

DELAYED ENROLLMENT: ANALYSIS OF THE ECONOMIC EFFECTS

by

Darline Glaus

Liberty University

A Dissertation Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

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## ABSTRACT

This study provides empirical evidence of enhancing an individual's ability to make an informed decision about higher education. The purpose of the causal-comparative design was to observe the relationships between the time a student completes a college degree and their self-reported lifetime income while considering gender. A convenience sample of United States residents who earned a four-year (bachelors) degree from an accredited college or university was collected by a professional survey service. The sample size for final analysis was 799 respondents consisting of 32.67% males and 66.58% females. The results of the ANOVA indicated significant differences in lifetime income among the levels of traditional, non-traditional and traditional-plus students. The study concluded that the traditional students, who participated in this research, earned higher lifetime wages than their non-traditional or traditional-plus colleagues. The study also supported the literature that males earn more over their lifetime than females. However, many factors that affect a student's college completion were not considered in this research, such as, societal influences, cultural pressures, or family history. Future studies should strive for stronger focus groups that take into account the individual's economic status as well as the nation's economic status within the same timeline. Future studies should also consider including a higher minority population and include a special emphasis on the challenges facing first-generation college students.

*Keywords:* Delayed Enrollment, Traditional Students, Non-Traditional Students, Lifetime Income

### **Dedication**

To my best friend and beloved husband, Gregg and to our son AJ, for all their patience and support throughout the years with this adventure. I could never have accomplished this without their love, prayers, and encouragement.

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### **List of Abbreviations**

American Student Assistance (ASA)

Analysis of Variance (ANOVA)

Defense Activity for Non-Traditional Education Support (DANTES)

First-generation college students (FGSC)

Flexible environment, Learning culture, Intentional content, Professional educators (FLIP)

Gainful Employment Act (GEA)

Income-Based Repayment (IBR)

Institute for College Access and Success (ICAS)

Learning Management Systems (LMS)

Massive open online course (MOOC)

National Association of Colleges and Employers (NCAE)

National Center for Education Statistics (NCES)

Office of Vocational and Adult Education (OVAE)

Pay-As-You-Earn (PAYE)

Problem Based Learning (PBL)

Program for International Student Assessment (PISA)

Science, Technology, Engineering, and Mathematics (STEM)

Servicemembers Opportunity Colleges Degree Program (SOCAD)

Student Loan Fairness Act (SLFA)

U.S. Department of Education (USDE)

Wireless Fidelity (WI-FI)

## CHAPTER ONE: INTRODUCTION

### Overview

Millions of people have played Milton Bradley's Game of Life®. The game has continually evolved from its beginnings in 1860 to stay abreast of modern-day culture (The Strong Museum of Play, 2016). The Game of Life parallels actual life in several ways, specifically where players begin the game by choosing to go to college or directly to work, with the understanding that those who choose college will have a better chance of winning the game. However, contrary to real life, the game does not provide for players to attend college later in life to improve the chance of retiring at Millionaire Estates, therefore winning the game. If this option were included in future variations of the game, the creator would need to consider a variety of components regarding how attending college at different points throughout the game affects the results.

High school graduation is a landmark time for young adults to transition into adulthood. During this time, young people take on a number of responsibilities, such as, higher education, employment, or military service all of which help them to become self-reliant. Each year millions of American high school graduates will choose to go directly to college, while millions of others choose to delay college enrollment to enter the labor force thereby establishing an educational path for the rest of their lives. While each student has a personal reason for enrolling in higher education, the most frequently noted reason for attaining higher education is to acquire knowledge, build skills, and develop relationships to enable and enhance an individual's opportunity to attain better careers and increase potential earnings (Bollinger, 2015; Pew Research Center, 2014; Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012; Stephens, Hamedani, & Destin, 2014). Articles, blogs, commentaries, and books are abundantly-marketed

and provide advice on both attending and not attending college, as well as which university to attend, however, few studies examine the total consequences as a part of the overall costs of delayed enrollment.

Chapter One defines and provides historical background information and a discussion on the differences between traditional students and nontraditional students and the significance of their specific characteristics. Traditional-plus students, those who fall in both the traditional and the nontraditional categories, display characteristics of both the traditional student and the nontraditional student and will not be identified separately. The chapter will also review the purpose and significance of this study by identifying the dependent, independent variables, and indicating how the results of this study may influence current learning theories and practices. Chapter One also presents three problem statements that focus on the differences between the traditional student, the nontraditional student, and the traditional-plus student in their self-reported lifetime income and gender distribution for all aspects. Lastly, the definitions of pertinent words are presented at the end of Chapter One.

### **Background**

Historically, as in the earlier example of the Game of Life®, having an education is advantageous in a number of ways, however, in real life, it comes with significant variations regarding age, gender, and race (Carnevale, Rose, & Cheah, 2011). Statistically, those holding college degrees earn more money overall. However, those statistics do not delineate between the age students were at graduation (Baum, Kurose, & McPherson, 2013; Haughwout, Lee, Scally, & van der Klaauw, 2015; Strohush & Wanner, 2015) and they do not account for the sacrifices made along the way such as student debt and career or college vicissitudes. Studies researching the value of a college degree typically measure specific and easily obtained data, which does not

provide a holistic view of the graduate's life, their university, or the reason why graduates earn their current salary (Gallup Inc. & Purdue University, 2014). Those who delay their college education do so for many reasons, such as lack of preparedness, entrance into military service, financial security, or starting a family, to name a few (Horn, Cataldi, & Sikora, 2005; Johnson, 2013). Statistics show that those who delay enrolling in college for a few years after high school (nontraditional students) are more susceptible to not completing the degree program. However, it may not be appropriate to compare the nontraditional student outcomes to the student who enrolls in college within a year after high school (traditional student) because of the significant social and cultural differences as well as the academic preparedness (Horn, Cataldi, & Sikora, 2005; Johnson, 2013). Additionally, nontraditional students are not homogeneous and can have as much as a 40 or more years in age difference. Because of the closeness of age, traditional students have considerable likenesses and similar needs. However, the nontraditional student's age range is much more diverse therefore, those who return within five years will have a different purpose than those who return after a decade or more (Horn, Cataldi, & Sikora, 2005; Johnson, 2013). No matter what the student's age is the most annotated reason for college enrollment is to acquire knowledge, build skills, and develop relationships that will enable and enhance the student's ability to enhance their careers and increase potential earnings (Bollinger, 2015; Pew Research Center, 2014; Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012; Stephens, Hamedani, & Destin, 2014). Many studies have researched a variety of aspects of both traditional and nontraditional students though few investigate the difference in Lifetime Income between those who earn their undergraduate degree before age 25 and those who choose to earn their degrees after gaining work experience, therefore leaving a gap in the literature.

The onset of a digital world has opened many opportunities for universities to expand their capabilities, which has stimulated an increase in overall nontraditional student enrollment (Baum, Kurose, & McPherson, 2013). Additionally, the large number of online options has significantly contributed to the rise in college enrollment among nontraditional student's (Allen, 2013) and first-generation college enrollment (Ndiaye & Wolfe, 2016). The Internet, social media, and technology have changed the way we live and view the world (Ülker & Turhan, 2014). Massive open online courses (MOOCs) have interconnected students from around the world. This has opened up new avenues of adult learning thus creating a complex yet specific online learning culture (Loizzo & Ertmer, 2016). Additionally, there is progress in the effort to renovate and transform traditional education into newer models that shift the learning responsibility from the instructor to the student, thereby, stimulating critical thinking and a stronger learning experience (White et al., 2014).

Mega-trends such as globalization, digitalization, and social networking sites such as Facebook, Twitter, and others are opening new and varied educational opportunities (Bellack, 2015). Social media is also changing the way we think and approach a college education. This new collaborative concept is encouraging older adults to return to college for their first degree especially those who are first-generation college students (FGCS) (Guldin, 2013). Further, new learning and teaching initiatives such as Google Educate and Microsoft Classroom are billion dollar industries, battling for control of the distance education discipline (Guhlin, 2016). Their efforts have outdated the old-fashioned Learning Management Systems (LMS) because the new e-classrooms are not only flexible but also offer a variety of social support and most schools are able to obtain the software at no charge, which is a significant boost to school budgets (Guhlin, 2016). New developments in digital technologies and social media have opened up a variety of

opportunities for higher education to reach out to more students. These progressive opportunities have not only stimulated an increase in nontraditional students but also older students entering college for the first time (U.S. Department of Education, 2015). The U.S. Department of Education National Center for Education Statistics (USDE NCES) (2015) has predicted that new records will be set between 2018 and 2024 in regards to college enrollment. USDE-NCES noted that in this future enrollment swell, a significant number of the student population would consist of females, minorities, disadvantaged and older students. The predicted surge of nontraditional students provides an opportunity to explore and determine the penalty, if any, for delayed enrollment, which will provide data to empower both the traditional and nontraditional student to plan for future success. The research consensus is that the longer someone waits to attend college, the less likely they are to return to earn a degree (Niu & Tienda, 2013) thus making the timeline an important factor to the completion of a degree program.

When analyzing the overall value of a college education, it is important to take a holistic approach and consider all the channels of earning a degree. The total cost of college is more than just tuition and books; it also includes the sacrifices the student must make attending class and learning the necessary knowledge and skills that make up the degree program. Time matters as much as money when evaluating the total cost of college (Maryville University, 2017). The total cost of earning a college degree must include both the immediate and future investments such as; finding a position within the degree's career field, the consequences of paying off student debt or defaulting on student loans and meeting personal and family obligations. College is a challenge for most students, and while the nontraditional student must overcome life obstacles to complete degree programs, the traditional student faces his or her own set of problems. Whereas traditional students scored significantly higher on emotional coping than

nontraditional student's (Johnson & Nussbaum, 2012), a strong concern persists for those students who take a gap year or more before completing their degree programs (Keup, 2014). The newly graduated traditional student typically encounters problems such as being unemployed or underemployed (Stone, Van Horn, & Zukin, 2012; Vedder, Denhart, & Robe, 2013) and many so not find work in their field of study (Xu, 2013). Additionally, it is believed that college today does not prepare students for real-world employment (Stephens, 2013), which can reflect on the graduates' ability to gain employment in their specific field of study. The 2015 Program for International Student Assessment (PISA) scores and statistics support the perception that American schools have consistently fallen from above average to barely meeting average scores as compared to other nations participating in the PISA program. Varieties of PISA statistical findings are in charts and graphs available online from the National Center for Educational Statistics (U.S. Department of Education - National Center for Education Statistics, 2015). The PISA program is important because they assess 15-year-old students from 60 countries in math, science, and reading every three years. Additionally, they measure the student's ability to apply their knowledge and skills in a variety of real-life contexts (U.S. Department of Education - National Center for Education Statistics, 2015). The PISA 2015 follow up survey provided the information on the value of the student's skills and work experience, which assists educators in analyzing the impact of U.S. education in the global economy (U.S. Department of Education - National Center for Education Statistics, 2015).

Increasing numbers of traditional college graduates are ending up in relatively low-skilled jobs that have historically gone to those with lower levels of educational attainment (Vedder, Denhart, & Robe, 2013). In addition, there has been a sharp increase in student loan defaults with the younger, more traditional student holding the bulk of the student loan debt

(Schlagenhauf & Ricketts, 2016). High debt and poor credit for the younger adults can affect the future economic growth and development of our country. According to the Institute for College Access and Success (ICAS) (2015), while the total student debt is decreasing, of all the students who began paying their student loans, 611,000 defaulted on their federal student loans within three years. The ICAS report also noted that 11.8% of those in repayment in 2012 had defaulted by 2014 (U. S. Department of Education – National Center for Educational Statistics *DE-NCES*, 2015). This information is a strong indicator that after three years in the workforce, traditional students are not earning enough to support themselves and pay off college debt. This problem has encouraged the government and other financial institutions to develop a range of programs to help relieve the burden of student loans. Four popular methods include the Standard Option, the Income-Based Repayment (IBR) option, the Pay-As-You-Earn (PAYE) option, and the proposed Student Loan Fairness Act (SLFA) (Hauser & Johnston, 2016). Although, the PAYE and SLFA present the lightest burden of repayment they are also the most expensive (Hauser & Johnston, 2016). Student loans are complex and the choice of which loan approach works best depends on the individual. A study by Elliott and Lewis (2015) reflected that graduates with student loans have a “lower net worth, less home equity, and compromised ability to accumulate assets” (pg. 614) than their peers who did not have student loans.

