EVALUATING DEMAND FOR FULL-TIME ENROLLMENT IN PUBLIC HIGHER EDUCATION

Dr. Leslie M. Rush[1]

[1] *Assistant Professor, Department of Business & Hospitality, University of Hawai'i-West O'ahu, USA*

Abstract

There is distinct competition for full-time student enrollment in higher education. With the wide availability of online degrees and course offerings, students can consider multiple options as consumers of higher education. With increased competition in higher education, reaching prospective undergraduate students highlights the importance of market segmentation as a vital step toward increasing full-time enrollment. A critical step to attracting potential undergraduate students requires a deeper understanding of student segment populations. The purpose of this study is to investigate how distinct student segments and demand factors influence higher education enrollment within public higher education institutions. The study examined three types of undergraduate student segments: traditional, non-traditional, and transfer students to evaluate how online course modalities as well as major fields of study influence student demand for full-time enrollment. Historical and publicly available secondary data were examined for the academic years 2014-2015 through 2018-2019 to describe relationships between total full-time enrollment (dependent) with online course enrollment and major fields of study (independent) variables. Administrators in public higher education institutions will be able to use the findings from this study for the development of an enrollment framework focusing on student segmentation strategies.

Keywords

Full-Time Enrollment, Student Segments, Public Higher Education, Student Demand, Online Enrollment, Major Fields of Study

Introduction

Public higher education institutions (PHEI) continuously experience increased pressure to offer rigorous educational programs on reduced and shrinking budgets. Reduced government funding for public colleges forces institutions to deliver degrees and programs on reduced government funds all the while handling higher operating costs (Dusst & Winthrop, 2019). Tuition costs are rising at rates more rapidly than the rate of inflation, forcing students to look at online courses and degrees as affordable pathways to gain the necessary knowledge needed for employment (Lederman, 2019). While increased availability for online enrollment and coursework has reduced the gap in educational success across diverse socioeconomic groups, improvements in affordability across those groups are still lacking (Higher Education Trends, 2019).

The completion of a college degree is essential to fostering the development of an individual's skills and experiences, thus opening career opportunities. College graduates not only make significant contributions to their household financial situation, but also to the economies of their local communities. Scott (2019) calculated that for every $1 invested by the state in higher education, the state will receive back approximately $4.50 in increased tax revenue that can directly support community programs. Carlson (2019) illustrated that on average, 54% of state and local tax revenue is allocated to funding teaching, instruction, and institutional support. Detrimental to this formula is the funding cuts since 2019 that have reduced per-student spending in 45 states to below $2,008, adjusting for inflation. The Great Recession of 2008 ensued in an average spending per student decrease of 16% or $1,052 (Mitchell et al., 2018). By the year 2018, the per-student funding per academic year increased in only the following four states: California (0.3%), Hawaii (5.4%), Wyoming (7.8%), and North Dakota (16.1%) (Center on Budget and Policy Priorities, 2018). When state and local revenues decrease substantially for public higher education (PHE), a shift to increasingly rely on tuition and fees to fund PHEI results.

