Providing access to higher education opportunities that enable students to develop knowledge and skills necessary to achieve their professional goals, improve the productivity of their organizations and provide leadership and service to their communities are goals for consistency with for profit universities. According to the Integrated Postsecondary Education Data System (IPEDS) 2010 -2013, there is a student enrollment decline in private colleges and universities in North Carolina. This applied quantitative research study examines how cost and program design affects enrollment and graduation rates for North Carolina non-traditional students in private institutions. According to the data examined there is no correlation between cost and decline of student enrollment. However, there is correlation between cost and student graduation rates. According to the data, program design is a significant factor for student enrollment. Effectiveness of programs design will be assessed by the colleges’ curriculum academic leadership teams.

**KEYWORDS:** Higher education success factors, University cost, Graduation cost, Enrollment rate, Non-traditional students

“Historically, higher education has fueled social and economic mobility in America. But today that contribution is at risk” (Pennington, 2012). Globalization accelerated change around the world and challenged the strategies of many organizations to meet their customers’ needs. Pritchett and Pound (1995) identified people, technology and information as three major forces that are reshaping our world and the way we live (p. 2”). In higher education, students are able to access opportunities to develop and enhance knowledge and skills necessary to achieve multiple goals. People. “Human beings have been around for maybe 7,000,000 years, but the population of our planet didn’t reach a billion until the early 1860’s, about the time of the Civil War. Within the short span of a mere 75 years, though, the head count doubled to two billion. Then, by 1975 it doubled again, to four billion – this time in only 50 years. Today we’re closing in on six billion, with U.S. Census statistics predicting a world population of ten billion by the year 2040” (Pritchett & Pound, 995, p. 1).

**Technology.** The expectation is technology will follow the trends in population growth. “80% of the world’s technological advances have occurred since 1900 (Pritchett, Pound, 1995, p. 2) guaranteeing a rapidly accelerating rate of technological change. Willis (2011) confirmed the five core Apple products that changed the face of technology, music and publishing include Apple iPod, iTunes, iPhone, MAC, and iPad.”
Information. “There was more information produced in the 30 years between 1965 and 1995 than was produced in the entire 5,000 year period from 3000 B.C. to 1965. Word has it that the amount of information available in the world is doubling every five years. Plus, all this knowledge and information is becoming available to many more people than it every reached before” (Pritchett & Pound, p. 2).

Three goals for university students include attainment of individual professional goals, improvement of productivity within an organizations and providing leadership and service to communities. By aiding students in attaining the goals of professional development, proactivity and leadership in communities, higher education institutions will enhance success through understanding population, technology and information as forces driving change and to support student success.

Access to opportunities for student development and enhancement of knowledge are available online and at local colleges and universities through university libraries, student centers, online portals and career centers. Students are encouraged by enrollment advisors and academic counselors to take advantage of tools and resources both individually as well as through small group workshops online and on campus locations. In addition, faculty members support student development and enhancement of knowledge through tutoring and coaching session, both individually and through small group workshop.

National Focus. Currently, a student enrolment decline in private colleges and universities in North Carolina exists according to the Integrated Postsecondary Education Data System (IPEDS) 2010-2013. The decline impacts traditional and non-traditional colleges and universities. This applied quantitative research study examines how cost and program design affects enrollment and graduation rates for North Carolina non-traditional students in private institutions. Chen concluded “enrollment demand is rather inelastic to changes in price” (Chen, 2016, p. 665). Conclusions may not be transferable to a state environment, thus Chen cautioned drawing general conclusions at the national level. Nationally, declining enrollment is the focus of educational programs looking for mechanisms to restimulate student interest in a variety of disciplines. Negative consequences of declining enrollment continues to span educational program communities.

Asli (2012) identified national enrollment studies with three categories of focus: (1) sharp decline in enrollment; (2) strategies for improving enrollment, (3) factors that influence student interest and choice of major. Findings indicate perceived social support does play a role in student success. Asli further confirmed “students who perceive high levels of support and encouragement from family members, professors, friends, etc. are more likely to believe that they can master the course materials, perform effectively on the various activities involved and utilize tools and techniques needed”.