Evidence of high debt and lower pay are strong characteristics of the traditional student and may be a catalyst for them to return to college later in life to earn a second bachelor’s degree but needs to be researched further. This study considers this selection of students as the traditional-plus group. For the purpose of this research, the traditional-plus group is comprised of those who fall into both the traditional student and the non-traditional student categories. They earned their first bachelor’s degree after high school graduation and then entered the



workforce, however, for numerous reasons, they returned to college for a second bachelor's degree rather than continuing for a master's degree. The traditional-plus students in this research are not those with a double degree or double major, but are those who graduated college, went to work, and returned to college later in life to earn a second degree and therefore qualify in both the traditional student and nontraditional student categories as defined throughout this research. Students returning to school have increased for a number of reasons and according to Delamater (2016), unemployment and underemployment in the liberal arts career fields have caused past graduates to return to college to develop new skills in fields with higher earnings and better job prospects. In addition, traditional-plus students collectively face the same challenges from both groups. The reasons why students return to college to earn a second bachelor's degree rather than continue on to complete a master's degree is beyond the scope of this research project, but is recommended for future research.

Research has shown that both traditional students and nontraditional students face some similar and some very different problems related to obtaining higher education (ACT, 2016; Tumuhekia, Zeelenb, & Openjuruc, 2016; VanDoorn & VanDoorn, 2014). Studies show a variety of influencers as the basis for high school students to choose to enroll in college or to enter the workforce (Bureau of Labor Statistics, 2016; Pondiscio, 2013; Strohush, & Wanner, 2015; Tumuhekia, Zeelenb, & Openjuruc, 2016). The literature reflects that the traditional student will most likely be able to focus strictly on their learning experiences but may also encounter significant student debt at an early age. Traditional students may enter the workforce at significantly lower pay scales and possibly end up with a degree that does not support their final career choice. The nontraditional student without a degree may find entering a specific career field more difficult but may also find employers willing to pay for part or all of their

college expenses. Conversely, the literature reflects that the typical nontraditional student will most likely face difficulties in balancing family obligations with college learning. However, little research reflects an inclusive cost analysis to show the economic consequences considering all the influencers.

### **Problem Statement**

This research explores various avenues to see if there is a related income penalty for earning a college degree later in life. Empirical evidence validates college graduates earn a higher income than those without college degrees and that the higher the degree, the higher the average income increasing the desire to earn a higher-level college degree (U.S. Department of Education, National Center for Education Statistics, 2016). However, recent research has shown a significant correlation in lifetime earnings based on the economic status of the individual throughout childhood and the field of study (Bartik & Hershbein, 2016; Kim, Tamborini & Sakamoto, 2015). The study found the increase in earnings gained from having a higher education degree was comparative to the family background where those who grew up wealthier earned more money than those whose family income qualified in the free or reduced lunch category (Bartik & Hershbein, 2016). The Department of Labor (2016) statistics show higher percentages of college enrollment when the US economy is in a recession and lower college enrollment when the economy and job opportunities are better. Other factors, such as the decline in American based manufacturing employment (Pierce & Schott, 2012) have led older, unskilled workers to enroll in college pursuing new avenues or new careers. Many factors influence the labor market including, poor economy, career choice, and personal debt, but the adverse effects were found to be lower in those with higher education (Cutler, Huang, & Lleras-Muney, 2015).

Additionally, education benefits are the primary reason most students enlist in the military (Barr, 2016, Cutler, Huang, & Lleras-Muney, 2015).

The labor market has often debated the actual value of having a degree. A group of researchers decided to test the theory by fabricating resumes and applying for various job postings (Deming, Yuchtman, Abulafi, Goldin, & Katz, 2016). They found that for job positions not advertising a mandatory degree requirement, having an associate's degree did not increase the chance of getting the job over those who had experience but no degree (Deming, Yuchtman, Abulafi, Goldin, & Katz, 2016). Empirical evidence in business majors reflects that internships provide a better pathway to employment than a degree alone (Nunley, Pugh, Romero, & Seals, 2016). While most nontraditional students have experience in some profession, there is no evidence that they seek a college degree in the field where they have experience. Additionally, few studies investigate the future economic effects of traditional student's verses nontraditional students (Niu & Tienda, 2013). The problem is that, while college increases our earning potential, there is little evidence identifying how graduation age or gender influences that income (Niu & Tienda, 2013). This study considers these historical elements to extrapolate corollaries from general facts known about traditional and nontraditional students to provide information that will assist individuals in making life choices for their future.

### **Purpose Statement**

The purpose of this causal-comparative study is to see how entering college later in life (traditional student vs. nontraditional student vs. traditional-plus student) affects self-reported Lifetime Income after graduation with Gender consideration. The dependent variable is the measure of self-reported lifetime income. The two independent variables will (factor one) identify the age at graduation classifying the individual as a traditional student (entered college

after high school graduation completing a four-year degree under 25 years old) or nontraditional student (went to work after high school graduation then enrolled in college after gaining work experience to complete a four-year degree) or a traditional-plus student (earned a degree after high school graduation and returned later in life to earn a second degree. The second independent variable (factor two) identifies gender, which will assist in delineating from gender-dominant career fields as designated by the U.S. Department of Labor. The concept will provide empirical data for someone to examine the difference in an individual's income based on their age and gender at graduation in which to make sounder career and life decisions based on education.

### **Significance of the Study**

Many studies have investigated differences in traditional, nontraditional students, as well as a variety of adult educational phenomena, such as the traditional-plus student (Delamater, 2016), but most focus on the financial, maturity, and age-related obligations, obstacles, and challenges (Barr, 2016; Cutler, Huang, & Lleras-Muney, 2015). Few studies investigate the economic effects of delayed enrollment (Niu & Tienda, 2013) specifically, how enrollment ten to fifteen years after high school graduation affects post-graduation earnings. College enrollment is on the rise and will set new records throughout 2018-2024 (US Department of Education, 2015), but colleges are still focused on the traditional student, therefore, create barriers for nontraditional students to be successful (Coulter & Mandell, 2012; Lemieux, 2014). The nontraditional student faces barriers such as holding a full-time job and managing a family while earning their degree, which means higher education is not their first concern. To overcome this barrier, the nontraditional student depends on the college to offer flexible learning models that work with their busy schedule. On the other hand, societal needs are changing, and the Internet,

technology, social media, and other means (Ülker & Turhan, 2014) are encouraging more nontraditional students to enroll, specifically, females, minority, and disadvantaged students (Baum, Kurose, & McPherson, 2013). The purpose of this study is to provide empirical evidence concerning the relationship between when a person graduates college (traditional, nontraditional, traditional-plus), and his or her lifetime earning potential. While many factors, both directly and indirectly, affect an individual's lifetime earnings, research consistently reflects that the higher the degree, the higher the income levels (Baum, Ma, & Payea, 2013) but few studies correlate income and time of earning a degree. Implications of this study will offer evidence that may encourage students who could not go to college directly after high school to enter college later in life when they are in a better place in their life to begin higher education (Nunley, Pugh, Romero, & Seals, 2016). It can provide information to help low-income students, especially those without credit to balance college cost against potential earnings, which allows them to evaluate their life choices before choosing an alternate path such as the military (Barr, 2016).

With the significant increase in nontraditional students, as well as the outlook for the next few years, more studies are needed to define the needs, opportunities, and essential requirements for this population. Better data on the nontraditional student as well as the traditional-plus student will provide university administrators who are still servicing the traditional student (Coulter & Mandell, 2012) with the necessary information to better support nontraditional students as well as the traditional-plus students through their educational success and better prepare for the proposed future rise in nontraditional students.

### **Research Questions**

The research questions for this study are:

**RQ1:** Is there a difference in the level of self-reported Lifetime Income of college graduates who were either traditional, nontraditional, or traditional-plus students?

**RQ2:** Is there a difference in the level of self-reported Lifetime Income of college graduates who were either male or female students?

**RQ3:** Is there an interaction in the level of self-reported Lifetime Income of male or female college graduates who were either traditional, nontraditional, or traditional-plus students?

### **Definitions**

1. *Traditional* – For the purpose of this study, traditional students are 25 years old and younger who enter college within two years after high school graduation (Institute of Educational Sciences / National Center for Education Statistics (2016).
2. *Nontraditional* – For the purpose of this study, nontraditional students are over the age of 25 and enter college later in life generally, about ten to fifteen years after high school graduation (Institute of Educational Sciences / National Center for Education Statistics (2016).
3. *Traditional-plus* – For the purpose of this study, traditional-plus students meet both the traditional and the nontraditional criteria, having earned two bachelor's degrees, one before age 25 and the second after age 25 in a different career field.
4. *Apprentice Schools* – Accredited Schools that train practitioners in a specific professional trade but include additional coursework in a degree program. An example of an apprentice school is the Newport News Apprentice School, located in Virginia.
5. *Massive open online courses (MOOCs)* – MOOCs are free online courses designed to manage an unlimited number of students. MOOCs rarely require prerequisite requirements and tend to rely on a peer review structure (Loizzo & Ertmer, 2016).

6. *Delayed Enrollment* – For the purpose of this study, delayed enrollment refers to students who enter the workforce after high school and have at least a five-year break from school before enrolling in college for a degree program (Niu & Tienda, 2013; Bozick & DeLuca, 2005).
7. *Repayment* – Repayment is a status in which students have begun paying on students loans but still owe a balance. Students in repayment status do not typically qualify for any of the public loan forgiveness programs (Brown, et al., 2015).
8. *Dropouts* – For the purpose of this study, the term dropouts references those students who enroll in college but do not complete a degree program (U.S. Department of Education, 2016).
9. *First Generation Students* – First-generation students are the first in their immediate family to complete a college degree (Ndiaye & Wolfe, 2016; Boden, 2011).

## CHAPTER TWO: LITERATURE REVIEW

### Overview

The U.S. Department of Education (2015) press release noted that a college education is no longer for the elite few, but is a necessity to keep up with America's global economic competition. While there is no doubt regarding the high value of having a college degree, this study contemplates the cost of waiting a few years between high school and college before completing a college degree. The overall cost of earning a degree considers more than the actual dollar expenditure and student loans by considering the metaphorical cost of that which is lost while studying such as, repercussions of loan default, personal time, family, and other pertinent personal effects. The Goldman Sachs Group, Inc. a global investment banking, securities, and investment management firm published research stating that it takes a typical student as much as nine years to "...break even on the cost of college" (Boroujerdi & Wolf, 2015, pg. 9).

According to National Center for Education Statistics (NCES) report, the trend over the last three decades is to take a break between high school and college (Ingels, Glennie, Lauff, & Wirt, 2012). The rates of delayed entry for first-time college students were 12 % in 1974, up to 15 % in 1982, 16 % in 1994, and a slight drop in 2006 of just 13 % (Ingels et al., 2012). The rates were lower (9 %) for prospective students whose parents graduated college compared to students (20 %) whose parents only had a high school diploma or less (Ingels et al., 2012). Overall, more students are waiting to enroll in college with some taking as much as two years while others are choosing to wait until they have established their careers. The most noted reason for attaining higher education is to acquire knowledge, build skills, and develop relationships to enable and enhance an individual's opportunity to attain better careers and increase potential earnings (Bollinger, 2015; Pew Research Center, 2014; Stephens, Fryberg,



Markus, Johnson, & Covarrubias, 2012; Stephens, Hamedani, & Destin, 2014). Because the most declared purpose in having a higher degree is to enable the holder to earn higher wages, it is important that the students establish a career path before enrolling in a college major (Bollinger, 2015). A study by Georgetown University found that 8.3% of computer, statistics, and mathematics graduates were unemployed (Carnevale & Cheah, 2015). According to the U.S. Census Bureau (2014), 74 % of employed Science, Technology, Engineering, and Mathematics (STEM) graduates are not employed in STEM occupations. Therefore waiting to establish a career path through early employment opportunities and exploration is a basis for making a sound decision on a college major (Bollinger, 2015).