There are three distinct state methods for funding public higher education: formula, non-formula, and hybrid methods. State-level funding formulas are designed to recommend resources, evaluate higher education
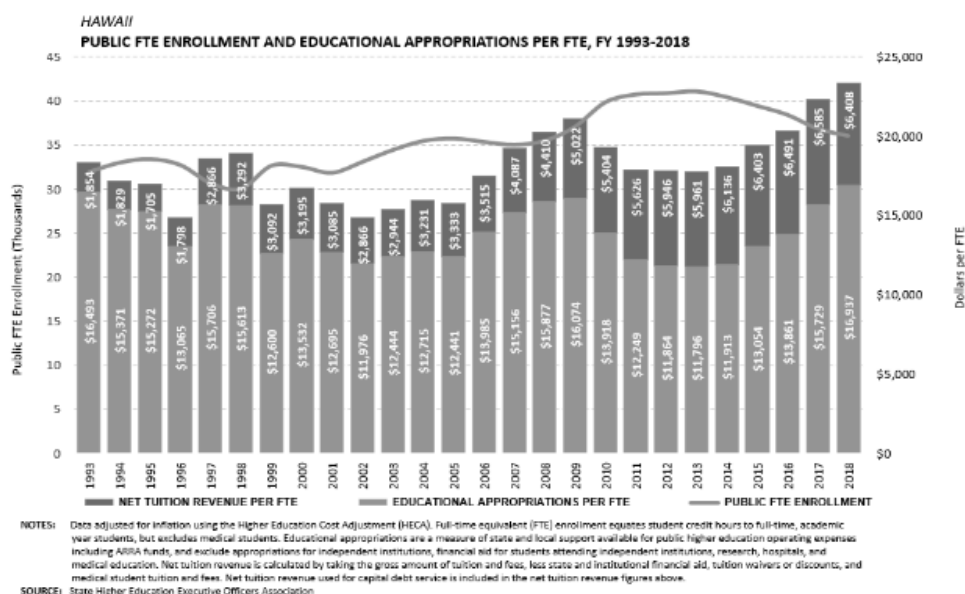
budgets, measure and reward productivity, and distribute the state's higher education budget to applicable institutions (Chingos & Blagg, 2017). States using the formula-based funding models typically consist of ten budgetary areas which include instruction, remedial instruction, operation and maintenance of physical plant, academic support, library support, student services, institutional support, public service, research, and scholarships (SRI International, 2012). Some states utilize non-formula-based funding that consists of a base plus method where the total funding is based on the previous year's appropriation plus additional funding or a funding reduction (SRI International, 2012). Further, funding is allocated based on legislative priorities for the state which can lead to allocation based on peer equity with other similar states or even by available funding (Chingos & Blagg, 2017; SRI International, 2012).

Figure 1 highlights public student aid percent per FTE in constant dollars since the 2008 Great Recession. The U.S. state average is a 30% increase, which is much lower than the state of Hawaii's 90.4% increase (SHEEO, 2019). This research focuses on Hawaii. Figure 2 presents the relationship between net tuition per FTE and the educational appropriations per FTE for the state of Hawaii for the fiscal years 1993-2018. The figure illustrates that Hawaii experienced a sizable increase in FTE enrollment after the start of the 2008 recession, which coincided with reductions in both educational appropriations and net tuition per FTE (SHEEO, 2019). Hawaii's economy began to recover by 2013, while FTE enrollment declined as educational appropriations and net tuition per FTE rose (SHEEO, 2019).
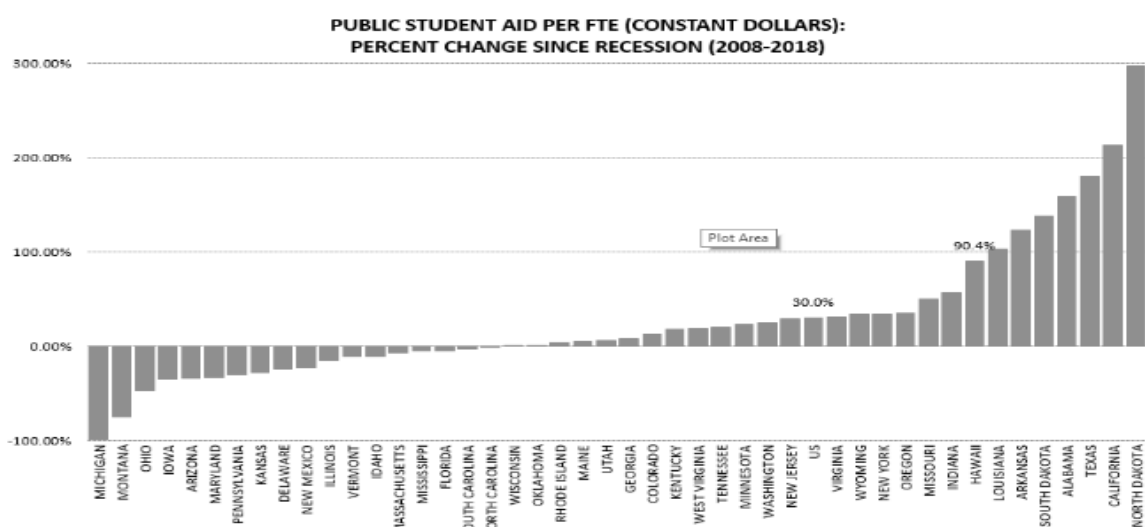
Figure 1: *Public Student Aid per FTE (in constant dollars) Since the 2008 Great Recession*

Note. Adapted from (SHEEO, 2019). Adapted with permission.

