

Ursidae: The Undergraduate Research Journal at the University of Northern Colorado

Volume 3
Number 2 *McNair Special Issue*

Article 1

January 2013

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Cruz, Carlos (2013) "Retention and Persistence for Underrepresented Students in Multicultural Greek Life: A Case Study," *Ursidae: The Undergraduate Research Journal at the University of Northern Colorado*: Vol. 3 : No. 2 , Article 1.
Available at: <http://digscholarship.unco.edu/urj/vol3/iss2/1>

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Retention and Persistence for Underrepresented Students in Multicultural Greek Life: A Case Study

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Abstract: With increasing numbers of underrepresented students attending college in the United States and concomitant low college graduation rates from four-year institutions for these same students, it is important to explore possible interventions that may increase persistence and retention rates among these populations. The research literature suggests a positive association between students' participation in Greek Life and persistence/retention from one year to the next. While the literature regarding the relationship between traditional Greek Life and student persistence and retention is robust, the same cannot be said for research on Multicultural Greek Life. If the same relationships are expected to hold between MCGL and student persistence and retention it becomes imperative to look at this link in the same manner. In an effort to expand the literature on this topic, we explore the relationship between institutional levels of persistence and retention at a western regional university for those who participate in Multicultural Greek Life by examining correlations among relevant institutional characteristics. Because of the costs and benefits associated with a college degree, various stakeholders have directed more attention to college student success. This has manifested itself most clearly in efforts to increase persistence and retention rates of both traditional and underrepresented students. Given the relative dearth of research on the impacts of MCGL and underrepresented students' persistence and retention rates, our study is a step towards filling this gap in the literature.

Keywords: *case study, college, Greek Life, persistence, retention*

Recent research has indicated that a positive correlation exists between participation in Greek Life and the likelihood that a student will persist from one year to the next (DeBard and Sacks, 2011). For example, DeBard and Sacks (2011) found that retention rates from one year to the next were higher among Greek Life students as compared to their non-Greek-affiliated colleagues. While the literature clearly suggests a positive relationship between participation in traditional Greek Life (GL) and student persistence and retention, there is little research on the impact of Multicultural Greek Life (MCGL) on persistence and retention. Given that institutions continue to seek productive mechanisms for increasing overall student retention and persistence, and especially rates among underrepresented students, this study is a step in that direction. In an effort to expand the literature on this topic, we explore the relationship between institutional level characteristics and persistence and retention at a western regional university for those who participate in Multicultural Greek Life by examining the relationship between retention and

persistence rates and other relevant institutional characteristics. Our analysis seeks to explore the relationship between being involved in a multicultural fraternity or sorority and the correlational relationships this has with underrepresented and other students retention rates from year-to-year using data from a predominantly white, four-year, regional institution in the west.

Using data spanning the last five years obtained from the institution under consideration we examine this relationship at an aggregate level. We understand that this will limit our analysis to the institution under consideration, however as suggested by Lascher and Offenstein (2012) carrying-out analyses at the institution level can help set the foundation for future studies. The data for the study include: 1) total retained students year-to-year by class level, additionally broken up by student race/ethnicity in white/non-white binary, 2) total number of students in non-MCGL organizations, 3) total number of students not in Greek Life, 4) total number of students in MCGL, 5) total full-time enrollment equivalents, 6) total

part-time equivalents, 7) total number of Pell Grant and non-Pell Grant recipients on campus by year, and 8) average incoming freshman index scores.

To explore these relationships we ask two primary questions:

1. Are persistence and retention rates statistically significantly correlated to participation in MCGL?
2. What other important campus characteristics are statistically significantly correlated with persistence and retention levels?

We are aware that employing data at the institutional level does introduce important caveats in terms of drawing causal inferences and that the generalizability of our study is limited. However, our intention is not necessarily to draw ultimate conclusions regarding these relationships but rather, to explore them at a more aggregate level so as to set the foundation for further study at micro levels. In other words, by exploring these relationships here, future research can employ longitudinal data and research methods using information gathered at the student level, based on this exploratory analysis.

Warrant for the Study

Why study persistence and retention? The decline of the status of US higher education, as compared to the rest of the world, has increased policy makers', institutional administrators', researchers' and scholars' attention surrounding the area of student college success (Hu, McCormick, & Gonyea, 2012). Thus, exploring all possible avenues that may lead to an increase in student college achievement is important not only to students and families but to the overall success of American education, and society.