While dropouts are not a consideration of this study, it is important to consider their numbers as related to completers for accuracy in reporting. According to the U.S. Department of Education, National Center for Education Statistics (NCES) (2016), only 60 % of all the full-time undergraduate students who began a degree program at a four-year institution completed the program and graduated, which suggests that 40 % end up with college expenses but no degree. Dropping out can leave the student with unnecessarily high debts as well as no degree to seek higher-paying employment. Universities also decline when they have a high attrition rate and risk losing federal financial aid funding. Only a few studies have focused on the phenomenon of why students drop out leaving little empirical data on why this occurs (Bernardo, Esteban, Fernandez, Cervero, Tuero, & Solano, 2016). At least one study attributed the sociodemographic predictors of gender, age, parent status, background, employment as well as the associated distance learning stresses to attrition (Fisher, 2014). Additional studies in adult education and college education have primarily focused on traditional students and considerable empirical research excludes the nontraditional student (Bergman, Gross, Berry, & Shuck, 2014), which

also excludes the traditional-plus student when working on their second degree, thus leaving a significant gap in the literature for this study.

According to the U.S. Department of Education's 2016 report on the Condition of Education, high school graduation numbers are at an all-time high (Kena, et al., 2016), which is mainly attributed to the demands of today's labor force (Baum, Kurose, & McPherson, 2013). Additionally, the U.S. Department of Education, National Center for Education Statistics (USDE-NCES) (2015) expects that a significant increase in nontraditional college enrollment from older students, females, minority, and disadvantaged students over the next two to eight years is expected. This upcoming surge phenomenon provides an opportunity to study a variety of hypotheses related to delayed enrollment, as well as nontraditional student relationships owing to the lack of studies offered in this field (Baum, Kurose, & McPherson, 2013; Niu, & Tienda, 2013). Prior researchers observed inconsistencies between traditional and nontraditional students, however, they related those differences to the student's cultural background and economic circumstances, thus minimalizing the associations (Niu, & Tienda, 2013). Additionally, a negative association in delayed enrollment was associated with family background and academic achievement but was statistically insignificant (Niu, & Tienda, 2013). Although the upcoming increase in nontraditional student enrollment includes these associations, the focus of this study is to examine the economic effect of delayed enrollment with subsequent degree completion, which will include the associated diversity within the student population, and therefore, categorize participants by career choice rather than cultural relationship. Additionally, many factors play a major role in calculating the total value and subsequent justification of a college degree to include tuition costs, student loans, choices of career, and the university reputation, to name a few (Strohush & Wanner, 2015).

## **Conceptual and Theoretical Framework**

The cornerstone of this study focuses on adult learning theories, which are the basis for curriculum developers to design appropriate materials for adult learners. Malcolm Knowles (1980) popularized the concept of andragogy, which is the art and science of helping adults learn. Knowles' theory became the foundation in which educators developed adult learning models. Knowles' Andragogical model identified four critical assumptions that separated adult learners from pedagogical learners, which highlight the learner's self-concept, past experiences, motivation or readiness to learn and life-orientation to learning, (Knowles, 1980). However, the U.S. Department of Education Office of Vocational and Adult Education (USDE-OVAE) (2011) reported that while there are many models, no single applicable theory exists for adult learners. A multitude of assumptions, theories, principles, and descriptions are available for specific practices but must adapt to each situation as well as the individual (U.S. Department of Education Office of Vocational and Adult Education, 2011).

### **Knowles Concept of Andragogy**

Knowles' concept places the responsibility of learning on the adult student and hypothesizes that adults are directed and problem-centered learners as well as intrinsically motivated. Nevertheless, while adults are self-directed and intrinsically motivated, they still require learning opportunities that include group collaboration, social networking, and strong facilitative guidance from experienced instruction (Bryan, 2015). In alignment with Knowles and Mezirow, Chen (2014) identifies three tenets for adult learners, where adult learner's foundation lies in optimizing self-direction, the transformation of long-standing beliefs and individualized self-reflection. These tenets all align within a common theme where the learner is free from dominant, unevaluated, and irrelevant thinking (Chen, 2014).

Cultural and technological changes have caused educators to revisit adult learning theories encouraging change from the behaviorist, (a teacher-centered approach) to a constructivist or student-centered approach (Geduld, 2014). Nontraditional students make up the majority of online or distance learners, which have introduced numerous questions regarding adult learning theories such as, asking if century-old learning theories still apply and how adult self-directedness develops in the online environment (Geduld, 2014). Gender dominance will play an important role regarding the nontraditional student, who can be one or two generations apart from the traditional student, and therefore, have different social and cultural values, as shown in Brown's (2015) study on transformative learning theory in gerontology with nontraditional female students (Brown, 2015). Older students not only have a different focus surrounding jobs and family responsibilities, but they also regard school as a secondary or even tertiary responsibility (Brown, 2015).

### **Transformational Learning Theory**

Transformational learning theory, developed by Jack Mezirow in 1991, is best defined as an individual's worldview (Christie, Carey, Robertson, & Grainger, 2015). The theory depends on the learners' interpretation of their personal experiences, as well as how they construct that information to make sense of it in their everyday life. Adult learners are transformative learners who personalize their learning through their cultural beliefs. Because learning quite often requires learners to challenge individual assumptions, schemas, and perspectives, it becomes a disorienting event (Chen, 2014; Mezirow, 2009). Perspective transformation is the result of the adult learners' new perceptions after the training and the level of change in personal beliefs following the training event (Lundgren & Poell, 2016). However, criticisms of transformational learning state that it does not account for context, or rationality, and emphasizes that today's

adult learners need to be more socially-embedded and constructed (Christie, Carey, Robertson, & Grainger, 2015). This aspect is becoming more significant in today's learning environment as adult learning is popularized through social media avenues.

### **Theory of Constructivism**

Adult constructivist theories, such as Robert Kegan's adult constructive-developmental theory, focus on adults building on their current knowledge base through adaptive learning techniques (Stewart & Wolodko, 2016). Thus, the adult learner constructs meaning from their personal experiences, thereby suggesting different levels of understanding of the same material between two or more different adult learners. It is important to note that nontraditional students consider themselves as adult workers before they visualize themselves as students (Chen, 2014). Therefore, their role as a student becomes a secondary function in their daily responsibilities, but older working students still consider it important. Studies on age in higher education show that successful application of the deep approach to learning requires maturity, which comes with age and experience (Dolmans, Loyens, Marcq, & Gijbels, 2016; Howie & Bagnall, 2015; Lake & Boyd, 2015).

The Connectivism adult learning theory, promoted by George Siemens and Stephen Downes, is designed for the digital world because it shifts the learning model from the traditional instructor-centric classroom to a personal learning environment (Siemens, 2005). The principles of connectivism seek to connect learning in a variety of ways often annotated as learning nodes that connect learners in socialized networked model (Alenezi, 2017; Reese, 2015) Connectivism addresses difficulties in the web-based environments, such as MOOC's, by providing connections between the learning nodes, but is not able to address some conceptual problems (Clarà, & Barberà, 2013). We learn continuously throughout our lifetime flexing and growing

with society as it changes, which suggests we need to refurbish the way we design our learning continually.

### **Deep Approach to Learning Theory**

The deep approach to learning theory states that adults will conceptualize information to make meaningful interpretations of the information where they can understand how that information adds value to their life (Asikainen & Gijbels, 2017; Howie, & Bagnall, 2015). The deep approach to learning requires students to think critically at higher levels, which also requires motivation and a strong intrinsic desire to better oneself (Howie & Bagnall, 2015). Dolmans, Loyens, Marcq, and Gijbels (2016) review of 21 studies concludes that Problem Based Learning (PBL) enhances deep learning but has little effect on surface learning. The PBL approach is a curriculum where the core builds on a set of open-ended practical problems causing students to use and develop critical thinking skills as they solve the problems. However, Asikainen and Gijbel's (2017) review of 43 studies found no clear empirical evidence from the aggregated data substantiating, that adults develop deep approaches to learning, thus inferring a lack of continuity within the approaches to gathering data. However, Postareff, Parpala, and Lindblom-Ylänne's (2015) study found some student challenges related to their adoption of the deep approach. They also noted that students who increased their deep approach to learning were considered to have similar attributes such as, devotion to learning, and strong study practices. Additionally, the study with traditional students found that a student without specific course motivation improved the deep approach scores and the researchers attributed it to active studying, which suggests the possibility of stimulating the deep approach in younger traditional students (Postareff, Parpala, & Lindblom-Ylänne, 2015).

## **Behaviorism Learning Theory**

Behaviorist theories consider learning as a change in behavior and that the general principles continue to be underlying factors to understand adult learners. However, the move to a digital society and the availability of a plethora of constantly changing information has transformed student's interactions with others as well as the way we process that tsunami of information (Bryan, 2015). Adult learning today requires collaborative critical thinking across digital lines where learners are on different continents and speak different languages (Bryan, 2015). Adult learners need to have self-confidence, personal responsibility, and be goal-oriented but will also need to master digital collaborative environments, such as Facebook, LinkedIn, Twitter, and YouTube (Bryan, 2015). Using these environments will build the need for adult learners to develop skills in electronic and written communication (Bryan, 2015). This worldview encourages educators to develop a new course curriculum that will support digital environments. Technology has significantly changed the way we live and process information as well as the way we learn and encourages educators to develop new adult learning models.

## **Adult Education Theories Applications**

The technologies available today make it easier to support the adult learning theories, such as Malcolm Knowles' (Knowles, 1975; Knowles, 1980) concept of andragogy, which states that adult learners are responsible for their individual learning. The Internet explosion has significantly changed societies and cultures around the world. The plethora of easily accessed knowledge bases and new high-tech devices have promoted the use of electronic-based social media sites and encouraged distance-learning enrollment. Additionally, the high-tech wave has altered the daily lifestyle, as well as the approach to learning where we see young children managing smartphones, often better than their parents do. Ironically, while most people have

never heard of, or truly understand wireless fidelity (Wi-Fi), they commonly use the term Wi-Fi in everyday conversations. With technology growing so intricately into our daily lives, Mezirow's transformational learning theory becomes an important concept for educators to consider in developing curriculum for adult learners (Mezirow, 1997). Grounded in adult-learning theories, the philosophy of Mezirow's transformational learning theory incorporates adult experiences and critical reflection as a part of the learning impact. A key aspect of transformational learning is in the development of the curriculum and the methods of teaching, where the instructor's role becomes more facilitative, necessitating that the adult student forms a portion of their learning environment, which plays a major role in distance learning. The next important developmental theory is Bergman's (2012) theory of adult learner persistence in degree completion (Bergman, Gross, Berry, & Shuck, 2014). Bergman's theory states that nontraditional learners are more likely to drop out before completing a degree and for educational institutions to concentrate on nontraditional students to encourage completion (Bergman, Gross, Berry, & Shuck, 2014).

### **Related Literature**

Changes in our societal structures are also influencing adult learning because cultural beliefs tend to define roles and expectations (Usher & Bryant, 2012) especially in gender patterns of self-selection (Ochsenfeld, 2014). Role theory plays an important part in a person's life choices including the adult learner's career choice. Gender role theory is consistent with evidence found in gender patterns of self-selection derived from male gender roles (Ochsenfeld, 2014). While women make up 46.9% of the workforce, they are rarely represented in the average careers dominated by men, such as mechanics, carpenters, architects, engineers, machine operators, computer network workers, and so on (United States Department of Labor, 2014).



While significant efforts are in place to encourage gender equality across career fields, research findings reflect the under-representation of females in the science, technology, engineering, and mathematics (STEM) career fields (Mau, Perkins, & Mau, 2016). Research reflects evidence that mathematically capable females with high verbal skills are less likely to pursue STEM careers (Wang, Eccles, & Kenny, 2013). What leads students to make specific career choices varies with each person and may be a result of how well the career choice fulfills life goals or self-perception (Wang, Eccles, & Kenny, 2013).

