count | 47 | 150 | 197 |
|  |  | \% within USA GPA After Summer 2018 | 23.9\% | 76.1\% | 100.0\% |
|  | 2.51-3.0 | Count | 61 | 270 | 331 |
|  |  | \% within USA GPA After Summer 2018 | 18.4\% | 81.6\% | 100.0\% |
|  | 3.01-3.5 | Count | 55 | 372 | 427 |
|  |  | \% within USA GPA After Summer 2018 | 12.9\% | 87.1\% | 100.0\% |
|  | 3.51-4.0 | Count | 56 | 511 | 567 |
|  |  | \% within USA GPA After Summer 2018 | 9.9\% | 90.1\% | 100.0\% |
| Total |  | Count | 454 | 1389 | 1843 |
|  |  | \% within USA GPA After Summer 2018 | 24.6\% | 75.4\% | 100.0\% |

2017 Cohort * Group Statistics

| One-Year Retention |  | N | Mean | Std. Deviation | Std. Error Mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Gender T-Test | No | 478 | . 57 | . 495 | . 023 |
|  | Yes | 1390 | . 63 | . 483 | . 013 |
| First Generation | No | 478 | . 21 | . 404 | . 018 |
|  | Yes | 1390 | . 19 | . 394 | . 011 |
| Freshman Scholarship |  | 478 | . 40 | . 490 | . 022 |
|  | Yes | 1390 | . 53 | . 500 | . 013 |
| Other Scholarship | No | 478 | . 50 | . 501 | . 023 |
|  | Yes | 1390 | . 63 | . 482 | . 013 |
| Pell Grant | No | 478 | . 47 | . 500 | . 023 |
|  | Yes | 1390 | . 40 | . 489 | . 013 |
| Received Test Fee Waiver | No | 478 | . 06 | . 243 | . 011 |
|  | Yes | 1390 | . 05 | . 223 | . 006 |
| Housing | No | 478 | . 60 | . 491 | . 022 |
|  | Yes | 1390 | . 61 | . 489 | . 013 |
| Learning Community | No | 478 | . 72 | . 450 | . 021 |
|  | Yes | 1390 | . 78 | . 417 | . 011 |
| Took Freshman Seminar | No | 478 | . 74 | . 440 | . 020 |
|  | Yes | 1390 | . 72 | . 448 | . 012 |
| Greek Life Participation | No | 478 | . 07 | . 261 | . 012 |
|  | Yes | 1390 | . 18 | . 387 | . 010 |
| Probation After Fall 2017 | No | 478 | . 43 | . 495 | . 023 |
|  | Yes | 1390 | . 07 | . 256 | . 007 |

## 2017 Freshman Cohort Retention Report Independent T-Test Tables

2017 Cohort * Independent Samples Test

|  |  | Equality of Variances |  | t-test for Equality of Means |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | Sig. | t | df | Sig. (2tailed) | Mean Difference | Std. Error Difference | 95\% Confidence |  |
|  |  | Lower |  |  |  |  |  |  | Upper |
| Gender T-Test | Equal variances assumed Equal variances not assumed |  | 14.422 | . 000 | $\begin{aligned} & -2.207 \\ & -2.180 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1866 \\ 810.750 \end{array}$ | $\begin{aligned} & .027 \\ & .030 \end{aligned}$ | $\begin{array}{\|c\|} \hline-.057 \\ -.057 \end{array}$ | $\begin{aligned} & .026 \\ & .026 \\ & \hline \end{aligned}$ | $\begin{aligned} & -.108 \\ & -.108 \end{aligned}$ | $\begin{aligned} & -.006 \\ & -.006 \end{aligned}$ |
| First Generation | Equal variances assumed Equal variances not assumed | 1.482 | . 224 | $\begin{aligned} & \hline .615 \\ & .607 \end{aligned}$ | $\begin{array}{r} 1866 \\ 810.193 \end{array}$ | $\begin{aligned} & \hline .539 \\ & .544 \end{aligned}$ | $\begin{aligned} & \hline .013 \\ & .013 \end{aligned}$ | $\begin{aligned} & .021 \\ & .021 \end{aligned}$ | $\begin{aligned} & \hline-.028 \\ & -.029 \\ & \hline \end{aligned}$ | .054 .055 |
| Freshman Scholarship | Equal variances assumed Equal variances not assumed | 45.485 | . 000 | $\begin{aligned} & \hline-4.845 \\ & -4.891 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1866 \\ 842.135 \\ \hline \end{array}$ | $\begin{aligned} & .000 \\ & .000 \end{aligned}$ | $\begin{array}{\|c\|} \hline-.128 \\ -.128 \\ \hline \end{array}$ | .026 .026 | $\begin{array}{\|c\|} \hline-.179 \\ -.179 \\ \hline \end{array}$ | $\begin{array}{r}-.076 \\ -.076 \\ \hline\end{array}$ |
| Other Scholarship | Equal variances assumed Equal variances not assumed | 36.391 | . 000 | $\begin{aligned} & \hline-5.236 \\ & -5.141 \end{aligned}$ | $\begin{array}{r} 1866 \\ 801.934 \end{array}$ | $\begin{aligned} & .000 \\ & .000 \end{aligned}$ | $\begin{aligned} & -.135 \\ & -.135 \end{aligned}$ |  | $\begin{aligned} & \hline-.186 \\ & -.187 \end{aligned}$ | -. 085 |
| Pell Grant | Equal variances assumed Equal variances not assumed | 18.585 | . 000 | $\begin{aligned} & \hline 3.009 \\ & 2.977 \end{aligned}$ | $\begin{array}{r} 1866 \\ 812.826 \end{array}$ | $\begin{aligned} & .003 \\ & .003 \end{aligned}$ | $\begin{aligned} & \hline .078 \\ & .078 \end{aligned}$ | $\begin{aligned} & .026 \\ & .026 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .027 \\ & .027 \end{aligned}$ | .130 <br> .130 |
| Received Test Fee Waiver | Equal variances assumed Equal variances not assumed | 2.835 | . 092 | $\begin{aligned} & \hline .846 \\ & .812 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1866 \\ 772.021 \end{array}$ | $\begin{aligned} & \hline .398 \\ & .417 \\ & \hline \end{aligned}$ | $\begin{aligned} & .010 \\ & .010 \\ & \hline \end{aligned}$ | .012 .013 | -. 014 | .034 <br> .035 |
| Housing | Equal variances assumed Equal variances not assumed | . 593 | . 442 | $\begin{aligned} & \hline-.395 \\ & -.394 \end{aligned}$ | $\begin{array}{r} 1866 \\ 824.269 \end{array}$ | $\begin{aligned} & .693 \\ & .694 \end{aligned}$ | $\begin{array}{\|c\|} \hline-.010 \\ -.010 \end{array}$ | $\begin{aligned} & .026 \\ & .026 \end{aligned}$ | $\begin{aligned} & -.061 \\ & -.061 \end{aligned}$ | .041 .041 |
| Learning Community | Equal variances assumed Equal variances not assumed | 22.654 | . 000 | $\begin{aligned} & \hline-2.508 \\ & -2.418 \end{aligned}$ | 1866 777.396 | $\begin{aligned} & .012 \\ & .016 \end{aligned}$ | $\begin{aligned} & \hline-.057 \\ & -.057 \\ & \hline \end{aligned}$ | $\begin{aligned} & .023 \\ & .023 \end{aligned}$ | $\begin{aligned} & \hline-.101 \\ & -.103 \end{aligned}$ | -.012 -.011 |
| Took Freshman Seminar | Equal variances assumed Equal variances not assumed | 1.772 | . 183 | $\begin{aligned} & \hline .655 \\ & .660 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1866 \\ 840.611 \\ \hline \end{array}$ | $\begin{aligned} & \hline .513 \\ & .509 \\ & \hline \end{aligned}$ | $\begin{aligned} & .015 \\ & .015 \\ & \hline \end{aligned}$ | .024 <br> .023 | -. 031 | .062 <br> .061 |
| Greek Life Participation | Equal variances assumed Equal variances not assumed | 166.442 | . 000 | $\begin{aligned} & \hline-5.789 \\ & -6.970 \end{aligned}$ | $\begin{array}{r} 1866 \\ 1231.313 \end{array}$ | $\begin{aligned} & .000 \\ & .000 \end{aligned}$ | $\begin{aligned} & \hline-.110 \\ & -.110 \\ & \hline \end{aligned}$ | .019 .016 | $\begin{array}{\|c\|} \hline-.148 \\ -.141 \end{array}$ | -.073 -.079 |
| $\begin{aligned} & \text { Probation After Fall } \\ & 2017 \end{aligned}$ | Equal variances assumed Equal variances not assumed | 1221.503 | . 000 | $\begin{aligned} & \hline 20.124 \\ & 15.055 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1866 \\ 567.149 \\ \hline \end{array}$ | $\begin{aligned} & .000 \\ & .000 \end{aligned}$ | $\begin{array}{r} .356 \\ .356 \\ \hline \end{array}$ | $\begin{aligned} & .018 \\ & .024 \\ & \hline \end{aligned}$ | $\begin{aligned} & .322 \\ & .310 \\ & \hline \end{aligned}$ | .391 .403 |