A majority of the extant research on student retention and persistence within the Greek community is significantly limited due to its primary focus upon White Greek Letter Organizations (WGLO) (Severtis and Christie-Mizell, 2007; Flores, 2007). Hughey (2010) states, "Research supports that WGLO membership increases the likelihood of graduation

from college" (p. 655). Given these results, our goal is to explore the same types of relationships highlighted in previous research with an emphasis on MCGL.

With increasing numbers of underrepresented ethnic groups in the United States and related low college graduation rates from four-year universities for students from these same backgrounds, it is important to explore possible interventions that may increase said students' persistence and retention rates in college; including participation in MCGL. Exploring the possible impacts of MCGL participation on student persistence and retention will allow colleges and universities to begin to formulate and implement policies that may result in higher graduation rates for both underrepresented and traditional students. Boschini and Thompson (1998) agree that including underrepresented students in campus life is beneficial "The learning and success of student members, as well as the survival of ... the college community, depend on it" (p. 22). We would like to emphasize that increasing persistence and retention rates for underrepresented students is not only significant for said students, but also for the general well-being of higher education on a larger scale. Moreover, the benefits that accrue to individuals completing a college degree spillover to create positive benefits for society as a whole (Museus, Nichols, & Lambert, 2008).

Within the research community, there is a consensus that the participation in Greek Life (GL) is associated with the level of student retention and persistence (DeBard and Sacks, 2011; Severtis and Christie-Mizell, 2007; Flores, 2007). However, most studies focus on traditional Greek organizations and place little emphasis on Multicultural Greek organizations. Our study investigates Multicultural Greek organizations, otherwise known as Multicultural Greek Life (MCGL). Information gathered from this analysis can help determine if further exploration and the recognition/acknowledgment of the dearth of research on this topic may be warranted, especially as institutions seek to improve retention and persistence of diverse

groups in addition to their success and achievements.

Underrepresented ethnic groups will soon account for a significant portion of our nation's population (U.S. Census, 2012). Failing to find ways to increase graduation rates from four-year universities for this large portion of Americans will likely have adverse effects on future generations of college students and potentially on the labor prospects for these same groups. In this spirit, the current study seeks to examine a possible driver of retention and persistence levels.

A low degree completion rate among the overall college population affects not only the individual and the university or college, but also society at a whole (Museus, Nichols, & Lambert, 2008). There are at least three consequences that should raise concern according to Museus, Nichols, and Lambert (2008), the individual level consequences, consequences at the institutional level, and consequences for society. For example, at the individual level consequences could manifest themselves as debt or future foregone income. For institutions, these consequences can mean a lack of return on investment of already limited resources, deficiencies in the production of graduates, and failure to meet standards of public accountability. But for society at large these consequences can be more severe. Of particular concern is college departure rates which are correlated with higher incarceration rates, higher rates of unemployment, lower academic preparation among future generations, lower tax revenue, and lower levels of civic engagement among American citizens. In 2003 the average high school graduate paid \$6,500 in taxes while their baccalaureate counterpart paid \$11,800 in taxes. So not only should stakeholders across higher education be concerned about increasing degree completion rates for the well-being of individuals, or for the overall improvement of the education system, but they should also focus on degree completion rates at college and universities for the general advancement of society (Museus, Nichols, & Lambert, 2008).

LITERATURE REVIEW

Definitions

As with specialized areas, vocabulary is an important part of defining and refining ideas and the presentation of topics. Therefore, to help aid readers that are unfamiliar with the topic we include a brief explanation of the terminology employed in the analysis.

The current project employs the word underrepresented as a substitute for the word minority. It is chosen, because use of the word minority for an ethnic group in America, or on college campuses, seems to imply that these individuals are minor as compared to the major population. In other words, the word minority suggests a connotation of deficit of particular individuals and/or populations. We also believe the word minority to be misleading because though these groups may be large in total numbers they, nonetheless, remain underrepresented as a collective within both society and on college campuses in terms of occupying positions of power and enrollments. To further clarify, in this case we reference directly ethnic/racial groups in America as represented on college and university campuses.