North Carolina Focus. North Carolina State University is developing solutions to deliver education in new ways due to limited resources, enrollment mandates and non-traditional students (PRNewswire, 2006).
“The most critical issue facing education today is how to provide access to instruction and services that will enable many more students to fulfill their postsecondary aspirations. Education, being both a public and a private good, brings together many of the forces of change in our society and creates vast and unceasing debate” (Schroeder, 2011, p. 1).

Smith (2011) confirmed traditional thought when a downturn in the economy exists an increase in demand for open access to higher education. “The human capital theory implies that as direct and indirect costs increase, enrollment in college will decrease. Suburban and urban areas in North Carolina offer diverse employment opportunities and are less impacted than rural areas when there is a shift in a specific employment sector” (Smith, 2011, p. 3). A decline in student enrollment is evident nationally and the researcher will examine the trend of student enrollment within North Carolina private colleges and universities.

This review will identify university cost, enrollment, and graduation rates to move strategies towards stronger student experiences and improved student completion rates. According to the data examined there is no correlation between cost and decline of student enrollment. However, there is correlation between cost and student graduation rates. According to the data, program design is a significant factor for student enrollment. Effectiveness of programs design will be assessed by the colleges’ curriculum academic leadership teams.

The purpose of this applied research is to provide information towards access to higher education opportunities that enable students to develop knowledge and skills necessary to achieve their professional goals, improve the productivity of their organizations and provide leadership and service to their communities. Organizations need to develop flexible procedures to measure change and develop customer service strategies for sustainability. Currently, no studies examined relationships and impact on rural, suburban, and urban enrollment in North Carolina (Smith, 2011).

In this study, two research questions and four variables were addressed. Variables included cost, program design, student enrollment, and students’ graduation rates. The predictor variable is the cost and the program design.

Research Question 1: What is the correlation between North Carolina private colleges cost and student enrollment first to second year students’ retention, students’ graduation rates?

H0: There is no correlation between North Carolina private colleges’ cost and student enrollment first to second year, students’ retention, students’ graduation rates.

H1: There is correlation between North Carolina private colleges’ cost and student enrollment first to second year, and students’ graduation rates.
The tuition and student enrollment for each college from 2010 to 2013 was identified. The average change of tuition and average change or student enrollment from 2010-2013 was calculated. For triangulation purposes the following calculations were run: Correlation Coefficient, Spearman Coefficient of Correlation, Coefficient of Determination. Additionally, data on Student Enrollment and Tuition through IPEDS for select North Carolina colleges and universities was reviewed. Researchers use theories to help make sense of the observable world and to order the relationship among the elements of the researchers focus (Akdere, 2003). As a faculty member, research will further support and enhance rationale as to the connection between cost of tuition, enrollment, and graduation rates. Campus organizations will also benefit through a research driven approach to questions surrounding student enrolment and cost of tuition related to graduation rates. As a member of executive campus leadership, this research will also be shared with faculty members through General Faculty and Governance meetings, as well as in general communications.

**Operational Definitions**

The following operational definitions are provided to ensure consistent interpretation.

*Enrollment*. The number of students registered or attending classes at a university.

*General Faculty Meetings*. Meeting of all online and local faculty members to share information and complete professional development (University of Phoenix, 2015).

*Governance Meetings*. Required faculty meetings to comply with Higher Learning Commission requirements and standards (University of Phoenix, 2014).

*Graduation*: When an academic officer confers degrees for students following degree completion at the university level.


*Student Completion Rates*. The number reflecting the amount of students who complete their graduation and receive a degree from an educational institution of higher education.

*University Cost*. The financial price of the higher education for the student.

**Summary**

Access to opportunities for student development and enhancement of knowledge are available online and at local colleges and universities through university libraries, student centers, online portals and career centers. Students are encouraged by enrollment advisors and academic counselors to take advantage of tools and resources both individually as well as through small group workshops online and on campus locations. In addition, faculty members support student development and enhancement of knowledge through tutoring and coaching session, both individually and through small group workshop.
The research necessitated a review of how organizations go about recruiting and retaining students. Student retention can be focused on a number of stages. First, school-level motivation, starting at secondary, and probably even primary school level. Second, recruitment of students of the appropriate caliber, motivation and experience. Third, student induction, including an overview of subject and program. Fourth, ongoing student support combine to retain students.