2017 Cohort * Race * Multiple Comparisons
Dependent Variable:
Games-Howell

| (I) Race |  | Mean Difference$(\mathrm{I}-\mathrm{J})$ | Std. Error | Sig. | Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Bound | Bound |
| White | African-American | . 009 | . 026 | 1.000 | -. 07 | . 09 |
|  | Asian | -. $258{ }^{*}$ | . 013 | . 000 | -. 30 | -. 22 |
|  | Hispanic | . 021 | . 050 | 1.000 | -. 13 | . 17 |
|  | Multiracial | . 028 | . 053 | . 999 | -. 13 | . 19 |
|  | Non-Resident Alien | . 015 | . 098 | 1.000 | -. 30 | . 33 |
|  | Other | -. 062 | . 060 | . 944 | -. 25 | . 12 |
| African-American | White | -. 009 | . 026 | 1.000 | -. 09 | . 07 |
|  | Asian | -. $267{ }^{*}$ | . 023 | . 000 | -. 33 | -. 20 |
|  | Hispanic | . 012 | . 054 | 1.000 | -. 15 | . 17 |
|  | Multiracial | . 019 | . 057 | 1.000 | -. 15 | . 19 |
|  | Non-Resident Alien | . 006 | . 100 | 1.000 | -. 32 | . 33 |
|  | Other | -. 071 | . 063 | . 918 | -. 26 | . 12 |
| Asian | White | . $258{ }^{*}$ | . 013 | . 000 | . 22 | . 30 |
|  | African-American | . $267 *$ | . 023 | . 000 | . 20 | . 33 |
|  | Hispanic | . $279 *$ | . 049 | . 000 | . 13 | . 43 |
|  | Multiracial | . $286{ }^{*}$ | . 052 | . 000 | . 13 | . 44 |
|  | Non-Resident Alien | . 273 | . 097 | . 121 | -. 04 | . 59 |
|  | Other | . $196{ }^{*}$ | . 059 | . 028 | . 01 | . 38 |
| Hispanic | White | -. 021 | . 050 | 1.000 | -. 17 | . 13 |
|  | African-American | -. 012 | . 054 | 1.000 | -. 17 | . 15 |
|  | Asian | -. $279{ }^{*}$ | . 049 | . 000 | -. 43 | -. 13 |
|  | Multiracial | . 007 | . 071 | 1.000 | -. 21 | . 22 |
|  | Non-Resident Alien | -. 006 | . 109 | 1.000 | -. 35 | . 34 |
|  | Other | -. 083 | . 077 | . 930 | -. 31 | . 15 |
| Multiracial | White | -. 028 | . 053 | . 999 | -. 19 | . 13 |
|  | African-American | -. 019 | . 057 | 1.000 | -. 19 | . 15 |
|  | Asian | -. $286{ }^{*}$ | . 052 | . 000 | -. 44 | -. 13 |
|  | Hispanic | -. 007 | . 071 | 1.000 | -. 22 | . 21 |
|  | Non-Resident Alien | -. 013 | . 110 | 1.000 | -. 36 | . 33 |
|  | Other | -. 090 | . 079 | . 912 | -. 33 | . 15 |
| Non-Resident Alien | White | -. 015 | . 098 | 1.000 | -. 33 | . 30 |
|  | African-American | -. 006 | . 100 | 1.000 | -. 33 | . 32 |
|  | Asian | -. 273 | . 097 | . 121 | -. 59 | . 04 |
|  | Hispanic | . 006 | . 109 | 1.000 | -. 34 | . 35 |
|  | Multiracial | . 013 | . 110 | 1.000 | -. 33 | . 36 |
|  | Other | -. 077 | . 114 | . 993 | -. 43 | . 28 |
| Other | White | . 062 | . 060 | . 944 | -. 12 | . 25 |
|  | African-American | . 071 | . 063 | . 918 | -. 12 | . 26 |
|  | Asian | -. $196{ }^{*}$ | . 059 | . 028 | -. 38 | -. 01 |
|  | Hispanic | . 083 | . 077 | . 930 | -. 15 | . 31 |
|  | Multiracial | . 090 | . 079 | . 912 | -. 15 | . 33 |
|  | Non-Resident Alien | . 077 | . 114 | . 993 | -. 28 | . 43 |

