PACIFIC COLLEGE
of HEALTH AND SCIENCE

Graduate Student Retention at a For-Profit College

Courtesy of Pacific College of Health and Science

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Graduate Student Retention at a For-Profit College

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Acknowledgments & Dedication

Thank you to my wonderful partner Jon whose love and care supported me through my entire doctoral program. To my family and friends, thank you for your understanding, encouragement, and support, now and always.

Dr. Laura Booker, thank you for your time, wisdom, and invaluable feedback on this capstone project. This entire doctoral learning experience was enriched by the knowledge, vulnerability, and compassion of my fellow cohort members and our instructors- thank you.

And thank you to my Pacific College colleagues for trusting and supporting me with this important project.

This capstone is dedicated to all students-past, present, and future-pursuing their goals and dreams to make the world a better place despite many obstacles. And to the administrators and faculty working tirelessly to help them.

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Executive Summary

Pacific College of Health and Science is a for-profit integrative health care school offering traditional and holistic medicine degrees. The Doctor of Acupuncture and Chinese Medicine (DACM) is a 192-credit program that takes approximately four years to complete full-time. From 2016 to 2021, an average of 82% of DACM students persisted to their second year. While White and Asian student populations were retained at or above this average, Black and Hispanic student one-year retention rates were only 73% and 79%, respectively.

Of the 556 students who started, only 455 persisted to their second year. The loss of 101 students amounted to roughly 7 million dollars of lost tuition revenue for the college. If the institution does not improve retention rates, it will continue to lose tuition revenue which could impact the overall financial growth of the institution. Low retention and graduation rates can also diminish the reputation of the college and be a cause of concern during reaccreditation visits. Additionally, less acupuncturists will enter the profession, and there will be less representation of acupuncturists of color. This could deter other students of color from pursuing a healthcare profession and could result in underserved populations being less likely to receive healthcare.

The purpose of this dissertation in practice is to determine individual attributes, pre-Pacific College schooling factors, goal and institutional factors, and academic variables that indicate a student may dropout. This will inform supports Pacific College can utilize to help students persist to graduation.

LITERATURE & CONCEPTUAL FRAMEWORK

Tinto's (1975) academic and social integration retention model serves as a foundation for understanding whether students will persist. However, Tinto's initial research, published in 1975, reflected a different student population and university culture than today. Pacific College students do not reside on campus and are older, more diverse, and have additional responsibilities outside of school that require many to attend part-time. Therefore, Bean and Metzner's (1985) nontraditional student retention model and Ovink and Veazey's (2011) psychological-social barriers theory also helped inform the Pacific College student dropout conceptual framework.

RESEARCH QUESTIONS

Using the literature as a guide, I developed four research questions to understand which Pacific College students are prone to dropout. Understanding which students are more likely to dropout will allow the college to target early supports to help them persist.

- What individual attributes are associated with student dropouts?
- What pre-Pacific College school factors are associated with student dropouts?
- What goal and institutional commitment factors are associated with student dropouts?
- What academics variables are associated with student dropouts?

DATA COLLECTION

I collected data for each entering DACM student from fall 2016 to fall 2021. I then analyzed it to determine if there were certain individual attributes, pre-Pacific College schooling factors, goal and institutional commitment factors, or academic variables that indicated a student would struggle and withdraw. I also surveyed students who withdrew to understand why they did not continue in their studies.

FINDINGS

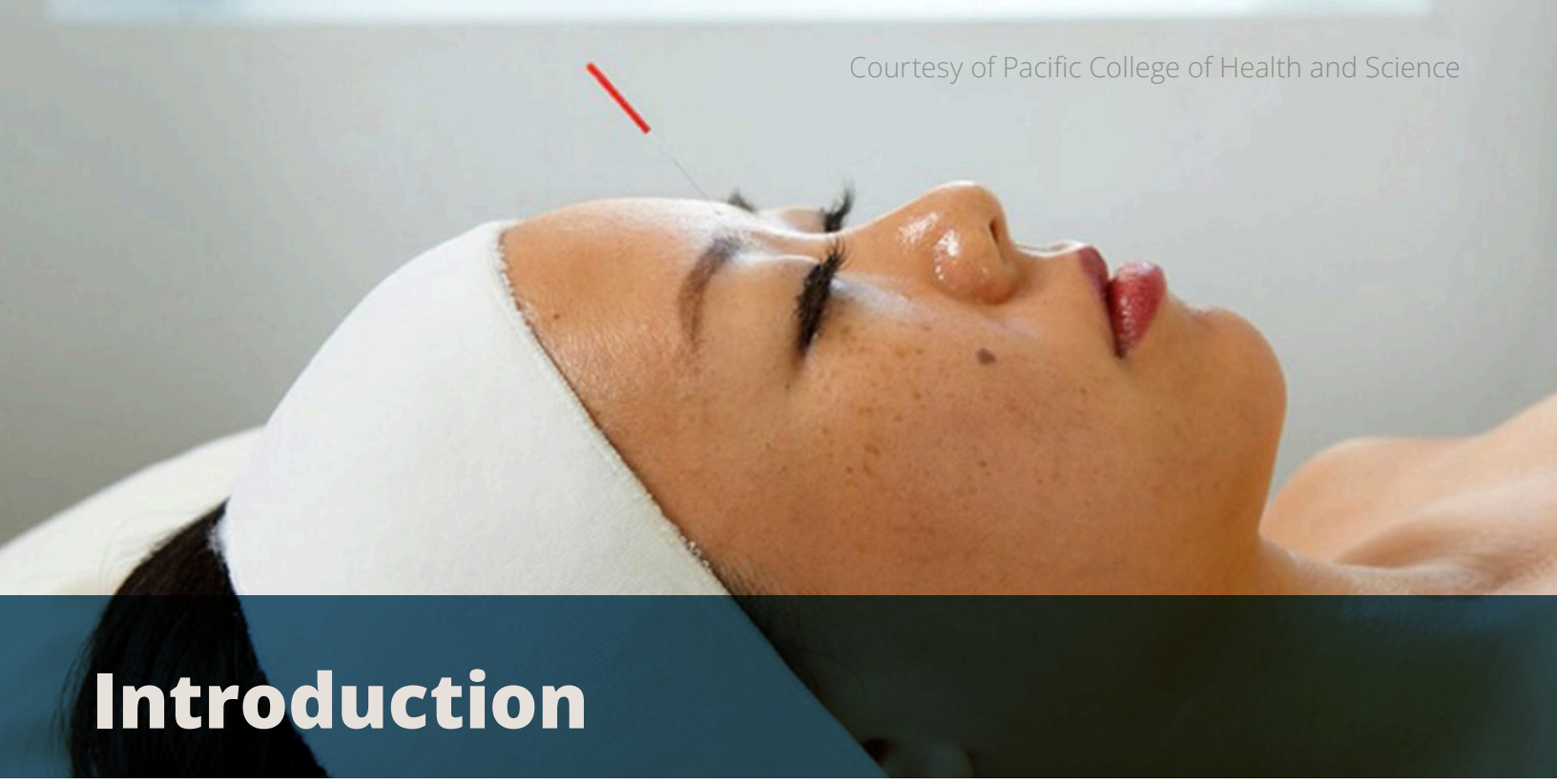
1. Students who were older, male, lived farther from campus, or identified as Black, Indigenous, or Hispanic were more likely to dropout. On average, students who were not retained were five years older when they started the program and lived over 100 miles farther from the San Diego campus than retained students.
2. Students who had not earned a previous degree or had earned a master's or doctorate degree were slightly more likely to not be retained.
3. Students who applied and enrolled closer to the term start date were more likely to dropout. On average, students who were not retained applied seven days and enrolled 10 days closer to the term start date. In addition, 34% of students who were not retained enrolled one week or less before

the term started, compared with only 20% of students who were retained. Students who were not retained completed on average three terms before dropping out, with the largest number of students only completing one term. In addition, 78% of students withdrew within the first three terms, or first year of the program.

4. On average, students who were not retained enrolled in one less credit and completed four less credits in their first term than retained students. While students who were retained tended to successfully complete all credits they enrolled in their first term, students who were not retained completed three less credits than they initially enrolled in. On average, students who were not retained had a first term GPA 0.87 points lower than retained students. Furthermore, 32% of students who were not retained had a first term GPA under 3.0, compared with only 5% of retained students.

RECOMMENDATIONS

1. Starting at the applicant stage, integrate students into the academic and social college systems through socialization. Socialization helps students answer whether graduate school, Pacific College, and the acupuncture profession are the right match for them. Socialization experiences include targeted applicant conversations, peer group connections, and opportunities to learn about the profession. These supports should be targeted to the student populations that are more likely to dropout.
2. Pacific College should collect more accurate data on the reasons student's dropout, collect additional student academic, environmental, and social variables, and send the withdrawal survey to students with the withdrawal paperwork. In addition, the college should implement program evaluations for the various support services once the recommendations are established. This additional analysis will help the college make evidence-informed decisions to utilize resources efficiently. Finally, a separate student profile analysis for each program will help the college target program-specific supports.



Courtesy of Pacific College of Health and Science

Introduction

Pacific College of Health and Science (Pacific College), a for-profit integrative health care school, struggles to retain students in its Doctor of Acupuncture and Chinese Medicine (DACM) program. In addition, there are disparities in which students dropout at higher rates. From 2016 to 2021, the average one-year retention rate for the DACM program was 82% (Pacific College, n.d.) However, the average one-year retention rates for Black and Hispanic students were lower than the overall average at 73% and 79%, respectively (Pacific College, n.d.).

This will ultimately affect program graduation rates as well. Graduation rates are calculated based on 200% normal completion time. For the DACM program, that will be calculated approximately seven years after an entering cohort started. Since the first DACM cohort started only five years ago, the college has not yet calculated graduation rates for the program. However, given that students withdraw not only in their first year but at any time throughout the program, the college can expect a graduation rate lower than the one-year retention rate.

There is a financial loss of tens of thousands of dollars per student, as well as a social loss to the organization when a student drops out, impacting overall profits and morale. In addition, students who do not persist and graduate are left with debt and no degree to help secure a higher-paying job to repay that debt. Lower levels of education and socioeconomic status are also factors contributing to poorer health outcomes for underserved populations (Thomas, 2014). Graduating fewer students of color reduces the number of healthcare practitioners in the field, potentially deterring others who identify similarly from pursuing a healthcare profession. Furthermore, without proper representation in healthcare, underserved populations may be less likely to receive the healthcare they need (Evans et al., 2001).

Low student persistence and graduation rates continue to affect American higher education institutions of all types and degree levels (Burkholder et al., 2013). However, for-profit colleges have recently drawn sharper criticism than non-profit universities (Dynarski, 2016). While for-profit institutions are not new- the first offering vocational education as early as the nineteenth century- their rise in the traditional higher education landscape is more recent (Watkins, 2017). For-profit institutions have corporate investors who are acutely concerned with the profitability and efficiency of the institution. Often, enrollment numbers and tuition dollars, instead of student learning outcomes and success, dominate top management's strategic thinking (Ruch & Keller, 2003). As Ruch and Keller (2003) highlight, "for-profit higher education is a unique environment that combines the hard edges of American capitalism and the altruistic vision of an educational institution serving society" (p.108).

What individual attributes, pre-Pacific College schooling factors, goal and institutional commitment factors, and academic variables are associated with Pacific College DACM student dropouts? What institutional factors may contribute to students dropping out? The purpose of this dissertation in practice is to determine specific factors that indicate a student may struggle and dropout and supports that Pacific College could utilize to help those students persist to graduation.

Courtesy of Pacific College of Health and Science

Organizational Context

Pacific College, founded in San Diego in 1986, offers certificate, associate, bachelor, master, and doctoral degree programs in a variety of traditional and integrative health sciences. These certificate and degree programs include studies in acupuncture, massage, holistic nursing, medical cannabis, yoga, public health, and health and human performance. In the last 35 years, the college expanded to two additional campus locations in New York and Chicago. Quad Partners, a private equity group that provides growth capital and operational assistance to educational institutions, acquired the college in 2008 (Pacific College, n.d.). In 2015, Pacific College received regional accreditation from the Western Association of Schools and Colleges (WASC), which added to its various state and programmatic accreditations (Pacific College, n.d.). Each year, the college educates approximately 2,000 students, supervises about 60,000 patient visits at their teaching healthcare clinics, and offers roughly 100 continuing education and outreach events among its three campuses (Pacific College, n.d.).

Due to the tri-campus structure of the college, each campus has its own local students, faculty, and staff while also remaining under the central administration, mostly located at the San Diego campus. The student advisors, program directors, academic deans, campus directors, and institutional research coordinator are the primary employees who oversee student retention and success. However, a current institutional initiative requires each department to recognize their role and responsibility for student persistence (M. Youngren, personal communication, October 27, 2020). This is reflected in the annual employee appraisal form and the institution's long-term strategic plan.

The college operates on a trimester system with three full-time terms each year (fall, winter, and spring). In March 2020, the COVID-19 pandemic forced the college to adapt most of its practices. Many classes shifted to

online instruction, student events and extracurricular activities significantly decreased, staff worked remotely, and the physical campuses and clinics operated at a reduced capacity. However, because of the hands-on nature of the acupuncture education and profession, not every class and clinic shift could transition online. Currently, the campuses are operating at a limited capacity with only clinic and a select number of classes taught in-person. This is expected to continue through 2022.

DACM PROGRAM CONTEXT

The San Diego campus offers 15 different degree programs with approximately 1,200 students and 80 faculty. The focus of this study is the DACM degree, a 192-credit program that takes 11 terms, or approximately four years, to complete full-time. The first DACM cohort started in fall 2016 with 23 students. Over the last five years, the program grew roughly 1,500% to 343 students in fall 2021 (Pacific College, n.d.). The total student headcounts by trimester for fall 2016 to fall 2021 are shown in Table 1.

Table 1

DACM Student Headcounts, by trimester: Fall 2016 - Fall 2021

TERM	DACM STUDENT HEADCOUNTS
2016 Fall	23
2017 Winter	70
2017 Spring	91
2017 Fall	120
2018 Winter	146
2018 Spring	153
2018 Fall	178

TERM	DACM STUDENT HEADCOUNTS
2019 Winter	202
2019 Spring	211
2019 Fall	248
2020 Winter	272
2020 Spring	296
2020 Fall	329
2021 Winter	329
2021 Spring	324
2021 Fall	343

Note. From Pacific College institutional data, 2022.

As of fall 2021, the DACM program cost $73,668 for tuition and fees. The college typically increases tuition for all programs approximately 2% each fall. Currently, the college does not offer internal student scholarships. However, students can apply outside organization scholarships toward tuition. Eighty-four percent of students use federal financial aid funding in the form of loans and grants, 10% use veteran affairs benefits, 5% pay "out-of-pocket" with personal finances, and 1% use a third-party servicer such as an employer tuition assistance program or outside organization scholarship. Pacific College also offers payment plan options for those paying with personal finances for all or part of their tuition. The college places students on a bursar registration hold if they have a past due balance. These students cannot register for classes the following term without clearing their balance and bursar registration hold. If students do not register by the following term's add/drop deadline, they are withdrawn from the college.

