

Academic Psychological Capital: College Retention, GPA, Demographic, and Student Groups

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This study aims to further explore the relationship between Academic Psychological Capital (PsyCap), grade point average (GPA), and retention while examining how Academic PsyCap differentiates among demographic and student groups. This research is significant, as it examines 6 years of incoming college freshmen with a response rate of 76% (n = 2,379) and explores Academic PsyCap with demographic and student groups that have not yet been discussed in the academic setting. The results support that Academic PsyCap has a positive significant relationship with GPA and retention, and the study identified student groups with overall higher Academic PsyCap scores (honor students and student-athletes) and groups with overall lower Academic PsyCap scores (female, minority, and LGBTQ). As liberal arts colleges and other educational institutions struggle with financial, recruitment, and transition challenges, Academic PsyCap is an underexplored tool that could aid in retention efforts. With relationships between Academic PsyCap with GPA and retention, incorporating Academic PsyCap developmental initiatives (hope, self-efficacy, optimism, and resilience) into orientation and core curricula benefits both the student's educational outcomes and the long-term strategic goals of the institution.

Key words: Academic Psychological Capital (PsyCap), student retention, GPA, student groups, demographics, student success

Many educational institutions are facing financial constraints and declining enrollment. Higher education institutions are searching for new approaches to aid in student retention to assist student success and overcome organizational adversities. Student retention impacts enrollment and thus intensifies the financial constraints of an educational institution. College administration could look to Academic Psychological Capital (PsyCap) as an innovative method to retain students (Sweet & Swayze, 2023). Orientation and core curricula, particularly in the first academic year, are settings in which initiatives can be incorporated to support student outcomes, which can assist in achieving institutional strategic goals.

Academic PsyCap is the aggregate of hope, self-efficacy, optimism, and resilience—it is “who you are” and an organizational resource that can be developed (F. Luthans et al., 2004). Li et al. (2023) identified that Academic PsyCap has significant positive relationships on student learning and can improve academic performance, promote student engagement, improve student adjustment to learning, increase student motivation, and reduce academic burnout. Academic PsyCap has a positive significant relationship with grade point average (GPA) and retention among first-year students (Sweet et al., 2019; Sweet & Swayze, 2023). This study seeks to further explore the relationship between Academic PsyCap with GPA and retention beyond the freshman year while examining how Academic PsyCap differentiates among demographic groups.

Although many initiatives to retain students focus on organizational or academic support, limited approaches focus on the psychological resources that students use to be successful in their academics. As a student progresses beyond the first year, success may depend not only on organizational or academic support but also on the student's capacity to maintain/build hope, confidence, optimism, and resilience. Academic PsyCap offers a framework for understanding how these developable psychological resources contribute to retention and the success of undergraduate students.

This research is significant, as it examines data over a 6-year period of incoming college freshmen and explores potential differences among demographic and student groups, which has been primarily neglected in prior research on PsyCap, particularly in academic settings. The goal is to address this gap in the literature and to further review the relationship between Academic PsyCap with GPA and retention during the 4-year college undergraduate experience. This research strengthens the dialogue on the proposed importance of Academic PsyCap for fostering student success and supporting institutional objectives.

Literature Review

PsyCap is defined as an individual's positive psychological state of development and is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success. (F. Luthans, Youssef, & Avolio, 2007, p. 3)

PsyCap was originally introduced as a resource for organizations, beyond social, financial, and human capital (F. Luthans, Youssef, & Avolio, 2007, p. 3). Since its introduction, researchers have expanded beyond the organizational context to academic environments. Li et al. (2023) conducted a systematic literature review of PsyCap and academic outcomes among university students and found 43 studies published between 2012 and 2022. From their review, PsyCap has a favorable impact on various student outcomes, including academic achievements, academic engagement, and psychological well-being (Li et al., 2023, p. 3739).

Academic PsyCap and GPA

B. C. Luthans et al. (2012) discovered that business undergraduates with higher total Academic PsyCap scores have higher GPAs. Vanno et al. (2014) also found that academic performance has a positive direct effect on Academic PsyCap, and Sweet et al. (2019) found that a positive correlation exists between GPA and Academic PsyCap. One study found that student GPA was significantly related to only two components of PsyCap—hope and resilience (Liran & Miller, 2019).