[^3]
## 2017 Freshman Cohort Retention Report ANOVA Tables

2017 Cohort * Age * Multiple Comparisons
Dependent Variable:
Games-Howell

| (I) Age |  | Mean Difference$(\mathrm{I}-\mathrm{J})$ | Std. Error | Sig. | Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Bound | Bound |
| 17 years or younger | 18 years old | . $102{ }^{*}$ | . 035 | . 020 | . 01 | . 19 |
|  | 19 years old | . $224{ }^{*}$ | . 057 | . 001 | . 08 | . 37 |
|  | 20 years or older | . 191 | . 085 | . 123 | -. 03 | . 42 |
| 18 years old | 17 years or younger | -. $102^{*}$ | . 035 | . 020 | -. 19 | -. 01 |
|  | 19 years old | . 122 | . 047 | . 053 | . 00 | . 24 |
|  | 20 years or older | . 089 | . 079 | . 675 | -. 12 | . 30 |
| 19 years old | 17 years or younger | -. $224{ }^{*}$ | . 057 | . 001 | -. 37 | -. 08 |
|  | 18 years old | -. 122 | . 047 | . 053 | -. 24 | . 00 |
|  | 20 years or older | -. 033 | . 091 | . 983 | -. 27 | . 21 |
| 20 years or older | 17 years or younger | -. 191 | . 085 | . 123 | -. 42 | . 03 |
|  | 18 years old | -. 089 | . 079 | . 675 | -. 30 | . 12 |
|  | 19 years old | . 033 | . 091 | . 983 | -. 21 | . 27 |

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

## 2017 Cohort * Region * Multiple Comparisons

Dependent Variable:
Games-Howell

| (I) Region |  | Mean Difference$(\mathrm{I}-\mathrm{J})$ | Std. Error | Sig. | Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Bound | Bound |
| Mobile or Baldwin County | Rest of Alabama | . 010 | . 023 | . 998 | -. 06 | . 08 |
|  | Mississippi Service Area | -. 002 | . 044 | 1.000 | -. 13 | . 13 |
|  | Florida Service Area | . 003 | . 045 | 1.000 | -. 13 | . 13 |
|  | Rest of United States | . 024 | . 038 | . 988 | -. 08 | . 13 |
|  | International | . 023 | . 098 | 1.000 | -. 28 | . 33 |
| Rest of Alabama | Mobile or Baldwin County | -. 010 | . 023 | . 998 | -. 08 | . 06 |
|  | Mississippi Service Area | -. 012 | . 045 | 1.000 | -. 14 | . 12 |
|  | Florida Service Area | -. 007 | . 045 | 1.000 | -. 14 | . 12 |
|  | Rest of United States | . 014 | . 038 | . 999 | -. 10 | . 12 |
|  | International | . 013 | . 099 | 1.000 | -. 29 | . 32 |
| Mississippi Service Area | Mobile or Baldwin County | . 002 | . 044 | 1.000 | -. 13 | . 13 |
|  | Rest of Alabama | . 012 | . 045 | 1.000 | -. 12 | . 14 |
|  | Florida Service Area | . 005 | . 059 | 1.000 | -. 17 | . 17 |
|  | Rest of United States | . 026 | . 054 | . 997 | -. 13 | . 18 |
|  | International | . 025 | . 106 | 1.000 | -. 30 | . 35 |
| Florida Service Area | Mobile or Baldwin County | -. 003 | . 045 | 1.000 | -. 13 | . 13 |
|  | Rest of Alabama | . 007 | . 045 | 1.000 | -. 12 | . 14 |
|  | Mississippi Service Area | -. 005 | . 059 | 1.000 | -. 17 | . 17 |
|  | Rest of United States | . 021 | . 055 | . 999 | -. 14 | . 18 |
|  | International | . 020 | . 106 | 1.000 | -. 30 | . 34 |
| Rest of United States | Mobile or Baldwin County | -. 024 | . 038 | . 988 | -. 13 | . 08 |
|  | Rest of Alabama | -. 014 | . 038 | . 999 | -. 12 | . 10 |
|  | Mississippi Service Area | -. 026 | . 054 | . 997 | -. 18 | . 13 |
|  | Florida Service Area | -. 021 | . 055 | . 999 | -. 18 | . 14 |
|  | International | -. 001 | . 103 | 1.000 | -. 32 | . 32 |
| International | Mobile or Baldwin County | -. 023 | . 098 | 1.000 | -. 33 | . 28 |
|  | Rest of Alabama | -. 013 | . 099 | 1.000 | -. 32 | . 29 |
|  | Mississippi Service Area | -. 025 | . 106 | 1.000 | -. 35 | . 30 |
|  | Florida Service Area | -. 020 | . 106 | 1.000 | -. 34 | . 30 |
|  | Rest of United States | . 001 | . 103 | 1.000 | -. 32 | . 32 |

2017 Cohort * High School GPA * Multiple Comparisons
Dependent Variable:
Games-Howell

|  |  | Mean Difference |  |  | Inte |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (I) HS GPA Log |  | (I-J) | Std. Error | Sig. | Bound | Bound |
| 3.0 or lower | 3.01-3.5 | -.097* | . 037 | . 027 | -. 18 | -. 01 |
|  | 3.51 or higher | -.230* | . 033 | . 000 | -. 31 | -. 15 |
| 3.01-3.5 | 3.0 or lower | . $097{ }^{*}$ | . 037 | . 027 | . 01 | . 18 |
|  | 3.51 or higher | -. $133{ }^{*}$ | . 024 | . 000 | -. 19 | -. 08 |
| 3.51 or higher | 3.0 or lower | . 230 * | . 033 | . 000 | . 15 | . 31 |
|  | 3.01-3.5 | .133* | . 024 | . 000 | . 08 | 19 |