For the purpose of this study we will define persistence and retention as a measure for how many students return from one year to the next. This measure includes freshman, sophomores, juniors, and seniors over the previous five years. We are aware that using such a broad measure can obscure some relationships. However, if statistically significant relationships are found between the measure of persistence and retention employed here, then further, more granular, studies disaggregating the measure will have good reason to do so. Finally, we are following the advice of Lasher and Offenstein (2012) and Osguera and Rhee (2009) to examine these relationships at the institutional level, given the difficulty of parsing-out the differential impacts of environment and outcome (Astin and Antonio, 2012).

Current Research: Persistence and Retention

Effective Educational Practices. Increasing student engagement is one possible route universities and colleges can take in order to raise persistence and retention at their institutions. Yearwood and Jones (2012) echo Kuh and colleagues' (2010) findings by noting that years of research on college student persistence suggest student engagement to be a favorable area of importance. Student engagement is defined as a two-way street that includes the time and energy students spend on educationally purposeful activities and the degree to which the university gets students to participate in activities that lead to student success (Kuh, Cruce, Shoup, & Kinzie, 2008). This two-way street that Kuh et al. (2010) are referring to is essential to providing students the necessary tools to persist their way through college.

Being that student engagement is an area of importance when examining student persistence, Greek members are more likely to be engaged in the five benchmarks established by NSSE¹. It is likely that being a member of Greek Life will increase the chances of a student persisting from one year to the next. Patton, Flowers, and Bridges (2011), and Yearwood and Jones (2012) conclude that members in Greek Life are more engaged in the areas of active and collaborative learning, and student-faculty interaction than those who do not participate in these activities.

Turning the discussion to the institutional level, Lascher and Offenstein, (2012) and Oseguera and Rhee (2009) suggest that current research lacks the ability to look at institutional level characteristics. For example, they state that previous studies aiming to answer why a retention and persistence gap exists between white American students and those of underrepresented

ethnic groups have pointed the finger at campus racial climates and have failed for two reasons; 1) studies fail to compare findings across racial groups, and 2) there is a lack of attention to the level of analysis. Studies have managed to measure campus racial climate through student perception and this can be ambiguous because it is unclear whether perceptions are related to the campus itself or an outside influence (Astin and Antonio, 2012). In other words, it is difficult to disentangle the effects of environment from outcomes when measuring student perception at the individual level. Moreover, campus racial climate is the shared perception of attitudes or feelings towards some facet of the institution (Peterson and Spencer, 1990).

Hurtado, Milem, Clayton-Pedersen, and Allen (1999) elaborate on defining campus racial climate by including the perception of racial/ethnic tension, perception of discrimination, attitudes of prejudice held between and among groups, the institution's historical legacy of inclusion and exclusion, structural diversity of the institution, and the behavioral dimension. A negative campus racial climate can lead to 1) an increase level of stress for the individual underrepresented student and 2) a feeling of prejudice from the institution. The lack of attention to institutional level effects has also led to various problems such as, 1) it is unclear if the different perceptions on campus racial climate within racial ethnic groups stems from campus factors or individual sensitivities to discrimination and mistreatment and 2) the relationship between perceptions of racial climate and student outcomes at the individual level may differ from the cross-sectional relationship at the institutional level. Future research should assess institutional level climate variables and assess how these are

¹ The National Survey of Student Engagement (NSSE) uses five benchmarks to measure effective educational practices (EEP). These five benchmarks include: 1) level of academic challenge 2) student interaction with faculty members 3) active and collaborative learning 4) enriching educational experiences, and 5) supportive campus environment. The level of academic challenge is the nature and amount of work performed. Student interaction with faculty members refers to the frequency of student interaction with faculty

members. Active and collaborative learning is the frequency of class participation. An enriching educational experience is one that includes a diverse range of learning opportunities inside and outside the classroom that positively augment academic performance. Supportive campus environment is the degree to which the university is perceived to be supportive Yearwood and Jones (2012).

related to individual perceptions of racial climate and student outcomes; namely persistence and retention. Being able to assess campus racial climate from an institutional standpoint can allow researchers to better understand why underrepresented students may or may not be retained from year to year. Furthermore, this will allow universities and colleges to make the changes they need to increase persistence and retention rates for underrepresented students by providing resources that will enhance said students' perception of the institution.