Limited studies have been conducted assessing the overall PsyCap scores between demographic and student groups. Student-athlete and gender have been discussed with PsyCap in an academic setting, Other demographic or student groups have not been discussed as it relates to PsyCap in an academic setting.

Sweet et al. (2019) found that male students have statistically significant higher overall scores for self-efficacy and overall Academic PsyCap ($p = .047$ and $p = .043$, respectively). Kim et al. (2020) conducted a study of 248 collegiate Division I student-athletes and found that the "academic PsyCap of the student-athletes positively influenced school satisfaction and psychological well-being, but student-athlete

engagement fully mediated the relationship between academic PsyCap and psychological well-being” (p. 378).

Outside of the academic setting, Sweet and Swayze (2017) found that baby boomers had the highest overall level of psychological capital, followed by Generation X, and millennials in a health care setting. Another study, focused on lesbian, gay, bisexual, transgender, queer, plus other community members (LGBTQ+), analyzed if there was a difference in PsyCap scores between those who came out to friends, family, or colleagues and those who did not. The study found a statistically significant difference between the two groups (Vora & Sivaraman, 2023, p. 94).

Literature Review Conclusion

The literature review suggests that Academic PsyCap is positively associated with student outcomes such as GPA, retention, engagement, and well-being. However, findings on retention are diverse, with some studies indicating no significant relationship in specific academic years (Smales, 2019) and others suggesting that PsyCap components such as hope and self-efficacy may predict freshman-to-sophomore retention (Sweet et al., 2019). Although demographic differences in PsyCap have been observed for gender, student-athletes, and populations such as LGBTQ members, data across multiple student characteristics remain limited. These gaps highlight the need for a longitudinal study examining how Academic PsyCap relates to GPA and retention beyond the first year. In addition, research is needed on how PsyCap may vary across student groups. The research questions guiding this study address these gaps.

Methods

Three research questions guide this longitudinal study.

1. What relationships exist between Academic PsyCap scores and GPA by semester?
2. Is there a difference in overall Academic PsyCap scores for those retained and nonretained by the college?
3. Are there differences in Academic PsyCap scores across various demographic and student group characteristics to include gender, LGBTQ affiliation, first-generation status, minority status, honor’s distinction, admission status, and student-athlete?

Survey and Data Collection

As this study’s primary data, all incoming freshmen at a small liberal arts college in the southeast region of the United States were asked to complete the adapted Psychological Capital Questionnaire during freshman orientation (F. Luthans, Avolio, et al., 2007) from fall 2016 to fall 2021. The student population is traditional in age, with the overwhelming majority of students residing on campus (91.9%, $n = 2,360$).

The Psychological Capital Questionnaire is a 24-item questionnaire with a Likert-type scale of 1 to 6. Students completed a survey from 1 (*strongly disagree*) to 6 (*strongly agree*). Each subscale (hope, self-efficacy, optimism, and resilience) has six questions, and student demographics questions are on gender, LGBTQ+ status, and athlete status. The overall Academic PsyCap score is the average of each subscale. The survey was adapted to the academic environment and was administered via an electronic questionnaire in a 2-week window prior to the start of the students’ first semester; as the exception, the 2016 and 2017 freshmen completed the survey during orientation on campus. Transfer students were not included in the survey, as this was for incoming new freshmen.

Secondary data for this study were provided by the college’s Institutional Review Board (IRB) point of contact and included data identifiers for confidentiality, along with institutional demographic and student group information on first-generation status, gender, minority status, residence (in-state vs. out-of-state), on-campus housing, student-athlete, honors, and conditional admittance. In addition, the IRB point of contact provided the lead researcher with semester GPA and retention data for each academic semester by using the identifiers. The IRB point of contact provided data from fall 2016 through spring 2022. The IRB point of contact retired and data were no longer available as identifiers were established with this IRB point of contact. Thus, it should be noted that not all academic years have complete semester GPA or retention data (fall 2021 students who completed the survey have information for fall 2021 only, fall 2020 students have data for three continuous semesters, fall 2019 students have five continuous semesters, and fall 2018 students have seven continuous semesters). ”

Response Rate

The study overall received a response rate of 76.0% ($n = 2,379$). Table 1 provides an overview of response rates by academic year between the data collection period of fall 2016 to fall 2021.