Pacific College does not offer any student housing. All students commute to campus. The average DACM student is 34 years old when they start the program, with students ranging from 21 to 75 years of age. 42% of students identify as White, 14% as two or more races, 13% as Asian, 9% as Hispanic, 4% as Black, 2% as American Indian/Alaska Native (Indigenous), and 1% as Native Hawaiian/Other Pacific Islander (Table 2). However, 16% of students did not disclose their ethnicity. Eighty-one percent identify as female, 18% as male, and 1% did not disclose their gender (Pacific College, n.d.).

Table 2

DACM Student Ethnicity Breakdown

DACM STUDENT ETHNICITY	COUNT	PERCENTAGE
White	247	42%
Not Specified	96	16%
Two or More Races	81	14%
Asian	78	13%
Hispanic	56	9%
Black or African American	21	4%
American Indian or Alaska Native	10	2%
Native Hawaiian or Other Pacific Islander	3	1%
Nonresident Alien	2	0%

Note. From Pacific College institutional data, 2022.

As of fall 2021, 14 faculty members taught in the DACM program. That is a ratio of 1 faculty member for approximately every 25 students. The faculty are split evenly with seven full-time faculty and seven part-time faculty. There is less ethnicity diversity among faculty, with 71% of faculty identifying as White and 29% as Asian. Unlike the student population, 64%, identify as male and only 36% identify as female (Pacific College, n.d.).

Applicants are required to have completed at least 90 undergraduate credits to be eligible for the DACM program and have a minimum 2.75 grade point average (GPA) to be considered for full acceptance. Those with lower GPA's can be considered for conditional acceptance with requirements. To be fully accepted, conditionally admitted students must successfully complete at least eight credits their first semester with a grade of B or better. If a conditionally accepted student fails to meet these requirements during their first term, they are academically dismissed from the college.

Students follow a prescribed curriculum of classes, which are all required for graduation (Appendix A). For full-time students following the model curriculum, they take classes with their entering cohort. Part-time students, however, have flexibility in how many and which classes they take each term. Part-time students do not have a prescribed part-time model curriculum or class cohort. Students in good academic and financial standing are eligible to take a term break or leave of absence one term within a year period, if needed. Students who take a term break or leave of absence would no longer be in classes with their original entering cohort.

The DACM program includes a combination of lecture and practical classes in western and eastern theories and skills, along with required clinical hours (Appendix A). The program prepares students for the California Acupuncture Licensing Exam (CALE) and The National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM) licensing exams. Depending on the state, acupuncture licensure requires passage of one or more of these exams. In the United States (U.S.), it is required to be licensed in the state in which you practice acupuncture.

In 2016, the U.S. Bureau of Labor Statistics (2020) created an independent Standard Occupational Code for acupuncturists, validating the profession in the U.S. and providing the opportunity to track future job growth. An estimated 36,500 practicing acupuncturists in the U.S. earn a mean annual wage of $89,060 (U.S. Bureau of Labor Statistics, 2020).

DEFINITIONS

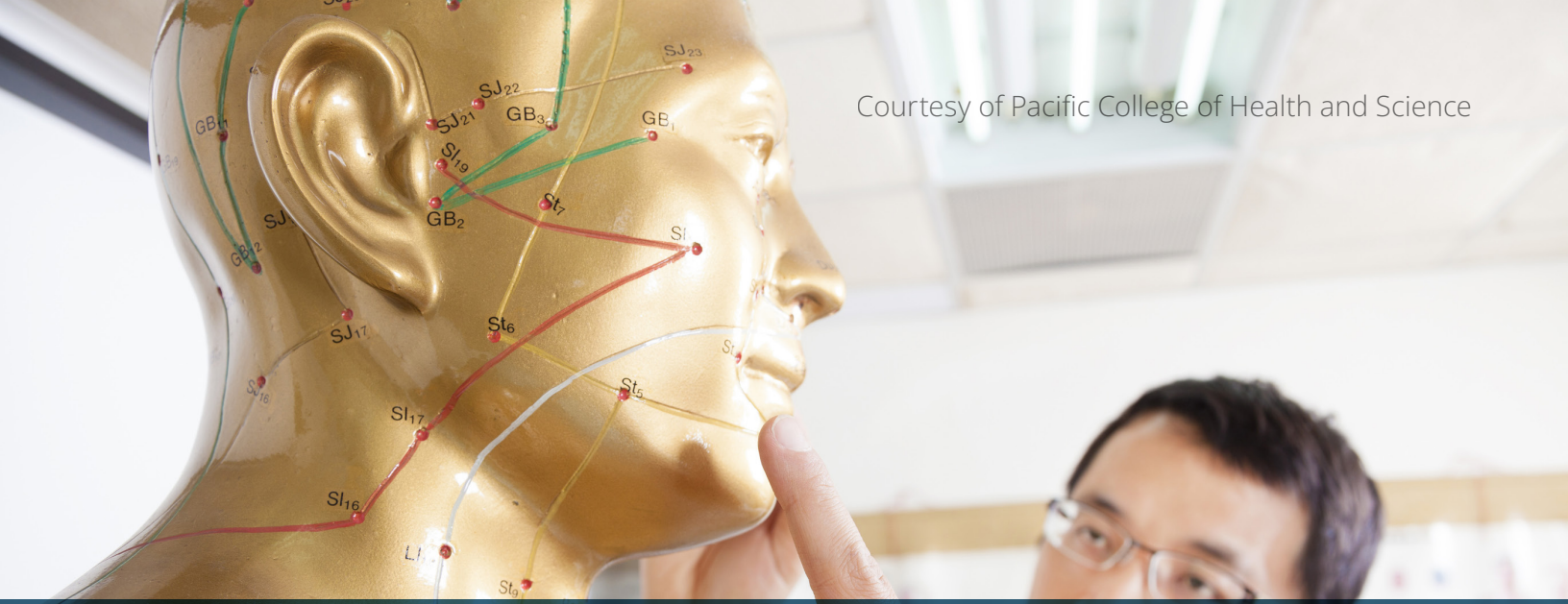
The following definitions explain key terms used for this project (Table 3).

Table 3

Key Terms and Definitions

TERM	DEFINITION
Cohort	A group of students who enter the program during the same trimester.

TERM	DEFINITION
Students of color	Students who identify as Black/African American, Hispanic, Asian, Native American, and/or multiple racial identities. BIPOC (Black, Indigenous, and people of color) is another term commonly used. It refers to students who identify as non-White and non-Hispanic. For the purposes of this project, I focus on Black and Hispanic students when I reference students of color, unless otherwise stated.
Nontraditional student	A student who is older than 24, does not live in a campus residence, and/or a part-time student.
Graduation rates	Percentage of students from an entering cohort who complete their program of study within 200% of normal, full-time program length (DACM = 6.7 years).
One-year retention rates	Percentage of students from an entering cohort who continue into the next academic year.
Semester retention rates	Percentage of students from an entering cohort who continue into the next trimester.
Persistence	A student from an entering cohort that maintains their enrollment status, and does not have a disqualified, leave of absence, term break, or withdrawn status. Also known as retaining a student.
Dropout/ Withdrawal	A student who leaves the college before completing their program of study.



Courtesy of Pacific College of Health and Science

Problem of Practice

From 2016 to 2021, 556 new students enrolled in the DACM program, but only 455, or 82%, persisted to their second year. This average was consistent throughout the last five years as well (Table 4).

Table 4

One-year Retention Rate by Academic Year

ACADEMIC YEAR	# STUDENTS STARTING	# STUDENTS RETAINED	% STUDENTS RETAINED
2016-17	101	88	87%
2017-18	89	73	82%
2018-19	100	76	76%
2019-20	130	107	82%
2020-21	136	111	82%
TOTAL	556	455	82%

Note. From Pacific College institutional data, 2022.

Indigenous, Black, and Hispanic students had lower one-year retention rates of 67%, 73%, and 79%, respectively (Table 5). The loss of 101 DACM students amounted to roughly seven million dollars of lost tuition revenue for the college. In addition to the financial loss, there is a social loss to the organization when a student drops out. As Olive (2019) highlights, "when a student fails to complete a doctoral program, it is not only psychologically damaging and monetarily expensive, it also negatively impacts the faculty involved, as well as damages an institution's reputation" (p. 470).

Table 5

One-Year Retention Rate by Ethnicity

ETHNICITY	% STUDENTS RETAINED
American Indian or Alaskan Native (Indigenous)	67%
Asian	85%
Black or African American	73%
Hispanic	79%
Native Hawaiian or other Pacific Islander	100%
Nonresident alien	100%
Two or more races	83%
Unknown	81%
White	83%

Note. From Pacific College institutional data, 2022.

If the institution does not improve retention rates, it will continue to lose tuition revenue which could impact the overall financial growth of the institution. This could reduce funding for additional programs, resources, and staff. In addition, it could negatively affect new degree offerings and expansion of current programs. Low graduation rates can also diminish the reputation of the college and be a cause of concern during reaccreditation visits. A negative reputation or loss of accreditation could cause a further drop in applicants, students, and tuition revenue.

Low retention and graduation rates indicate there are less acupuncturists entering the profession, and less representation of acupuncturists of color. As Evans et al. (2001) highlight, Black and Hispanic healthcare providers are more likely than White physicians to treat underserved communities, including fellow Black and Hispanic populations. In addition, studies reveal that when BIPOC healthcare providers treat BIPOC patients, there are better patient outcomes, such as increased communication, satisfaction, and use of preventative services (Evans et al. 2001). However, relative to overall population size, BIPOC populations are already underrepresented in healthcare professions (Evans et al. 2001). This results in underserved populations being less likely to receive healthcare. As Cohen et al. (2002) emphasize, to provide culturally competent healthcare to underserved communities, there needs to be an increase in healthcare diversity.

In 2018, the institution added student retention to its strategic goals. In 2019, the college hired an institutional research staff member to help review and report on data, including student retention and graduation. The San Diego student advisor, associate director of student services, and dean of graduate faculty routinely meet with students, including students petitioning to withdraw from the institution. The student success committee, comprised of various administrative support staff, meets weekly to review students of concern and retention data. The college offers various other student supports, such as new student orientation, academic tutoring, subcontracted counseling, and disability services. However, despite these efforts, the institution has not seen an increase in retention rates (Table 4).

Currently, the admissions office collects data from incoming students, including their pre-Pacific College school information, application date, enrollment date, and acceptance status in a separate system from the enrolled student records system. No current analysis of this data has been conducted on student retention. In addition, the institution only routinely surveys graduating students on their Pacific College experience. The college does not survey students who dropout to understand their reasons for withdrawal. Analyzing this data will help inform decisions on college retention policy and support resources.


Courtesy of Pacific College of Health and Science

Literature Review

While higher education student retention has been widely researched, few studies have focused specifically on graduate students of color at for-profit institutions. I first reviewed initial foundational literature on student retention. However, given the different DACM student demographics from this initial research, for the purposes of this project, I also reviewed nontraditional, graduate, for-profit, and students of color retention scholarship. This provided an additional perspective of the unique Pacific College study body experience. Combining information from various literature, I created a conceptual framework to better understand Pacific College student retention.

INITIAL STUDENT RETENTION

Many factors can either help or hinder student persistence. Tinto (2012) cited four conditions that inform whether a student will remain enrolled. These include the student's expectation about college, the support received from faculty and staff, faculty feedback, and overall involvement in college life. These conditions influence a student's integration into the academic and social systems of the college (Tinto, 1975, 2012).

Academic integration is determined by students' academic performance and intellectual development (Tinto, 1975). Students who struggle academically or who do not have a positive academic experience are more likely to dropout. **Social systems** include interactions and relationships with other students, faculty, and staff.

Successful connections lead to additional personal and academic support as well as expectation affirmation (Tinto, 1975). Notably, interactions with faculty serve a dual purpose of increasing both the student's social and academic integration (Tinto, 1975).

Similarly, Astin (1984) found that student involvement with faculty was the strongest predictor of college satisfaction. Astin (1984), drawing on psychological learning theories, formulated a **student involvement theory** for retention. Student involvement, or the physical and psychological energy a student puts into their college experience, determines how well a student performs (Astin, 1984). The more time and energy a student devotes to school, the higher their involvement. The higher their involvement, the more they will learn and development, and the more committed they will be to continuing. Both Astin and Tinto recognized that students who get involved in the college community tend to persist.

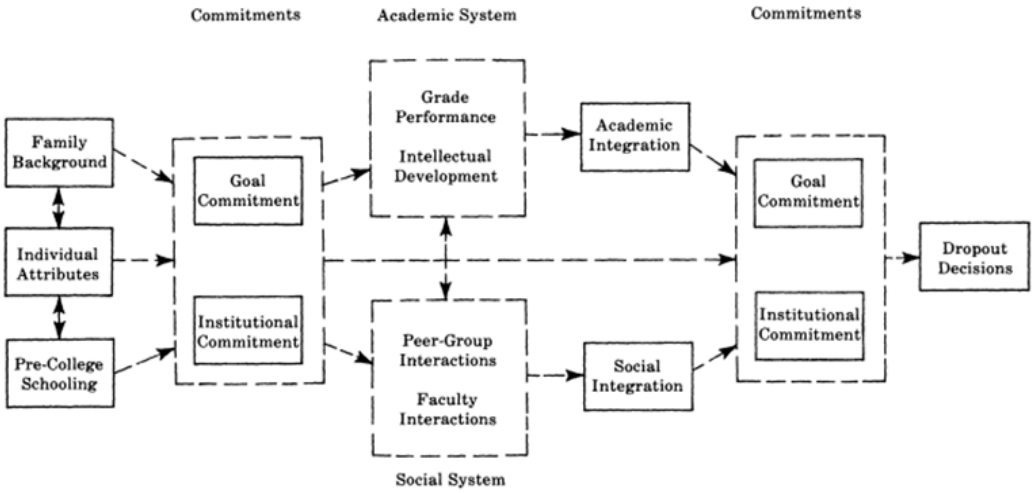
Using his **academic and social integration theory**, Tinto (1975) created a theoretical model of dropout, shown in Figure 1. Tinto acknowledged that each student enters college with a certain set of attributes, past experiences, and family backgrounds. Individual attributes comprise the student's sex, race, age, and ability. Their pre-college schooling characteristics include their former degree, GPA, and academic and social experiences. Family background traits describe the environment the student grew up in. It includes socioeconomic status, quality of family relations, and academic expectations.

All three inform the student's educational commitments and expectations. For example, a family who highly values education can pass along this "advantage" to their children (Tinto, 1975). Children can internalize and adopt this commitment as their own. It can motivate them to do well in school and increase their expectations of themselves (Tinto, 1975). This then affects how they perform and interact at college and influences their integration into the academic and social systems. Their level of integration reinforces or leads to new goal and institutional commitment. As a student's integration into academic and social systems increases, so should their commitment to the institution and completing their degree (Tinto, 1975). Therefore, a student's institutional and goal commitment determines whether they will dropout. The lower a student's goal and/or institutional commitment, the more likely they will withdraw (Tinto, 1975).

If a student's academic and social experiences do not live up to their expectations, the disappointment can cause them to disengage from college systems (Tinto, 1975). In addition, students can become disconnected if they do not receive support from faculty and staff. Institutions therefore have some influence over student persistence. Faculty and staff can affect student retention by making sure expectations match reality, offering academic and personal support, and supporting an enriching college experience. Students who are highly integrated into college systems have more involvement in college life, more interactions with faculty and staff, and higher institutional commitment. Therefore, these students are less likely to dropout.