### **Traditional and Nontraditional Students**

Nontraditional students are a particularly important group because nontraditional students now comprise more than 50% of all part-time higher education enrollments, and more than 33% of total higher education enrollment in the United States (Bergman, Gross, Berry, & Shuck, 2014, p.1). Defining the traditional and nontraditional student has caused much controversy over the years and lately has been the source of considerable research. In the late 90's, the National Center for Educational Statistics (NCES) considers the division between the two as "Most often age (especially being over the age of 24) has been the defining characteristic of this population..." (National Center for Educational Statistics, 1996, pg. 3). However, as society changes many researchers choose to use complex statistical measures to identify the different properties of each, such as, Johnson and Nussbaum's (2012) definition as,

...Traditional Students – Mean age: 20.8 years 100% single/never married 100% have no children 100% never taken time off from school. Whereas, Nontraditional – Mean age: 27.3 years 60% have been married 30% have parental responsibilities– 80% have taken time off from school ... (p. 45).

Others, such as, Volokhov (2014) and Bergman, Gross, Berry, and Shuck, (2014) consider nontraditional students as those who enroll as adults of at least 25 years and older. Baum, Kurose, and McPherson (2013) stated, “They [nontraditional students] are age 25 or older, have delayed entry into higher education after completing high school, did not earn a traditional high school diploma, are married, attend part-time, work full time, or have children” ( p. 7). Blau and Thomas-Maddox (2014) reviewed several past research papers and noted that traditional students are typically between 18-22 years old who enroll in college immediately after high school while the typical age of nontraditional students is 23 years and older.

The research reflects the highest considerations of a traditional student as one who enters college within two years of completing high school earning a bachelor’s degree before age 25, while the nontraditional college student is one who enters the workforce after high school, graduation enrolling in college after age 25 and completing a degree program. This research will not consider concerns surrounding the gap year, marital status, or children as a qualifier. This research and analysis considers that the total cost of a degree from higher education is not limited to tuition, books, and associated supplies, but also includes the availability of career positions in the job market, future burdens of student loans, family obligations, individual experience, and even the reputation of the university. While this study uses only the self-reported Lifetime Income provided by the respondents, as a discriminator, future studies are necessary to analyze the total value using all influencers. An important note to make is that this study does not consider apprentice schools, because they are the simultaneous application of career experience and college education.

Society is changing with the times, which means that traditional education should be changing (Allen, 2013). Therefore, future versions of the Game of Life may want to add college

as a later in life option. Because nontraditional student enrollment is rapidly growing, and often nontraditional students are responsible for taking care of him or herself (Stephenson, 2015) future education should focus on these aspects to encourage nontraditional enrollment. Nontraditional students now account for 47 % of the student population (Blau & Thomas-Maddox, 2014). The increase in nontraditional students entering college has encouraged administrators to explore options to meet the unique needs of older adult learners, thus causing changes in the approach to higher education. Additionally, the Department of Education has noted the need for changes in higher education and implemented new laws for institutions who receive Title IV funding. As of 2013, these institutions are required to report gainful employment to the U.S. Department of Education (2013) under 34 CFR 668.6 - Reporting and Disclosure Requirements, for programs that prepare students for gainful employment in a recognized occupation.

The literature shows how societal changes have affected college enrollment and career choice and reflects both positive and negative points for both traditional and nontraditional students. Little scholarly information is available or explored regarding the difference in income between the two approaches to education. A question as to whether a nontraditional student is offered higher or lower income after graduation as compared to their traditional classmates or how attainment of a degree later in life affects lifetime earnings is a relatively unexplored field (Tamborini, Kim, & Sakamoto, 2015). Research supports the concept that the higher the degree the higher the earnings, such as, earning a bachelor's degree may add as much as \$750,000 for early childhood education and up to \$2 million for engineers or computer science majors to an individual's Lifetime Income (Carnevale, Rose, & Cheah, 2011; Hershbein & Kearney, 2014; Tamborini, Kim, & Sakamoto, 2015). However, those figures do not reflect the overall cost of

earning the degree, (Carnevale, Rose, & Cheah, 2011). Little research calculates the true total cost of earning the degree in the first place. The actual cost includes more than just tuition and books, it should also consider the cost of student loans, the life-long penalty of defaulting on student loans, earning a degree that is not used, job availability, and the penalty of waiting until later in life to earn a degree to name a few. This research intends to focus on information regarding the difference in Lifetime Income between traditional and nontraditional students.

### **College Enrollment Outlook**

The onset of a digital world created new opportunities for universities to expand their capabilities, which has stimulated an increase in overall nontraditional student enrollment (Baum, Kurose, & McPherson, 2013). Additionally, the large number of online options has significantly contributed to the rise in nontraditional student's college enrollment (Allen, 2013), as well as first-generation college enrollment (Ndiaye & Wolfe, 2016). The Internet, social media, and technology have changed the way we live and view the world (Ülker & Turhan, 2014). Massive open online courses, known as MOOCs, have interconnected students from around the world thus opening new avenues of adult learning and have created a complex yet specific online learning culture (Loizzo & Ertmer, 2016). Additionally, there is progress in the effort to renovate and transform traditional education into newer models that shift the learning responsibility from the instructor to the student, thereby, stimulating critical thinking and a stronger learning experience (White et al., 2014).

Mega-trends, such as globalization, digitalization, and social networking sites such as Facebook, are opening new and varied educational opportunities (Bellack, 2015). Social media is also changing the way we think about college and reshaping how we communicate. The acceptance and popularity of social media encourages older adults to return to college for their

first degree especially those who are first-generation college students (FGCS) (Guldin, 2013). New learning and teaching initiatives, such as Google Educate and Microsoft Classroom, are billion dollar industries battling for control of both face-to-face and distance education discipline (Guhlin, 2016). Their efforts have outdated the old fashion Learning Management Systems (LMS) since the new e-classrooms are not only flexible but also offer a variety of social support to schools at no cost (Guhlin, 2016).

Developments in digital technologies and social media have opened opportunities for higher education to reach out to more students. These technical developments have also stimulated an increase in nontraditional students causing a rise in older students entering college, with many first time enrollees (U.S. Department of Education, 2015). The U.S. Department of Education National Center for Education Statistics (USDE NCES) (2015) has predicted college enrollment to set new records between 2018 and 2024. USDE-NCES noted that a significant number of students in this future enrollment swell would consist of females, minority, disadvantaged, and older students. The predicted surge of nontraditional students provides an opportunity to explore and determine the penalty, if any, for delayed enrollment, which will provide data to empower both the traditional and nontraditional student to plan for future success. College administration should consider the special needs of nontraditional students to encourage adult students to enroll and complete degree programs (Advisory Committee on Student Financial Assistance, 2012).

### **College Challenges**

College is a challenge for all students, and while the nontraditional student must overcome life obstacles to complete degree programs, the traditional student faces his or her set of problems. Whereas traditional students scored significantly higher on emotional coping than

the nontraditional students (Johnson & Nussbaum, 2012), a strong concern persists for those who take a gap year or more before completing their degree programs (Keup, 2014). The newly graduated traditional student is encountering problems, such as being unemployed or underemployed (Stone, Van Horn, & Zukin, 2012; Vedder, Denhart, & Robe, 2013) and many are not working in their field of study (Xu, 2013). Additionally, it is believed that college today is not preparing students for real-world employment (Stephens, 2013), which can reflect on the graduates' ability to gain employment in their specific field of study. The 2015 Program for International Student Assessment (PISA) scores and statistics support the perception that American schools have consistently fallen from above average to barely meeting average scores as compared to other nations participating in the PISA program. PISA information is freely available online from the NCES website where they update the statistics regularly displaying the average scores across the world in an easy to read table on the home page (U.S. Department of Education - National Center for Education Statistics, 2015).

Increasing numbers of traditional college graduates are ending up in relatively low-skilled jobs that historically have gone to those with lower levels of educational attainment (Vedder, Denhart, & Robe, 2013). The increase in student loan defaults and the fact that the younger, more traditional student holds the bulk of the student loan debt (Schlagenhauf, & Ricketts, 2016) alludes to the idea that the traditional student is at risk of damaging their credit early in life, which can affect their future economic growth and development.

According to the Institute for College Access and Success *ICAS* (2015), while the total student debt is decreasing, of all the students who began paying their student loans, 611,000 defaulted on their federal student loans within three years. The *ICAS* report also noted that 11.8% of those in repayment in 2012 had defaulted by 2014 (U. S. Department of Education –

National Center for Educational Statistics *DE-NCES*, 2015). This information is a strong indicator that after three years in the workforce, traditional students are not earning enough to support themselves and pay off college debt. Because of this phenomenon, the government has implemented programs to assist students in managing their debt. Four of these programs, the Mortgage Style Standard loan, the Income-Based Repayment (IBR) loan, the Pay-As-You-Earn (PAYE) loan, and the proposed Student Loan Fairness Act (SLFA) are the most popular (Hauser & Johnston, 2016). Of these four options, the PAYE and SLFA offer the easiest repayment option but also have the highest repayment amounts (Hauser & Johnston, 2016).

College attendance is rising and the high school graduate's decision is no longer if they should attend college, but when and where they should choose to go to college (Goldrick-Rab, & Han, 2011). According to the U. S. Department of Labor (2016), 69.2% of 2015 high school graduates enrolled in two and four-year colleges or universities. The decision to attend college is not an easy one, and while there is considerable research supporting both approaches, the idea of how to make that choice is complex. The cost of education is steep, and for many, obtaining money for college is a primary reason many people join the military (Barr, 2016). The military not only provides education benefits but also teaches skills in hundreds of career fields and provides the opportunity for the recruit to gain practical experience in that career field in addition to earning a college degree. Additionally, many private and public organizations also offer higher education opportunities. However, the government limits the tax-free tuition benefits at \$5,250 annually, which will only pay for one or two courses (Zillman, 2016). A few companies are willing to exceed that limit, making the tuition a compensable and taxable benefit, but many potential employees see this as an asset and prefer to pay the taxes rather than the tuition (Zillman, 2016).

While Kim, Tamborini, and Sakamoto (2015) found that a direct correlation to lifetime earnings and the field of study, gaining higher education has many benefits even if the student does not find a job in the specific career field where he or she earned their degrees. However, a total analysis of the cost of higher education must consider not only the cost of taking courses that do not apply toward lifetime earnings but also the time invested in taking unrelated classes. A study by CareerBuilder (2013) determined that 47% of all college graduates are not working in their field of study and 36% wish they had majored in something different. This perception offers several analogies, such as;

- Should the student have waited to go to college?
- Was the money spent on traditional college unproductive?
- Will the student be a nontraditional student later in life to claim a new profession?
- Does the student need to earn a new degree to meet their individual needs?

Additionally, many traditional students choose a major based on parental guidance, professor influence, and television (Rafei, 2016). Bernadette Gailliard, the senior program administrator for Rutgers University stated, “These days if you talk to a teenager or even a college student, many will tell you they got interested in a career from a TV show they watched.” (Rafei, 2016; Rutgers School of Communication and Information, 2018). The study from the Aresty Research Center Division of Undergraduate Academic Affairs at Rutgers University (2018) also concluded that students felt that reality shows depicted real-life career expectations; thus, students felt that by watching the television series they knew what the career would entail. However, Toni Moletteri, a student on the research team admitted that television was not a good source for career information and stated that “It's [TV careers] unrealistic. It doesn't show all the



hard work that they have to do, especially doctors. You're in school for 12 years. They hardly talk about that on TV shows" (Rafei, 2016).

Specifically, more research is required to determine the total value of a degree in any career field and more research is necessary to show how just having any degree in any career field assists the student in finding a job even if it is not in the student's major area of study. According to a Goldman Sachs report, this matters because there is a high-level of skilled vacancies despite the significant rise in undergraduate students (Boroujerdi & Wolf, 2015). Graduates who choose majors such as Arts, Education, and Psychology may not break even until they are in their 50's (Boroujerdi & Wolf, 2015). This phenomenon appears to affect traditional learners mostly because of their age and experience levels.