Table 1

Freshmen Survey Response Rates by Academic Year

Academic Year	Total Population	Completed Suvey	%
2016-2017	508	388	76.4
2017-2018	557	496	89.0
2018-2019	576	355	61.6
2019-2020	553	388	70.2
2020-2021	468	400	85.5
2021-2022	465	352	75.5
Total	3,127	2,379	76.0

Note. Percentage values are rounded to the nearest tenth.

Description of the Sample

All participants in this study were freshman status and first-time college students at the time of data collection. Of the participants who completed the survey, 11.3% identified as LGBTQ affiliated and 57.7% identified as female (see Table 2).

Table 2

Self-Reported Demographic Characteristics of Survey Participants

Characteristic	n	%
Gender		
Female	1,402	57.7
Male	977	42.3
LGBTQ Affiliated		
Yes	270	11.3
No	2,109	88.7

Note. Percentage values are rounded to the nearest tenth.

$N = 2,379$. LGBTQ = lesbian, gay, bisexual, transgender, queer.

Additional secondary data, provided by the college, included characteristics of most participants as found in Table 3. Data were categorical in nature, where answers were typically coded as 1 (yes) and 0 (no). Also, the categorical variable “residence” was coded as 0 (on-campus) and 1 (off-campus). As the appropriate measure of central tendency, the mode was calculated as the most frequently occurring value.

Summarizing data in Tables 2 and 3, the typical freshman respondent is female, nonminority, with no LGBTQ affiliation, whose permanent family residence is in-state. Typical freshmen are not first-generation students; they reside on campus, were admitted under regular status, and are not classified as honor students or student-athletes.

Table 3
College-Reported Characteristics of Participants

Characteristic	<i>n</i>	%
First Generation ^a		
Yes (1)	210	8.8
No (1)	2,075	87.2
Minority ^b		
Yes (1)	436	18.3
No (1)	1,942	81.6
Residence ^c		
Yes (1)	217	9.1
No (1)	2,143	90.1
Resident out-of-state ^d		
Yes (1)	1,166	49.0
No (1)	1,213	51.0
Honors Student ^d		
Yes (1)	254	10.7
No (1)	2,125	89.3
Conditional admittance ^d		
Yes (1)	85	3.6
No (1)	2,294	96.4
Athelete status ^d		
Yes (1)	545	22.9
No (1)	1,894	77.1

Note. Percentage values are rounded to the nearest tenth.

^a*n* = 2,285. ^b*n* = 2,378. ^c*n* = 2,360. ^d*n* = 2,379.

Results

The research questions guiding this study included three questions on Academic PsyCap in relationship to GPA, retention, demographic, and student group characteristics.

Academic PsyCap and GPA by Semester

Research Question 1 asked, “What relationships exist between Academic PsyCap scores and Grade Point Average (GPA) by semester?” The intent of this research question is to determine the relationships that exist between overall Academic PsyCap and GPA by semester. Certain college students in the sample reported agreement ($M = 4.44$, $SD = .57$) across the Academic PsyCap scale. Table 4 displays the mean scores for overall Academic PsyCap and overall student GPA. In similar style to Sweet and Swayze

(2023), these findings begged the question about academic performance within each semester. Table 4 also displays the mean GPA scores for each of eight semesters in this study. Among the sample of college students, GPA scores were highest in Semester 8 ($M = 3.34$, $SD = .73$) and lowest in Semester 1 ($M = 2.87$, $SD = .89$).