Figure 1

Tinto's Theoretical Model for College Student Dropout



Note. From "Dropout from higher education: A theoretical synthesis of recent research," by V. Tinto, 1975, Review of Educational Research, 45(1), p. 95 (https://doi.org/10.3102/00346543045001089).

CHANGING COLLEGE ENROLLMENT: 1970S TO TODAY

Tinto conducted his foundational work in 1975, and it reflected a different university and student culture. Today, students are older, more diverse, and have additional responsibilities outside of school that limits their ability to attend full-time (U.S. Department of Education, 2020; 2021a; 2021b; 2021c). Students 25 years and older comprised only 28% of the total student population in 1970, but today they make up 40% (U.S. Department of Education, 2021c). In 1976, 84% of all students were White. Black and Hispanic students accounted for only 10% and 4% of the total college student population, respectively (U.S. Department of Education, 2021b).

From 1976 to 2019, Black student enrollment increased 58% and now comprises 13% of the total student population (U.S. Department of Education, 2021b). During the same period, Hispanic student enrollment increased 90% and now makes up 20% of the student population (U.S. Department of Education, 2021b). Similar trends are seen at the doctoral level. Although the total number of doctoral degrees awarded increased 51% from 1976 to 2019, Black and Hispanic doctorate degrees outpaced the average at 76% and 89%, respectively (U.S. Department of Education, 2020). Part-time Black and Hispanic student enrollments also grew during this same period, increasing 65% and 90%, respectively (U.S. Department of Education, 2021b). Total student enrollment statistics, broken down by race and status, are presented in Table 6.

Table 6

Total Fall Enrollment in Degree-Granting Postsecondary Institutions; 1976 and 2019

LEVEL OF ENROLLMENT, ATTENDANCE STATUS, AND RACE	FALL ENROLLMENT (IN THOUSANDS)		PERCENTAGE INCREASE 1976- 2019	PERCENTAGE DISTRIBUTION OF U.S. RESIDENT STUDENTS	
	1976	2019		1976	2019
All students, total	10,985.6	19,637.5	44%		
White	9,076.1	10,141.7	11%	84%	54%
Black	1,033.0	2,474.2	58%	10%	13%
Hispanic	383.8	3,783.4	90%	4%	20%
Full-time, total	6,703.6	11,966.5	44%		
White	5,512.6	6,243.8	12%	84%	56%
Black	659.2	1,404.5	53%	10%	13%
Hispanic	211.1	2,049.2	90%	3%	18%
Part-time, total	4,282.1	7,671.0	44%		
White	3,563.5	3,897.9	9%	84%	52%
Black	373.8	1,069.6	65%	9%	14%
Hispanic	172.7	1,734.2	90%	4%	23%

Note. Adapted from Total fall enrollment in degree-granting postsecondary institutions, by level of enrollment, sex, attendance status, and race/ethnicity or nonresident alien status of student: Selected years, 1976 through 2019 by U.S. Department of Education, National Center for Education Statistics, 2021 (https://nces.ed.gov/programs/digest/d20/tables/dt20_306.10.asp). Some data have been removed for simplification.

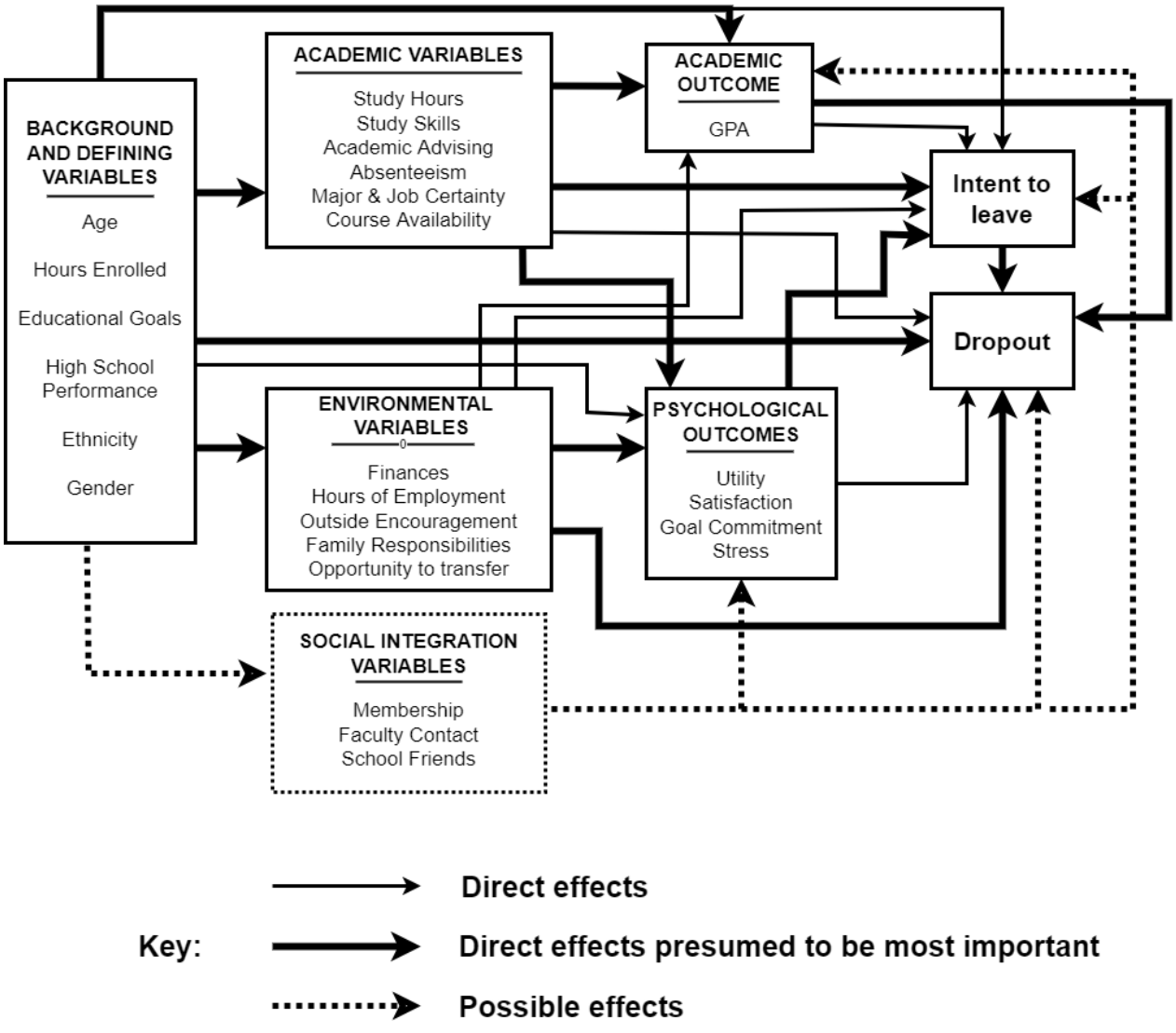
NONTRADITIONAL STUDENT RETENTION

As evidenced by the U.S. Department of Education data, student demographics today are different from the student populations in the 1970s. Pacific College DACM students more accurately reflect the student profile today. DACM students are an average age of 34 when they start the program, all students commute to campus, and many students have additional work and family responsibilities that prevent them from attending full-time. While a helpful foundation, Tinto's retention theories do not always reflect the additional realities may graduate students and students of color face at for-profit institutions. I therefore supplemented Tinto's (1975) retention model with more recent work that specifically considers the differing needs of nontraditional students.

Bean and Metzner (1985) define **nontraditional students** as older than 24, attending part-time, and/or not residing on campus. They are also more likely to be employed and have less interest in social college activities. They therefore have less involvement and interaction with the college, particularly the social systems. In addition, **environmental variable**, such as family and work responsibilities, play a larger role in nontraditional student retention (Bean & Metzner, 1985). Similarly, Green (1980) found that older students were more likely to miss class and drop out for family or work reasons. Bean and Metzner's theoretical model for nontraditional student retention is shown in Figure 2.

Figure 2

Bean and Metzner's Theoretical Model for Nontraditional Student Retention



Note. From "A conceptual model of nontraditional undergraduate student attrition," by J.P. Bean and B.S. Metzner, 1985, Review of Educational Research, 55(4), p. 491 https://doi.org/10.2307/1170245.

Bean and Metzner's (1985) model is based on Tinto's (1975) theoretical model for college student dropout, but with some key differences. Both models acknowledge that student background variables- what students enter college with- influence how they will perform while enrolled. In addition, both highlight the importance of academic variables for student retention. However, since external factors play a larger role with nontraditional students, Bean and Metzner's model emphasizes environmental variables, such as employment, outside encouragement, and family responsibilities, instead of the social institutional systems in Tinto's theory.

GRADUATE STUDENT RETENTION

Four-year undergraduate programs tend to be the default when considering college student retention. However, retention also impacts graduate students. In addition to the environmental difficulties that many nontraditional students face, most doctoral students struggle with "internal demons." These include imposter syndrome, or the internal belief you are not as competent as others perceive you to be (Golde, 1998, p. 55). However, Golde (1998) warns against the institution solely blaming the student for their withdrawal. Instead, the institution should take responsibility for student persistence by socializing students into the college community.

Socialization initiates a newcomer into the norms and expectations of a community. For doctoral students, that includes both the college academic community and their future profession. As Austin (2002) emphasizes, students' understanding of their future career starts with their graduate school experience. Golde (1998) highlights four questions students reflect on during their transition into a new program. The answer to these questions influences whether the student will persist. Intellectual mastery through their coursework helps the student answer if they can do graduate work. Understanding graduate life demands helps the student decide if they want to be in a graduate program. Learning about the profession determines if the student wants to do this type of work. And finally, relationships with faculty, peers, and staff establishes whether the student feels they belong at that institution. If the answer to any one of these questions is no, the student is at risk of dropping out.

Socialization is important because students do not necessarily understand the rigor and expectations of graduate academic and professional life (Austin, 2002). Colleges can help students' socialization by structuring first-year experiences to help students answer all four socialization questions. The college should clearly communicate the expectations and realities of graduate school life, allow new students to interact with upper-level students, and offer opportunities to meet with professionals in the field (Austin, 2002; Golde, 1998). Similar to Tinto's (1975) academic and social integration theory, Austin (2002) argues that interaction with faculty and peers aid in the socialization process. However, graduate students, like nontraditional students, are also concerned about environmental variables and balancing personal and professional responsibilities (Austin, 2002; Bean & Metzner, 1985).

FOR-PROFIT STUDENT RETENTION

For-profit colleges serve a dual purpose of supplying the public good of education and meeting private profit goals. For-profit institutions "use the language of colleges…but operate like corporations" (Hentschke et al., 2010, p. 2). Unlike non-profit institutions, for-profit colleges generally receive no direct federal or state subsidies, cannot solicit alumni donations, and do not develop endowments (Hentschke et al., 2010). Instead, for-profit colleges rely on investors and tuition revenue for operating expenses. Most for-profit colleges, including Pacific College, focus on specific career-based programs.

In 2008, a mixed methods study conducted with 445 new undergraduate students at DeVry University, a for-profit institution, aimed to explore what specific factors related to student persistence. The study found that 64% were receptive to academic assistance and 62% were receptive to institutional help, which were above national averages (Fernandez, 2011). Unfortunately, the study also found that 52% of students, again above national norms, identified a proneness to dropout (Fernandez, 2011). A specific barrier to success that the students noted was a lack of understanding about how the college operates. However, staff and faculty support were reported as the most important support systems (Fernandez, 2011).

This demonstrates a significant gap. Students are motivated to do well and willing to receive help. However, they lack the understanding of how the college systems operate and have a low perception of whether they can make it through. If administrators can close that gap through targeted outreach and services, it could enhance the likelihood that students will persist. To facilitate this work, the college needs to strengthen its commitment to retention efforts by aligning it with strategic goals and dedicating support resources for its effort (Burkholder et al., 2013).

Burkholder (2013) outlined several for-profit institutional retention strategies. Similar to nontraditional student retention, these included comprehensive support services and sensitivity to environmental factors, such as students' work and family demands. However, these supports must be tailored to the unique student demographics found at for-profit colleges. For example, given their nontraditional characteristics, for-profit students do not spend as much time on campus. Students have family and work priorities in addition to school (Burkholder, 2013). Furthermore, for-profit students are not as versed in navigating college systems. Due to their other outside priorities, they have less time to devote to finding where to go for help. This can leave them feeling overwhelmed when trying to decipher lengthy policies and procedures.

For students to be successful, college policies, procedures, and services need to be easily available and understandable. They should meet the students' needs without being overly bureaucratic. Therefore, it is important that staff develop and update policies with the students' perspectives in mind. Taking their experience into account will help ensure that students have better access to information and services. It will

help the students reconcile their expectations of college with reality, show there are support systems in place, and help integrate the students into the academic and social systems. As we saw from the initial student retention literature, all of these contribute to student persistence.

While there has been criticism of for-profit college practices, these institutions increased educational access to populations who are not typically served by traditional non-profit colleges (Burkholder, 2013). As Bean and Metzner (1985) acknowledge, higher education has become the gatekeeper to higher paying technical jobs. For-profit institutions have helped to bridge that gap for many students.

For-profit student enrollment at degree-granting institutions has quadrupled in the past 25 years, increasing from 240,363 students in 1995 to 991,179 in 2019 (U.S. Department of Education, 2021). During the same period, for-profit students increased from 2% to 5% of the total student enrollment (U.S. Department of Education, 2021). Although still a small percentage of the total postsecondary enrollment, for-profits enroll disproportionately larger percentages of Black students. In 2019, Black students made up 30% of the total for-profit enrollment compared to only 13% at all postsecondary institutions (U.S. Department of Education, 2021a). It is not surprising that there are similar factors influencing for-profit student and students of color retention.

STUDENTS OF COLOR RETENTION

In 2012, 26% of students in for-profit institutions identified as Black and 19% identified as Hispanic. However, private, nonprofit institutions had almost half this number with 14% of students identifying as Black and 10% as Hispanic. Only 51% of for-profit students' parents had an associates or higher education level, compared to 77% in private nonprofit colleges (U.S. Department of Education, 2017). The National Center for Education Statistics highlights that students at risk of dropping out were more likely to be Black, Hispanic, and have parents who completed no more than a high school education (U.S. Department of Education, 1997). These student populations are generally at higher risk of not completing their degree.

These traditionally underrepresented student groups face additional challenges when navigating college life due to their unique cultural perspectives. A person's socioeconomic and cultural background shapes their values, norms, language, mannerisms, appearance, personal practices, skills, preferences, and more (Bourdieu, 1986). It creates their cultural, social, and economic capital, which affects how they navigate the world. As sociologist Pierre Bourdieu (1986) recognized, it is "impossible to account for the structure and functioning of the social world unless one reintroduces capital in all its forms" (p. 15). Capital is a resource that can be exploited to control power and is transmitted from one generation to the next (Bourdieu, 1986).

Ovink and Veazey (2011) highlight **psychological-social barriers** as important factors for students of color dropout rates within biomedical fields. Socio-psychological barriers are obstacles people experience communicating with one another because of social or cultural differences. These barriers prevent people from understanding one another fully (Ovink & Veazey, 2011). For example, if a White faculty member does not understand the cultural importance of a Black student's natural hair, they may conclude the hairstyle is unprofessional. A faculty member who views a student as unprofessional may not extend the same opportunities to them, such as being a mentor or providing a recommendation. This can cause inequities among who knows about and receives opportunities and resources (Ovink & Veazey, 2011).