[^4]2017 Cohort * ACT Composite * Multiple Comparisons
Dependent Variable:
Games-Howell

| (I) ACT |  | Mean Difference$(\mathrm{I}-\mathrm{J})$ | Std. Error | Sig. | Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Bound | Bound |
| 19 or lower | 20-21 | . 031 | . 036 | . 979 | -. 08 | . 14 |
|  | 22-23 | -. 006 | . 036 | 1.000 | -. 11 | . 10 |
|  | 24-25 | -. 099 | . 034 | . 054 | -. 20 | . 00 |
|  | 26-27 | -. 111 | . 039 | . 068 | -. 23 | . 00 |
|  | 28-29 | -. 064 | . 043 | . 759 | -. 19 | . 06 |
|  | 30 or higher | -. $144^{*}$ | . 038 | . 003 | -. 26 | -. 03 |
| 20-21 | 19 or lower | -. 031 | . 036 | . 979 | -. 14 | . 08 |
|  | 22-23 | -. 036 | . 035 | . 947 | -. 14 | . 07 |
|  | 24-25 | -. $129^{*}$ | . 033 | . 002 | -. 23 | -. 03 |
|  | 26-27 | -. $142^{*}$ | . 039 | . 005 | -. 26 | -. 03 |
|  | 28-29 | -. 094 | . 043 | . 303 | -. 22 | . 03 |
|  | 30 or higher | -. $174^{*}$ | . 038 | . 000 | -. 29 | -. 06 |
| 22-23 | 19 or lower | . 006 | . 036 | 1.000 | -. 10 | . 11 |
|  | 20-21 | . 036 | . 035 | . 947 | -. 07 | . 14 |
|  | 24-25 | -. 093 | . 033 | . 079 | -. 19 | . 01 |
|  | 26-27 | -. 105 | . 039 | . 094 | -. 22 | . 01 |
|  | 28-29 | -. 058 | . 043 | . 828 | -. 19 | . 07 |
|  | 30 or higher | -. $138^{*}$ | . 037 | . 005 | -. 25 | -. 03 |
| 24-25 | 19 or lower | . 099 | . 034 | . 054 | . 00 | . 20 |
|  | 20-21 | .129* | . 033 | . 002 | . 03 | . 23 |
|  | 22-23 | . 093 | . 033 | . 079 | -. 01 | . 19 |
|  | 26-27 | -. 012 | . 037 | 1.000 | -. 12 | . 10 |
|  | 28-29 | . 035 | . 041 | . 980 | -. 09 | . 16 |
|  | 30 or higher | -. 045 | . 036 | . 871 | -. 15 | . 06 |
| 26-27 | 19 or lower | . 111 | . 039 | . 068 | . 00 | . 23 |
|  | 20-21 | $.142^{*}$ | . 039 | . 005 | . 03 | . 26 |
|  | 22-23 | . 105 | . 039 | . 094 | -. 01 | . 22 |
|  | 24-25 | . 012 | . 037 | 1.000 | -. 10 | . 12 |
|  | 28-29 | . 047 | . 046 | . 945 | -. 09 | . 18 |
|  | 30 or higher | -. 032 | . 041 | . 985 | -. 15 | . 09 |
| 28-29 | 19 or lower | . 064 | . 043 | . 759 | -. 06 | . 19 |
|  | 20-21 | . 094 | . 043 | . 303 | -. 03 | . 22 |
|  | 22-23 | . 058 | . 043 | . 828 | -. 07 | . 19 |
|  | 24-25 | -. 035 | . 041 | . 980 | -. 16 | . 09 |
|  | 26-27 | -. 047 | . 046 | . 945 | -. 18 | . 09 |
|  | 30 or higher | -. 080 | . 045 | . 561 | -. 21 | . 05 |
| 30 or higher | 19 or lower | .144* | . 038 | . 003 | . 03 | . 26 |
|  | 20-21 | . $174^{*}$ | . 038 | . 000 | . 06 | . 29 |
|  | 22-23 | . $138{ }^{*}$ | . 037 | . 005 | . 03 | . 25 |
|  | 24-25 | . 045 | . 036 | . 871 | -. 06 | . 15 |
|  | 26-27 | . 032 | . 041 | . 985 | -. 09 | . 15 |
|  | 28-29 | . 080 | . 045 | . 561 | -. 05 | . 21 |

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

2017 Cohort * USA Day * Multiple Comparisons
Dependent Variable:
Games-Howell

|  |  | Mean Difference |  |  | Inte |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (I) Number USA Days A | Attended | (I-J) | Std. Error | Sig. | Bound | Bound |
| Did Not Attend | Attended 1 USA Day | -.067* | . 022 | . 008 | -. 12 | -. 01 |
|  | Attended Multiple USA Days | -. 073 | . 108 | . 780 | -. 35 | . 21 |
| Attended 1 USA Day | Did Not Attend | .067* | . 022 | . 008 | . 01 | . 12 |
|  | Attended Multiple USA Days | -. 006 | . 109 | . 998 | -. 29 | . 28 |
| Attended Multiple USA | Did Not Attend | . 073 | . 108 | . 780 | -. 21 | . 35 |
| Days | Attended 1 USA Day | . 006 | . 109 | . 998 | -. 28 | 29 |