GPA and Greek Life

Debard and Sacks (2011) found that students involved in Greek Life achieved higher GPAs than those who did not join Greek Life. It is important to note that this study was conducted at 17 different universities, some with more selective enrollment processes than others. Their results show that at less selective universities' Greek members had lower GPAs as compared to their non-Greek colleagues. On the other hand, Greek members at more selective universities held higher GPAs than non-Greek students at their respective universities. Debard and Sacks (2011) findings provide support for the current analysis given that they also concluded that retention rates from the first year to the next were higher for Greek members than for the non-Greek members.

Another example is provided by a case study completed at the University of Illinois at Urbana-Champaign; an institution known for being more selective. Flores (2007) found Greek members' cumulative GPAs to be 1-2 percent lower than non-Greek members. However, Flores herself notes that she only considered seniors' GPAs, and that future research should look at all classes. Still, Flores states that on the whole Greek members' GPAs were generally lower than non-Greek members. However, she also notes that Greek members were more likely to graduate on time because they held a GPA above a 2.0 and had declared majors. At the university where Flores conducted her case study, the acceptance rate was 67% in 2010. This tells us that Flores' study was done at a more selective institution and

her results support the assertions made by Debard and Sacks' (2011).

Given that our analysis uses aggregate data employing GPAs for the current study is not feasible. However, average freshman index scores per class were included seeing as they provide some sense of how academically prepared an incoming class is. Hence, using index scores can help us explore if a student will stay for a second year at the university to some extent, based on the fact that it includes high school GPA, SAT or ACT scores.

DATA AND METHODS

The data have been provided by the Institutional Reporting and Analysis Services (IRAS) at the university where the study was conducted. The office provided the following information on the undergraduate population for years 2007-2012:

1. Total retained students year-to-year and breakdown of total numbers by student race/ethnicity by white and non-white
2. Total number of students in non-MCGL organizations
3. Total number of students not in Greek Life
4. Total number of students in MCGL
5. Total full-time enrollment equivalents
6. Total part-time equivalents
7. Total number of Pell Grant and non-Pell Grant recipients on campus by year
8. Average Incoming freshman index scores (a composite score including high school GPA, SAT or ACT scores.)

Descriptive statistics for the aforementioned variables, some broken out by ethnicity, is presented below. Table 1 provides information on the mean, standard deviation, minimum value, and maximum value for each included variable.

Participants

For this research direct contact with individual participants was not necessary. Instead all data are collected at the institutional level. The data consist of college students who range from freshman to second year seniors. Because the data are in aggregate the identity of participants is not

discernible. The institutional research office at the university under study has provided all data from each class for the four groups over five years.

Apparatus

Estimations are carried out using STATA 12IC.

Procedures

First, a ticket request was submitted to the office of Institutional Research and Analysis Services of the university requesting the data mentioned above. The data was then organized by class and year which was subsequently transferred into a software package that allows for organization of the data in a manner that is suitable for manipulation, cleaning, and analysis. Finally, analysis as outlined in the very next section was carried out based upon the research questions and the structure of the data.

Data Analysis

The nature of the current study is exploratory and therefore our goal was to determine whether relationships exist between key variables associated with persistence and retention. To that end, we chose to employ a Pearson-Product Moment Correlation method of analysis. In its most basic form a correlation is expressed as a single number that conveys the degree of relationship between two variables. A correlation is also one of the most common and practical methods in statistics because it conveys in unit-free terms what is essentially a standardized covariance measure on a scale from -1.0 to +1.0 where zero indicates no correlational relationship (Trochim, 2006; Warner, 2013). A score of positive one points to a relationship in which the variables move together, whereas a measure equal to negative one shows a relationship where the variables move in opposite directions. Correlations estimated here are reported in the following manner: .30 Very Weak, .40 Weak, .50

Very Modest, .60 Modest, .70 Moderately High, .80 High, .90 Very High level and only indicate how variables move together not a causal relationship.