### **Traditional Student Characteristics**

Early studies reflect negatively on delayed enrollment completion numbers (Bozick, & DeLuca, 2005), thus causing significant problems. Because of the social ethos related to becoming a college graduate, the incentive to go to college immediately after high school graduation may cause newly graduated high school students to enroll in a degree program for convenience rather than life-career desire. College provides a sense of belonging as well as guidance for new college students (Fisher, 2014). However, the lack of experience and career-focus often leads to the changing of majors, which causes additional debt, and consequently, after graduation, students may not work in their field of study. Additionally, many students are not earning the salaries they expected when they chose their career field.

The traditional student has typically just finished high school or has taken a year off to explore their options. However, the traditional student will enroll in college before they turn 20 years old. Generally, the traditional student is still dependent on family interactions with parents

or grandparents and does not support dependents or have significant job obligations (Zerquera, Ziskin, & Torres, 2016). The traditional student will be more likely to become involved with university activities and spend time socializing as well as learning.

The University of La Verne Career Services (2016), found that 50% to 70% of its college students would change their major at least once, with most making at least three changes before they graduate. According to the U.S. Department of Education, National Center for Education Statistics (USDE-NCES) (2012), only 38.6% of the students who enrolled in 2005, completed a bachelor's degree in four years, while 54.3% took five years and 58.3% took six years from starting their degree to completion. Statistics from the Pew Research Center (2014) reflect that only 56% of the students enrolled in higher education would graduate within six years and that it is harder for graduates to find jobs in their field of study, with many taking positions paying well below their expectations (Desilver, 2014). According to the USDE-NCES (2016), 50% of college-bound students are undecided about their choice of college major, which could lead to students changing their major after enrolling in college. Additional research found that 46% of first-time, full-time, students attending a four-year institution in 2003 changed their major at least once (ACT, 2016; Sklar, 2014; University of La Verne Career Services, 2016).

Unfortunately, there is little research examining this phenomenon, therefore, not much is known about the total effects of changing majors to the students' overall educational experience (Sklar, 2014). Sklar's (2014) study also noted that the percentage varied as much as 65% depending on the university, which alludes to a variety of causes stemming from better preparation, academic counseling, and the programs offered by each university. Students who change their major will take longer to complete an undergraduate degree, consequently incurring more debt, but changing majors may also affect their graduation status (ACT, 2016; Sklar, 2014). Studies have

shown a significant difference in lower graduation rates among students changing from a non-STEM program to a STEM program as opposed to those who change from a STEM program to a non-STEM program (Chen, 2013; Sklar, 2014). While 48% of STEM majors at the bachelor's level left the STEM field, only one-half switched majors to a non-STEM field while the rest left college altogether (Chen, 2013). However, attrition for non-STEM majors at the bachelor's level was higher than the STEM at 56% to 62%, thus giving credence to a variety of reasons for student attrition (Chen, 2013). Of all students who graduate, the majority of students, especially STEM graduates are not working in careers related to their major field of study (U. S. Census, 2014). The percentage of college graduates who are unemployed or underemployed or working in jobs that typically do not require a bachelor's degree, has been on the rise since 2001 (Abel, Deitz, & Su, 2014; Desilver, 2014; Stone, Van Horn, & Zukin, 2012; Vedder, Denhart, & Robe, 2013).

The aforementioned statistics are affected by many factors beyond those reported in each study at the time of the research. Some of these factors include the state of the economy, the field of study as it applies to future growth potential, the individual student influences, and global influences, to identify a few. When the economy is poor and jobs are scarce, people tend to enroll in college to better their chances of getting or keeping a job but may not complete the degree program if the economy gets better or if they are promoted without finishing their degree. Military conflicts, wars, or global disasters also play an important role in college enrollment, hence, consideration of their influence must be included in a complete analysis of the overall economic effects of college enrollment.

## **Nontraditional Student Characteristics**

The most basic difference between traditional and nontraditional students is the individual focus and personal responsibility. The traditional student's primary role is to concentrate on being a student and their earned income is typically only assisting in paying the bills or adding to the student's allowance (Zerquera, Ziskin, & Torres, 2016). However, the nontraditional student's primary role is work or career and being a student is secondary to any other family problem that may arise (Zerquera, Ziskin, & Torres, 2016). Even though earning a degree is not the first concern for a nontraditional student, enrollment has been on the rise for years coined as the "now-traditional" in 2005 by Kennen and Lopes (Stephenson, 2015, p. 105). A 1996 report from the National Center for Education Statistics defines nontraditional learners as generally one who is over the age of 24, while it also states that many other characteristics that interfere with educational objectives are often considered. Over one-third of undergraduates are considered nontraditional and will conventionally have a lower graduation rate than their traditional counterparts when age is used as the only identifier for nontraditional students (Horn, Cataldi & Sikora, 2005; Johnson, 2013; Markle, 2015). Nontraditional students do not go directly to college from high school for many reasons, for example, they may not have completed high school, the family may not have the financial means, or any number of other problems (Horn, Cataldi, and Sikora, 2005; Johnson, 2013). An important factor is the age difference between traditional and nontraditional students, which could be as little as a few years to 40 or more. Nontraditional students who enroll in college at the end of their 20's will have a different purpose than those who return in their 30's or 40's (Horn, Cataldi, and Sikora, 2005; Johnson, 2013). However, the data shows much lower enrollment and subsequent completion at the higher ages, therefore, age is still a major factor in determining completion (Niu & Tienda,

2013). Nontraditional students who were also a traditional student (traditional-plus in this research) have an advantage over the nontraditional student in that they have experienced college before. The earlier experience not only allows the traditional-plus student to understand the overall college experience but can also start them ahead of the others because some college credits will roll over from one degree to another.

Studies suggest that the older a person becomes, the less connected to college life they will be, and may have greater feelings of exclusion (Witkowsky, Mendez, Ogunbowo, Clayton, & Hernandez, 2016). Nontraditional students tend to take online or weekend courses and usually due to work and family requirements, they cannot participate in on-campus activities leaving them as an outsider (Witkowsky, Mendez, Ogunbowo, Clayton, & Hernandez, 2016). Unlike the traditional student, social influence does not pose a factor in persistence to the nontraditional student (Markle, 2015), who will spend their on-campus time involved with learning and mostly relying on the instructional staff for guidance and encouragement (Zerquera, Ziskin, & Torres, 2016).

While nontraditional students make up over half the college attendance, they also have lower persistence rates (Bergman, Gross, Berry, & Shuck, 2014; Miller, 2014). The nontraditional student is more concerned about their grade point average (GPA) and nontraditional students with a higher GPA are more likely to complete the degree program (Markle, 2015). Additionally, because of the lack of data and benchmarks, such as graduation rates, for nontraditional students, not enough metrics are available to make sound assumptions (Miller, 2014). Nevertheless, most university's administration has yet to transform the traditional college curricula or teaching methods to accommodate the older, more experienced, nontraditional students leaving them feeling excluded even when they attend classes on campus

(Coulter & Mandell, 2012; Lemieux, 2014). Not considering or including the unique needs of the nontraditional student will dissuade nontraditional students from enrolling and can be the cause for non-completion (Advisory Committee on Student Financial Assistance, 2012; Lemieux, 2014).

While the nontraditional student has many family and job obligations, individual attitude is a big hurdle to overcome because of a perception of being required to take classes that they feel does not support their end goals (Gordon, 2014; Lemieux, 2014). Many nontraditional students have worked in their career fields building experience, thus amassing knowledge that may surpass the instructor, which makes it difficult for the nontraditional student to accept the requirement to take the course (Gordon, 2014; Lemieux, 2014). This concept is especially true for basic learning or student success courses that many universities require when a student has been out of the classroom for a number of years (Gordon, 2014). The university considers entry courses as building blocks to a foundation and support system to encourage the older student to become more like the traditional student, while the older student may consider them as wasting their time and money (Gordon, 2014; Xuereb, 2014). Nontraditional students use friends and family as their support system but admit that beneficial experiences with the faculty will keep them from withdrawing (Xuereb, 2014). The majority of online learners are nontraditional students, which alludes to the need to adjust online opportunities for the older nontraditional learner (Geduld, 2014).

### **Adult Online Learning Transformations**

Online or distance education comes in a variety of forms, but the one thing they all have in common is that online courses are taken using computers and the Internet. Online courses may have a resident portion emerging as a blended course where part of the course is online and

some parts are in the traditional face-to-face classroom. In a ten-year study beginning in 2002, online enrollment increased at rates far higher than those of overall education did, and while the last year slowed some, online enrollment is still growing (Allen & Seaman, 2013). Additionally, a separate study found a higher need for technological models to increase communication and class interactions because these proficiencies are vital to reaching a higher order of critical thinking skills in adult education (Allen, Withey, Lawton, & Carlos, 2016).

Student motivation for online learning varies and Oguz, Chu, and Chow's (2015) study showed that students who preferred to take their program entirely online tended to be older Caucasians while the younger tended to prefer a blended experience. This concept supports the earlier theories that traditional students see college as a social influence whereas nontraditional students do not deem social interactions as an integral part of learning (Markle, 2015). Because the nontraditional student does not require the social interaction as a part of the higher learning experience, the evidence suggests that an online learning environment would be both a benefit and an encouragement to attend higher education. Additionally, the typical nontraditional student will have personal and professional experiences to contribute to the overall online learning environment.

**Shift from passive learning to active learning.** The traditional classroom using didactic lectures where students passively listen to memorize facts well enough to pass a simplified multiple-choice test based solely on the content from the instructor, has set precedence in the American school system (Stewart, 2014; White et al, 2014). This approach fails to develop students' critical thinking skills and limits student knowledge to the content addressed by the instructor (White et al., 2014). Consequently, while students work hard to grow and learn considerable new information in college, evidence shows they lack the ability to apply deep

critical thinking beyond the classroom (Friedman, Friedman, Frankel, 2016; White et al., 2014). This thought may give credence to the belief that college is not completely preparing students for real-world employment (Stephens, 2013). Many institutions of higher learning have implemented technology into the instruction, such as computers and massive online libraries. However, the basic philosophical teaching model has changed very little (Friedman, Friedman, Frankel, 2016; White et al., 2014). Online courses delivered through popular learning management systems (LMS) offer opportunities for continuation of the didactic process by digitizing the standard classroom lecture and using cameras and advanced keystroke style techniques to ensure the student performs as if he or she were in a face-to-face classroom. Many researchers have addressed a variety of barriers to active learning design but all agree that a primary problem is the curriculum developers lack the knowledge, skills, and abilities to develop a complex active learning curriculum (Friedman, Friedman, Frankel, 2016; Lemieux, 2014; Stewart, 2014; White, et al., 2014; Zerquera, Ziskin, & Torres, 2016). A few educational visionaries have introduced change to traditional instructional perspective and have developed alternative active learning frameworks in adult self-directed learning opportunities, such as Massive Open Online Courses, well known today as MOOCs.

*Massive Open Online Courses.* MOOCs are open enrollment online courses servicing an unlimited number of individuals to include a large number of underserved students (Funieru & Lazaroiu, 2016). Underserved students are classified as students who do not have the background or resources to attain higher education, such as, low-income, minorities, first-generation, and often those with special needs. MOOCs are an advanced form of online learning and while they have been around for a few years, educators still know little about the socio-demographics of the students or a genuine value of the courses (Stich & Reeves, 2017).



Currently, 2.6% of higher education institutions have MOOCs, but 9.4% are planning to implement them, while 55.4% are undecided and 32.7% have no interest (Allen & Seaman, 2013, p.3). The design and nature of MOOCs make gathering research data difficult due to the problems in accessing student information. Additionally, available studies ignore demographic information, such as race, and income, therefore, limited data is available to analyze properly (Stich & Reeves, 2017). Additionally, available studies are limited to single courses or single providers with the vendor supplying the data (Stich & Reeves, 2017). One consistent factor seems to indicate that the majority of completers of MOOCs are educated and employed, which negates the idea that they provide support for the underserved population (Stich & Reeves, 2017).