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

2017 Cohort * Orientation * Multiple Comparisons
Dependent Variable:
Games-Howell

| (I) Orientation Logistic |  | Mean Difference (I-J) | Std. Error | Sig. | Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Bound | Bound |
| August/Transfer/Unkn own Orientation | May Orientation | -. 119 | . 100 | . 986 | -. 47 | . 23 |
|  | Freshman Session 1 | -. $248{ }^{*}$ | . 049 | . 000 | -. 41 | -. 09 |
|  | Freshman Session 2 | -. 147 | . 052 | . 180 | -. 32 | . 03 |
|  | Freshman Session 3 | -. $173^{*}$ | . 052 | . 045 | -. 34 | . 00 |
|  | Freshman Session 4 | -. $176{ }^{*}$ | . 052 | . 037 | -. 35 | -. 01 |
|  | Freshman Session 5 | -. 169 | . 052 | . 057 | -. 34 | . 00 |
|  | Freshman Session 6 | -. 093 | . 055 | . 868 | -. 27 | . 09 |
|  | Freshman Session 7 | -. 025 | . 055 | 1.000 | -. 21 | . 16 |
|  | Freshman Session 8 | -. 078 | . 056 | . 966 | -. 26 | . 11 |
|  | Freshman Session 9 | -. 045 | . 057 | 1.000 | -. 23 | . 14 |
|  | Freshman Session 10 | -. 010 | . 060 | 1.000 | -. 21 | . 19 |
| Freshman Session 1 | August/Transfer/Unknown Orientation | . $248 *$ | . 049 | . 000 | . 09 | . 41 |
|  | May Orientation | . 128 | . 093 | . 959 | -. 21 | . 46 |
|  | Freshman Session 2 | . 101 | . 039 | . 280 | -. 03 | . 23 |
|  | Freshman Session 3 | . 075 | . 038 | . 707 | -. 05 | . 20 |
|  | Freshman Session 4 | . 072 | . 038 | . 764 | -. 05 | . 20 |
|  | Freshman Session 5 | . 078 | . 038 | . 660 | -. 05 | . 20 |
|  | Freshman Session 6 | .155* | . 042 | . 013 | . 02 | . 29 |
|  | Freshman Session 7 | . $222{ }^{*}$ | . 042 | . 000 | . 08 | . 36 |
|  | Freshman Session 8 | .170* | . 044 | . 008 | . 02 | . 32 |
|  | Freshman Session 9 | . $203 *$ | . 045 | . 001 | . 05 | . 35 |
|  | Freshman Session 10 | .237* | . 048 | . 000 | . 08 | . 40 |

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

2017 Cohort * College * Multiple Comparisons
Dependent Variable:
Games-Howell

| (I) College Logistic |  | Mean Difference (I-J) | Std. Error | Sig. | Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Bound |  |  | Bound |
| AS | AH |  | -. $104^{*}$ | . 029 | . 006 | -. 19 | -. 02 |
|  | BU | . 019 | . 040 | . 999 | -. 10 | . 14 |
|  | CS | -. 047 | . 051 | . 970 | -. 20 | . 11 |
|  | ED | -. 055 | . 036 | . 721 | -. 16 | . 05 |
|  | EG | -. 028 | . 034 | . 984 | -. 13 | . 07 |
|  | NU | . 004 | . 031 | 1.000 | -. 09 | . 10 |
| AH | AS | . $104{ }^{*}$ | . 029 | . 006 | . 02 | . 19 |
|  | BU | . $1244^{*}$ | . 041 | . 046 | . 00 | . 25 |
|  | CS | . 058 | . 052 | . 925 | -. 10 | . 21 |
|  | ED | . 049 | . 038 | . 852 | -. 06 | . 16 |
|  | EG | . 077 | . 036 | . 354 | -. 03 | . 18 |
|  | NU | .108* | . 034 | . 023 | . 01 | . 21 |
| BU | AS | -. 019 | . 040 | . 999 | -. 14 | . 10 |
|  | AH | -. $124^{*}$ | . 041 | . 046 | -. 25 | . 00 |
|  | CS | -. 066 | . 059 | . 921 | -. 24 | . 11 |
|  | ED | -. 075 | . 047 | . 678 | -. 21 | . 06 |
|  | EG | -. 047 | . 045 | . 945 | -. 18 | . 09 |
|  | NU | -. 016 | . 043 | 1.000 | -. 14 | . 11 |
| CS | AS | . 047 | . 051 | . 970 | -. 11 | . 20 |
|  | AH | -. 058 | . 052 | . 925 | -. 21 | . 10 |
|  | BU | . 066 | . 059 | . 921 | -. 11 | . 24 |
|  | ED | -. 009 | . 056 | 1.000 | -. 18 | . 16 |
|  | EG | . 019 | . 056 | 1.000 | -. 15 | . 18 |
|  | NU | . 050 | . 054 | . 966 | -. 11 | . 21 |
| ED | AS | . 055 | . 036 | . 721 | -. 05 | . 16 |
|  | AH | -. 049 | . 038 | . 852 | -. 16 | . 06 |
|  | BU | . 075 | . 047 | . 678 | -. 06 | . 21 |
|  | CS | . 009 | . 056 | 1.000 | -. 16 | . 18 |
|  | EG | . 028 | . 042 | . 995 | -. 10 | . 15 |
|  | NU | . 059 | . 040 | . 757 | -. 06 | . 18 |
| EG | AS | . 028 | . 034 | . 984 | -. 07 | . 13 |
|  | AH | -. 077 | . 036 | . 354 | -. 18 | . 03 |
|  | BU | . 047 | . 045 | . 945 | -. 09 | . 18 |
|  | CS | -. 019 | . 056 | 1.000 | -. 18 | . 15 |
|  | ED | -. 028 | . 042 | . 995 | -. 15 | . 10 |
|  | NU | . 031 | . 039 | . 983 | -. 08 | . 15 |
| NU | AS | -. 004 | . 031 | 1.000 | -. 10 | . 09 |
|  | AH | -. $108^{*}$ | . 034 | . 023 | -. 21 | -. 01 |
|  | BU | . 016 | . 043 | 1.000 | -. 11 | . 14 |
|  | CS | -. 050 | . 054 | . 966 | -. 21 | . 11 |
|  | ED | -. 059 | . 040 | . 757 | -. 18 | . 06 |
|  | EG | -. 031 | . 039 | . 983 | -. 15 | . 08 |