Generally², a correlation coefficient for the type of data used in this study is calculated using the following equation (Trochim, 2006):

$$r = \frac{n(\Sigma xy) - (\Sigma x)(\Sigma y)}{\sqrt{[n\Sigma x^2 - (\Sigma x)^2][n\Sigma y^2 - (\Sigma y)^2]}}$$

After obtaining correlation coefficients for each pairing we test the statistical significance of the correlations. In other words, we test the hypothesis that the relationships we have observed have occurred only by chance. Hence, the following applies to the test of statistical significance:

1. H_0 = the correlation coefficient as estimated between X & Y (as pairs of variables) is not discernibly different from zero
2. H_a = the correlation coefficient as estimate between X & Y (as pairs of variables) is discernibly different from zero

Next we establish the significance level at both the .05 and .10 levels for completeness, with the number of degrees of freedom³ equal to 18. As mentioned previously, it is necessary to highlight the fact that even statistically significant findings only suggest that the correlations did not occur by chance; one should not infer a causal relationship based on the results provided here. Nonetheless, the results can help point to future research directions for those interested in examining the topic further.

Finally, we choose a two-tailed test as we do not wish to introduce a priori assumptions regarding the relationships between variables (Trochim, 2006). Finally, because our data include more than just two variables the choice

² The reason for stating that correlation coefficients are generally estimated in this way is that based upon the type of data, ordinal, dichotomous, etc. different correlation estimators are available (see Trochim (2006) for more on this type of correlational analysis).

³ The authors are aware of the limitations posed by such a small sample size. Still, because we seek to explore relationships we remain comfortable with the limits of the analysis at this time.

was made to look to a correlation matrix to present the findings in the next section. Basically, a correlation matrix shows each variable and its correlation with another variable in one large table. So instead of inputting each variable into the above formula a statistical program (STATA 12IC) was used to compute all estimates which come to 66 distinct correlations in total. In the matrix 1.000 indicates where a variable is paired with itself because a variable is always perfectly correlated with itself.

RESULTS AND DISCUSSION

In this section we present the results of the analysis described in the previous section. Table 2 consists of a correlation matrix showing the estimated Pearson Correlation Coefficients for each pairing of variables. Table 3 provides some of the same information however, this table only includes correlation coefficients and standard errors for variable pairs that are shown to have a statistically significant relationship (p-values = .10 and .05).

After examining the data it is possible to draw some conclusions. In terms of our first research question, “are persistence and retention rates statistically significantly correlated with participation in MCGL?” the analysis clearly indicates that participation in MCGL and the retention of students, white or non-white, did not yield statistically significant results. In fact, neither Greek Life variable shared any statistically discernible correlational relationship with retention of students on the whole. Moreover, the relationships between Greek Life participation of any kind and Non-Greek Life each shares only weak correlations with non-white student retention. This weak correlation likely implies that there is no real difference between non-white students who participate in Greek Life and those that do not. Again, we must highlight the fact that the analysis is based only on a conclusion drawn based on informed analysis and taken from the results presented in the correlation matrices provided by Tables 2 and 3.

Turning to the second research question, “what other important campus characteristics are

statistically significantly related to persistence and retention levels?” we conclude that the following variables are related to persistence and retention on the whole: total number of white students, total number of non-white students, total number of part-time students, total number of Pell Grant and non-Pell Grant recipients, and the average freshman index. The results also show a statistically significant relationship between the retention of non-white and white students. We present our findings in detail below.

Of all included variables only three relationships were statistically significant at a p-value of .05 for white students. The relationship between the retention of white students and that of non-white students move together in a positive direction at a moderately high rate of .66. This could be because as the university finds ways to retain one group of students they are also succeeding in retaining other students. In other words, it may be that institutional retention efforts benefit the overall student body.

Interestingly, the retention of white students is negatively correlated with the enrollment of white students at a -.63 level, which is also moderately high. A possible explanation for this surprising result could simply be a statistical artifact. That is, because the majority of the student body is white the data is more variable, thus suggesting that when more white students enroll, more white students are also not retained. However, the results may also point to a more important concern. Namely, they could suggest that there is some systematic way that white students who are less prepared for college-level work are being recruited in larger numbers. Given the high statistical significance of this estimate, further research into this area would likely provide useful information on why the data move together in this way.