MOOCs are distributed to students through providers such as Coursera, EdX, Udacity, Future Learn, NovaEd, Iversity, Canvas, Open2Study, Open Learning, and Udemy Faculty Project among others. The largest MOOC providers, Coursera, claimed 15 million registered users, EdX, who boasted having 5 million, and Udacity, who posted 4 million users (EdSurge Inc., 2015). MOOCs started out as free open enrollment online courses, but with student requests and popularity growth, many have begun evolving and have started charging for some courses such as certificates, depending on the provider and the course. (EdSurge Inc., 2015). While MOOC certificates allow students to show their training and build their resume, some employers may not accept their true value. Therefore, some providers have employed stringent techniques to guarantee that the individual did the required work, such as EdX, which uses facial recognition software and a real-time web camera with a government-issued identification card to validate the student's identity (Funieru & LazaroIU, 2016). Coursera uses a much more complex biometric signature tool reading the student's keystroke signature (Funieru & LazaroIU, 2016).

These systems ensure the student who took the course is the one who gets the credit so the employer can be confident the employee knows the content.

***Flipped instruction.*** A fresh and new approach called, flipped learning, where the classroom extends the instruction to connect the course content to real-world professional applications is successful in adult learning (Balzotti & McCool, 2016). While flipped is often used in many forms, the initial phrase FLIP, is an acronym representing, *Flexible environment, Learning culture, Intentional content, Professional educators* (Balzotti & McCool, 2016, p. 69) though it has also grown to become a common reference for different forms of classroom and online teaching. While many flipped models exist, a primary commonality exists where the student learns the instruction at his or her own pace. Therefore, all students enter into deeper discussions at the same knowledge levels. The flipped classroom, which can be online or face-to-face, provides lectures and other pertinent information for students to read or watch and comprehend information on their time, outside of the classroom. This concept leaves class time to synthesize that information in open discussions (Balzotti & McCool, 2016; Blair, Maharaj, & Primus, 2016; Galway, Corbett, Takaro, Tairyan & Frank, 2014).

A recent study using a flipped classroom model, in a college class, showed that the class had higher levels of attendance, assignment completion, and higher levels of class involvement with more meaningful class discussions (Information Resources Management Association, 2017). In a separate study, the overall examination scores revealed no statistically significant difference; however, the students did reflect a statistically significant higher level of self-perceived knowledge in the flipped instructional model (Galway, Corbett, Takaro, Tairyan & Frank, 2014).

The challenges with flipped instruction lie in the development of the curricula and supporting materials, such as creating videos and adjusting the materials to accommodate disabilities (Blair, Maharaj, & Primus, 2016). Studies show students' like the flipped format with some stating it is due to better use of classroom time, whereas others prefer the self-paced learning style (Balzotti, & McCool, 2016; Blair, Maharaj, & Primus, 2016; Galway, Corbett, Takaro, Tairyan & Frank, 2014). However, most studies focus on self-efficacy in flipped situations, thus leaving a gap in the research based on performance (Balzotti & McCool, 2016; Blair, Maharaj, & Primus, 2016; Galway, Corbett, Takaro, Tairyan & Frank, 2014). The flipped model works well for both the traditional and nontraditional student because it can be adapted to both the classroom and online environment and offers all students the opportunity to learn at their pace and level. The Flipped Classroom offers a different approach to learning geared to self-driven learners who can comprehend instruction on their own and synthesize information using critical thinking to form a higher-level understanding of a topic. The Internet and other technological developments have provided many avenues for the independent learner to succeed such as social media.

***Technological / Social Changes Affecting Education.*** Technology in education is understood to be access to the Internet and any tools used to assist students to learn, which will include social media and the associated sites, learning management systems (LMS), the hardware used to access learning, and the curriculum designed to utilize the benefits of these tools. A true digital learning environment is focused on the how the technology can be integrated into the curriculum to support the students' learning experiences rather than the IT architecture (Brown, 2015). Malcolm Brown (2015), director of EDUCAUSE Learning Initiative applies three characteristics to educational technology, personalization, hybrid learning models, and analysis

of metadata, all of which apply equally to both traditional and nontraditional students. He also states that digital technology in higher education is not about the information technologist (IT) infrastructure but that it is rather about developing a digital learning environment (Brown, 2015).

The rise of social media has significantly influenced the outlook on educational collaboration, especially for later-in-life learners, where online students now complete degrees at higher rates than classroom-only (Shea & Bidjerano, 2014). Both traditional and nontraditional students are engaged in the use of social media. Therefore, incorporation of social media into the curriculum can have a high impact on student involvement, motivation, and participation, but should be carefully included as to enhance the instruction not replace it (Cooke, 2017; Davis, Compton, Farris, & Love, 2015; Manca, & Ranieri, 2016). Social media sites such as Facebook, YouTube, Twitter, LinkedIn, Pinterest, Google Plus, Tumblr, Instagram, and others have built a foundation for collaborative learning between people across the world, though this still requires structuring when used in curriculum (Davis, Compton, Farris, & Love, 2015; Manca, & Ranieri, 2016). With the massive use of these sites, it would be assumed that they would naturally fit into higher education curricula. However, studies show the students see social media as a useful tool that could improve their learning experience, but they do not see it as a primary teaching tool (Cooke, 2017; Davis, Compton, Farris, & Love, 2015; Manca & Ranieri, 2016). Students felt the use of social media motivated them to be more involved in learning. However, they did not feel more motivated to participate in open class discussions, although it did allow students to feel more engaged in the debates (Cooke, 2017). Social media sites offer an environment where the students can share ideas more easily and enable those who have a difficult time speaking in class to participate in the class discussions more actively (Cooke, 2017). Additionally, the use of social media in the classroom requires constant monitoring not only to see who is participating,

but also to keep abreast of what is being discussed to prevent the discussion from going off-track and to keep them inoffensive for all students (Davis, Compton, Farris, & Love, 2015).

New developments in technology and the acceptance of social media have opened new avenues for universities to expand their outreach to both traditional and nontraditional students. New technology also represents a key factor responsible for the USDE NCES (2015) prediction of a college enrollment spike in both traditional and nontraditional students, with an emphasis on females, minority, disadvantaged and older students. However, this spike is not without questions, concerns, or uncertainties.

### **Applications to this Study**

The significance of this study is to provide empirical evidence that will enhance an individual's ability to make an informed decision about higher education with the key question regarding what predictors should be examined to determine when to enroll in higher education. The traditional student will typically begin college within two years after graduating from high school whereas the nontraditional student will not start until after he or she has turned 25 years old. Studies show that students who wait for three to four years will have higher success in completion rates, which were attributed to the individual's maturity, motivation, and determination (Niu & Tienda, 2013).

A synthesis of the literature suggested three primary and crucial factors that heavily influence when an individual considers college attendance. Those factors are; cost, readiness with the ability to attend classes, and job requirements or opportunities (Guldin, 2013; Johnson & Nussbaum, 2012; Keup, 2014; National Center for Education Statistics/National Postsecondary Education Cooperative, 2007; Ndiaye, & Wolfe, 2016; Niu & Tienda, 2013; U.S. Department of Education, 2011, 2015, 2016). Additionally, males were more likely to postpone

their college attendance with Hispanics most likely to wait to enroll than other ethnic groups (Niu & Tienda, 2013). This study examined adult learning theories, traditional and nontraditional student characteristics, and the effects and progressions of online learning because it was the most popular with nontraditional students. Special considerations between active and passive learning were examined to ensure impartial comparison due to the balance of traditional students in face-to-face classes and nontraditional students enrolled in courses taken mostly online. This study divides the literature into four fundamental and essential areas of concern between the traditional and nontraditional student. The first consideration is to ensure comparisons between traditional students and nontraditional students were equivalent due to the difference in classroom delivery and attendance. The second deliberates the value and actual cost of debt incurred in gaining a college degree. The third consideration reflects the overall preparedness for higher learning to include student readiness for learning as well as the student's career choice and the number of years to achieve the first four-year degree. Finally, this study considers the influences of experience from a variety of employers whether gained from early employment or participating in internships to future career development.

### **Gainful Employment Act (GEA)**

Student loan default has grown significantly over the last few years to the point the government has had to step in and investigate. Failing or predatory colleges have not provided opportunities for students to succeed and strapping students with substantial student loan debt (U.S. Department of Education, 2014). The Obama administration passed the Gainful Employment Act that will reduce government funding to non-performing colleges and universities to address these growing concerns (U.S. Department of Education, 2014).

The purpose of the Gainful Employment Act, 34 C.F.R. § Parts 600 and 668 (2014) is to limit government student loan funds from being given to colleges and universities for degrees and certificates that do not directly support professional employment. Specifically, the gainful employment strategy is to identify:

- programs that do not train students in job skills specific to their degree program;
- programs that cost more than the job prospects; and
- programs that have a high attrition rate (34 C.F.R. § Parts 600 and 668, 2014, p. 64890).

Gainful employment laws apply to all educational institutions who receive federal student aid programs authorized under Title IV of the Higher Education Act of 1965 (U.S. Department of Education, 2013). The regulation outlines standards for college programs and certificates to ensure they prepare students to enter the workforce in their major area of study. Under the gainful employment act, universities must meet two primary objectives, first is a debt-to-earnings metric and second is a cohort default metric. The debt-to-earnings metric is a formula to determine income to program value stating that a students' loan repayment level should be below 8% of their annual income or 20% or less of their discretionary income (U.S. Department of Education, 2013). However, a college or university will be considered 'in the zone' if it is between 8% and 20% of their annual income and between 20% and 30% of discretionary income, but whereas it will fail for numbers higher than 12% of annual income or 30% discretionary income (U.S. Department of Education, 2013). The cohort default metric oversees the program quality and completion rates, where no more than 30% of the enrollment in any gainful employment program may default on their student loans (American Council on Education, 2014). Section § 668.411 of the Program Integrity: Gainful Employment regulations

contain the reporting requirements for colleges and universities. Students report their numbers through the National Student Loan Data System (NSLDS), which is the student aid database for the U.S. Department of Education. The NSLDS receives educational data based on student loans from universities, agencies who guarantee loans, the Direct Loan Program, and other U. S. Department of Education programs (National Student Loan Data System, 2017).

### **The Economics of Higher Education**

When considering the total economics of higher education, the actual cost of the degree program is only the first consideration. A complete analysis must also include an aggregate evaluation of the cost of earning a degree to include, the repayment of student loans or the effects of nonpayment and the individual struggles with personal responsibilities while attending college courses. Nontraditional student trends reflect that most have part-time unskilled jobs, families, and the idea that being a student is not their first concern, whereas the traditional student's primary focus is to earn their degree (Zerquera, Ziskin, & Torres, 2016). Traditional students will often have summer jobs or internships, but these are usually low pay or nonpaying and the purpose of working is only to gain additional funds, not for primary living expenses.

As an overall economic venture, substantial evidence validates the fact that increased educational attainment provides a significant number of benefits that include the following: college graduates are more likely to be employed, have a higher earning potential, have health insurance benefits, have a healthier lifestyle, and move up on the socioeconomic ladder (Baum, Ma, & Payea, 2013). Post-secondary education comes with a high dollar price tag but offers more than just a degree or a pathway to better employment. The graduate will discover other benefits to include an increased understanding of the world, which also intensifies America's ability to be a world power thus a benefit to everyone (Baum, Ma, & Payea, 2013). Studies



reflect that students in business, education, and training career fields are more likely to be hired and offered a higher salary if they have participated in an internship program (Binder, Baguley, Crook, & Miller, 2015). This analogy encourages the idea that the nontraditional graduate with experience working in their field of study will be more attractive to an employer, especially for skill-based positions where experience is a plus.

Higher education has also been at the forefront of negative news and it is no secret that it has reached a state of crisis over the last few years (Vaughan, 2013). Many students find a wide variety of economically related problems while attending higher education and some will find that student loans burden their financial status long after they graduate (Vaughan, 2013; Schlagenhauf, & Ricketts, 2016). Instructors may not always flex for the working student and many have no concept of the disposition of the hard working nontraditional student (Zerquera, Ziskin, & Torres, 2016). Additionally, some students may also encounter the fact that their chosen university falls into financial failure such as the Corinthian Colleges causing significant problems in the values of their degree long after they have graduated and while still paying student loans (U.S. Department of Education, 2016).