Figure 2: Public FTE Enrollment and Educational Appropriations per FTE, FY 1993-2018

Note. Adapted from (SHEEO, 2019). Adapted with permission.

Problem Statement

The United States has seen a steady decline in higher education enrollment since 2015 (NSC Research Center, 2017). Decreasing enrollment combined with student demographic changes illustrates that the higher education landscape is evolving (Mitchell, 2019; NSC Research Center, 2017). Within the U.S., beyond 2025, the projected estimates indicated that 450,000 fewer freshman students would enroll, changing the traditional enrollment landscape (Grawe, 2018). While online program enrollment nationally has experienced an increase, overall enrollment among adult learners has declined. Additionally, in 2016, there were 1.3 million fewer students enrolled in face-to-face courses compared to 2012, whereas 673,000 more students enrolled in exclusively online programs, and 580,000 were enrolled in some online courses comparatively (NSC Research Center, 2017). A reduction in face-to-face course enrollment is one of many changes that signal an evolving student market. Migrating from the traditional 18-22-year-old students, who focus primarily on their degree and graduate in four years, today's students, instead, represent a range of traditional as well as non-traditional students comprised of returning veterans, single parents, or middle-aged displaced workers looking for new skills and training (Mitchell, 2019). Researchers from the Lumina Foundation reported in a 2019 study, 38% of current undergraduates are older than 25 years old, and 40% of higher education students attend only part-time (Lumina Foundation, 2018). Additionally, 75% commute to class while trying to juggle work and life responsibilities, and on average, are working at least 19 hours per week (Lumina Foundation, 2018; McFarland et. Al, 2018). The most cited activities detracting from full-time college enrolment include employment, family, and civic responsibilities (Lumina Foundation, 2018). HSBC Holdings (2018) found that nearly 85% of students are employed while in school, averaging around 19 hours per week in the workforce. The tailoring of programs and course offerings to adjust to changing demand and adopt a student-centered approach are required by PHEI to meet student desires.

National demographic projections highlight the need for universities to begin the process of planning future enrollment (Lemoine et al., 2019). Program offerings designed to fit distinct and separate student segments are better prepared to align with student demand (Lemoine et al., 2019). Hawaii PHEIs have experienced a declining and negative annual percent change in total headcount enrollment since 2013. Hawaii PHEIs need to cater to the demographic changes of students to increase enrollment and reduce the negative effects of reduced funding.

Changing student demographics and an increased reliance on technology in the classroom opens a pathway for online courses and distance education degrees to provide a solution to the shift in the education marketplace (Lemoine et al., 2019). PHEI needs to identify and understand the student demand factors leading to enrollment in higher education. As student demand for higher education continues to evolve, PHEI has a responsibility to similarly evolve to address declining enrollment as well as provide programs in alignment with the demand. This study aimed to examine the relationship between student demand factors and enrollment of traditional, non-traditional, and transfer students in Hawaii public higher educational institutions in the academic years 2014-2015 to 2018-2019.