[^5]
## 2017 Freshman Cohort Retention Report ANOVA Tables

2017 Cohort * Number of At Risk Midterm Grades * Multiple Comparisons
Dependent Variable:
Games-Howell

| (I) Number At Risk Midterm Grades in Fall 2017 |  | Mean Difference(I-J) | Std. Error | Sig. | Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Bound |  |  | Bound |
| No At Risk MT Grades 1 At Risk MT Grade |  |  | . $106{ }^{*}$ | . 024 | . 000 | . 04 | . 17 |
|  | 2 At Risk MT Grades | .185* | . 034 | . 000 | . 09 | . 28 |
|  | 3 At Risk MT Grades | . $342{ }^{*}$ | . 050 | . 000 | . 20 | . 48 |
|  | 4 or More At Risk MT Grades | .601* | . 041 | . 000 | . 49 | . 72 |
| 1 At Risk MT Grade | No At Risk MT Grades | -. $106^{*}$ | . 024 | . 000 | -. 17 | -. 04 |
|  | 2 At Risk MT Grades | . 079 | . 039 | . 255 | -. 03 | . 19 |
|  | 3 At Risk MT Grades | . $236 *$ | . 053 | . 000 | . 09 | . 38 |
|  | 4 or More At Risk MT Grades | .495* | . 045 | . 000 | . 37 | . 62 |
| 2 At Risk MT Grades | No At Risk MT Grades | -. $185^{*}$ | . 034 | . 000 | -. 28 | -. 09 |
|  | 1 At Risk MT Grade | -. 079 | . 039 | . 255 | -. 19 | . 03 |
|  | 3 At Risk MT Grades | . 157 | . 059 | . 062 | . 00 | . 32 |
|  | 4 or More At Risk MT Grades | . $416{ }^{*}$ | . 051 | . 000 | . 28 | . 56 |
| 3 At Risk MT Grades | No At Risk MT Grades | -. $342^{*}$ | . 050 | . 000 | -. 48 | -. 20 |
|  | 1 At Risk MT Grade | -. $236{ }^{*}$ | . 053 | . 000 | -. 38 | -. 09 |
|  | 2 At Risk MT Grades | -. 157 | . 059 | . 062 | -. 32 | . 00 |
|  | 4 or More At Risk MT Grades | . $259{ }^{*}$ | . 063 | . 001 | . 09 | . 43 |
| 4 or More At Risk MT Grades | No At Risk MT Grades | -.601* | . 041 | . 000 | -. 72 | -. 49 |
|  | 1 At Risk MT Grade | -. $495{ }^{*}$ | . 045 | . 000 | -. 62 | -. 37 |
|  | 2 At Risk MT Grades | -. $416^{*}$ | . 051 | . 000 | -. 56 | -. 28 |
|  | 3 At Risk MT Grades | -.259* | . 063 | . 001 | -. 43 | -. 09 |

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

## 2017 Freshman Cohort Retention Report ANOVA Tables

2017 Cohort * USA Hours Earned After Summer 2018 * Multiple Comparisons
Dependent Variable:
Games-Howell

| (I) USA Hours Earned After Summer 2018 |  | Mean Difference$(\mathrm{I}-\mathrm{J})$ | Std. Error | Sig. | Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Bound |  |  | Bound |
| 0-6 hours | 6.5-12 hours |  | -. 094 | . 047 | . 358 | -. 23 | . 04 |
|  | 12.5-18 hours | -. $158{ }^{*}$ | . 042 | . 003 | -. 28 | -. 04 |
|  | 18.5-24 hours | -.643* | . 043 | . 000 | -. 77 | -. 52 |
|  | 24.5-30 hours | -.793* | . 028 | . 000 | -. 87 | -. 71 |
|  | 30.5 or more hours | -.870* | . 025 | . 000 | -. 94 | -. 80 |
| 6.5-12 hours | 0-6 hours | . 094 | . 047 | . 358 | -. 04 | . 23 |
|  | 12.5-18 hours | -. 064 | . 054 | . 840 | -. 22 | . 09 |
|  | 18.5-24 hours | -. $550{ }^{*}$ | . 054 | . 000 | -. 70 | -. 39 |
|  | 24.5-30 hours | -.699** | . 043 | . 000 | -. 83 | -. 57 |
|  | 30.5 or more hours | -.777* | . 041 | . 000 | -. 90 | -. 66 |
| 12.5-18 hours | 0-6 hours | . $158{ }^{*}$ | . 042 | . 003 | . 04 | . 28 |
|  | 6.5-12 hours | . 064 | . 054 | . 840 | -. 09 | . 22 |
|  | 18.5-24 hours | -.486* | . 050 | . 000 | -. 63 | -. 34 |
|  | 24.5-30 hours | -.635* | . 038 | . 000 | -. 74 | -. 53 |
|  | 30.5 or more hours | -. $713{ }^{*}$ | . 036 | . 000 | -. 82 | -. 61 |
| 18.5-24 hours | 0-6 hours | . $643{ }^{*}$ | . 043 | . 000 | . 52 | . 77 |
|  | 6.5-12 hours | . $550{ }^{*}$ | . 054 | . 000 | . 39 | . 70 |
|  | 12.5-18 hours | . $486{ }^{*}$ | . 050 | . 000 | . 34 | . 63 |
|  | 24.5-30 hours | -. $150{ }^{*}$ | . 038 | . 002 | -. 26 | -. 04 |
|  | 30.5 or more hours | -. $227{ }^{*}$ | . 036 | . 000 | -. 33 | -. 12 |
| 24.5-30 hours | 0-6 hours | . $793{ }^{*}$ | . 028 | . 000 | . 71 | . 87 |
|  | 6.5-12 hours | . $699{ }^{*}$ | . 043 | . 000 | . 57 | . 83 |
|  | 12.5-18 hours | . $635^{*}$ | . 038 | . 000 | . 53 | . 74 |
|  | 18.5-24 hours | . $150{ }^{*}$ | . 038 | . 002 | . 04 | . 26 |
|  | 30.5 or more hours | -.077* | . 017 | . 000 | -. 12 | -. 03 |
| 30.5 or more hours | 0-6 hours | .870* | . 025 | . 000 | . 80 | . 94 |
|  | 6.5-12 hours | . $777{ }^{*}$ | . 041 | . 000 | . 66 | . 90 |
|  | 12.5-18 hours | . $713{ }^{*}$ | . 036 | . 000 | . 61 | . 82 |
|  | 18.5-24 hours | . $227 *$ | . 036 | . 000 | . 12 | . 33 |
|  | 24.5-30 hours | . $077^{*}$ | . 017 | . 000 | . 03 | . 12 |