According to Bean (1990), “as the student completes their educational goals and future earnings while the institution satisfactorily completes its mission” (p. 237) leads to a win-win for student retention. Kilburn, et. al. (2014) confirmed 2012 completion rates were estimated “revealing only 36.6% of students enrolled in a 4-year public college will complete a bachelor’s degree within 5 years, down from 52.8% in 1986” (p. 1). Kilburn, et. al (2014) further confirm an increased level of convenience and availability leads to increased degree completion based on the emergence of alternative delivery methods of education students, such as the online classroom. “Academia is quickly expanding from a traditional brick-and-mortar service provider toward a B2C e-commerce service category (Kilburn, e. al, 2014, p. 1). According to the Babson Survey Research Group and the College Board, 2012, colleges and universities have expanded to the point where 62.4% include fully online programs.

“As the US economy is becoming increasingly dependent on production of knowledge as the main driving force of competitiveness and development, production and commercialization of intellectual property is increasingly being viewed as one of the central missions of both private and public universities in this country” (Cardozo, Ardichvili and Strauss, 2011, p.173). Zhou, Tse and Li (2006) determined adaptation problems exist for enterprises due to unprecedented transitions in social, legal, and economic institutions. Kilburn, Kilburn and Cates (2014) identified a critical success factor within higher education institutions is student retention. “As student retention receives significant attention in higher educational institutions, 2012 completion trends estimated that only 36.6% of students enrolled in 4-year public college will complete their bachelor’s degree within 5 years, down from 52.8% in 1986” (Kilburn et. al, 2014, p. 1). Increased degree completion is theoretically impacted by alternative delivery methods such as the convenience and availability of online education.

“The key to improving perceptions and attitudes within society lies in education” (Galloway and Brown, 2002, p. 399). Dunbar and Easton (2013) confirmed more than half of the variability in
US total factor productivity growth is due to changes in the family composition of the US labor force. Dunbar and Easton (2013) “suggest that the structure of the family and the labor force involvement of family members are significant determinants of the measurement of both total factor productivity and output per worker” (p. 1432).

**Technology**

According to Zhou, Tse, and Li (2006), organizational change is deeply embedded in technical structures of the environment. Accepted rules and systems are accepted ways to develop and govern work however these new rules and systems are disrupted by organizational change (Zhou, et. al, 2006). “Academia is quickly expanding from a traditional brick-and-mortar service provider toward a B2C e-commerce service category. In fact, 62.4% of colleges and universities have expanded to include fully online programs” (Kilburn, et. al, 2014, p. 1).

**Values**

Meglino and Ravlin (1998) are troubled by the lack of agreement among researchers of what values are and how they affect people. The authors describe how values have been considered as not only personality traits, but needs, motivations, attitudes, goals, interests and nonexistent mental entities. These differences have created difficulties in interpreting and comparing the results of studies. Meglino and Ravlin (1998) limit the term values further by focusing on “oughtness”. The authors mean that values identify how individuals believe they “should” or “ought” to behave. Rokeach (1973) and Williams (1979) argue values do not reflect how a person wants to behave, as much as how individuals interpret societal acceptable ways of fulfilling needs. There is a heavy social aspect of values, which is closely related to a feeling of guilt arising when individuals act inconsistently with social expectations.

**Organizational Alignment**

Posner, Kouzes and Schmidt (1985) found a relation between values alignment and self-confidence among managers, due to the manager’s ability to understand both personal and organizational values. The authors argue that confidence is connected to job satisfaction and commitment, and draw a parallel between shared values and strategic benefits of having a shared vision within the organization. Posner et al. (1985) concludes that managers, whose values are aligned with the organizational values, are significantly more committed to their employer than managers with less aligned values.

Posner, Kouzes and Schmidt (1985) found shared values are related to job and personal stress, where non-compatible values have a negative effect. A connection between values alignment, job satisfaction, commitment, personal stress and ethical behavior is documented by the authors.
If the employees’ interests are aligned with the organization and he or she is committed to the organization’s progress and success, interests will then be considered worthwhile to choose the most accurate decisions even if they require more energy.

**Teams and Teamwork**

Gibson and Zellmer (2001) argue that project teams have the attributes of time limitations, usually being non-repetitive. These project teams are normally knowledge intense and require judgment and expertise. Communication and involvement are two attributes which can be combined in different ways, depending on what type of teamwork is required to solve the problem or finish a task. Factors which positively affects teamwork include layout and structure of meetings, job descriptions, common criteria of job and employee evaluation, trust, loyalty, respect for professional differences, recognition of well conducted work or tasks, similar priorities, shared breaks, constructive criticism and cooperation.