Wei et al. (2011) emphasize that students of color may experience additional stress caused by trying to navigate a "White academic culture" and feeling invisible on and off campus. Student of color tend to feel like outsiders, and do not know that faculty and administrators are available for support (Turner, 1994). By not knowing how to navigate the college support system, these students are at a disadvantage from their peers. Because of this, students of color may face more academic stress than their White peers (Rigali Oiler & Kurpius, 2013). This stress may stem from feeling marginalized and a lack of social and academic integration into the college environment.

ANALYSIS

Students of color tend to have different expectations of what college will be like, and the reality of their experiences can cause academic and social disenchantment (Braxton, 1995). These disconnects can limit their integration into the college community, hinder their student engagement, and affect their college persistence (Braxton, 1995; Kuh et al., 2006). Low integration into academic and social systems leads to student dropouts (Tinto, 1975; Astin, 1984; Bean & Metzner, 1985). A lack of engagement and institutional support is one hypothesis for why Pacific College students, particularly students of color, dropout. Another concern could be that some students are not properly prepared to enter the program. This could be because their previous education, as measured by their previous degree and GPA, was deficient; the student applied too close to the start of the term, not giving them enough time to prepare mentally, emotionally, and physically; or the student had other outside priorities that made it difficult to prioritize school.

Poor integration into college systems could be attributed to environmental variables such as finances, outside employment, and family responsibilities (Bean & Metzner, 1985). All of which tend to disproportionally affect nontraditional, graduate, and students of color (Austin, 2002; Bean & Metzner, 1985; Martin et al., 2012). Focus should be on ensuring students integrate into the college's academic systems. Often, success in the classroom means at-risk students are more likely to succeed and persist (Martin et al., 2012).

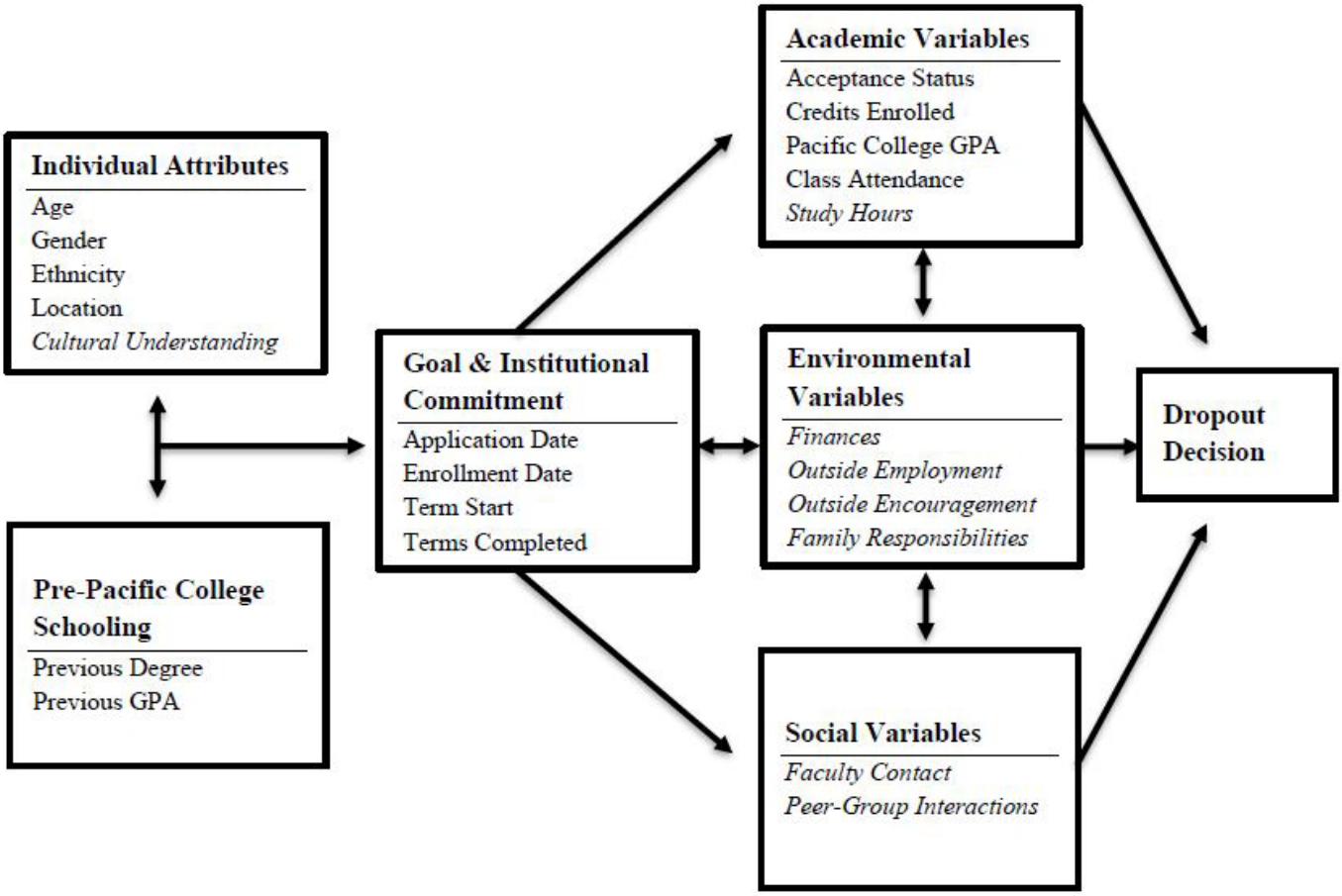
Conceptual Framework

I constructed a conceptual framework for Pacific College student dropouts utilizing Tinto's (1975) academic and social systems theory and Bean and Metzner's (1985) nontraditional student model (Figure 3). Tinto's academic integration theory, which informed subsequent student retention literature including Bean and Metzner's model, provides the foundation for the framework. However, Pacific College students more closely match Bean and Metzner's (1985) nontraditional student profile. Pacific College DACM students are older than 24, do not reside on campus, and many attend part-time. Therefore, I integrated the environmental variables from Bean and Metzner's framework as well.

Data that Pacific College does not currently collect is italicized in the framework. As evidenced by the literature, these are important factors impacting student dropout decisions. Pacific College should consider collecting and analyzing this data in the future to form a deeper understanding of Pacific College student dropout decisions.

Figure 3.

Pacific College Student Dropout Conceptual Framework



Similar to Tinto's (1975) and Bean and Metzner's (1985) models, the Pacific College student dropout framework starts with individual attributes and pre-Pacific College schooling variables (known as background and defining variables in Bean and Metzner's model). A student's individual attributes influence how they experience the world and shapes their college expectations. This includes their former and current educational experiences. A student's attributes and previous schooling experience also impact their current goal and institutional commitment (Tinto, 1975). All three then impact a student's academic and social integration and ultimately whether a student decides to dropout (Tinto, 1975; Bean & Metzner, 1985).

Individual attributes include age, gender, ethnicity, location, and cultural understanding. I used the student's zip code to establish their location. I used the location to determine the distance, in miles, between the student's home and the San Diego Pacific College campus. Distance may influence a student's institutional commitment and their integration into the academic and social systems. For example, students who live farther away may be less committed to the institution because of the additional time and expense it takes to commute to class. They may also be less likely to travel to campus for academic and social activities. Pacific College does not currently evaluate cultural understanding. However, cultural understanding impacts how students, particularly Black and Hispanic students, understand and interact with college systems (Ovink & Veazey, 2011; Rigali Oiler & Kurpius, 2013; Wei et al., 2011).

Pre-Pacific College schooling factors include previous degree and previous GPA. A student's previous degree and GPA provide an indication of past goal and institutional commitment and experiences (Tinto, 1975). For the purposes of this project, I only reviewed students' previous degree, which was documented within the college's student records management system. While the admissions office collected previous transcripts, which included the student's previous GPA, it was not recorded within CampusNexus.

Goal and institutional commitment include the student's application date, enrollment date, term start date (fall, winter, or spring), and number of terms completed. Application date and enrollment date are used to calculate the number of days prior to the student's term start date the student submitted their application and enrolled in classes. Goal and institutional commitment impact academic, environmental, and social variables, and the extent to which a student integrates into college systems (Tinto, 1975).

Academic variables include acceptance status (full or conditional), number of credits enrolled and completed during their first term, Pacific College first term GPA, class attendance, and study hours. The college tracks class attendance and does outreach to student who miss class; however, this data is not currently analyzed to understand its impact on student retention. Pacific College does not currently collect information about student study habits, including the number of hours students spend studying or whether they receive tutoring.

Environmental variables include finances, outside employment, outside encouragement, and family responsibilities. Social variables include faculty contact and peer-group interactions. Currently, Pacific College does not collect data on students' environmental and social variables. However, these are important variables that contribute to how students integrate into the college systems, which affects their goal and institutional commitment and likelihood of dropout (Bean & Metzner, 1985, Tinto, 1975).

Research Questions

The purpose of this dissertation in practice is to determine specific student attributes, pre-Pacific College school factors, goal and institutional commitment factors, and academic variables that indicate a student may struggle and dropout. If Pacific College can identify students who are prone to dropout, the college can target additional supports for those students. In addition, the college can review academic, environmental, and social variables that contribute to dropout decisions and revise policies, procedures, and resources to help students persist. Drawing from the relevant literature and my conceptual framework, I developed four research questions to guide my investigation into the problem of practice.

1. What individual attributes are associated with student dropouts?
2. What pre-Pacific College school factors are associated with student dropouts?
3. What goal and institutional commitment factors are associated with student dropouts?
4. What academics variables are associated with student dropouts?

Courtesy of Pacific College of Health and Sci

Project Design

DATA COLLECTION

To understand what factors most closely predict student dropouts, I collected institutional data from the college's student records management system, CampusNexus. Institutional data includes students' individual attributes, pre-Pacific College schooling, goal and institutional commitment factors, and academic variables. I collected this data for all 610 San Diego DACM students who enrolled from fall 2016 to fall 2021. Students who were coded as a term break for the fall 2021 semester were converted to an active status. While students on a term break are not taking courses for credit, they are still considered students at the college and are eligible to register for the following trimester as active students. If they do not return following their term break, they are then coded as a withdrawal. Students who previously withdrew or were dismissed but returned as of fall 2021 were coded by their most recent status.

There were 17 students who withdrew from the San Diego DACM program to immediately transfer to another Pacific College campus (New York or Chicago) and/or similar acupuncture degree program (Master of Science in Traditional Oriental Medicine [MSTOM] or Master of Science in Acupuncture [MSAc]) (Appendix B, Table B1). Three students transferred to another campus; two to Chicago and one to New York. The New York campus cannot offer the DACM program by state law. Students transferring to New York must enroll in the MSTOM or MSAc program. Fourteen students transferred to the MSTOM program in San Diego. Nine have graduates and five are still currently active as of fall 2021. Seven of the nine San Diego MSTOM graduates went on to complete the online transitional doctorate for acupuncture graduates through Pacific College, ultimately earning the

DACM credential. The transitional doctorate curriculum includes the additional DACM courses that are not part of the MSTOM program. I coded these 17 students as internal transfers and not withdrawals given their active or graduate status for an acupuncture program at Pacific College.

To understand what institutional structures might contribute to student withdrawals, I emailed a survey to all withdrawn DACM students (Appendix C). The Pacific College withdrawal survey was adapted from a Weber State University student withdrawal survey. The mixed methods survey included quantitative data from multiple-choice questions and qualitative date from open-ended questions. The questions aimed to understand student reasons for withdrawal, if they plan to return to Pacific College, their experience with different services, and feedback about their positive and negative college experiences (Table 7). Responses were kept confidential, and reports were generated in groups rather than individual responses.

Table 7

Survey Question and Corresponding Conceptual Framework Variable

SURVEY QUESTION	CONCEPTUAL FRAMEWORK VARIABLE
Why did you discontinue your studies at Pacific?	Dropout Decision
How many terms did you attend at Pacific College?	Goal & Institutional Commitment
Do you plan to return to Pacific College?	Goal & Institutional Commitment
Overall, how satisfied are you with your student experience at Pacific?	Academic Variable and Social Variable
Please rate your experience with the following aspects at Pacific College.	Academic Variable and Social Variable
The academic advising process	Academic Variable

SURVEY QUESTION	CONCEPTUAL FRAMEWORK VARIABLE
The financial aid process	Social Variable
The overall quality of your courses	Academic Variable
The quality of instruction	Academic Variable
The registration process	Social Variable
Your relationship with the faculty	Academic and Social Variable
Your relationship with the staff	Social Variable
If you ranked any of the above as negative or very negative, please help us understand why.	Academic and Social Variable
Please let us know of any positive highlights during your time at Pacific College.	Academic and Social Variable
Are there any other reasons for your withdrawal from study, or anything else you feel we should know so we can better serve the students at Pacific College?	Academic, Environmental, and Social Variable
What day did you withdraw?	Goal & Institutional Commitment
What is your gender identity?	Individual Attribute
What is your race/ethnicity?	Individual Attribute
How old are you?	Individual Attribute

As of fall 2021, 149 students had a withdrawn status and were sent the withdrawal student survey. Fifteen students, or 10%, responded to the survey. Low participation was expected. If a student withdrew, especially several years ago, they may not be motivated to answer a college survey. If a student stopped attending and was unofficially withdrawn, they may never answer a communication from the school. To encourage participation, I used the mail merge function to personalize the emails to the withdrawn student and sent multiple email reminders (Appendix D).

DATA ANALYSIS

Using descriptive statistics, I analyzed the institutional data to see if there was a relationship between student retention and individual attributes, pre-Pacific College schooling factors, goal and institutional commitment factors, and academic variables. Variables included age, gender, ethnicity, location (as measured by home distance from campus), previous degree, application date, enrollment date, term started, number of terms completed for those who were withdrawn or disqualified, Pacific College first term GPA, and number of credits enrolled and completed their first term. I used a combination of measures of frequency, measures of central tendency, and measures of variation descriptive statistics for each variable.

To identify if the differences between retained and not retained student populations were statistically significant, I ran a t-test: paired two sample for means, using an alpha value of 0.05. For students who were not retained, I assigned a zero numerical value as their persistence variable. For students who were retained, I assigned a one numerical value for their persistence variable. Similarly, I assigned numerical values for the other nonnumerical variables for statistical analysis purposes.

I first reviewed each student's individual attributes (age, gender, ethnicity, and location). I used an excel function to calculate each student's age when they first started the DACM program by subtracting the student's date of birth from their term start date. Their age was rounded to the nearest whole year. Next, I determined the students' home distance from the San Diego campus using their zip codes to approximate location. I excluded the three students who internally transferred to the Chicago and New York campuses. These students updated their address after they transferred to their new state of residence. Using excel, each zip code was associated with a specific set of latitude and longitude coordinates from a zip code directory. Using an excel formula that accounts for the curvature of the Earth, I calculated the distance, in miles, between the student's home and San Diego campus latitude and longitude coordinates.