Table 4

Descriptive Statistics for Overall Academic PsyCap Scores and Grade Point Average (GPA)

Measure	<i>M</i>	Range	<i>SD</i>
GPA Semester 1	2.87	.00-4.00	.89
GPA Semester 2	2.96	.00-4.00	.83
GPA Semester 3	2.97	.00-4.00	.84
GPA Semester 4	3.08	.00-4.00	.78
GPA Semester 5	3.05	.00-4.00	.81
GPA Semester 6	3.24	.00-4.00	.71
GPA Semester 7	3.18	.00-4.00	.76
GPA Semester 8	3.34	.00-4.00	.72
Overall Academic PsyCap Score	4.44	1.00–6.00	.57

Regarding “What relationships exist between overall Academic PsyCap and Grade Point Average (GPA) by semester?” Pearson correlations were conducted (Table 5) between overall Academic PsyCap and semester GPA. The analyses revealed significant ($p < .001$), positive associations between GPA and Academic PsyCap for each of the eight semesters. Put simply, as Academic PsyCap scores increase, we observed increases in GPA.

Table 5

Intercorrelations for Overall Academic PsyCap and Grade Point Average (GPA) by Semester

Measure	1	2	3	4	5	6	7	8	9
1. Academic PsyCap	-								
2. GPA Semester 1	.114***	-							
3. GPA Semester 2	.139***	.713***	-						
4. GPA Semester 3	.103***	.693***	.717***	-					
5. GPA Semester 4	.085***	.636***	.663***	.724***	-				
6. GPA Semester 5	.078***	.605***	.603***	.696***	.731***	-			
7. GPA Semester 6	.113***	.557***	.596***	.632***	.636***	.743***	-		
8. GPA Semester 7	.130***	.598***	.634***	.657***	.667***	.669***	.723***	-	
9. GPA Semester 8	.150***	.536***	.529***	.602***	.622***	.616***	.590***	.729***	-

*** $p < .001$.

In general, these results suggest that Academic PsyCap positively correlates to academic performance across the undergraduate college journey. Whereas the correlation coefficients for each semester are significant and positive, they are also considered weak (L. Cohen & Holliday, 1982). Although the correlations are weak, they persist over multiple years, which increases confidence in the reliability of the relationship (J. Cohen, 1988). When viewed cumulatively, this 4-year trend of statistically significant results confidently supports that Academic PsyCap is relevant to GPA.

Academic PsyCap and Retention

Research Question 2 asked, “Is there a difference in overall Academic PsyCap scores for those retained and nonretained by the college?” This research question examines differences in Academic PsyCap between retained students and nonretained students. Retained students are defined as those who did not leave the college prematurely (e.g., enrollment through graduation). This group was operationalized by aggregating all students who did not withdraw (e.g., continuous progression toward and including graduation) from the school during the period of the study. Nonretained students are defined as those who left the college prematurely (e.g., discontinuous enrollment without graduation). This group was operationalized to include those who had withdrawn from the school prior to graduation without returning. An independent samples t test was conducted to compare Academic PsyCap scores for retained and nonretained students. Results indicated that retained students ($M = 4.47$, $SD = .55$) reported a significantly higher Academic PsyCap score than nonretained students ($M = 4.37$, $SD = .58$), $t(2345) = -4.108$, $p < .001$, $d = .56$, suggesting a moderate effect size. These findings suggest that student retention is associated with higher levels of academic psychological capital compared with those who leave college.

Academic PsyCap, Demographic, and Student Group Characteristics

Research Question 3 asked, “Are there differences in Academic PsyCap scores across various demographic and student group characteristics to include gender, LGBTQ affiliation, first-generation status, minority status, honor’s distinction, admission status, and student-athlete?” To clarify, minority status indicates a student who is not Caucasian, student-athlete indicates a student who is playing a school-sanctioned sport (not intramural). Table 6 displays demographic and student group characteristics with their measured categories and average PsyCap scores. For example, the highest Academic PsyCap score was reported by students having honors status ($M = 4.61$, $SD = .52$). The lowest Academic PsyCap score was reported by students who identified as LGBTQ ($M = 4.31$, $SD = .53$).