The last of the three variables statistically associated with the retention of white students is

Table 1
Descriptive Statistics

	Mean	Standard Deviation	Min	Max	N=20
Retained White	998.3	300.38	496	1345	
Retained Non-White	249.7	83.786	115	378	
Multi-cultural Greek Life	88.2	27.449	61	136	
Non-Multicultural Greek Life	307.2	89.305	226	466	
Not In Greek Life	11301	207.430	10988	11565	
White Enrolled	1601.45	279.486	1091	2102	
Non-White Enrolled	391.45	70.943	304	508	
Full-Time	9853.4	164.833	9595	10066	
Part-Time	1843	124.611	1731	2043	
Pell Grants	2654.4	762.26	1840	3730	
Non- Pell Grants	9020.6	569.517	8231	9790	
Freshman Index	104.58	.34	104.1	105.1	

the enrollment of non-white students. These two variables move opposite of one another at a level of $-.54$, which can be considered to be a modest correlation. This statistic could imply that something to do with campus climate, as perceived by students, is at play. It is possible that non-white students are not feeling very welcomed at an institution where the majority of those enrolled are white and therefore decide not to attend this university. It may also be that the decline of non-white student enrollments is the result of opting out and choosing universities where they feel more comfortable. The opposite may be the case as well. That is, fewer white students may be retained as larger numbers of non-white students enroll. Again, this warrants further research given that such a relationship may signal that diversity and retention efforts may be functioning as cross-purposes. The other eight variables included in the study did not yield significant results. In fact, of the other included variables, none had more than a very weak correlation with white student retention, including participation in any type of Greek Life.

For Non-white student retention was related to: the enrollment of white students, the number of part-time students, the total number of Pell Grants recipients, and the total number of non-

Pell Grant recipients. All of these correlations are statistically significant at a p-value of $.05$ with the exception of the correlation with part-time students, which is significant at p-value $.10$. The enrollment of white students and the retention of non-white students are negatively correlated at a high level of $-.86$. This could be for a variety of reason including those regarding retention and diversity efforts mentioned previously. Part-time enrollment maintains a very modest positive correlation of $.40$ with the retention of non-white students. This modest correlation may simply signify that non-white students make-up a larger proportion of part-time students. Again, this relationship is only very modestly positive. Still, institutional researchers may consider examining the how part-time status is related to student retention at a disaggregated level or across institutions and states.

Next, we examine both the number of Pell Grant recipients and the number of non-Pell Grant recipients. Both of these variables share similar correlations with the retention of non-white students, albeit in opposite directions. The first holds a very modest positive correlation of $.40$, while the second holds a very modest negative correlation of $-.44$. In this case the correlation implies that as more Pell Grants are awarded, the

Table 2
Pearson Product-Moment Correlation Matrix

	Retained White	Retained Non-White	MC-Greek Life	Non-MC Greek Life	Non-Greek Life	White Enrolled	Non-White Enrolled	Full-Time	Part-Time	Pell Grants	Non-Pell Grants	Average Freshman Index
Retained White	1.000											
Retained Non-White	0.660	1.000										
Multi-cultural Greek Life	-0.097	0.347	1.000									
Non-Multicultural Greek Life	-0.096	0.340	0.924	1.000								
Not In Greek Life	-0.133	0.334	0.252	0.240	1.000							
White Enrolled	-0.625	-0.861	-0.177	-0.162	-0.181	1.000						
Non-White Enrolled	-0.542	0.210	0.481	0.494	0.503	0.032	1.000					
Full-Time	-0.142	0.359	0.326	0.294	0.996	-0.200	0.538	1.000				
Part-Time	-0.123	0.401	0.870	0.931	0.575	-0.191	0.584	0.617	1.000			
Pell Grants	-0.198	0.476	0.730	0.675	0.642	-0.331	0.741	0.702	0.785	1.000		
Non- Pell Grants	0.197	-0.443	-0.682	-0.599	-0.443	0.344	-0.706	-0.513	-0.638	-0.961	1.000	
Average Freshman Index	-0.110	0.377	0.933	0.798	0.530	-0.188	0.515	0.596	0.871	0.788	-0.684	1.000

Table 3
Pearson Product-Moment Correlation Matrix Providing only Statistically Significant Coefficients