However, the distance is a straight-line distance between the two points "as the crow flies". It does not account for differences in surface elevation, traffic routes, traffic patterns, commuting vehicle, and more. It also does not

necessarily reflect the time it takes for a student to commute to campus. For example, someone commuting by bike 10 miles from campus may have a longer commute than someone commuting by car 20 miles from campus. In addition, because the COVID-19 pandemic forced many classes online, students do not currently have to commute to campus for every class. However, not all classes can be done online. Students will likely need to commute to campus at least one day a week, if not more, depending on the number of practical classes and clinic shifts enrolled.

Next, I assessed pre-Pacific College schooling factors. The Admissions Office collects applicant transcripts which indicate their previous degree. Pacific College does not require a previous post-secondary degree; applicants are only required to have completed at least 90 undergraduate credits. In the case where a student did not have a previous associate, bachelor, master, and/or doctorate degree, they were coded as "No degree - 90+ credits." For students who had multiple post-secondary degrees, they were coded by their highest degree earned. For example, a student who earned both a bachelor and master's degree was coded as having a master's degree.

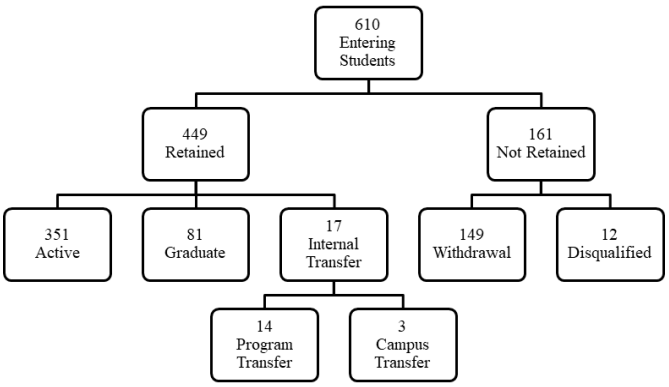
I also evaluated goal and institutional commitment factors. The student records management system data included application date, enrollment date, term and year started, and the number of terms completed for withdrawn students. If a student withdrew during a term and did not earn any academic credit, that term was not counted as a term completed. For example, a student who did not complete any credits in their first term was coded as a zero for number of terms completed. I used an excel function to calculate the number of days prior to the first day of their term the student applied and enrolled. Finally, I examined the academic variables of number of credits enrolled and completed in a student's first term and their first-term Pacific College GPA.

Findings

Between fall 2016 and fall 2021, there were a total of 610 students in the DACM program. As of fall 2021, 449 students (74%) were retained. Of those retained, 351 (58%) were currently active, 81 (13%) had graduated, and 17 (3%) were internal campus or program transfers. Unfortunately, 161 (26%) were not retained. Of those who were not retained, 149 (24%) withdrew and 12 (2%) were academically disqualified from the program (Figure 4).

Figure 4

DACM Student Statuses: Fall 2021



Note. From Pacific College institutional data, 2022.

FINDING # 01:

WHAT INDIVIDUAL ATTRIBUTES ARE ASSOCIATED WITH STUDENT DROPOUTS?

I calculated the mean, median, mode, and range years of age of all retained (active, gradate, and internal transfer) and not retained (withdrawal or disqualified) DACM students (Table 8). Using a t-test, I calculated that the p-value was lower than alpha (0.05). Therefore, the difference in years of age between students who were retained and who were not retained was statistically significant (Appendix E, Table E1). On average, students who were not retained were five years older when they started the program. In addition, students who were 70 years or older when they started the program were not retained.

Table 8

Years of Age: Retained vs. Not Retained Students

ACADEMIC YEAR	# STUDENTS STARTING	# STUDENTS RETAINED
Mean	33	38
Median	31	36
Mode	22	29
Range	21-69	22-75

Note. From Pacific College institutional data, 2022.

Using measures of frequency, I calculated the count and percentage of females and males who were and were not retained (Table 9). Using a t-test, I calculated that the p-value was lower than alpha (0.05). Therefore, the difference in gender between students who were retained and were not retained was statistically significant (Appendix E, Table E2). A higher percentage of males were not retained compared to the population.

Table 9

Gender: Retained vs. Not Retained Students

GENDER	RETAINED STUDENT COUNT	RETAINED STUDENTS PERCENTAGE	NOT RETAINED STUDENT COUNT	NOT RETAINED STUDENT PERCENTAGE
Female	374	83%	120	75%
Male	73	16%	37	23%
Not Disclosed	2	1%	4	2%

Note. From Pacific College institutional data, 2022.

I calculated the same measures of frequency for the ethnicities of students who were retained and were not retained (Table 10). Using a t-test, I calculated that the p-value was lower than alpha (0.05). Therefore, the difference in ethnicity between students who were retained and were not retained was statistically significant (Appendix E, Table E3). A higher percentage of Indigenous, Black, and Hispanic students were not retained relative to the population. A higher percentage of Asian, two or more races, and White students were retained relative to the total number of students retained.

Table 10

Ethnicity: Retained vs. Not Retained Students

ETHNICITY	RETAINED STUDENT COUNT	RETAINED STUDENT PERCENTAGE	NOT RETAINED STUDENT COUNT	NOT RETAINED STUDENT PERCENTAGE
American Indian/Alaska Native (Indigenous)	6	1%	5	3%
Asian	61	14%	20	12%
Black or African American	10	2%	11	7%

Hispanic	41	9%	16	10%
Native Hawaiian/Other Pacific Islander	3	1%	0	0%
Nonresident Alien	1	0%	1	1%
Not Specified	74	16%	25	16%
Two or More Races	65	14%	19	12%
White	188	42%	64	40%

Note. From Pacific College institutional data, 2022.

Finally, I calculated the distance, in miles, between the student's home zip code coordinates and the San Diego campus zip code coordinates (Table 11). This distance gives an approximation of how far students travel to campus. Using a t-test, I calculated that the p-value was lower than alpha (0.05). Therefore, the difference in miles between students who were retained and were not retained was statistically significant (Appendix E, Table E4). On average, students who were not retained lived over 100 miles farther from the San Diego campus than retained students.

Table 11

Home Distance from Campus (in miles): Retained vs. Not Retained Students

CENTRAL TENDENCY	RETAINED STUDENT	NOT RETAINED STUDENT
Mean	155	262
Median	8	13
Mode	7	24
Range	0-3235	0-2590

Note. From Pacific College institutional data, 2022.

Students who were older, male, lived farther from campus, or identified as Indigenous, Black, or Hispanic were more likely to dropout either voluntarily (withdrawal) or involuntarily (disqualified). This is similar to the one-year retention results where Indigenous, Black, and Hispanic students had lower retention rates. As this quote from the withdrawal survey from a Brazilian female who withdrew after completing only one term highlights, Pacific College needs to "Be more intentional about including, engaging and empowering minorities…and welcoming military students (most especially active duty). It's not easy being in the military and attending school. Pacific College needs to better understand the challenge to facilitate it."

This matches what I have experienced professionally. Students who are older tend to have more environmental responsibilities, such as work and family, making it difficult to devote as much time to school. As this withdrawal survey quote from a female 40-49 years old who withdrew before completing a full term explains, "I enjoyed the environment and classes;" however, "I was unable to fully commit to the program due to personal/family/work obligations. A program that caters more to working students would be nice."

Students who live farther away from campus spend more time and money commuting to campus, which leaves less time for school and personal needs. They also often report more difficulty arranging their course schedule because they want to stack several classes on as few days as possible. While this might help cut down on commuting, it can be difficult to do well when you have nine hours of class on the same day.

FINDING #2:

WHAT PRE-PACIFIC COLLEGE SCHOOL FACTORS ARE ASSOCIATED WITH STUDENT DROPOUTS?

I compared the count and percentage of the previous highest degree earned for students who were retained and were not retained (Table 12). Using a t-test, I calculated that the p-value was lower than alpha (0.05). Therefore, the difference in the highest previous degree earned between students who were retained and were not retained was statistically significant (Appendix E, Table E5). Students who earned a bachelor's degree were more likely to be retained. Students who had not earned a previous degree were slightly more likely to not be retained. In addition, students who earned an advanced degree (master's or doctorate) were also more likely to not be retained.

Table 12

Previous Highest Degree Earned: Retained vs. Not Retained Students

HIGHEST DEGREE EARNED	RETAINED STUDENT COUNT	RETAINED STUDENTS PERCENTAGE	NOT RETAINED STUDENT COUNT	NOT RETAINED STUDENT PERCENTAGE
No degree earned - 90+ credits	77	17%	30	19%
Associate degree	30	7%	11	7%
Bachelor's Degree	288	64%	92	57%
Master's Degree	46	10%	18	11%
Doctorate Degree	8	2%	10	6%

Note. From Pacific College institutional data, 2022.

I expected students who had not earned a previous degree to be more likely to dropout. If a student had difficulty finishing a previous degree due to environmental factors, low goal commitment, or low academic or social integration, I expected those difficulties to also impact their Pacific College retention. I did not expect a higher percentage of master and doctoral degree students to not be retained. However, students who already earned a master's or doctorate degree may not want to spend more time and money on a second advanced degree. Students with doctorate degrees who were not retained were also older with an average age of 54 years. Moreover, across all degrees, students who were not retained were on average older than students who were retained (Table 13). This is consistent with the finding that students who were not retained were, on average, five years older when they started the program.

Table 13

Average Age Retained vs Not Retained by Highest Degree Earned

HIGHEST DEGREE EARNED	RETAINED STUDENT AVERAGE AGE (YEARS)	NOT RETAINED STUDENT AVERAGE AGE (YEARS)
No degree earned - 90+ credits	32	37
Associate degree	33	36
Bachelor's Degree	32	35
Master's Degree	39	44
Doctorate Degree	42	54

Note. From Pacific College institutional data, 2022.

FINDING #3:

WHAT GOAL AND INSTITUTIONAL COMMITMENT FACTORS ARE ASSOCIATED WITH STUDENT DROPOUTS?

I calculated the mean, median, mode, and range of the number of days prior to the term start date a student applied (Table 14). Using a t-test, I calculated that the p-value was lower than alpha (0.05). Therefore, the difference in the number of days prior to the term a student applied between students who were retained and were not retained was statistically significant (Appendix E, Table E6). On average, students who were not retained applied seven days closer to the term start date.

Table 14

Number of Days Between Application and Term Start Date: Retained vs. Not Retained Students

CENTRAL TENDENCY	RETAINED STUDENT	NOT RETAINED STUDENT
Mean	78	71
Median	60	57
Mode	56	52
Range	-10-347	-10-330

Note. From Pacific College institutional data, 2022.

Similarly, I calculated the mean, median, mode, and range of the number of days prior to the term start date a student enrolled (Table 15). Using a t-test, I calculated that the p-value was lower than alpha (0.05). Therefore, the difference in the number of days prior to the term a student enrolled between those who were retained and were not retained was statistically significant (Appendix E, Table E7). On average, students who were not retained enrolled 10 days closer to the term start date. In addition, a third of students who were not retained enrolled one week or less before the term started, compared with only one fifth of students who were retained (Table 16).

Table 15

Number of Days Between Enrollment and Term Start Date: Retained vs. Not Retained Students

CENTRAL TENDENCY	RETAINED STUDENT	NOT RETAINED STUDENT
Mean	39	29
Median	46	22
Mode	56	6
Range	-15-81	-10-78

Note. From Pacific College institutional data, 2022.

Table 16

Weekly Breakdown Between Enrollment and Term Start Date: Retained vs Not Retained Students

NUMBER OF DAYS ENROLLED PRIOR TO TERM START	RETAINED STUDENT COUNT	RETAINED STUDENTS PERCENTAGE	NOT RETAINED STUDENT COUNT	NOT RETAINED STUDENT PERCENTAGE
(-15)-0 Days	30	7%	27	17%
1-7 Days	57	13%	27	17%
8-14 Days	26	6%	13	8%
15-21 Days	37	8%	13	8%
22-28 Days	33	7%	10	6%
29-36 Days	17	4%	9	6%
37-44 Days	19	4%	9	6%
45-52 Days	39	9%	9	6%
53-60 Days	69	15%	12	7%
61-68 Days	73	16%	13	8%
69-76 Days	40	9%	17	11%
77-81 Days	9	2%	2	1%

Note. From Pacific College institutional data, 2022.

Students who enrolled within one week or less of the term start date were the most likely to not be retained. I expected this based on my professional experience. Students who apply and enroll close to the start date do not have as much time to prepare to start school mentally, emotionally, and physically as students who go through the admissions process earlier. As evidenced in the nontraditional literature, environmental factors play a large role in dropout decisions. It generally takes time to adjust work hours, find childcare or eldercare,

and save money for school and living expenses. This can be difficult to do within one week or while starting your first week of classes. This can then impact academic and social integration if the student is spending time adjusting their personal schedule instead of studying or interacting with peers.

Next, I compared the term start date for students who were and were not retained. Typically, the college has larger entering cohorts during the fall and winter semesters. To account for the differences in the number of students who started, I calculated the percentage of students who were not retained based on the total number of students who started that trimester (Table 17). Over half the students who started in fall 2018 withdrew. This was followed closely by the spring 2018, winter 2019, and fall 2016 trimesters.

Table 17

Students Who Were Not Retained Based on Total Term Starts

TERM STARTED	TOTAL NUMBER OF STUDENTS STARTED	NOT RETAINED STUDENT COUNT	NOT RETAINED STUDENT PERCENTAGE
2016 Fall	25	10	40%
2017 Winter	49	13	27%
2017 Spring	26	6	23%
2017 Fall	38	13	34%
2018 Winter	33	10	30%
2018 Spring	18	9	50%
2018 Fall	35	19	54%
2019 Winter	43	17	40%
2019 Spring	24	7	29%

TERM STARTED	TOTAL NUMBER OF STUDENTS STARTED	NOT RETAINED STUDENT COUNT	NOT RETAINED STUDENT PERCENTAGE
2019 Fall	49	16	33%
2020 Winter	42	9	21%
2020 Spring	39	6	15%
2020 Fall	62	15	24%
2021 Winter	44	7	16%
2021 Spring	30	3	10%
2021 Fall	53	1	2%

Note. From Pacific College institutional data, 2022.

Pacific College should review if there were any institutional changes during 2018 and 2019 that might have caused a higher number of students to withdraw. Perhaps there were changes or challenges within the admissions, advising, bursar, financial aid, or technology departments that negatively impacted students who started in fall 2018 and winter 2019.

Due to the pandemic, I expected a larger percentage of students who started in 2020 to dropout. Students who started in winter 2020 moved to online learning during their first term. I expected the disruption that occurred from the campus shut down 10 weeks into their first semester to negatively impact their academic and social integration. Similarly, students who started in spring 2020 were fully online. I expected this to negatively impact their academic and social integration as well. However, winter and spring 2020 have some of the lowest dropout rates. This could be because students who started during the pandemic had more flexibility with their environmental factors and school schedules. After lecture classes moved online, the three campuses shared fully online courses, increasing student schedule options. In addition, online classes offered flexibility when scheduling around environmental factors such as work and childcare.

Since I collected the institutional data in fall 2021, I expected a low number of withdrawn students who started in spring and fall 2021. Students who were not retained completed on average three terms before dropping out, with the largest number of students only completing one term (Table 18). Similarly, 73% of the withdrawn survey respondents completed no more than three terms before withdrawing. It is likely that in the next year the college will see an increase in dropout rates for students who started during the 2021 year.