Literature Review

Human Capital Theory

After the end of World War II, the rise in standards of living prompted growth and social demand for higher education. The Western world's interest in technological advancement and investment in education throughout the 1950s and 1960s grew considerably, cementing a link between education and economics (Desjardins, 2017). During the same period, the human capital theory (HCT) provided a strong rationale for the increasing demand for education as a conduit for the public good (Schultz, 1961). The fundamental principle for the HCT and its link with education is that there are clear ties between the role that education plays in boosting the quality of the labor pool and subsequently overall productivity (Desjardins, 2017). Specifically, in higher education, HCT relates to the most essential characteristic of individuals, their personalities (Shkurkin et al., 2016). The key points of the HCT state that increasing education has a direct impact on increased productivity for an individual, which then in turn results in higher individual earnings. Furthermore, HCT states that with higher education, the student's opportunity costs are incurred in the form of forgone wages while in school. Therefore, individuals considering education must also consider the overall value of future earnings related to opportunity costs (Rohling, 1986). An assumption of HCT state that the longer time an individual spends in education, the higher the expected returns and wages the individual will receive (Rholing, 1986). However, this assumption does not factor in other considerations such as part-time students who often struggle to complete degrees, experience stop-outs, and have other time-constricting factors when working on degree attainment. Economic, health, and environmental factors are prevalent and provide a layer of unexpected elements that influence outcomes. Dealing with complex life situations plays a significant decision-making role in higher education attainment. Figure 3 illustrates three student segments in higher education and their alignment in HCT through investments and individual capital benefits.
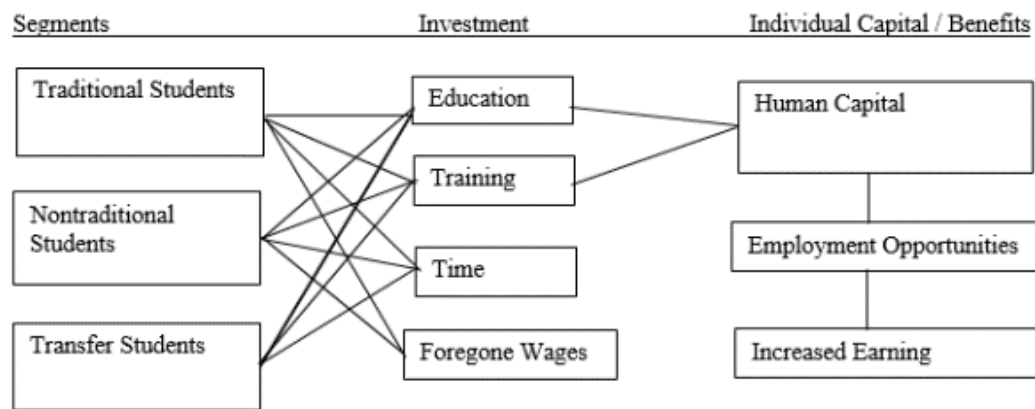
Figure 3: Student Segment and Human Capital Theory

Education Supply & Demand

Supply for higher education degrees is predominantly determined by demand from a variety of public stakeholders, namely students and the local labor market. Stakeholders for PHEI are diverse and typically include local businesses, employers, government, and families in addition to higher education students. Raising tuition is an attractive source of PHEI revenue, however, the high cost of attaining a college degree has significant effects on the demand for higher education as well as the decision to invest in post-secondary education (Golpek, 2012). Failing to consider the student's perspective is a common PHEI mistake within the larger picture of the supply and demand of higher education (Kumar & Hurwitz, 2015). The cost of tuition is only one of several factors students consider when evaluating college degrees. Moreover, students are mostly interested in degrees and certificates that align with the surrounding labor market. Students also consider salaries, benefits, and currently available positions in their chosen field of study. An enormous significance to prospective and current students lies in assessing employability post-graduation and continues to be a gap in PHEI assessment (Maragakis et al., 2016). Smith and Niemi (2017) observed that gender and social class play an important role in higher education enrollment decisions. Men rated college credentials as the least important factor when family socioeconomic status was the lowest. In comparison, women value college credentials because a college degree could gain credibility in the workplace and legitimization (Smith & Niemi, 2017). Educational attainment and employment opportunities should be accessible to all students, not just to students in the majority or defined as traditional.

Organizations have a continued struggle in finding qualified candidates to fill current and future vacancies (Giovannozzi, 2019). COVID created an even larger labor shortage among organizations (Pitschner, 2022). Longstanding vacancies signal that the supply of skilled labor force is out of sync with employers' demands (Harrison, 2017). Shortages in talent impact the company's ability to remain competitive and innovative in the marketplace. Employer demands are one of several indicators that PHEI has available to identify employment trends in the regional economy. Advances in technology have direct effects on job supply and the qualifications of the available candidate pool for technology-dependent positions. Rapidly changing technology and modernization can extend educational resources, thus increasing supply to meet changing demands in the marketplace (Ma, 2010). Today's employers expect higher education graduates and new hires alike to be prepared to utilize updated technology both efficiently and comprehensively (Harrison, 2017). Gallagher (2018) explains that hiring managers view a candidate's college degree as a signal that the individual can be self-directed and can persevere over time.