**Systems Thinking**

*A theory is primarily a form of insight, i.e. a way of looking at the world, not a form of knowledge of how the world is.* (David Bohm, 1980).

Bohm (1980) emphasized the individuality of human thinking and perceptions of reality. What reality is for one individual might be something different for another. Thought is the product of experiences and expectations which forms our individual reality. Since we, as human beings, are all a part of the existing chaos and complexity of the phenomenal world, we have chosen to create our own order by identifying problems and coming up with solutions. Checkland (1999) defined real world problem solving as a condition characterized by sense of mismatch namely the discrepancy between what is perceived to be actuality and what is perceived might become actuality. According to Checkland (1999), Systems Thinking is a discipline for looking at whole systems. There are no standardized methodologies that guarantee results. Each problem is unique, because the elements involved in each case are different.

**Student Self-Efficacy**

“A review of current literature indicates the existence of a dynamic, theoretical intersection between identity, self-efficacy, gender, education, and socioeconomic status” (Griffiths, 2006, p. 1). Research by Multon, Brown and Lent (1991) focused on the relationship of self-efficacy beliefs to academic performance and persistence. Longwell-Grice (2003) identified working class students consider college to help prepare them for a good job. However the author found no indication that personal interests or family commitments played a role in students’ college careers (Longwell-Grice, 2003).
Kuh (2002) examined the relationship between campus culture and student persistence. Burger (2002) built on the assumption that colleges and universities are organizations and subsequently that the organizational perspective provides important insights for improving retention on college and university campuses. Tomkinson, Warner and Renfrew (2002) argued that attracting and retaining high-caliber students in science and engineering is becoming more difficult. O’Keeffe (2013) argued that with student attrition rates reaching between 30% and 50% in the United States, the inability of higher education institutions to retain their students is a significant issue. Research cites key risk factors which place students at risk of non-completion, which include mental health issues, disability, socioeconomic status and ethnicity. Furthermore, first year students and higher degree by research students are susceptible to attrition.

According to Bailey and Marsh (2010), during student exit interviews, four benefits of the class were evident and included “having a small class size, having the course immediately preceding the semester they planned on enrolling, having an advocate for adult learners, and engaging in an action research project to help develop a curriculum for future adult learners”. Bailey concluded nontraditional students studied returned to school with very specific goals and expectations, and also with more anxiety. In addition, several students returned to school for “financial reasons, others in order to advance within a career field or to pursue a new career field, and most mentioned to fulfill a life goal”. During the four-year period 1999-2003 and according to annual SEC filings, University of Phoenix “added more than 100,000 students, representing an astounding 40 percent of the enrollment growth of the non-profit sector during this period” (Kinser, 2006). Student growth accounted for the largest increase within the for-profit education sector.

**Faculty Perceptions**

“Today’s multigenerational classrooms are filled with students who possess learning styles often foreign to many faculty. To be effective with these students, one must first understand the variety of learners in these classrooms” (Parks-Doyle & Martin, 2006, p. 1). According to Otter, Seipel, Graeff, Alexander, Boraiko, Gray, Petersen, and Sadler (2013), “students tend to see online courses as more self-directed and believe that online students must be more willing to teach themselves. Students in online courses feel more disconnected from professors and fellow students than professors believe them to be. In addition, faculty tend to see the role of the professor as more critical to the success of online courses than students do” (p. 1). As technology continues to evolve and become integrated into higher education, perceptions of both students and faculty are critical in determining online or traditional course offerings.

Dryer (2012) confirmed that while enrollment data may contribute to financial success, students and faculty perceive success very differently. The focus on faculty connections with the student compared to the student viewing online learning as self-directed learning are two different and distinct outcomes from the online perspective. Bankert and Kozel (2005) confirmed a caring environment is seen as one with “meaningful relationships and an appreciation for colleagues” (p. 229).

McEnroe-Petitte (2011) confirmed through these components, strategies for teaching and learning are exemplified. “Supporting student learners through caring and a caring environment
with attention to developing partnerships, assuring respect and trust, incorporating collaboration, allowing for self-direction, and developing innovative creativity is needed” (McEnroe-Petitte, 2011, p. 81).