Student debt has surpassed credit card debt and is challenging mortgage debt in America (Vaughan, 2013). A study on the postsecondary credentialing of non-occupational licenses career fields in the labor market found significant discrimination among employers based on the reputation of the higher learning institution (Deming, Yuchtman, Abulafi, Goldin, & Katz, 2016). Additionally, the same study found that having an associate's degree did not enhance the individual's ability to obtain a job interview (Deming et al., 2016). Further, a separate study reflected a sizeable fraction of college graduates in specific categories depending on the institution were financially worse off for having attended college (Strohush & Wanner, 2015).

Individuals with a college degree earn more over a lifetime than those without a degree, but the total value of having a degree, as well as the cost to earn that degree has not been fully studied (Haughwout, Lee, Scally, & van der Klaauw, 2015). Total student loans are over one trillion American dollars and growing daily with over 40 million students affected (Haughwout, Lee, Scally, & van der Klaauw, 2015). Many news organizations labeled student loan debt in America as a crisis large enough for the government to intercede. Student loan debt is a national problem, and according to the American Student Assistance (ASA), student loans are influencing future financial decisions by limiting their buying power, and essentially putting student's lives on hold (American Student Assistance ASA, 2015). The Federal Reserve Bank of New York Consumer Credit Panel/Equifax's 2015 charts reflects 65% of student loans are owed by people under 39 years old. The average student loan has tripled since 2004 surpassing credit card debt and is now the second largest form of household debt following mortgages (Brown, Haughwout, Lee, Scally, & van der Klaauw, 2015). Experts believe that high overall college loan debt is attributed to several possible reasons, such as; more people attending college, higher college fees, loans are easier to attain, and that it takes longer to complete a degree program (Brown et al., 2015). Additionally, the repayment rate is slower because borrowers are delaying their repayment through education deferrals, forbearance, and income-based repayment plans (Brown et al., 2015).

Some students have other options other than student loans, such as employer assistance. Many employers will either pay entirely or subsidize higher education within specific career areas and many will provide certification training such as Lean Six-Sigma Black Belt training or other career enhancement programs. While no single compilation of companies who offer college assistance is available, a simple Google search will reveal companies ranging from

Starbucks and Best Buy to Disney that participate in employee education. Other options are present in organizations such as the military, which not only pay the employee for attending college but depending on where the service member is stationed, he or she can arrange to attend classes during the duty day, within the parameters of their unit's standard operating procedures. The military also has memorandums of understanding with several higher education facilities under the Servicemembers Opportunity Colleges Degree Program, known as SOC (Servicemembers Opportunity Colleges *SOC*, 2016). Funded through the American Association of State Colleges and Universities (AASCU), the SOC agreement allows military members to attend college while moving around the world, and keep the college credits they have earned. Additionally, the Department of Defense manages a contract called the Defense Activity for Non-Traditional Education Support (DANTES), which allows military members to test out some basic college courses, such as writing or basic math, which they learn throughout their military training.

### **College Readiness**

Conley (2007) defines college readiness as a level of preparation, without remediation, and that students must succeed in a post-secondary baccalaureate program. Conley (2007) concludes that college readiness is the responsibility of both the student and the college. He also defines success as, "a level of understanding and proficiency," (pg.5) which empowers the student to enroll in higher levels of a subject area successfully. For this study, college readiness is narrowed to the students' overall preparedness for higher learning, including Conley's (2007) description of learning and the students' career choice, which will include the number of years for students to achieve the first four-year degree.

Colleges across America are changing to meet the needs of today's technologically smart students and to teach the requirements of associated job opportunities. Students need to be prepared to use cognitive strategies, sharpen learning skills, understand how to change their way of thinking to increase their knowledge, and to transition to higher cognitive thinking. However, the university also needs to ensure they accurately measure those abilities (Darling-Hammond, Wilhoit, & Pittenger, 2014). College readiness begins in the curriculum in high school by preparing students to read and write at higher levels using critical thinking skills (Boyer, 2015; Royster, Gross, & Hochbein, 2015). This concept implies that students, who attend high schools that are not fully funded or not focused on preparing for higher education, will be at a disadvantage to attend college. President Barak Obama emphasized that it was the high school's obligation to ensure all graduating students were well prepared to attend college and the lack of college readiness is affecting postsecondary degree completion (Kramer, et al., 2016). While this is an excellent start in developing college-ready high school seniors, this does little for the nontraditional student, who may have graduated as many as twenty or thirty years before enrolling in college.

Nontraditional students have grown to comprise the largest percentage of college students and bring individual challenges in returning to a degree program. Nontraditional students have significantly lower graduation rates than the traditional student (Markle, 2015; U.S. Department of Education, 2016). Nontraditional students face stresses from family life, domestic responsibilities, emotional support, family stability, and employment demands (Grabowski, Rush, Ragen, Fayard, Watkins-Lewis, 2016). Nontraditional students will take longer to finish a degree because they work the degree around their family and work life and will often become discouraged at the length of time spent earning the first degree. Additionally, large portions of

nontraditional students are constrained by family responsibilities, giving them less time to devote to studies (Bozick & DeLuca, 2005). Nontraditional students are often enrolled part-time to allow a chance to work and take care of family matters. However, enrollment status affects tuition assistance eligibility thereby often penalizing the nontraditional student (Grabowski et al., 2016). The high school curriculum characterizes higher academic preparedness and subsequent counselors, where some schools encourage military enlistment over college and others simply do not extend the efforts to build college relationships to help students build the necessary skills to prepare for college (Boden, 2011; Castro, 2015).

### **Experience vs. Education**

This study examines the aggregate cost of waiting a few years before earning a college degree. Therefore, the actual difference in value between the traditional student with an internship and the nontraditional student's experience plays an important role in the final analysis. While any work contributes to an individual's experience and maturity having professional expertise in the specific career field area may carry more weight toward employment than experience gained from nonprofessional positions. However, many employers seek entry-level applicants and will consider the experienced individual but albeit at an entry-level salary, depending on the job requirements and the employee's credentials.

While research has proved that earning a college degree results in higher pay over a lifetime, many significant measurable differences occur based on age, gender, race, and ethnicity as well as a chosen profession (Carnevale, Rose, & Cheah, 2011). Another key factor of analysis in this area is that pay is significantly affected by the current state of the economy and the qualifications of the applicant. Employers favor experience in the most common career fields gained either from initial employment or by participating in internships for future career

development (Carnevale & Cheah, 2015). While all college degree holders earn more than a high school graduate, a 2015 study by Georgetown University found that an experienced college graduate's average wage was almost twice in comparison to the younger recent college graduates (Bollinger, 2015; Carnevale & Cheah, 2015).

Internships not only provide an introduction to work experience allowing students to build a resume but they also give potential employers a view of the soon to be graduate's knowledge, skills, and abilities without committing to hiring the individual (Binder, Baguley, Crook, & Miller, 2015). Internships provide a segue for students to transition into a white-collar working adult life and help build self-confidence and work skills. However, studies have shown that students are often dissuaded from the career where they practiced because of bad experiences and the associated pressures, and generally found the internship process negative (Parent, Bradstreet, Wood, Ameen, & Callahan, 2016; Regmi, & Thapa, 2015). A European study found that work experience helped graduates learn more about their chosen career field and expanded their knowledge, skills, and abilities. It also found that the work experience gained, whether an internship or early work experience, did not provide any better chances of them being hired or earning more wages (Weiss, Klein, & Grauenhorst, 2014).

The National Association of Colleges and Employers (NACE) (2016), Class of 2015 Student Survey on internships found that students who took unpaid internships also took lower paying positions, earning nearly \$15,000 less annually than those who took paying internships. Additionally, the NACE (2016) follow-up survey found that the class action lawsuits against organizations who offered nonpaying internships caused the organizations to stop offering any internship opportunities. When internships are not available, individuals may take apprenticeship that leads toward the chosen career path, with the most popular today being any

information system (IT) job available and then seeking to earn a certification, which provides segues to white-collar job interviews. Excluding careers, which require college degrees, such as engineers, a study by Georgetown University provides evidence that there are career fields where experience earns a higher salary than higher education alone (Carnevale & Cheah, 2015). The auspice is that an individual who continues in the same career field will gradually increase their salary based on their experiences and the new graduate will begin an equal position at a trainee salary. However, the combination of experience and college will win out over one or the other (Carnevale & Cheah, 2015).

A complete analysis must also consider how natural talent and family support affects success such as the number of billionaires who dropped out of school or college to pursue their dreams. Performing a Google search for the world's richest dropouts will return a significant number of people, such as Microsoft founder Bill Gates who dropped out of Harvard, or Li Ka-Shing the richest man in Hong Kong, who dropped out of school at age 12 along with many others who became the world's richest people. However, these are special cases and the analysis in this study will only consider the anomaly and not their accomplishments.

### **Summary**

This literature analysis examined a variety of aspects to evaluate the cost of waiting a few years before earning a bachelor's degree. Many studies reflect that college graduates earn more after gaining experience, though none have considered the financial consequences of waiting to earn that degree or determined if there is a significant cost-to-earnings difference considering the number of years a student waits between high school and college. The literature review looked closely at several aspects related to any consequences or benefits incurred in relation to waiting to earn a college degree.

The basis of this study lies in the differences between the traditional and nontraditional student receiving tuition assistance via student loans that fall under Title IV funding. The literature revealed that while the traditional student is education-focused, he or she is still dependent on immediate family for support. Traditional students tend to be immature in their decision-making, which can lead to major changes in career goals and take longer to complete a degree, thus face higher education costs (Pew Research Center, 2014; University of La Verne Career Services, 2016; U.S. Department of Education, NCES, 2016; Zerquera, Ziskin, & Torres, 2016). The traditional student was more relaxed than the nontraditional student but the nontraditional student balances many obstacles to higher education such as jobs, family, and personal values that the traditional student does not (Horn, Cataldi, and Sikora, 2005; Johnson, 2013; Zerquera, Ziskin, & Torres, 2016).

Nontraditional students will often be working in their field of study bringing considerable knowledge, skills, and abilities into the classroom. However, the nontraditional student will often allow attitude to form a hurdle to overcome, especially if he or she feels the course of instruction is not pertinent to his or her degree completion (Gordon, 2014; Xuereb, 2014). Lastly, although online options are becoming popular with both traditional and nontraditional students, the nontraditional learner will be more likely to take online courses because they are a better fit for their schedules and easy to attend (Geduld, 2014). In this study's literature review, the researcher examined the applicability and differences in curriculum presentation to include MOOCs, flipped instruction, and technological changes in education. Synthesis of the information discloses that while traditional students are adults, they tend to prefer the social interactions of a face-to-face class whereas the nontraditional student prefers the independence of an online course (Markle, 2015).



To better analyze the research question, the research was divided into three primary categories. First, was the overall economics or financial aspect of earning a higher degree, which included student loans and the subsequent ramifications of defaulting on student loans as well as the salary differentials. Additionally, economics included changing the majors and careers that require additional college courses or a change in the degree program, which therefore, incurs higher overall college costs. The economics review included the stability of the educational institution and the benefits of earning professional certifications before college. Overall most students seek a higher degree to climb the proverbial social ladder, which affords better opportunities for health care, finer living arrangements, and higher bottom lines (Baum, Ma, & Payea, 2013). The overall economics of attending college considered the actual cost of college, as well as obscure costs, such as defaulting on student loans as well as balancing classes with family responsibilities (American Student Assistance ASA, 2015; Brown et al., 2015).

Literature exploration continued with the consideration of the readiness of the traditional versus nontraditional college student, which included the student's ability to focus on learning, the number of times the student changed their major and other factors affecting the general preparedness for higher learning. This is also an economic concern because of the cost of additional courses but is also a readiness interest because it indicated the student is not ready to choose a career path (Pew Research Center, 2014; University of La Verne Career Services, 2016; U.S. Department of Education, NCES, 2016; Zerquera, Ziskin, & Torres, 2016). Readiness literature research examined nontraditional student's readiness and difference in responsibilities, as well as how they affect the students' readiness to learn. This segment also looked at apprentice programs and military training to understand how that influenced college readiness and future job opportunities. However, this study does not include apprentice schools because

they are the simultaneous application of career experience and college education and this study focused on the effect of delayed enrollment.