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

Dependent Variable:
Games-Howell

| (I) USA GPA After Summer 2018 |  | Mean Difference(I-J) | Std. Error | Sig. | Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Bound |  |  | Bound |
| 2.0 or lower | 2.01-2.5 |  | -.494* | . 039 | . 000 | -. 60 | -. 39 |
|  | 2.51-3.0 | -.548* | . 033 | . 000 | -. 64 | -. 46 |
|  | 3.01-3.5 | -.603* | . 030 | . 000 | -. 68 | -. 52 |
|  | 3.51-4.0 | -.633* | . 028 | . 000 | -. 71 | -. 56 |
| 2.01-2.5 | 2.0 or lower | . $494{ }^{*}$ | . 039 | . 000 | . 39 | . 60 |
|  | 2.51-3.0 | -. 054 | . 037 | . 589 | -. 16 | . 05 |
|  | 3.01-3.5 | -. $110^{*}$ | . 034 | . 014 | -. 20 | -. 02 |
|  | 3.51-4.0 | -. $140 *$ | . 033 | . 000 | -. 23 | -. 05 |
| 2.51-3.0 | 2.0 or lower | . $548{ }^{*}$ | . 033 | . 000 | . 46 | . 64 |
|  | 2.01-2.5 | . 054 | . 037 | . 589 | -. 05 | . 16 |
|  | 3.01-3.5 | -. 055 | . 027 | . 235 | -. 13 | . 02 |
|  | 3.51-4.0 | -.086* | . 025 | . 005 | -. 15 | -. 02 |
| 3.01-3.5 | 2.0 or lower | . $603{ }^{*}$ | . 030 | . 000 | . 52 | . 68 |
|  | 2.01-2.5 | $.110^{*}$ | . 034 | . 014 | . 02 | . 20 |
|  | 2.51-3.0 | . 055 | . 027 | . 235 | -. 02 | . 13 |
|  | 3.51-4.0 | -. 030 | . 021 | . 586 | -. 09 | . 03 |
| 3.51-4.0 | 2.0 or lower | . $633{ }^{*}$ | . 028 | . 000 | . 56 | . 71 |
|  | 2.01-2.5 | . $140{ }^{*}$ | . 033 | . 000 | . 05 | . 23 |
|  | 2.51-3.0 | . $086{ }^{*}$ | . 025 | . 005 | . 02 | . 15 |
|  | 3.01-3.5 | . 030 | . 021 | . 586 | -. 03 | . 09 |

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

2017 Cohort * Input Model Classification Table ${ }^{\text {a }}$

| Observed |  |  | Predicted |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Retention |  | Percentage Correct |
|  |  |  | No | Yes |  |
| Step 1 | One-Year Retention | No | 0 | 458 | 0.0 |
|  |  | Yes | 0 | 1354 | 100.0 |
|  | Overall Percentage |  |  |  | 74.7 |
| Step 2 | One-Year Retention | No | 10 | 448 | 2.2 |
|  |  | Yes | 10 | 1344 | 99.3 |
|  | Overall Percentage |  |  |  | 74.7 |
| Step 3 | One-Year Retention | No | 9 | 449 | 2.0 |
|  |  | Yes | 9 | 1345 | 99.3 |
|  | Overall Percentage |  |  |  | 74.7 |
| Step 4 | One-Year Retention | No | 9 | 449 | 2.0 |
|  |  | Yes | 9 | 1345 | 99.3 |
|  | Overall Percentage |  |  |  | 74.7 |

a. The cut value is .500

2017 Cohort * Input Model Final Variables in the Equation

|  |  | B | S.E. | Wald | df | Sig. | Exp(B) | EXP(B) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Lower |  |  |  |  |  | Upper |
| Step $4^{\text {d }}$ | Multiracial |  |  |  | 4.173 | 6 | . 653 |  |  |  |
|  | African-American | . 231 | . 294 | . 616 | 1 | . 432 | 1.259 | . 708 | 2.240 |
|  | Asian | 20.094 | 6848.5 | . 000 | 1 | . 998 | 533057388 | 0.000 |  |
|  | Hispanic | -. 059 | . 366 | . 026 | 1 | . 872 | . 943 | . 460 | 1.932 |
|  | Non-Resident Alien | . 773 | . 726 | 1.132 | 1 | . 287 | 2.165 | . 522 | 8.987 |
|  | Other | . 409 | . 468 | . 764 | 1 | . 382 | 1.506 | . 602 | 3.768 |
|  | White | . 016 | . 273 | . 003 | 1 | . 953 | 1.016 | . 595 | 1.737 |
|  | 19 years old |  |  | 9.483 | 3 | . 024 |  |  |  |
|  | 17 years or younger | . 993 | . 335 | 8.776 | 1 | . 003 | 2.699 | 1.399 | 5.206 |
|  | 18 years old | . 431 | . 216 | 3.966 | 1 | . 046 | 1.539 | 1.007 | 2.352 |
|  | 20 years or older | . 876 | . 614 | 2.040 | 1 | . 153 | 2.402 | . 722 | 7.998 |
|  | HS GPA 3.0 or lower |  |  | 43.133 | 2 | . 000 |  |  |  |
|  | HS GPA 3.01-3.5 | . 425 | . 168 | 6.429 | 1 | . 011 | 1.530 | 1.101 | 2.125 |
|  | HS GPA 3.51-4.0 | 1.038 | . 168 | 38.228 | 1 | . 000 | 2.823 | 2.032 | 3.923 |
|  | ACT Composite 19 or lower |  |  | 13.959 | 6 | . 030 |  |  |  |
|  | ACT Composite 20-21 | -. 260 | . 175 | 2.215 | 1 | . 137 | . 771 | . 547 | 1.086 |
|  | ACT Composite 22-23 | -. 157 | . 186 | . 714 | 1 | . 398 | . 855 | . 594 | 1.230 |
|  | ACT Composite 24-25 | . 240 | . 206 | 1.357 | 1 | . 244 | 1.271 | . 849 | 1.904 |
|  | ACT Composite 26-27 | . 288 | . 250 | 1.330 | 1 | . 249 | 1.334 | . 818 | 2.175 |
|  | ACT Composite 28-29 | -. 117 | . 256 | . 209 | 1 | . 647 | . 890 | . 539 | 1.468 |
|  | ACT Composite 30 or higher | . 403 | . 273 | 2.186 | 1 | . 139 | 1.497 | . 877 | 2.555 |
|  | Constant | -. 151 | . 365 | . 172 | 1 | . 679 | . 860 |  |  |

a. Variable(s) entered on step 1: High School GPA.
b. Variable(s) entered on step 2: Age.
c. Variable(s) entered on step 3: Race/Ethnicity.
d. Variable(s) entered on step 4: ACT Composite score.