Table 18

Number of Terms Completed Before Dropout: Not Retained Students

CENTRAL TENDENCY	NOT RETAINED STUDENT
Mean	3
Median	2
Mode	1
Range	0-14

Note. From Pacific College institutional data, 2022.

Next, I calculated the number of terms students who were not retained completed before dropping out (Table 19). The highest number of students only completed one term. In addition, 78% of students withdrew within the first three terms, or first year of the program. This is similar to findings in student retention literature. The more terms a student completes, the more likely it is they are integrated into the college academic and social systems. This strengthens their goal and institutional commitment, which makes it less likely they will dropout. Students who completed a year or less of school have not invested as much time and money. Environmental variables and negative experiences are more likely to lower their college integration and commitment, causing withdrawal.

Table 19

Terms Completed Breakdown: Not Retained Students

# TERMS COMPLETED PRIOR TO DROPOUT	NOT RETAINED STUDENT COUNT	NOT RETAINED STUDENT PERCENTAGE
0	18	11%
1	54	34%
2	30	19%
3	22	14%
4	11	7%
5	7	4%
6	5	3%
7	3	2%
8	3	2%
9	1	1%
10	4	2%
12	2	1%
14	1	1%

Note. From Pacific College institutional data, 2022.

I also reviewed when students withdrew. For each term, I calculated the count and percentage of students who withdrew that term (Table 20). The highest number of students withdrew in fall 2019, followed closely by fall 2020, spring 2019, winter 2021, and spring 2021. I expected more students to withdraw during 2020 and 2021 due to the pandemic. Pacific College should review if there were any institutional changes or challenges that occurred in fall 2019 that would have led more students to withdraw during that term prior to the pandemic.

Table 20

Term Withdrawn

TERM WITHDREW	NOT RETAINED STUDENT COUNT	NOT RETAINED STUDENT PERCENTAGE
2016 Fall	3	2%
2017 Winter	4	2%
2017 Spring	5	3%
2017 Fall	6	4%
2018 Winter	10	6%
2018 Spring	8	5%
2018 Fall	13	8%
2019 Winter	10	6%
2019 Spring	15	9%
2019 Fall	17	11%
2020 Winter	13	8%
2020 Spring	9	6%
2020 Fall	16	10%
2021 Winter	14	9%
2021 Spring	14	9%
2021 Fall	4	2%

Note. From Pacific College institutional data, 2022.

Finally, I reviewed the reasons why students withdrew (Table 21). The highest reason recorded was unknown. It is unclear why the San Diego registrar's department entered unknown as the reason for 29% of the withdrawals. Perhaps these 47 students never submitted a withdrawal form with their reason for dropping out. The next most common reason for withdrawal was personal. This is an ambiguous reason that could describe several different explanations. Pacific College should consider better tracking and record keeping for withdrawal reasons. Both unknown and personal withdrawal reasons do not help the college determine ways to improve retention for those students. The third highest reason students withdrew was financial. For students who struggle financially, the college could consider offering scholarships or emergency funding. Pacific College could also offer financial literacy workshops to help students manage their personal finances and understand how to budget as a student.

Table 21

Withdrawal Reason

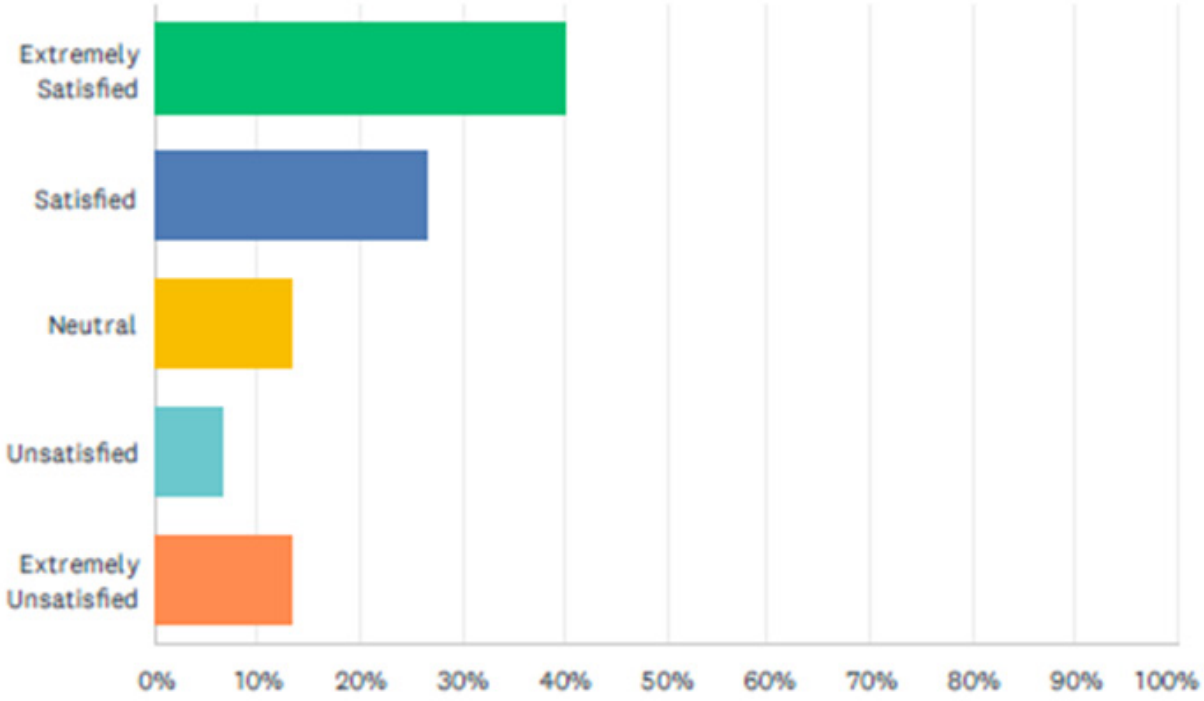
WITHDRAWAL REASON	NOT RETAINED STUDENT COUNT	NOT RETAINED STUDENT PERCENTAGE
Academic Disqualification	12	7%
Attendance	7	4%
Covid19	5	3%
Expulsion	1	1%
Family	2	1%
Financial	18	11%
Medical	9	6%
Military	1	1%
Personal	39	24%
Transfer to Another Institution	15	9%
Transfer to Other Program	3	2%
Unknown	47	29%
Work	2	1%

Note. From Pacific College institutional data, 2022.

I surveyed withdrawn students to see if they planned to return to Pacific College. No one responded yes, 40% said no, and 60% were unsure. It is surprising that currently, no one planned to return to the college since 67% were satisfied or extremely satisfied with their student experience at Pacific (Figure 5). Within the different experiences, 47% rated the academic advising and financial aid processes as positive or very positive, and 86% rated the registration process as positive or very positive. For the overall quality of their courses and their relationship with faculty, 67% rated these as positive or very positive. Finally, 73% rated the quality of instruction and relationship with staff as positive or very positive (Appendix F). Perhaps environmental factors rather than college services lead to their withdrawal, which is why many are unsure about returning

Figure 5

Withdrawal Survey Question 4 Overall Satisfaction Responses



FINDING #4:

WHAT ACADEMICS VARIABLES ARE ASSOCIATED WITH STUDENT DROPOUTS?

I calculated the mean, median, mode, and range for the number of credits enrolled and the number of credits completed during a student's first term (Table 22). Using a t-test, I calculated that the p-value for both was lower than alpha (0.05). Therefore, the difference in the number of credits enrolled and completed between those who were retained and were not retained was statistically significant (Appendix E, Table E8 and Table E9). On average, students who were not retained enrolled in one less credit and completed four less credits in their first term than retained students. While students who were retained tended to successfully complete all credits they enrolled in their first term, students who were not retained completed three less credits than they initially enrolled in.

Table 22

Number of Credits Enrolled and Completed First Term: Retained vs. Not Retained Students

CENTRAL TENDENCY	# CREDITS ENROLLED RETAINED STUDENT	# CREDITS COMPLETED RETAINED STUDENT	# CREDITS ENROLLED NOT RETAINED STUDENT	# CREDITS COMPLETED NOT RETAINED STUDENT
Mean	12	12	11	8
Median	14	13	11	9
Mode	17	17	6	0
Range	1.5-22	0-22	1.5-18.5	0-18.5

Note. From Pacific College institutional data, 2022.

Finally, I calculated the mean, median, mode, and range for the students' first term Pacific College GPA (Table 23). Using a t-test, I calculated that the p-value was lower than alpha (0.05). Therefore, the difference in Pacific College first term GPA between those who were retained and were not retained was statistically significant (Appendix E, Table E10). On average, students who were not retained had a first term GPA 0.87 points lower than retained students. Furthermore, 32% of students who were not retained had a first term GPA under 3.0, compared with only 5% of retained students (Table 24).

Table 23

Pacific College First-Term GPA: Retained vs. Not Retained Students

CENTRAL TENDENCY	RETAINED STUDENT	NOT RETAINED STUDENT
Mean	3.72	2.85
Median	3.86	3.38
Mode	4.00	4.00
Range	0.00-4.00	0.00-4.00

Note. From Pacific College institutional data, 2022.

Table 24

Pacific College First Term GPA Breakdown: Retained vs. Not Retained Students

PACIFIC COLLEGE 1ST TERM GPA	RETAINED STUDENT COUNT	RETAINED STUDENT ERCENTAGE	NOT RETAINED STUDENT COUNT	NOT RETAINED STUDENT ERCENTAGE
0.00-0.99	3	1%	26	16%
1.00-1.99	2	0%	7	4%
2.00-2.99	16	4%	20	12%
3.00-3.99	292	65%	84	52%
4.00	136	30%	24	15%

Note. ***From Pacific College institutional data, 2022.***

Based on my professional experience, this is not surprising. Students who struggle tend to not do as well in their classes, which would lead to a lower overall GPA and number of credits completed. Students who struggle tend to drop classes to try to balance their workload. This could be due to environmental factors such as work and family responsibilities or because they are not integrated into the academic and social school systems. These are also shown to negatively impact student retention.

Courtesy of Pacific College of Health and Science

Recommendations

RECOMMENDATION #1:

ACADEMIC AND SOCIAL INTEGRATION THROUGH SOCIALIZATION

Similar to the findings in the literature review, Pacific College institutional and survey data also found that a lack of academic and social integration contributed to student dropouts. As a female student who dropped out after only two terms underscored in the withdraw survey, she "Was constantly in classes with unfamiliar students so I didn't get to feel a class connection with my peers" and "felt overwhelmed by the class load." Therefore, college supports should aim to integrate students into the academic and social systems of the college, increasing their academic and institutional commitment. Since the majority of students dropout within the first year, with many only completing one term, supports should integrate students as early as the application stage.

Graduate student retention literature highlights the importance of socializing new students into the college academic community and their future profession (Austin, 2002; Golde, 1998). Socialization sets expectations for graduate and professional life and welcomes newcomers into the community (Golde, 1998). Pacific College can help students' socialization by clearly communicating the expectations and realities of graduate school life, allowing new students to interact with upper-level students, and offering opportunities to meet with professionals in the field (Austin, 2002; Golde, 1998). While Pacific College offers some of these socialization practices throughout the program, it is often up to the individual student to ask to meet with upper-level students and practitioners.

Applicant Conversations

Based on the findings, Pacific College now has a student profile for the San Diego DACM program and knows which students are more prone to dropout. Sharing these findings with advisors and other student support staff is crucial because it will help them detect early warning signs and target support for students who are more likely to dropout. As part of my project, I will share these findings and recommendations with the college's president's council. The president's council includes the college president, vice presidents, deans, and department managers for all three campuses. The department managers can then share with their individual staff members at their weekly or monthly department meetings.

To facilitate socialization, conversations and supports must be targeted students as early as the application process. For example, if an applicant lives over 100 miles from the campus, their admissions representative or student advisor can direct the conversation to whether the student understands and is ready to commit to the additional time and expense to commute to campus. This can be done by mapping out the commute, creating a weekly schedule, calculating the commuting expenses for the entire program, and talking with current students who live in a similar area about their experiences. The advisor should tailor the conversation around the specific concern as established in the findings, paying particular attention to students who have multiple factors of concern. In addition to clearly outlining graduate student expectations, these conversations will also help students build a relationship with staff and fellow students, further integrating them into the college.

The college will need to develop a training manual for the admissions representatives and student advisors for these conversations, including talking points and answers to common questions. In addition, advisors will need a live training where they can role play to practice having the conversations. One concern during these conversations is that applicants will tell the advisor what they think they want to hear. For example, telling the advisor that commuting several hours will not be a problem without further reflection. To help reduce this, there should be additional follow up after the conversation, such as requiring students to commute to campus before starting or talking with upper-level students who live in a similar area. This will help the applicant experience what it will be like once they are a student and help with further reflection.

These conversations and reflections may cause some students to withdraw their application and not enroll. In addition, since admissions representatives are evaluated based on enrollment numbers, they have an incentive to enroll as many students as possible. Admissions representatives may feel conflicted having these conversations and setting the follow-up experiences if it could reduce the number of students they enroll. It will also require additional time per applicant. However, if the college is committed to improving retention and graduation rates, students need to understand the realities of graduate life and whether they can realistically meet those expectations before they enroll. These conversations help the student assess if this college, program, and profession are right for them and if it is the right time to start. While it might decrease

applications, it should increase the percentage of students who are a better match, thus increasing retention and graduation rates.

Peer Groups

In addition to conversations during the applicant period, there needs to be further follow-up experiences. These follow-up experiences reinforce what was said during the conversations and further integrate students into the community. Connecting new students to peer groups, faculty, and staff with which they identify helps to integrate them into the college community through informal mentoring. Evans et al. (2001) highlight that "Basic efforts such as mentoring, developing a critical mass of [underrepresented minority] health professions students and faculty, focal and consistent support from leadership, and social and psychological support can all help to enhance diversity." Peer groups could be based on individual attributes, such as gender, ethnicity, location, veteran status, or some combination of those. If the college starts to collect applicant environmental variables, peer groups could be formed based on these as well. For example, there could be a parent peer group or a career-changers group. These groups should include upper-level students, faculty, and staff who are interested.

During the application phase, the college can ask applicants to indicate which peer groups they would be interested in joining. Once a student enrolls, they can join the group to start making connections. The group members should be available to answer questions from new students. This could be done through an electronic medium, such as the school's learning management system, or in-person. In addition, I suggest the groups hold one to two events each term to give members a chance to get to know one another and form deeper connections.

These groups will require additional resources from the college. Assigning a Pacific College student services administrator to oversee the peer group initiative in collaboration with the program director or dean will help facilitate and continue group membership. The initial members will need some training to establish the group norms and expectations. Participating faculty should be compensated for their time. Involved staff will have to coordinate with their supervisors to allocate work time. In addition, there will be money, space, and technology needs for the events.

It will take additional time and effort to get the first peer groups set up. To build group membership, the student services administrator could send an email to the current community outlining the reasoning and expectations for the groups. Once the groups are established, there will be some natural decline in numbers as students graduate or people leave the group. It will be important to incorporate new students to replenish numbers and keep the groups active each term. There should be a Pacific College administrator overseeing the groups to be sure questions are answered correctly and communication is respectful.