**SUMMARY**

Devotion of resources towards student retention within higher education institutions leads to a significant impact on the overall success of these institutions (Kilburn, A; Kilburn, B; and Cates (2014). The research concluded values alignment between employees and the organization also results in a higher degree of ethical behavior. The capacity of a student to develop a sense of belonging within the higher education institution has been recognized as a critical factor determining student retention.

**RESEARCH METHODS**

Providing access to higher education opportunities that enable students to develop knowledge and skills necessary to achieve their professional goals, improve the productivity of their organizations and provide leadership and service to their communities. These goals are consistent with for profit universities. Additionally, industry demand of higher education graduates increase the cost of private colleges and universities.

**METHODODOLOGY**

According to the Integrated Postsecondary Education Data System (IPEDS) 2010-2013, there is a student enrollment decline in private colleges and universities in North Carolina. This applied quantitative research study examines how cost and program design affects enrollment, retention and graduation rates for North Carolina non-traditional students in private institutions. This quantitative study used quantitative method with correlation research design to examine whether there is a correlation between the cost of private colleges in North Carolina and student’s cost, enrollment, and graduation rates.

**DESIGN CLARITY**

Additionally, the study will examine the correlation between program design of private colleges in North Carolina and student’s enrollment, retention, and graduation rates. IPEDS data for the North Carolina private colleges, years 2010-2013, are tested with regression analysis. The independent variable of cost 2013, and dependent variable the average change of students’ enrollment 2010-2013. No other variables were considered.
Universities are under pressure to attract and retain students in the higher education classroom. Reasons for failure may vary and can include such concepts as lack of self-confidence, need for a support system, motivational difficulties, inadequate critical thinking skills, time management and prioritization issues, home and family responsibilities, and inadequate study habit (Lundberg (2008) and McEnroe-Petitte (2011). The variables for this research include Tuition and Graduation rates (Independent Variable) plus Enrollment (Dependent Variable).

**Tuition**

Trombella (2001) uncovered “over the last 45 years, college tuition prices have been rising approximately twice as fast as the rate of inflation, as measured by the consumer price index” (p. 1). Congress and parents are concerned with these highly inflated tuition price increases with some supporting additional government intervention through regulatory solutions. In 2012, outstanding student loan debt surpassed credit card debt as the largest source of non-mortgage household debt (Federal Reserve Bank of New York, 2012a).

**Graduation Rates**

Li (2008) identified grants as a stronger inducement to graduation than student loans. Job opportunities, financial circumstances, and personal reasons, according to Hanging (1997) are more specific reasons for student attrition. Tinto (1998) confirms an issue in attrition includes problems inherent in shifts of community membership; the degree students interact with their college is a predictor of retention. Allen and Seaman (2010) reported “the majority (59 percent) of chief academic officers are ‘Neutral’ when asked if retaining students is a greater problem for online courses than it is for face-to-face courses, but the percent that ‘Agree’ with this statement are more than twice as large as those that ‘Disagree’ (28 percent vs. 13 percent) (p. 14)”.

**Dependent Variable**

The dependent variable is enrollment. Hackman (2014) uncovered the importance of financial aid in encouraging student enrollment in higher education. Roksa (2010) argued a difference in completion rates was identified between community colleges and four-year schools. The researcher identified that in states with strong community college attendance, there were stronger baccalaureate completion rates. According to Tinto (1998) several forces share departure from college and include problems of separation, transition, and incorporation.
The Research Question will determine which critical success factors can be enhanced to improve retention for the nontraditional students in North Carolina. The author, as a member of this system, will be able to demonstrate an inside view as well as an identification of problems, solutions, and the effectiveness of the solutions. The research question states: How can we prioritize the six critical success factors to improve retention strategies for nontraditional students at the Charlotte Campus?

**Step one.** Analyze, describe, evaluate, test, and understand, the Integrated Postsecondary Education Data System (IPEDS) for North Carolina higher education institutions. Information will be gathered affecting tuition and student enrollment.

**Step two.** Correlational research methods were used. Quantitative research design will be quantitative ex post facto. Regression analysis will compare first to second year graduation rates and cost of education for 2010-2013.