## 2017 Freshman Cohort Retention Report Logistic Regression Tables

2017 Cohort * Input and Environmental Model Classification Table ${ }^{\text {a }}$

| Observed |  |  | Predicted |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Retention |  | Percentage Correct |
|  |  |  | No | Yes |  |
| Step 1 | One-Year Retention | No | 35 | 423 | 7.6 |
|  |  | Yes | 36 | 1318 | 97.3 |
|  | Overall Percentage |  |  |  | 74.7 |
| Step 2 | One-Year Retention | No | 55 | 403 | 12.0 |
|  |  | Yes | 50 | 1304 | 96.3 |
|  | Overall Percentage |  |  |  | 75.0 |

a. The cut value is .500

2017 Cohort * Input and Environmental Model Final Variables in the Equation

a. Variable(s) entered on step 1: Greek Life Participation.
b. Variable(s) entered on step 2: Orientation Session Attended.

## 2017 Freshman Cohort Retention Report Logistic Regression Tables

| Observed |  |  | Predicted |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Retention |  | Percentage Correct |
|  |  |  | No | Yes |  |
| Step 1 | One-Year Retention | No | 204 | 274 | 42.7 |
|  |  | Yes | 98 | 1292 | 92.9 |
|  | Overall Percentage |  |  |  | 80.1 |
| Step 2 | One-Year Retention | No | 191 | 287 | 40.0 |
|  |  | Yes | 96 | 1294 | 93.1 |
|  | Overall Percentage |  |  |  | 79.5 |

a. The cut value is .500

2017 Cohort * Midway Through or After Fall 2017 Variables in the Equation

a. Variable(s) entered on step 1: Probation After Fall 2017.
b. Variable(s) entered on step 2: At-Risk Midterm Grades in Fall 2017.

## 2017 Cohort * USA Hours Earned After Summer 2018 Classification Table ${ }^{\text {a }}$

| Observed |  |  | Predicted |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Retention |  | Percentage Correct |
|  |  |  | No | Yes |  |
| Step 1 | One-Year Retention | No | 302 | 152 | 66.5 |
|  |  | Yes | 60 | 1329 | 95.7 |
|  | Overall Percentage |  |  |  | 88.5 |

a. The cut value is .500

2017 Cohort * USA Hours Earned After Summer 2018 Variables in the Equation

|  |  | B | S.E. | Wald | df | Sig. | Exp(B) | EXP(B) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Lower |  |  |  |  |  | Upper |
| Step 1 ${ }^{\text {a }}$ | USA Hours Earned 0-6 |  |  |  | 510.606 | 5 | . 000 |  |  |  |
|  | USA Hours Earned 6.5-12 | . 891 | . 435 | 4.198 | 1 | . 040 | 2.437 | 1.039 | 5.716 |
|  | USA Hours Earned 12.5-18 | 1.288 | . 382 | 11.357 | 1 | . 001 | 3.624 | 1.714 | 7.663 |
|  | USA Hours Earned 18.5-24 | 3.415 | . 373 | 83.715 | 1 | . 000 | 30.420 | 14.637 | 63.222 |
|  | USA Hours Earned 24.5-30 | 4.377 | . 355 | 152.135 | 1 | . 000 | 79.595 | 39.704 | 159.568 |
|  | USA Hours Earned 30.5 or more | 5.383 | . 366 | 215.867 | 1 | . 000 | 217.734 | 106.181 | 446.484 |
|  | Constant | -2.460 | . 329 | 55.732 | 1 | . 000 | . 085 |  |  |

a. Variable(s) entered on step 1: USA Hours Earned After Summer 2018.

2017 Cohort * USA GPA After Summer 2018 Classification Table ${ }^{\text {a }}$

|  |  |  | Predicted |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Retention |  | Percentage Correct |
|  | Observed |  | No | Yes |  |
| Step 1 | One-Year Retention | No | 235 | 219 | 51.8 |
|  |  | Yes | 86 | 1303 | 93.8 |
|  | Overall Percentage |  |  |  | 83.5 |

a. The cut value is .500

2017 Cohort * USA GPA After Summer 2018 Variables in the Equation

|  |  | B | S.E. | Wald | df | Sig. | Exp(B) | EXP(B) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Lower |  |  |  |  |  | Upper |
| Step $1^{\text {a }}$ | USA GPA 2.0 or lower |  |  |  | 379.444 | 4 | . 000 |  |  |  |
|  | USA GPA 2.01-2.5 | 2.166 | . 209 | 107.021 | 1 | . 000 | 8.721 | 5.786 | 13.145 |
|  | USA GPA 2.51-3.0 | 2.493 | . 190 | 172.705 | 1 | . 000 | 12.095 | 8.340 | 17.541 |
|  | USA GPA 3.01-3.5 | 2.917 | . 192 | 231.482 | 1 | . 000 | 18.482 | 12.693 | 26.911 |
|  | USA GPA 3.51-4.0 | 3.216 | . 189 | 289.778 | 1 | . 000 | 24.935 | 17.218 | 36.110 |
|  | Constant | -1.005 | . 126 | 63.621 | 1 | . 000 | . 366 |  |  |

a. Variable(s) entered on step 1: USA GPA After Summer 2018.


[^0]:    ${ }^{1}$ Astin, A. W. (2002). Assessment for excellence: The philosophy and practice of assessment and evaluation in higher education. American Council on Education, Oryx Press.

[^1]:    ${ }^{2}$ Input variables: Gender, race/ethnicity, age, region, first generation status, high school GPA, and ACT Composite score.
    ${ }^{3}$ Environmental variables: USA Day attendance, orientation session attended, college, USA freshman scholarship, other scholarship, Pell Grant, test fee waiver, housing, learning community, Freshman Seminar, and Greek life participation.
    ${ }^{4}$ Outcome/other variables after Fall 2017: Number of at-risk midterm grades received and probation status (model 3).
    ${ }^{5}$ Outcome variables after Summer 2018: USA hours earned (model 4) and USA GPA (model 5).

[^2]:    ${ }^{6}$ Other scholarship includes third party private scholarships that are not considered a USA Freshman scholarship. Institutional Research

[^3]:    *. The mean difference is significant at the 0.05 level.

[^4]:    *. The mean difference is significant at the 0.05 level.

[^5]:    *. The mean difference is significant at the 0.05 level.