Segmentation Strategies in Higher Education

The concept of market segmentation has been used by businesses for over 60 years and was first introduced by Wendell in 1956. Wendell (1956) proposed that market segmentation follows market demand as the foundational approach to making strategic and realistic decisions on products, services, and marketing activities. Subsequent work by Kolter (2000) further defined market segmentation to include identifying and describing different buying groups based on needs and demands. The purpose of marketing segmentation is to divide the prospective market into distinct and separate groups of consumers or customers that share characteristics, needs, beliefs, and values (Hemsley-Brown & Oplatka, 2015; Parvu & Ipate, 2012). Market segmentation in the higher education sector is not well recognized in the literature. While research evidence has been documented regarding the marketing of an institution's programs worldwide, the purpose of this research study is to assess enrollment segmentation strategies within PHEI. Identified student segments and their corresponding demand factors are an important key to enrollment segmentation strategy formulation.

The pairing of marketing strategies and enrollment efforts within higher education has traditionally been considered unconventional or even taboo (Parvu & Ipate, 2012; Sudarikov et al., 2019; Tucker & Au, 2019). However, the argument remains, by understanding who the current students of PHEI are, and which prospective students embody similar or shared characteristics, administrators will begin to understand the target enrollment

efforts needed to grow. Without a proper segmentation strategy, PHEIs engage in efforts resembling mass marketing or a one-size-fits-all approach. PHEIs need to segment the student market to effectively use multiple marketing communication channels that closely tie to the needs and demands of the students (Lewison & Hawes, 2007). Additionally, understanding the unique student demand factors associated with different student segments enables PHEIs to make informed decisions regarding degrees and student services.

Due to the degree of competition amongst PHEIs, the lines between traditional and non-traditional course distribution channels are beginning to blur. In response to competition, higher education administrators are choosing to implement online courses and programs across a variety of disciplines. Pressure on the administrators is intensifying; therefore, strategic decisions have significant ramifications if done without proper assessment and knowledge of the students and stakeholders (Tucker & Au, 2019). Students are often cited as the apparent stakeholder for higher education; however, there are numerous other stakeholders that PHEIs serve, including parents, society, and businesses (Lewison & Hawes, 2007; Sudarikov et al., 2019). PHEIs serve all stakeholders to a different degree. Each stakeholder focuses on different components and demand factors that make up the higher education market.

Students as Customers

The student-as-consumer (SAC) approach is a business strategy that enables PHEIs to adapt to evolving competitive pressures by centering on its target student segments. Advertising, services, accommodations, and information technology decisions are essential to reaching desired student segments (Bunce et al., 2017). Students see themselves as consumers of higher education. Therefore, PHEIs can meet students' specific needs through flexibility, customization, and assurance that the degree has value in the workforce. Additionally, the employment marketplace also demands higher levels of skills than ever before, leading to a continuous learning environment for today's workers (Betts et al., 2009; Chapman, 1986). PHEIs have new opportunities to consider with changing student, market, and economic demands.

Within higher education, the debate continues as to who exactly the customer is. While some administrators are not accepting that students should be viewed as customers within higher education, opponents choose to use the student customer model to frame market orientation, customer orientation, and service creation within relationship marketing activities (Guilbault, 2016). Students consider their risks and preferences when investing in higher education. There is a strong argument that current and prospective students work through a consumer or customer risk thought process when opting to enroll in higher education. Time preferences, rate of consumption, and risk premiums are all considerations that interplay with higher education enrollment decisions (Heckman & Montalto, 2018). Student consumers have many options within their approach to higher education; therefore, as customers, students must decide which school and program to attend, whether to attend full-time or part-time, to take classes in-person or online, and other involvement decisions such as participating in practicums, clubs, and internships.