	Retained White	Retained Non-White	MC-Greek Life	Non-MC Greek Life	Non-Greek Life	White Enrolled	Non-White Enrolled	Full-Time	Part-Time	Pell Grants	Non-Pell Grants	Average Freshman Index
Retained White	1.000											
Retained Non-White	0.660 (0.002)	1.000										
Multi-cultural Greek Life			1.000									
Non-Multicultural Greek Life			0.924 (0.000)	1.000								
Not In Greek Life					1.000							
White Enrolled	-0.625 (0.003)	-0.861 (0.000)				1.000						
Non-White Enrolled	-0.542 (0.014)		0.481 (0.032)	0.494 (0.027)	0.503 (0.024)		1.000					
Full-Time					0.996 (0.000)	0.538 (0.014)	1.000					
Part-Time		0.401* (0.080)	0.870 (0.000)	0.931 (0.000)	0.575 (0.008)	0.584 (0.007)	0.617 (0.004)	1.000				
Pell Grants		0.476 (0.034)	0.730 (0.000)	0.675 (0.001)	0.642 (0.002)	0.741 (0.000)	0.702 (0.001)	0.785 (0.000)	1.000			
Non- Pell Grants		-0.443 (0.051)	-0.682 (0.001)	-0.599 (0.005)	-0.443* (0.050)	-0.706 (0.001)	-0.513 (0.021)	-0.638 (0.003)	-0.961 (0.000)	1.000		
Freshman Index			0.933 (0.000)	0.798 (0.000)	0.530 (0.016)	0.515 (0.020)	0.596 (0.006)	0.871 (0.000)	0.788 (0.000)	-0.684 (0.001)	1.000	

*denotes statistical significance at p-value=.10, otherwise statistical significance at p-value =.05.

more non-white students are retained and vice versa. Fewer awarded Pell Grants are associated with declining retention rates for non-white students. Given the strong relationships between socio-economic status and non-white student status this relationship likely highlights the notion that these students face substantially higher financial hurdles than their white counterparts. The remaining six variables held correlation relationships at a weak level (.3) except the enrollment of non-white students (.2). Part-time enrollment seems to be very highly correlated with participation in both MCGL at a .87 level and non-MCGL at a .93 level. It is difficult to give an explanation for these relationships seeing as one must be a full-time student to be involved in Greek Life. Given these odd results, further investigation is warranted to clearly identify why these variables move together in such a manner. The remainder of the sections that follow describe the results of the analysis where all other statistically significant relationships found in the study are examined.

As we turn our attention specifically to participation in MCGL we find that only three variables yielded weak correlations. These three were non-participation in Greek Life, the enrollment of white students, and the number of full-time students. Participation in MCGL and the participation in non-MCGL were very highly correlated with one another at a .92 level. This suggests that students may not care which organization they join and simply want to participate in any form of Greek Life. Another possible explanation for this very high correlation could be that the presence of non-MCGL is larger than that of MCGL, so students are more attracted to the more ubiquitous non-MCGL organizations. A very modest to modest correlation of .48 exists between participation in MCGL and the enrollment of non-white students. It is possible that the presence of a MCGL organization on campus is more of an attraction to enrolling non-white students as compared to those already at the university. It could also be possible that as non-white students are enrolling at the university they are filling membership spots in MCGL

organizations. This may be the best evidence available at this point that MCGL has at least some impact on campus life for non-white students even if students continue to participate by and large in more traditional forms of Greek Life once they are on campus.

The relationships between the number of Pell Grant recipients and the number of non-Pell Grant recipients are related in similar ways with both MCGL and non-MCGL participation. A positive and moderately high relationship between MCGL and non-MCGL (.73 and .67 respectively) with Pell Grants awarded is evident. Conversely, a negative and moderately high to a modest correlation (-.68 MCGL and -.59 non-MCGL) is evident for Greek life and non-Pell Grant recipients. This could be for reasons in alignment with the correlations presented above regarding grant and non-grant recipients and the retention of non-white students. In other words the more Pell Grants awarded, the higher the correlation that students will be retained and vice versa. Because price barriers can often influence whether students remain enrolled these relationships make sense. If students are given grants to pay for school this can help alleviate financial barriers to access and remaining enrolled (Bowen, Chingos, & McPherson, 2009). This also means the student can continue their participation in MCGL and non-MCGL. The last statistically significant correlation with participation in MCGL is the incoming freshman index score. They share a very high correlation at a level of .93 which suggests that higher average freshman index scores are associated with high levels of participation in MCGL. In fact, this relationship holds at a high level (.79) for participation in non-MCGL. In a related vein, enrollment of non-white students is very modestly correlated with participation in non-MCGL at a level of .49, which aligns well with the reasons presented above. Like the coefficients on MCGL and non-MCGL participation, the coefficient on non-Greek Life participation is also associated with higher average freshman index score. Interestingly, the correlational relationship is only very modest as compared to those participating in Greek Life.