**Step three.** Change within student enrollment compared North Carolina universities offering an undergraduate degree.

Easterby-Smith, Thorpe and Jackson (2008) associated quantitative data with statistical information. Quantitative data should, according to Johns and Lee-Ross (1998), never be accepted as the full truth, since the results depend on many variables; who or which organization conducted the research, who sponsored it, who interpreted the conclusions, how were the questions posed as well as reliability of the chosen methods of measuring the results. They also state that quantitative methods provides useful, easy accessed and low cost data. There are methods of reducing these problems, such as pilot studies (Johns & Lee-Ross, 1998), triangulation which refers to a technique which uses parallel methods in a counteractive way (Davidson, 1997) and strategies on how to use the approaches to collect data (Saunders, Lewis & Thornhill, 2007). Due to the simplicity of collecting much information at low costs and low time consumption, a quantitative research method is chosen. To increase external validity of the results of a triangulation will be implemented to cross-examine the results and reduce reliability problems.

**Research Questions**

In this study one research question and three variables were addressed. Variables include cost, student enrollment, and students' graduation rates.

**RQ:** What is the correlation between North Carolina private colleges cost and student enrollment first to second year students' retention, students' graduation rates?

**H0:** There is no correlation between North Carolina private colleges' cost and student enrollment first to second year, students' retention, students' graduation rates.
H1: There is correlation between North Carolina private colleges’ cost and student enrollment first to second year, and students’ graduation rates.

The tuition and student enrollment for each college from 2010 to 2013 was identified. The average change of tuition and average change or student enrollment from 2010-2013 was calculated. For triangulation purposes the following were run: (1) Regression analysis; (2) Non parametric Spearman Coefficient of Rank Correlation between average change of tuition and average change of student enrollment; (3) Coefficient of Determination for each individual college.

**Summary**

This quantitative study used quantitative method with correlation research design to examine whether there is a correlation between the cost of private colleges in North Carolina and student’s enrollment, retention, and graduation rates. The researcher seeks to prioritize the academic success factors for participants at North Carolina universities. In addition, to another goal is to determine which success factors will enhance retention.

**Research Methods**

A regression analysis was completed between average change of tuition and student’s enrollment. The results indicated weak negative correlation ($r = -0.157$) and only 2.5% of the variation between change of tuition and change of student enrollment could be explained ($R^2 = 0.025$).

**Regression Analysis**

Non parametric Spearman Coefficient of Rank Correlation between average change of tuition and average change of student’s enrollment. Spearman Coefficient of Rank Correlation indicated that there is a weak negative correlation (-0.053) between tuition and enrollment.

**Correlation Coefficients.** Through a deeper analysis, a regression analysis for each individual college with the actual data for tuition and students enrollment from the time period 2010-2013 was run. Correlation coefficients ($r$) and coefficients of determination ($R^2$) on tables were identified. The colleges were separated into three groups: 1) Decrease of student enrollment with the increase of tuition supported from strong $r$ and $R^2$. 2) Increase of student enrollment with increase of tuition supported from strong $r$ and $R^2$. 3) change of student enrollment with increase of tuition with no-corresponding $r$ and $R^2$. 
This descriptive, correlational research used a quantitative, ex post facto research design. The key research question was: *Is there a correlation between student enrollment and tuition at private, undergraduate university programs in North Carolina?*

The author determined there is no correlation between student enrollment and tuition at private, undergraduate university programs in North Carolina. Forty (40) private institutions offering Bachelor degrees (including business related majors) were investigated.

**Dependent Variable:** Student Enrollment 2012-2013 and 2013-2014.

**Independent Variable:** Tuition and Graduation 2012-2013 and 2013-2014

A regression analysis was performed comparing change of tuition and change of enrollment for 2012-2013. In addition, a regression analysis was performed comparing change of tuition and change of enrollment, 2013-2014.

ANOVA and regression output tables are available in Appendix B.

Tuition and enrollment for each university for the time 2010-2013 was reviewed. With the breadth of data analysis, there is a need to split the data summaries into three separate and distinct groups. By testing each individual university, the following were utilized:

1. Correlation coefficient was the coefficient of determination
   \[ r \]
   - is there a correlation
2. \( R^2 \) describes how strong or reliable is the correlation

In Appendix A, under the heading, *Decrease of Student Enrollment with Increase of Tuition data documented a Strong Correlation Coefficient and Strong Coefficient of Determination.* For example, looking at the data for Gardner Webb University, there is a strong negative correlation. The model documents 98% of the variation between tuition and enrollment can be explained. Overall, there is no correlation. Additionally, there are strong negative correlations. When tuition increased, the enrollment went down. Thus, the negative correlation.