Once the administration views students as customers, recruitment efforts leading to increased enrollment efforts become increasingly critical to the success of the institution and program sustainability and growth (Chapman, 1986). Due to the critical nature of enrollment directly relating to tuition and therefore funding for the institution, the administration has essential marketing strategies to consider in gaining the attention of students (Wright, 2017). As in marketing, customer groups are varied and make up the target market. By identifying differences and similarities among customer groups, the groups' needs and wants can be clustered to create effective communication messages. College students are no different. When PHEI speaks the language of its student customer segments, the message conveyed is more readily received.

Today's students are accustomed to the use of technology in many facets of their day-to-day lives. With a couple of keystrokes, customers can access vast amounts of information that allow them to obtain available solutions. Not only are students adept and discerning customers, but they are also demanding value for investments. Rapid access to technology enables students to be more selective in higher education investment decisions (Parvu & Ipate, 2012). Seminal to the concept that students are customers is the work from Chapman (1986). Chapman describes the behavioral aspects of student college selection, which include sequential yet interrelated stages of the process. Like the buying process for a customer, the behavioral model of selecting a college includes five stages: the pre-search, search, application, choice, and matriculation decisions (Chapman, 1986). Chapman's theory stems from the idea that college selection involves behavioral and choice components or factors. College students go through the same process when evaluating schools, programs, classes, and degree offerings. Aligning customer demand with institutional offerings is critical for enrollment success.

Methodology

The purpose of this quantitative study is to examine how student demand factors influence full-time enrollment within public higher education institutions by examining three undergraduate student segments: traditional, non-traditional, and transfer students. This study aimed to utilize pre-existing secondary data available to administrators at PHEI, to describe relationships between the dependent (total full-time enrollment) and independent variables

(enrolled in online courses defined as all, some, or none, and type of academic program).

The primary research question in this study was: What demand factors do traditional, non-traditional, and transfer students consider when choosing to enroll in public higher education? The following sub-research questions were investigated in the study:

SRQ 1: What is the relationship between online course registration at the university and total full-time enrollment of traditional, non-traditional, and transfer student segments in academic years 2014-2015 to 2018-2019?

$H_0 1$: There is no statistically significant relationship between online course registration at the university and total full-time enrollment of traditional, non-traditional, and transfer student segments in the academic years 2014-2015 to 2018-2019.

$H_a 1$: There is a statistically significant relationship between online course registration at the university and total full-time enrollment of traditional, non-traditional, and transfer student segments in the academic years 2014-2015 to 2018-2019.

SRQ 2: What is the relationship between academic programs at the university and total full-time enrollment of traditional, non-traditional, and transfer student segments in academic years 2014-2015 to 2018-2019?

$H_0 2$: There is no statistically significant relationship between academic programs at the university and total full-time enrollment of traditional, non-traditional, and transfer student segments in academic years 2014-2015 to 2018-2019.

$H_a 2$: There is a statistically significant relationship between academic programs at the university and total full-time enrollment of traditional, non-traditional, and transfer student segments in academic years 2014-2015 to 2018-2019.

Data Collection

This study uses data on four-year PHEIs at the U.S. national level and in the state of Hawaii and is comprised of secondary data that is publicly available. Data consisted of reports from the academic years 2014-2015 through 2018-2019. The main source for institutional data was accessed from the Integrated Postsecondary Education Data System (IPEDS), an affiliation with the National Center for Education Statistics (NCES). NCES is the primary federal entity tasked with collecting and analyzing educational data. The IPEDS database allowed for the analysis of a sample size of n = 591 public four-year institutions within the U.S. The results from this study were intended to provide a national perspective as well as a state-wide viewpoint for each of the four-year PHEIs in Hawaii, including the University of Hawaii at Hilo, Manoa, and West Oahu.

Data Analysis

Enrollment data for this study were retrieved from the IPEDS. Data in IPEDS is submitted at the aggregate level from postsecondary institutions through three different collection cycles of interrelated survey components regarding general higher education topics. One of the survey components that this study focused on was annual full-time enrollment (IPEDS, 2019). Enrollment and institution-level data were also retrieved from the university system's Institutional Research & Analysis Office to present a disaggregate-level analysis of the institution at the focus of this study about tuition, online course enrollment, academic programs, and accreditation. The longitudinal study examined enrollment data across the 2014-2015 to 2018-2019 academic years and the relationship between enrollment and the selected independent variables.