Opportunities to Learn the Profession

Finally, opportunities to shadow clinic shifts or speak with licensed acupuncturists will help new students learn about the profession. Opportunities to observe life as a professional helps the student know if they want to do this type of work. The college can utilize its own resources for these opportunities. Pacific College could use its on-site teaching clinics for newly enrolled students to observe clinic shifts. I suggest using a regular student clinic shift, if possible, so the newly enrolled students can truly experience what the clinic shift will be like as a student and so they can meet upper-level students as well.

Supervisors are trained to work with students at all clinic levels, including entry-level clinical observation students. However, the college will need to offer additional supervisor training since the new students will not have taken the term one prerequisite clinical classes (Appendix A). The students on shift will also need to be notified. As enrolled students, the new students should be covered by the college's clinic liability policy. The vice president of clinical services will need to review the Health Insurance Portability and Accountability Act (HIPAA) to be sure the newly enrolled students do not violate patient privacy. In addition, accreditation regulations state that no more than eight students can be on shift with one supervisor. The director of clinical services will need to be involved for scheduling reasons. A student services administrator should oversee the initiative to communicate the expectations and coordinate scheduling with the new students and clinic.

Pacific College could also recruit current supervisors and alumni to talk with new students about their professional life. Using a diverse group of practitioners will help students experience the range of possibilities within the profession. For example, including practitioners that not only have their own private practice but work in different settings such as hospitals, community clinics, wellness centers, cruise ships, or veteran affairs and who specialize in different patient populations and conditions. This shows the range of job possibilities, some of which might have been unknown to the new students. In addition, it will be helpful for students to see others who they identify with so they can see themselves represented in the profession. I suggest allowing the practitioners to talk honestly about the positives and negatives of the profession so students can reflect on whether this career is right for them. The college could host these events virtually or in-person in a panel talk or networking format. These could be open to applicants as well as students. The vice president of career and alumni services and the program director or dean will need to be involved to help coordinate the supervisors and alumni speakers. They will need to coordinate with the admissions department to invite applicants and current students.

Supervisors and alumni should be compensated for their time. In addition, involved staff will need to coordinate with their supervisors to allocate time to these events. It would be helpful to have the same student services administrator overseeing other orientation and socialization activities coordinating these events with the appropriate departments as well. The college will also need to budget for additional money, space, and

technology needs for the events. Not everyone will be able to make the scheduled events. For those unable to attend, the college could consider recording one of the talks and making it available to review later.

All these experiences reinforce graduate socialization. A student who is unsure about graduate school, the profession, or Pacific College is likely to have low institutional and goal commitment and therefore more likely to dropout. By addressing these questions and concerns when a student applies and enrolls, it gives an opportunity for those who determine it is not a good fit to dropout before starting the program, accruing additional debt, and decreasing retention rates. For those who determine this program and college is a good fit for them, it gives them more information to help structure their life to balance the demands of graduate school. It also helps to further integrate them into the academic and social college systems, thereby increasing the likelihood they persist.

RECOMMENDATION #2:

FUTURE DATA COLLECTION

Withdrawal Reasons

I recommend that the college collect more accurate data for student dropout reasons. Unknown and personal reasons, which made up over half the responses (Table 21), does not give enough detail into why students withdrew. It also does not identify what supports the college could use to help those students persist. The college could consider adding additional, more detailed reasons on the withdrawal form. If the college prefers the current options, students could be required to write in their own words an additional explanation for their withdrawal.

The only time an unknown reason should be used is when a student is unofficially withdrawn from the college. This occurs when a student stops attending but does not notify the college. In this case, I recommend changing unknown to unofficial withdraw in the records management system. However, I suggest that the college try to reduce the number of unofficial withdrawals. As students integrate into the college systems and form connections, they should have higher institutional commitment and therefore be more likely to communicate with the college. If a student stops attending or does not enroll in the following term, I recommend that an advisor immediately follow up with the student to understand their plans and send the withdrawal form, if appropriate. Additional training may be needed for these conversations.

I recommend that the senior registrar along with the vice president of academic affairs review the withdrawal options and update the withdrawal form, if necessary. Student advisors and program directors or deans are also stakeholders and may have suggestions based on their professional experience working with students. Since the withdrawal form is an electronic format, the settings could be adjusted to require students to complete the reason section, especially if the college decides to include an open text field to submit the form.

Academic, Environmental, and Social Variables

Pacific College should also collect and analyze additional academic, environmental, and social variables. The literature identified these variables as influencing student dropout decisions. Therefore, they were also included in the conceptual framework. As Tinto (1975) explains, "If one wishes to develop a theoretical model of dropout...one must include not only background characteristics...but also expectational and motivational attributes of individuals...one would need to know the individuals' educational expectations and their institutional manifestations" (p. 93). Understanding the impact these factors have on Pacific College students will give a more detailed picture as to why students dropout. This will help Pacific College make more informed decisions about support services to help those students persist.

Additional academic variables include time spent studying, if a student receives tutoring, advising, or other support services, and if the student meets with faculty outside of class. These will be difficult to collect and track consistently. The college could consider surveying students. However, if there is a low response rate, data could be skewed. Another option is to have student advisors check in with each student every semester. Currently, about half the student population receives academic advising during the course registration period. Advisors could ask these questions as part of their advising meeting. This will require additional training for the student advisors. The college will also need to evaluate if the current student advisors can handle the increased workload that will come from checking in with every student. The college may need to hire additional advisors. In addition, the college will need to update their student records management system to include fields for this data entry.

Additional environmental variables include the number of hours a student works, if they have outside support, and if they have family responsibilities. This information can be collected as part of the application process. However, this information is personal, and some students may not feel comfortable sharing. Therefore, I suggest that it be optional for the students to disclose this information, and their enrollment should not be contingent upon providing it. However, knowing this information can help advisors tailor advisement to each student to prevent burnout and increase goal and institutional commitment. It will also help during the applicant conversation to see if graduate school is right for the student.

Withdrawal Survey

To increase the response rate and receive feedback in real time, I recommend sending the withdrawal survey to students with the withdrawal paperwork. It is much more likely someone will give feedback and more accurate feedback at the time of withdrawal rather than months or years later as I did with this project. Because both the withdrawal form and survey are electronic, the link to the survey could appear right after a student submits the form.

Although the survey is anonymous, since the form and survey are electronic, there is a time stamp when they are submitted. Students could be concerned that the college could identify their response by comparing the dates on both. Therefore, I suggest that the college only review survey data once per term, so the results are shown in the aggregate. There will also be some students who do not fill out the withdrawal form and are therefore unofficially withdrawn. The registrar typically closes out inactive student records after the add/drop period. For students who are unofficially withdrawn, the college can send the withdrawal survey link to the unofficially withdrawn student group separately each term.

Expand Program Assessment and Evaluation

Pacific College offers different degree levels (certificate, associate, bachelors, masters, and doctoral), degree formats (online, on-ground, and hybrid), and has different campus cultures (San Diego, New York, and Chicago). It is likely that the student profiles for each program vary. I do not recommend applying the San Diego DACM student profile findings to the other college programs. Instead, the college should do a similar data analysis for each program to understand the unique student demographics. For example, location is likely not a factor for fully online programs as it was for the in-person DACM program. I recommend that the vice president of student services conduct the initial program analyses. Once complete, the program directors or deans and student advisors should help contextualize the findings based on their professional experience working with those students and offer recommended supports.

Finally, I suggest that the college implement program evaluations for the different support services once the different recommendations are established. Some students will choose to participate in different services while others do not. The college can track who takes advantage of the different supports and who does not. This will allow the college to evaluate if the supports positively impact retention and if any additional adjustments need to be made to better support the students. This will require additional work from the program directors or deans to evaluate. Additional data analysis training may be needed as well. However, the analysis will help the college make evidence-informed decisions to utilize resources efficiently.

Conclusion

Pacific College of Health and Science struggles to retain students in its Doctor of Acupuncture and Chinese Medicine program. Of the 610 students who enrolled between fall 2016 and fall 2021, 26% were not retained. The loss of these students cost the institution millions of dollars in lost tuition revenue. If the institution does not improve retention rates, it will continue to lose tuition revenue, its reputation could diminish, and it might not meet accreditation standards.

The purpose of this dissertation in practice was to determine individual attributes, pre-Pacific College schooling factors, goal and institutional factors, and academic variables that indicate a student may dropout. Understanding these dropout factors helps to identify students who may need early interventions and additional supports as they go through the program. This will help the institution identify where to focus their effects to help these students be successful.

I found that students who were older, male, lived farther from campus, or identified as Black, Indigenous, or Hispanic were more likely to dropout. Students who had not earned a previous degree or had earned a master's or doctorate degree were also more likely to not be retained. Students who applied and enrolled closer to the term start date were more likely to dropout. In addition, 78% of students withdrew within the first three terms, or first year of the program. On average, students who were not retained enrolled in one less credit and completed four less credits in their first term than retained students. While students who were retained tended to successfully complete all credits they enrolled in their first term, students who were not retained completed three less credits than they initially enrolled in. Furthermore, 32% of students who were not retained had a first term GPA under 3.0, compared with only 5% of retained students.

Pacific College's mission is to "improve lives by educating and inspiring compassionate, skilled leaders of traditional medicine and integrative health sciences" and part of its vision is to bring "education and integrative health science to where people live, learn, and play" (Pacific College, n.d.). To fulfill this mission, the institution needs to devote additional resources to student success to increase retention and graduation rates. By supporting students to graduation, the institution can achieve their mission, increase retention rates, and grow revenue from additional tuition. What is good for student success can also be good for business.

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Appendices

APPENDIX A: DACM MODEL CURRICULUM PROGRAM CHART

Term 1	Course	Units	Cred Hrs	Prereq	Concur	Exam Req	Req for Comp	
OM511	Fundamentals of Chinese Medicine 1	3.00	45				1	2
OM501	Foundations of Chinese Medicine	3.00	45				1	2
BT124	Tai Ji/Qi Gong	1.50	30					
BT130	Tui Na Hand Techniques	1.50	30				1	2
CL211	Clinical Counseling 1	1.50	30				1	2
	General Biology						1	2
WS521	Anatomy and Physiology 1	2.5	37.5	Gen Bio (or concur)	WS525.L1		1	2
WS525.L1	Anatomy and Physiology 1 Lab	1	30	Gen Bio (or concur)	WS521		1	2
WS202	Medical Terminology	1.50	22.5				1	2
	Total Units/Hours:	**15.5**	**270**					
Term 2	**Course**	**Units**	**Cred Hrs**	**Prereq**	**Concur**	**Exam Req**	**Req for Comp**	
OM512	Fundamentals of Chinese Medicine 2	3.00	45	OM511			1	2
AC504a	Acupuncture Channels and Points 1	2.50	45	WS521, WS525.L1, OM511			1	2
WS515	Anatomy and Physiology 2	3.00	45	WS521, WS525.L1, Gen Bio			1	2
HB501	Introduction to Herbology	2.00	30	OM511			1	2
BT230	Tui Na Structural Techniques	1.50	30	BT130			1	2
CL501	Introduction to Clinical Observation	1.00	15				1	2
CL531	Clinical Observation	2.00	60	OM511	CL501, CPR/1st Aid		1	2
CF0.00	CPR/First Aid (8 hours required)						1	2
	Total Units/Hours:	**15.00**	**270**					

Term 3	Course	Units	Cred Hrs	Prereq	Concur	Exam Req	Req for Comp	
OM513	Fundamentals of Chinese Medicine 3	3.00	45	OM512			1	2
AC505a	Acupuncture Channel and Points 2	2.50	45	AC504a, OM512	OM512 ok		1	2
HB514	Herbology 1	2.00	30	HB501			Herb Comp	2
	General Chemistry						1	2
WS527	Anatomy and Physiology 3	3.00	45	WS515			1	2
WS550	Foundations of Evidence-Informed Practice	3.00	45	OM511			1	2
AC511a	Introduction to Clinical Techniques	2.50	45	AC504a	CL532		1	2
CL532	Clinical Assistantship 1	2.00	60	CL211, CL531, HB501, AC504a, BT130	AC511a		1	2
	Total Units/Hours:	**18.00**	**315**					

Term 4	Course	Units	Cred Hrs	Prereq	Concur	Exam Req	Req for Comp	
OM514	Fundamentals of Chinese Medicine 4	3.00	45	OM513			1	2
WS207	Survey of Biochemical Principles	2.00	30	Gen Chem, Gen Bio			1	
	General Psychology						1	2
WS528	Anatomy and Physiology 4	3.00	45	WS515			1	2
HB515	Herbology 2	2.00	30	HB501, OM512			Herb Comp	2
AC506a	Acupuncture Channels and Points 3	2.50	45	AC505a, OM513	OM513 ok		1	2
AC512a	Needle Technique	2.50	45	AC505a, AC511a	AC506a			2
CL533	Clinical Assistantship 2	2.00	60	HB514, AC511a, AC505a, CL532				2
	Total Units/Hours:	**17.00**	**300**					
	First Comprehensive Exam (except Herbology exams)							

Term 5	Course	Units	Cred Hrs	Prereq	Concur	Exam Req	Req for Comp	
WS204	Biological Aspects of Physics	2.50	37.5					
AC601	Acupuncture Channels and Points 4	3.00	45	AC506a, AC512a	AC601L	1		2
AC601L	Acupuncture Channels and Points 4 Lab	0.75	22.5	AC506a, AC512a	AC601	1		2
HB516	Herbology 3	3.00	45	HB501, OM513			Herb Comp	2
WS531	Pathophysiology 1	3.00	45	WS528		1		2
WS541a	Ortho-Neuro Eval 1	2.00	45	WS528		1		2
AC611a	Advanced Needle Techniques	2.50	45	AC512a		1		2
	Total Units/Hours:	**16.75**	**285**					
	First Comprehensive Exam (Herbology exams only)							

Term 6	Course	Units	Cred Hrs	Prereq	Concur	Exam Req	Req for Comp	
OM651	Diagnosis and Treatment of Disease 1	3.00	45	OM514, HB516, WS550	HB621	1		2
HB621	Herbology 4	3.00	45	HB516		1		Herb Comp
WS542a	Ortho-Neuro Eval 2	2.00	45	WS541a		1		2
AC602	Acupuncture Channels and Points 5	3.00	45	AC512a, AC506a	AC602L	1		2
AC602L	Acupuncture Channels and Points 5 Lab	0.75	22.5	AC512a, AC506a,	AC602	1		2
WS632	Pathophysiology 2	3.00	45	WS528		1		2
CL502	Introduction to Associate Internship	1.00	15	CL533	CL541	1		2