Non-participation in any form of Greek Life yields statistically significant correlations with all variables except the enrollment of white students. Enrollment of non-white students has a modest correlation of .50 with non-participation in Greek Life. This could be due to the lack of Greek organizations on campus that provide the social climate sought by non-white students and therefore they opt out of Greek Life entirely. Full-time enrollment and part-time enrollment are both positively correlated with non-Greek Life participation. The first is correlated at a very high level of .99, and the later at a modest level of .57. This could be simply because students do not care to join a Greek Letter organization or that those organizations that already exist on campus do not fit the needs of these students as well. In the case of part-time enrollments students must be enrolled full-time to participate in Greek Life which makes sense based on the correlation. In the case of Pell Grants, not being involved in Greek Life is correlated at a moderately high level of .64 with the total number Pell Grant recipients, and correlated negatively at a very modest level of -.44 with the total number of non-Pell Grant recipients. In other words, non-involvement in Greek life is positively associated with higher levels of Pell Grant recipients. Conversely, higher levels of non-Pell recipients are associated with lower levels of non-Greek involvement. These results could demonstrate that important financial disparities exist between those involved in traditional Greek Life and those who are not. Again, further examination could help determine if these relationships exist at more micro levels.

Full-time enrollment has a statistically significant, moderately high positive correlation at a .61 level with part-time enrollment. This could be because as more students enroll as full-time students there are many students who choose to enroll part-time. This could indicate that students have to work or have other obligations and are being prevented from enrolling full-time. The total numbers of Pell Grant and non-Pell Grant recipients have positive and negative correlations with full-time enrollment. The total number of Pell Grant recipients is highly correlated at a level

of .70 with full-time enrollment, and the total number of non-Pell Grant recipients has a modest correlation of -.51 with full-time enrollment. In other words, as the number of non-Pell Grant recipients increases it is associated with both full and part-time enrollment decreases. This might mean that more students are in need of financial aid in order to remain enrolled in their current status. Additionally, enrollment of non-white students has statistically significant modest positive correlation with both full-time and part-time enrollment. They are correlated at levels of .53 and .58, respectively. The relationships between the number of Pell Grant recipients and the number of non-Pell Grant recipients are positively and negatively correlated at high levels of .74 and -.71, respectively, which makes sense seeing each one is measure the remainder of the other.

Finally, the average freshman index score is only negatively associated with one variable, non-Pell Grant recipients. This finding could point to a familiar problem: the need to balance traditional student selectivity with diversity and net revenues (Hossler, 2004). In other words, as the average freshman index rises, it is correlated at a moderately high level with increasing levels of non-Pell Grant recipients. Based on the findings presented in this section, it is clear that Pell-Grant status and diversity are closely linked and therefore, it may be fruitful to examine in what ways the use of such an index promotes or hinders both the diversity and retention goals of an institution.

So what does this all mean? In short, the analysis provides no evidence of a statistically significant relationship between participation in MCGL, or any form of Greek Life, and higher rates of retention and persistence among white students and non-white students. Still, the results do show that retention of non-white students, total number of white students, total number of non-white students, total number of part-time students, total number of Pell Grant and non-Pell Grant recipients, and the average freshman index were statistically significant variables that affected retention and persistence rates. Namely, the

number of Pell Grant and non-Pell Grant recipients seems to be highly correlated with retention and persistence rates for all students.

CONCLUSION

While past research has focused on retention and persistence at the student level, Lasher and Offenstein (2012) and Osguera and Rhee (2009) suggest that researchers examine these same variables at the institutional level. In this analysis we examined a number of variables related to retention and persistence at the institutional level. In our main pursuit, we found that involvement in any form of Greek Life, both Multicultural and Traditional, did not share a statistically significant correlation with retention and persistence rates, as we initially thought. Still, this exploratory study has set the stage for analysis at a more aggregate level by examining a number of institutional variables and their association with retention and persistence. It also provided a foundational basis for those seeking to understand these same relationships at a more micro level based on the correlations outlined in this study. Moreover, while we are aware of the limitations of the small number of years and a single institution we, nonetheless, believe that the results presented here can provide guidance for future research as well as college and university policy analysis. Finally, it is clear that a larger pool of school data can extend the significance of this research, especially as institutions seek to improve retention and persistence rates among all students.

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