Results

Table 1 shows the results from the two-factor ANOVA without replacement test between full-time enrollment and distance education course enrollment. In 2014-2015, there was a statistically significant interaction between students exclusively enrolled (transfer), enrolled in some (non-traditional), and not enrolled (traditional) in distance education courses, and total full-time enrollment, $F(2, 552) = 445.19$, $p < .001$. In 2015-2016, there was a statistically significant interaction between all student segments enrolled in distance education courses, and total full-time enrollment, $F(2, 559) = 438.59$ $p < .001$. Additionally, in 2016-2017, 2017-2018, and 2018-2019, there was a statistically significant interaction between students exclusively enrolled (transfer), enrolled in some (non-traditional), and not enrolled (traditional) in distance education courses, and total full-time enrollment, $F(2, 565) = 415.99$, $p < .001$, $F(2, 568) = 389.37$ $p < .001$, $F(2, 569) = 347.08$, $p < .001$ respectively.

Year	F	df	p	Transfer (Exclusive)	Non-Traditional (Some)	Traditional (None)
2014-2015	445.2	2, 552	< .001	673	1935	8054
2015-2016	438.6	2, 559	< .001	684	2177	7843
2016-2017	416	2, 565	< .001	711	2393	7637
2017-2018	389.4	2, 568	< .001	754	2591	7417
2018-2019	347.1	2, 569	< .001	806	2783	7178

Table 1: Two-Factor ANOVA w/o Replacement - FT Enrollment and Online Course Registration

Note. *p < 0.05; ** p < 0.01; *** p < 0.001.

The IPEDS dataset reports academic program information by major field of study including education, engineering, biological sciences/life sciences, mathematics, physical sciences, and business management/administrative services. The major field of study reporting to IPEDS is only conducted on even years. Therefore, only the years 2014-2015, 2016-2017, and 2018-2019 were utilized. Due to limitations within IPEDS data, student segments reported in the dataset are reported as first-time, transfer-in, and continuing. The traditional student segments utilized first-time student-level data, non-traditional utilized continuing student-level data, and transfer students utilized transfer-in student-level data.

Table 2 displays the results between full-time enrollment and major fields of study for traditional (first-time), transfer, and non-traditional (continuing) student segments. For traditional (first-time) students in 2014-2015, the major field of study differed significantly, $F_{(5,197)} = 100.82$, $p < .001$. Transfer and non-traditional (continuing) students in 2014-2015 also differed significantly by major field of study, $F_{(2, 200)} = 104.27$ $p < .001$, and $F_{(5, 237)} = 162.89$, $p < .001$ respectively. For traditional (first-time) students in 2016-2017, the major field of study differed significantly, $F_{(5, 220)} = 98.49$, $p < .001$. Additionally, transfer and non-traditional (continuing) students in 2016-2017 differed significantly by major field of study, $F_{(2, 206)} = 121.29$ $p < .001$, and $F_{(5, 250)} = 167.89$, $p < .001$ respectively. In 2018-2019, all student segments traditional (first-time), transfer, and non-traditional (continuing), major field of study differed significantly, $F_{(2, 227)} = 101.44$ $p < .001$, $F_{(2, 47)} = 31.10$ $p < .001$, $F_{(2, 267)} = 169.36$ $p < .001$.

Student Segment		F	df	p	Edu	Engine	Bio/Life	Math	Phy Sci	Busa
2014-2015	Traditional	100.8	5, 197	***	108	332	255	24	65	340
	Transfer	104.3	5, 200	***	63	81	66	11	22	165
	Non-Traditional	162.9	5, 237	***	521	957	690	101	188	1427
2016-2017	Traditional	98.44	5, 220	***	110	323	277	27	63	356
	Transfer	121.3	5, 206	***	60	83	71	12	21	177
	Non-Traditional	167.9	5, 250	***	478	1045	719	111	193	1530
2018-2017	Traditional	101.4	5, 227	***	106	314	293	30	63	358
	Transfer	31.1	5, 47	***	66	75	62	11	16	211
	Non-Traditional	169.4	5, 267	***	439	975	710	116	172	1457

Table 2: Two-Factor ANOVA w/o Replacement - Full-time Enrollment by Major Field of Study and Student Segment

Note. *p < 0.05; ** p < 0.01; *** p < 0.001.