CL541	Associate Internship 1	2.00	60	CL533, AC512a	CL502	1	2
	Total Units/Hours:	**17.75**	**322.5**				
Term 7	**Course**	**Units**	**Cred Hrs**	**Prereq**	**Concur**	**Exam Req**	**Req for Comp**
OM652	Diagnosis and Treatment of Disease 2	3.00	45	OM651, HB621		1	2
HB622	Herbology 5	3.00	45	HB621		1	Herb Comp
WS840	Clinical Research Design and Statistics	2.00	30	WS550			
WS506	Eastern and Western Nutrition	3.00	45	HB501, WS207			
WS651	Pharmacology	2.00	30	WS531, WS632		1	2
CL503	Associate Internship Grand Rounds	1.00	15	CL502		1	2
CL542	Associate Internship 2	2.00	60	CL541	CL503	1	2
	Total Units/Hours:	**16.00**	**270**				
	Second Comprehensive Exam (except Herbology exams).						*Exam 1*
Term 8	**Course**	**Units**	**Cred Hrs**	**Prereq**	**Concur**	**Exam Req**	**Req for Comp**
OM653	Diagnosis and Treatment of Disease 3	3.00	45	OM651, HB621		1	
HB623	Herbology 6	3.00	45	HB621		1	Herb Comp
WS656	Clinical Science	3.00	45	WS651		1	
AC613a	Treatment of Orthopedic Disorders	2.00	45	AC611a, WS542a		1	
WS652a	Physical Exam	2.50	45	WS531, WS632		1	
CL612a	Clinical Counseling 2	1.50	30		CL543 or any of CL651-CL659	1	
BU800	Inter-Professional Communication	1.00	15	CL211, CL542	CL542 ok	1	
CL543	Associate Internship 3	2.00	60	CL542		1	
	Total Units/Hours:	**18.00**	**330**				
	Second Comprehensive Exam (Herbology exams only)						*Exam 1*
Term 9	**Course**	**Units**	**Cred Hrs**	**Prereq**	**Concur**	**Exam Req**	**Req for Comp**
OM704	Diagnosis and Treatment of Disease 4	3.00	45	OM651, HB621		1	
HB631	Chinese Herbs and Internal Medicine 1	3.00	45	HB623		1,2	
HB642	Shang Han Lun/Wen Bing	3.00	45	HB623		1,2	
WS860	Advanced Integrative Diagnosis	3.00	45	WS656		2	
OM642	Licensure Exam Prep Course	3.00	45			1,2	
CL651	Senior Internship 1	2.00	60	WS652a, CL612a, CL543, OM651, 2 of [OM652, OM653, OM704]	WS652a ok	1,2	
CL652	Senior Internship 2	2.00	60	WS652a, CL612a, CL543, OM651, 2 of [OM652, OM653, OM704]	WS652a ok	1,2	
CL653	Senior Internship 3	2.00	60	WS652a, CL612a, CL543, OM651, 2 of [OM652, OM653, OM704]	WS652a ok	1,2	
	Total Units/Hours:	**21.00**	**405**				

Term 10	Course	Units	Cred Hrs	Prereq	Concur	Exam Req	Req for Comp
OM705	Diagnosis and Treatment of Disease 5	3.00	45	OM651, HB621		1,2	
HB632	Chinese Herbs and Internal Medicine 2	3.00	45	HB631		1,2	
BU611	Practice Management and Ethics	3.00	45			1	
CL810	Health Care Systems	3.00	45			2	
CL654	Senior Internship 4	2.00	60	CL651, 1 of: [HB631, HB632, HB633]		1,2	
CL655	Senior Internship 5	2.00	60	CL651, 1 of: [HB631, HB632, HB633]		1,2	
CL656	Senior Internship 6	2.00	60	CL651, 1 of: [HB631, HB632, HB633]		1,2	
	Total Units/Hours:	**18**	**360**				
Term 11	**Course**	**Units**	**Cred Hrs**	**Prereq**	**Concur**	**Exam Req**	**Req for Comp**
SE	Specialty Elective	1.00	15				
WS830	Preventive Medicine and Public Health	2.00	30			2	
HB633	Chinese Herbs and Internal Medicine 3	3.00	45	HB631		1,2	
BU612	Medical-Legal Report Writing	2.00	30		Intern	1,2	
OM805	Practice Based Learning	3.00	45			2	
CL770	Application of Inter-Professional Communication (Practicum)	2.00	60	CL612a, BU800		2	
CL657	Senior Internship 7	2.00	60	CL651, 2 of: [HB631, HB632, HB633]		1,2	
CL658	Senior Internship 8	2.00	60	CL651, 2 of: [HB631, HB632, HB633]		1,2	
CL659	Senior Internship 9	2.00	60	CL651, 2 of: [HB631, HB632, HB633]		1,2	
	Total Units/Hours:	**19.00**	**405**				
	Total Program Units/Hours	**192**	**3532.5**				

APPENDIX B: PACIFIC COLLEGE INTERNAL TRANSFER STUDENT DATA

Table B1

Students Who Transferred to Another Campus or Degree Program

TRANSFER TYPE	TRANSFER LOCATION	TRANSFER PROGRAM	STATUS	COUNT	PERCENTAGE
Campus	Chicago	DACM	Active	1	6%
Campus	Chicago	MSAc	Graduate	1	6%
Campus	New York	MSTOM	Active	1	6%
Program	San Diego	MSTOM	Active	5	29%
Program	San Diego	MSTOM	Graduate	9	53%

Note. From Pacific College institutional data, 2022.

APPENDIX C: WITHDRAWAL SURVEY

Pacific College is conducting a survey of all students who attended and did not continue taking courses. We would like t
students have chosen not to continue their studies and what the college can do to improve. Understanding your experier
improve the college for future students on their journey to becoming compassionate healthcare providers. The survey ta
minutes to complete and your responses are confidential.

Thank you for your time.

* 1. Why did you discontinue your studies at Pacific?

Please select all that apply.

- [ ] Academic reasons
- [ ] Class scheduling issues
- [ ] COVID-19 reasons
- [ ] Difficulty navigating Pacific College system/processes
- [ ] Employment commitments
- [ ] Family reasons
- [ ] Financial reasons
- [ ] Health reasons
- [ ] Military deployment/training
- [ ] Moving/relocating
- [ ] Term break/Leave of Absence petition was denied
- [ ] Transfer to another school
- [ ] Transfer to another Pacific College program
- [ ] Unfriendly faculty/staff
- [ ] Other (please specify)

* 2. How many terms did you attend at Pacific College?

- I did not complete a full term
- 1
- 2
- 3
- 4
- 5 or more

* 3. Do you plan to return to Pacific College?

- No
- Yes
- Unsure

* 4. Overall, how satisfied are you with your student experience at Pacific?

- Extremely Satisfied
- Satisfied
- Neutral
- Unsatisfied
- Extremely Unsatisfied

* 5. Please rate your experience with the following aspects at Pacific College.

	Very Positive	Positive	Neutral	Negative	Very Negative
The academic advising process					
The financial aid process					
The overall quality of your courses					
The quality of instruction in your program					
The registration process					
Your relationship with the faculty					
Your relationship with the staff					

6. If you ranked any of the above as negative or very negative, please help us understand why in the following comment box.

7. Please let us know of any positive highlights during your time at Pacific College.

8. Are there any other reasons for your withdrawal from study, or anything else you feel we should know so we can better serve the students at Pacific College?

* 9. What day did you withdraw?

Date / Time

Date

MM/DD/YYYY

10. What is your gender identity?

- Female
- Male
- Transgender female
- Transgender male
- Gender variant/Non-conforming
- Prefer not to answer
- Other (please specify)

11. What is your race/ethnicity?

- American Indian/Alaska Native
- Asian American/Asian
- Black/African American
- Hispanic
- Native Hawaiian/Pacific Islander
- Nonresident
- Two or more races
- White
- Other (please specify)

12. How old are you?

- 18-24
- 25-29
- 30-39
- 40-49
- 50-59
- 60 or older

APPENDIX D: WITHDRAWAL SURVEY RECRUITMENT LANGUAGE

SUBJECT: YOUR FEEDBACK MATTERS, HELP FUTURE STUDENTS!

Dear [First Name],

We are sorry you are no longer a student at Pacific College. We are seeking information about your experiences and reasons for withdrawal as part of the Doctorate of Acupuncture and Chinese Medicine (DACM) program. Your cooperation would be greatly appreciated and would contribute to our understanding of student life at Pacific College. Understanding your experience will help us improve the college for future students on their journey to becoming compassionate healthcare providers.

Survey Link: Pacific College Student Withdrawal Survey

The survey takes about 5 minutes to complete. You can be assured that your responses are completely confidential and will be reported in terms of groups of students rather than as individual cases. Your participation is completely voluntary, and you may choose to skip questions or stop responding at any point.

Thank you for your willingness to help future Pacific College students!

Dear [First Name],

A friendly reminder that the Pacific College Student Withdrawal Survey is still open for your feedback! If you have already responded, thank you!

We are sorry you are no longer a student at Pacific College and are seeking information about your experiences and reasons for withdrawal as part of the Doctorate of Acupuncture and Chinese Medicine (DACM) program. Your cooperation would be greatly appreciated and would contribute to our understanding of student life at Pacific College. Understanding your experience will help us improve the college for future students on their journey to becoming compassionate healthcare providers.

Survey Link: Pacific College Student Withdrawal Survey

The survey takes about 5 minutes to complete. You can be assured that your responses are completely confidential and will be reported in terms of groups of students rather than as individual cases. Your participation is completely voluntary, and you may choose to skip questions or stop responding at any point.

Thank you for your willingness to help future Pacific College students!

APPENDIX E: T-TEST ANALYSIS

Table E1

Table E1: Age t-test

	AGE (YEARS)	PERSISTENCE
Mean	34.24538707	0.736065574
Variance	95.27091605	0.194592048
Observations	610	610
Pearson Correlation	-0.217964894	
Hypothesized Mean Difference	0	
df	609	
t Stat	83.88403911	
P(T<=t) one-tail	0	
t Critical one-tail	1.647359545	
P(T<=t) two-tail	0*	
t Critical two-tail	1.963866961	

*$p < .05$

Table E2

Table E2: Gender t-test

	GENDER	PERSISTENCE
Mean	1.8	0.736065574
Variance	0.179967159	0.194592048
Observations	610	610
Pearson Correlation	0.112313898	
Hypothesized Mean Difference	0	
df	609	
t Stat	45.56893516	
P(T<=t) one-tail	1.0977E-198	
t Critical one-tail	1.647359545	
P(T<=t) two-tail	2.1955E-198*	
t Critical two-tail	1.963866961	

*$p < .05$

Table E3

Table E3: Ethnicity t-test

	ETHNICITY	PERSISTENCE
Mean	5.044262295	0.736065574
Variance	5.063719077	0.194592048
Observations	610	610
Pearson Correlation	0.051488694	
Hypothesized Mean Difference	0	
df	609	
t Stat	46.85977343	
P(T<=t) one-tail	1.9472E-204	
t Critical one-tail	1.647359545	
P(T<=t) two-tail	3.8944E-204*	
t Critical two-tail	1.963866961	

*$p < .05$

Table E4

Table E4: Location t-test

	HOME DISTANCE FROM CAMPUS (MILES)	PERSISTENCE
Mean	183.4958448	0.73476112
Variance	299792.9081	0.195208812
Observations	607	607
Pearson Correlation	-0.085705205	
Hypothesized Mean Difference	0	
df	606	
t Stat	8.223131172	
P(T<=t) one-tail	6.05304E-16	
t Critical one-tail	1.647371969	
P(T<=t) two-tail	1.21061E-15*	
t Critical two-tail	1.963886321	

**p < .05*

Table E5

Table E5: Previous Degree t-test

	PREVIOUS DEGREE	PERSISTENCE
Mean	1.698360656	0.736065574
Variance	1.610013728	0.194592048
Observations	610	610
Pearson Correlation	-0.036857938	
Hypothesized Mean Difference	0	
df	609	
t Stat	17.4933515	
P(T<=t) one-tail	4.03271E-56	
t Critical one-tail	1.647359545	
P(T<=t) two-tail	8.06541916195385E-56*	
t Critical two-tail	1.963866961	

*$p < .05$

Table E6

Table E6: Application Date to Start t-test

	APPLICATION DATE TO START (DAYS)	PERSISTENCE
Mean	76.21311475	0.736065574
Variance	4456.791946	0.194592048
Observations	610	610
Pearson Correlation	0.044735468	
Hypothesized Mean Difference	0	
df	609	
t Stat	27.93107035	
P(T<=t) one-tail	1.9165E-111	
t Critical one-tail	1.647359545	
P(T<=t) two-tail	3.833E-111*	
t Critical two-tail	1.963866961	

**p < .05*

Table E7

Table E7: Enrollment Date to Start t-test

	ENROLL DAYS TO START	PERSISTENCE
Mean	36.04262295	0.736065574
Variance	681.6599209	0.194592048
Observations	610	610
Pearson Correlation	0.164366656	
Hypothesized Mean Difference	0	
df	609	
t Stat	33.48756181	
P(T<=t) one-tail	1.5896E-140	
t Critical one-tail	1.647359545	
P(T<=t) two-tail	3.1793E-140*	
t Critical two-tail	1.963866961	

*$p < .05$

Table E8

Table E8: Number of Credits Enrolled First Term t-test

	NUMBER OF CREDITS ENROLLED FIRST TERM	PERSISTENCE
Mean	11.99508197	0.736065574
Variance	26.00202832	0.194592048
Observations	610	610
Pearson Correlation	0.119870242	
Hypothesized Mean Difference	0	
Df	609	
t Stat	54.8983738	
P(T<=t) one-tail	2.7168E-238	
t Critical one-tail	1.647359545	
P(T<=t) two-tail	5.4336E-238*	
t Critical two-tail	1.963866961	

*$p < .05$

Table E9

Table E9: Number of Credits Completed First Term t-test

	NUMBER OF CREDITS ENROLLED FIRST TERM	PERSISTENCE
Mean	8.49068323	0.01242236
Variance	29.52647516	0.01234472
Observations	161	161
Pearson Correlation	0.077834565	
Hypothesized Mean Difference	0	
df	160	
t Stat	19.82508858	
P(T<=t) one-tail	3.02476E-45	
t Critical one-tail	1.654432901	
P(T<=t) two-tail	6.04952235915483E-45*	
t Critical two-tail	1.97490156	

**p < .05*

Table E10

Table E10: Pacific College First Term GPA t-test

	NUMBER OF CREDITS ENROLLED FIRST TERM	PERSISTENCE
Mean	3.494622951	0.736065574
Variance	0.767062337	0.194592048
Observations	610	610
Pearson Correlation	0.439229337	
Hypothesized Mean Difference	0	
Df	609	
t Stat	86.36932239	
P(T<=t) one-tail	0	
t Critical one-tail	1.647359545	
P(T<=t) two-tail	0*	
t Critical two-tail	1.963866961	

*$p < .05$

APPENDIX F: WITHDRAW SURVEY QUESTION 5 RESPONSES

PLEASE RATE YOUR EXPERIENCE WITH THE FOLLOWING ASPECTS AT PACIFIC COLLEGE

	VERY POSITIVE	POSITIVE	NEUTRAL	NEGATIVE	VERY NEGATIVE	TOTAL	WEIGHTED AVERAGE
The academic advising process	13.33% 2	33.33% 5	33.33% 5	6.67% 1	13.33% 2	15	2.73
The financial aid process	13.33% 2	33.33% 5	33.33% 5	20.00% 3	0.00% 0	15	2.60
The overall quality of your courses	33.33% 5	33.33% 5	20.00% 3	13.33% 2	0.00% 0	15	2.13
The quality of instruction in your program	40.00% 6	33.33% 5	20.00% 3	6.67% 1	0.00% 0	15	1.93
The registration process	13.33% 2	73.33% 11	13.33% 2	0.00% 0	0.00% 0	15	2.00
Your relationship with the faculty	20.00% 3	46.67% 7	26.67% 4	0.00% 0	6.67% 1	15	2.27
Your relationship with the staff	20.00% 3	53.33% 8	13.33% 2	6.67% 1	6.67% 1	15	2.27