To better understand the difference in Academic PsyCap within the categories of each student characteristic, a t test of means for independent samples was calculated. Table 6 also displays the t test for each demographic and student group characteristics. Academic PsyCap scores were statistically different in the demographic and student groups of gender, LGBTQ status, minority status, athlete status, and honors designation. In terms of gender, male students ($M = 4.48$, $SD = .56$) reported a significantly ($p < .05$) higher Academic PsyCap score than female students ($M = 4.42$, $SD = .56$). Non-LGBTQ students ($M = 4.46$, $SD = .57$) also reported a significantly ($p < .001$) higher Academic PsyCap score than LGBTQ students ($M = 4.31$, $SD = .53$). Nonminority students reported a significantly ($p < .05$) higher Academic PsyCap score ($M = 4.46$, $SD = .56$) than minority students ($M = 4.39$, $SD = .60$). Last, athlete status and honors status both displayed statistically significant scores in Academic PsyCap. Specifically, whereas student-athletes reported significantly ($p < .01$) higher scores ($M = 4.51$, $SD = .54$) than nonathletes ($M = 4.42$, $SD = .57$), honors students reported significantly ($p < .001$) higher Academic PsyCap scores ($M = 4.61$, $SD = .51$) than nonhonors students ($M = 4.42$, $SD = .52$). First-generation and conditionally admitted students did not have statistically significant PsyCap scores.

Table 6*Mean Differences in Academic PsyCap Stores by Student Characteristics*

Student Characteristics	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>
Gender ^a				
Female (1)	4.42	.56	2346	2.349*
Male (0)	4.48	.56		
LGBTQ affiliated ^a				
Yes (1)	4.31	.53	2346	4.242***
No (0)	4.46	.57		
First generation ^b				
Yes (1)	4.47	.51	2254	-.643
No (0)	4.44	.57		
Minority ^c				
Yes (1)	4.39	.60	2345	2.100*
No (0)	4.44	.56		
Honors Student ^d				
Yes (1)	4.61	.51	2345	-4.837***
No (0)	4.42	.57		
Conditional admittance ^d				
Yes (1)	4.37	.67	2346	1.210
No (0)	4.45	.56		
Athelete status ^d				
Yes (1)	4.51	.54	2346	-3.015**
No (0)	4.42	.57		

^a*n* = 2,379. ^b*n* = 2,285. ^c*n* = 2,378. ^d*n* = 2,379.

p*<.05. *p*<.01. ****p*<.001.

Conclusion

Essentially this study further supports the suggestion that intentional cultivation of Academic PsyCap through embedded academic initiatives and orientation could have significant benefits for students in retention and GPA success, and those particularly from demographic and student groups with lower overall Academic PsyCap scores.

Student-athletes and honor students have overall higher Academic PsyCap scores. With prior academic and athletic success, these students entered the educational setting with overall higher PsyCap score. Female, minority, and LGBTQ students have significant lower overall Academic PsyCap scores. College administration should seek out opportunities to support these communities in their hope, self-efficacy, optimism, and resilience.

Orientation and core curricula, particularly in the first academic year, are settings in which initiatives can be incorporated to support Academic PsyCap in an effort to assist in achieving institutional strategic goals such as retention. Faculty training on mindfulness and forgiveness could prove beneficial as instructor mindfulness and forgiveness amplifies the effect of PsyCap on learning performance (Tho & Thu, 2026). Service learning and mentorship programs, student road mapping, and reflection exercises on personal core beliefs, hope, self-efficacy, optimism, and resilience are other activities that can be implemented in orientation and core curricula to potentially aid in the development of Academic PsyCap (Sweet & Swayze,

2023).

Further research is needed on how to develop Academic PsyCap initiatives in orientation and in core curricula. Research should implement Academic PsyCap initiatives and examine the impact on retention and organizational financial goals. Although this study did not examine transfer students or nontraditional students, it is imperative that these groups not be neglected and have research dedicated to Academic PsyCap within this population.

This study further supports that Academic PsyCap has a positive significant relationship with GPA and retention, as prior research suggests. The study examines beyond the freshman year. Although this study was completed at one educational institution, the response rate and 6-year longitudinal nature of the study helps to add generalizability.

Overall, Academic PsyCap has positive outcomes with retention and GPA. This relationship suggests that assisting students in the development of Academic PsyCap would assist in the transition to college and with retention, thus aiding enrollment numbers. With the financial constraints today on educational institutions, especially liberal arts colleges, maintaining enrollment numbers and transitioning students well would assist in the long-term viability of the institution. Academic PsyCap is beneficial not only to the student but also to the academic institution.

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