Additionally in Appendix A, under the heading, *Increase of Student Enrollment with Increase of Tuition data documented a Strong Correlation Coefficient and Coefficient of Determination.* Data supported the conclusion student growth is not related to tuition but related to other factors. For example, looking at data for Wingate University, several additional programs during the 2010-2013 year were added to the curriculum including Pharmacy, pre-Med and Nursing. In addition, Davidson College is very unique in their focus on sports within higher education while Wake Forest is a well know medical institution. Thus, when tuition was increased, other factors led to an increase in enrollment for these specific universities.

Lastly in Appendix A, under the heading *Student Enrollment with Increase of Tuition, data documented no corresponding Correlation Coefficient and Coefficient of Determination for these institutions.* There was a very weak correlation coefficient while the coefficient of determination is unreliable. For example, only 2% of the variation can be explained by this model. Specifically, Livingstone College has only 2% of the variation which can be explained by this model.
In summary, there is no correlation between student enrollment and tuition at private university programs in North Carolina. Instructional approaches and implantation of new programs need to be examined as factors affecting students’ enrollment. As an aside, IPEDS data has been shown to be inconsistent, thus the authors’ goal to gather secondary data to support the negative correlation claim.

Assumptions, Recommendations and Conclusions

Goals for consistency with for profit universities include providing access to higher education opportunities to enable students to develop knowledge and skills to attain professional goals, improve organizational productivity and provide community leadership. Historically, higher education has fueled social and economic mobility in America. Today, that contribution is at risk” (Pennington, 2012). According to the data examined there is no correlation between cost and decline of student enrollment. However, there is correlation between cost and student graduation rates.

Assumptions

When one chooses a particular research approach, one makes certain assumptions concerning knowledge, reality, and the researcher’s role. These assumptions shape the research endeavor, from the methodology employed to the type of questions asked” (Hathaway, 1995, p. 2). One major assumption is that the IPEDS data is accurate and consistent in representing participating universities in North Carolina. Another assumption is the consistency of the research questions focused on the research goal. “The increasing pressure on higher education to produce more degrees of a higher quality at a cost students can afford is both overdue and necessary. But in the end, the most-effective changes will come from institutions of higher education themselves” (Pennington, 2012).

Recommendation for Future Research

The creation of a caring, supportive and welcoming environment within the university is critical to creating a sense of belonging. This sense of belonging can be achieved by the development of positive student/faculty relationship, the presence of a well-resourced counselling center and the encouragement of diversity. The author recommends retention as a topic for further research.
According to the Integrated Postsecondary Education Data System (IPEDS) 2010-2013, there is a student enrollment decline in private colleges and universities in North Carolina. This applied quantitative research study examines how cost and program design affects enrollment and graduation rates for North Carolina non-traditional students in private institutions. According to the data, program design is a significant factor for student enrollment. Effectiveness of programs design will be assessed by the colleges’ curriculum academic leadership teams.
**APPENDIX A: REGRESSION ANALYSIS**

$r^2 = 0.025$  
$r = -0.157$  
Standard Error = 0.032  
Dep. Variable = Change in Enrollment  
N = 31  
K = 1

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<th>MS</th>
<th>$F$</th>
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**SPEARMAN COEFFICIENT OF RANK CORRELATION**

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<th>Change in Tuition</th>
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Sample size 31  

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<table>
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<th></th>
<th>+- Critical Value 0.01 (two-tail)</th>
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DECREASE OF STUDENT ENROLLMENT WITH INCREASE OF TUITION

Strong Correlation Coefficient and Strong Coefficient of Determination

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INCREASE OF STUDENT ENROLLMENT WITH INCREASE OF TUITION

Strong Correlation Coefficient and Coefficient of Determination

Coefficient of determination was run for each institution year 1 and 2.

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**STUDENT ENROLLMENT WITH INCREASE OF TUITION**

*No corresponding Correlation Coefficient and Coefficient of Determination*

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