Discussion

The results in Table 1 found that there was sufficient evidence for academic years 2014-2015 to 2018-2019 at the α = 0.05 level to conclude that there is a statistically significant relationship between enrollment in distance education and total full-time enrollment for transfer (exclusively enrolled), non-traditional (some but not all), and traditional (not enrolled in distance education courses). The results from this analysis indicated there is a difference in the number of students in distance education courses between segments that are transferred, non-traditional, and traditional.

The findings from this study align with Boyte-Ekis et al. (2018) who found that PHEIs who engage in distance education courses experience continuous growth despite the overall trend of declining higher education enrollment. The trend of declining face-to-face enrollment combined with a growth in distance education programs and courses illustrates a shift for PHEI that flexibility in course modality is an important demand factor.

Findings in Table 2 indicated that there is sufficient evidence for academic years 2014-2015, 2016-2017, and 2018-2019 at the α = 0.05 level of significance to conclude that major field of study differed significantly for traditional (first-time), transfer, and non-traditional (continuing) student segments.

These results align with the HCT theoretical framework. The HCT model assumes that an individual's choice is made from a finite set of known alternatives whereas the necessary information needed to make an informed decision is present. At the institutional level, a PHEI can maximize its utility with cost minimization as they consider the constraints of the variables in play (Soukup et al., 2015). Meaning that institutions achieve marginal utility through shifts in supply and demand for enrollment for the major fields of study in their respective programs. Shultz (1961) cites the significant link between the role of education in the increase of quality of the

labor pool, and thus the overall productivity and growth of individuals and the economy. Student enrollment in the major fields of the study examined in this study indicated student demand for those programs. At this institution level, major fields of study with growing student demand indicate opportunities for growth and expansion of student services and course offerings.

Implications

The findings from the first sub-research question indicate that there was a statistically significant relationship between online course registrations of transfer students (exclusively enrolled), non-traditional (enrolled in some but not all), and traditional (not enrolled in any distance education courses), and full-time enrollment in the academic years 2014-2015 to 2018-2019. These results indicate that at the institutional level, there is a difference in the number of students enrolled in distance education courses between the segments. The administration of PHEIs should take note of changes in trends for distance education course enrollment. As student demand changes, PHEIs need to have the information for planning course enrollment. When demand for distance education courses increases, institutions should have the preparation and bandwidth to make the necessary changes to their degrees. PHEIs would also benefit from understanding distance education course demand differences within their respective major fields of study and academic programs. Additionally, further research at the student segment level will assist administrators in enrollment planning for their specific student population.

The second sub-research question found that there was a statistically significant relationship between major fields of study and full-time enrollment of first-time, transfer-in, and continuing student segments in academic years 2014-2015, 2016-2017, and 2018-2019. The research findings indicated that there was a difference among the six major fields of study however did not indicate where the differences lie. Administrators could benefit from the knowledge that at the institutional level, major fields of study have differences, indicating that some fields have different demand factors. Planning for degrees relies on information regarding enrollment trends and expected future enrollment demand. Administrators need to be armed with sufficient evidence to see which programs are experiencing growth and or retraction. Further analysis using a t-test would provide administrators with the degree of differences between the major fields of study. Additionally, by performing a trend analysis, the statistical significance of the degree of difference will be provided. PHEI is often competing for student segments. However, playing to the institution's strengths regarding their major fields of study, administrators will be better prepared to put resources into growing programs that align with student demand.

Future Research

The findings of this study provided insights at the institutional level regarding the demand factors including distance education course enrollment and major field of study and total full-time enrollment. Employing a student survey will allow administrators to capture student segment characteristics and their respective attitudes toward distance education course enrollment. While the results indicated that there was a difference in the major fields of study and total full-time enrollment of first-time, transfer-in, and continuing student segments, the findings did not show where the differences lie. Findings from this study provided two demand factors for administrators to consider in the formation of an enrollment framework emphasizing student segments. Future research that identifies the degree of differences and where the differences lie between the student segments and each demand factor will provide additional information for administrators and the development of their enrollment framework strategies.

Works Citation

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