The third category investigated how experience plays a role in the cost of waiting before entering college. Experience comes from both age and what a person learns through social interactions, jobs, and general observations. To understand how experience affects traditional and nontraditional students, this study considered how maturity influenced the learner's decisions and, how involvement with internships and job experiences related to employment opportunities and subsequent salary after earning a degree. The literature reflects that nontraditional students will struggle with their curriculum when they have a preconceived knowledge of the instructional content, whereas the traditional student is more of a clean slate (Chen, 2014; Mezirow, 2009).

The literature review revealed many factors influencing an individual's educational path and many different possible consequences and outcomes depending on the individual and the career path. The literature overwhelmingly noted the lack of experiences for traditional students over the experienced nontraditional as a significant factor for job considerations and paid equivalencies, which will be reflected in the final data analysis. Assessment of the literature reflects many opportunities and challenges for both traditional and nontraditional students' and if they can accurately identify their position, it will provide data that will assist all students in making the very personal decision of when it is best for them to enroll in higher education to better their lives.

## **CHAPTER THREE: METHODS**

### **Overview**

The intent of this study was not only to explore the effects of delayed college enrollment but also to consider the different aspects of higher education to include financial obligations, college expenses, lost personal time, missed opportunities, as well as personal sacrifices, if any, surrounding delaying college enrollment. Chapter three discusses the study's design, research questions and hypotheses, participants and setting, procedures, and data analysis.

### **Design**

The purpose of this research was to explore the economic dissimilarities between the nontraditional, traditional, and traditional-plus students using the relationship in a causal-comparative design. The design also considered gender to assist in differentiating between gender dominant careers. The casual-comparative design is often used in educational research (Gall, Gall, & Borg, 2007) and relies on "observation of the relationships between naturally occurring variation in the presumed independent and dependent variables" (Gall, Gall, & Borg, 2007, p. 306). This study used the self-reported Lifetime Income of students as a single dependent variable and two independent variables, which are (factor one) the Type of Student (traditional, non-traditional, or traditional-plus) and (factor two) Gender, to determine if significant differences exist between the groups. For the purpose of this study, traditional students were 25 years old and younger who entered college within two years after high school graduation (Institute of Educational Sciences / National Center for Education Statistics (2016). In addition, for the purpose of this study, nontraditional students were over the age of 25 years old and entered college later in life generally, about ten to fifteen years after high school graduation (Institute of Educational Sciences / National Center for Education Statistics (2016).

A third category, traditional-plus students, are those students who qualified for both the traditional and the nontraditional categories because they earned their first bachelor's degree after high school graduation and returned years later to earn a second bachelor's degree in a different career field, therefore meeting the requirements for both groups. Any reference to gender in this study was limited to only males and females as self-reported, and was used to assist in the analysis to assess gender dominate career fields. The causal-comparative approach has been used in numerous studies where there is an attempt to identify a causative relationship between an independent variable and a dependent variable (Silva, 2010). The weak points in using a causal-comparative research design focus on the lack of control of the independent variables; however, in this study the independent variables, Type of Student (which was divided into three categories, traditional, nontraditional, and traditional-plus), and Gender, are considered stable platforms for comparison. Additionally, whereas the causal-comparative approach does not allow for nonrandom selection, it was an advantage in this study.

The research examined differences between the traditional student and the non-traditional student through their self-reported lifetime income. Lifetime Income is often used to analyze the relationship between higher education and income (U.S. Department of Commerce, Economics and Statistics Administration U.S. Census Bureau, 2011). An individual's educational attainment has more effect on Lifetime Income than any other demographic factor and is an important element in research (Tamborini, Kim & Sakamoto, 2015; U.S. Census Bureau - American Community Survey Reports, 2011). While the typical college graduate earns more over their lifetime than a high school graduate does, not all college degrees offer the same or higher earnings over a lifetime (Hershbein & Kearney, 2014). Research reflects that while the majority of college graduates will always have a higher earning potential, there are exceptions

where the top tenth of high school graduates will earn more than the bottom tenth of all college graduates over their lifetime (Hershbein & Kearney, 2014). Considering these properties the question of how the timeline of when a student earns a college degree and how gender influences lifetime income.

### **Research Questions**

The research questions for this study are:

**RQ1:** Is there a difference in the level of self-reported Lifetime Income of college graduates who were either traditional, nontraditional, or traditional-plus students?

**RQ2:** Is there a difference in the level of self-reported Lifetime Income of college graduates who were either male or female students?

**RQ3:** Is there an interaction in the level of self-reported Lifetime Income of male or female college graduates who were either traditional, nontraditional, or traditional-plus students?

### **Null Hypotheses**

The null hypotheses for this study are:

**H<sub>0</sub>1:** There is no difference in the level of self-reported Lifetime Income of college graduates who were either traditional, nontraditional, or traditional-plus.

**H<sub>0</sub>2:** There is no difference in the level of self-reported Lifetime Income of college graduates who were either male or female students.

**H<sub>0</sub>3:** There are no interactions in the level of self-reported Lifetime Income of male or female college graduates who were either traditional, nontraditional, or traditional-plus.

### **Participants and Setting**

The participants for this study consisted of a variety of college graduates from across the United States. Respondents were drawn from millions of contributors who volunteered to

participate in surveys from an affiliate of SurveyMonkey, a cloud-based, online professional survey, and statistical company. Respondents volunteer to take surveys for non-cash incentives, such as gifts to their favorite charity or chances to win sweepstake prizes, which prevent problems such as satisficing and encourage honest and thoughtful responses (SurveyMonkey, 2017). This research approach required a minimum of 600 college graduates for a medium effect size with a statistical power of .7 at the .05 alpha levels (Gall, Gall, & Borg, 2007, p. 146).

### **Population**

The target population for this study included a widely diverse populace that encompassed male and female respondents regardless of their ethnic, social or economic status across the United States, ranging in age from 30 years old through 65 years old, that earned at least one four year degree from an accredited university distributed as shown in Table 1.

Table 1

#### *Target Population*

Gender		
Female	532	66.58%
Male	261	32.67%
Preferred not to Answer	6	0.75%
Ethnicity		
Asian American	74	9.26%
Black or African American	97	12.14%
Caucasian	517	64.71%
Hispanic or Latino	76	9.51%
Middle Eastern American	1	0.13%
Multiracial	13	1.63%
Native American or Alaska Native	11	1.388%
Native Hawaiian or Pacific Islander	4	0.50%
Other	3	0.38%
Preferred not to Answer	3	0.38%

Type of Student		
Non-Traditional	327	40.93%
Traditional	343	42.93%
Traditional-Plus	129	16.15%
Lifetime Income		
\$0 - \$200K	252	31.54%
\$201K-\$400K	139	17.40%
\$401K-\$600K	102	12.77%
\$601K-\$800K	98	12.27%
\$801K- \$999K	67	8.39%
\$1Million-\$1.5Million	76	9.51%
\$1.5 Million-\$1.9 Million	24	3.00%
\$2 Million-2.9 Million	23	2.88%
Over \$2.9 Million	18	2.25%

### Sample

The sampling method for this study was a convenience sample of male and female residents living throughout the United States who earned a four-year (bachelors) degree from an accredited college or university. To maintain the fundamental purpose and to compile empirical data for future studies, the respondent's ethnic, cultural, social and economic status were not a considered, therefore, this study does not consider that information in the analysis. The sample size was 1,262 participants with a median age of 36 years old. However, a significant anomaly occurred in 448 of the participants reflecting that they had enrolled in a university and amassed student loans but did not complete a bachelor's degree from an accredited university. Additionally, 15 did not respond to all qualifying questions. Therefore, their responses were not considered for final analysis, leaving a total of 799 respondent's data for final analysis. The sample for this study was 32.67% male and 66.58 % female.

### Instrumentation

This study used a cloud-based, online survey services program, from Quest Mindshare panel operated by Cint, a global survey company (Cint, 2018) and a Survey Monkey partner.

Cint advertises a global audience of 40 million active respondents across 1,500 different panels, which provides a very diverse population for this research (Cint, 2018). The data collection instrument was a demographic survey that captured the educational and economic characteristics of the general population across the United States by respondents from a wide variety of cultures, philosophies, and personal principles. The survey consisted of a series of demographic questions identifying gender, age at undergraduate graduation, additional degrees, and Lifetime Income based on information the respondent gathered from the Social Security Administration website, as well as other demographic information. Using a demographic survey with Lifetime Income as a discriminator has proven valid in empirical research from Georgetown University, Pew Research Center, the Hamilton Project, and the U. S. Census Bureau (Carnevale, Rose, & Cheah, 2011; Hershbein & Kearney, 2014; Pew Research Center, 2014; U.S. Census Bureau, 2011).

Information, such as lifetime earnings, was grouped for the respondent to choose a range of Lifetime Income rather than enter a specific dollar amount. The groupings were based on aggregate information drawn from the U.S. Census Bureau tables and business studies estimating average lifetime earnings in age groups (Tamborini, Kim, & Sakamoto, 2015; Thompson, 2009; U.S. Department of Commerce, 2017). Demographic surveys provide researchers the ability to analyze large populations reflecting personal characteristics in which to analyze and identify items of interest quickly such as the census surveys (Ponto, 2015). The U.S. Census Bureau has collected and used demographic data since the 1700's, which over the years, has provided a better understanding of Americans and their way of life (U.S. Census Staff, 2017) as well as providing data for trend analysis. A professional service, Cint, a Survey Monkey partner, was used to assist in compiling the survey data. The service has over 40 million people who volunteer to take part in the monthly surveys the company distributes. The company attracts



respondents by offering incentives when they participate. This approach attracts those who want to express their opinions as well as encourage thoughtful and honest participation (Survey Monkey, 2017). People are able to share their opinions and earn an incentive for participating in surveys thus, making a win-win situation for all participants (Survey Monkey, 2017). Whereas the survey company is global, the respondents for this research were drawn only from across the United States, thereby providing an abundance of respondents and a very diverse population. This approach allows researchers to target a specific audience based on age, gender, income, or a wide range of other properties that would best suit their needs. Using a professional service, as well as a demographic survey, enables the research to reach a wide-range population with diverse backgrounds and provide a sufficient sample that better represents the general American population (Ponto, 2015). A separate professional service, Intellectus Statistics, was used to assist in reviewing and reporting the survey data. This service assists students in learning statistics by acting as a tutor and report writer (Intellectus Statistics, 2018) to ensure the data analysis is accurate.

### **Procedures**

After gaining approval from the Liberty University Institutional Review Board (IRB), to conduct the study, the researcher contracted and worked with Cint, a professional survey agency to collect the appropriate data. Cint, a sub-agency of SurveyMonkey, maintains all identifying information and distributes the survey through the Internet to a pre-determined and specific group of individuals who have registered with the agency to respond to surveys. This group is considered a part of Cint's contributing panel consisting of millions of worldwide registered volunteers who take surveys for charity and sometimes as an opportunity to be entered into a sweepstakes. All panelists agreed to, signed a legal terms-of-use agreement with Cint, and

understood the significance of their contributions to research. Contribute panelists have a profile that contains personal demographic information maintained by SurveyMonkey and Cint, thereby protecting the identities of all the respondents. Cint uses this personal information to qualify individuals to take a specific survey as outlined in the contract. The researcher does not have access to personal information and the resulting survey data is safeguarded from anyone other than the authorized client through a SurveyMonkey password-protected account. The data is provided in multiple export formats that will work within any number of statistical programs.

### **Data Analysis**

In statistics, the two-way analysis of variance (ANOVA) is an extension of the one-way ANOVA that examines the influence of two different categorical independent variables on one continuous dependent variable (Gall, Gall, & Borg, 2007). The data analysis method chosen for this study was a two-way ANOVA statistical procedure because it allows the researcher to examine differences between a dependent on two independent variables (Gall, Gall, & Borg, 2007). The categorical groups are traditional students, which are those who enroll in college after high school graduation, the nontraditional students, which are those who waited a few years before attaining their degree, and the traditional-plus students, who fall into both categories having earned their first bachelor's degree after high school graduation but returned later in life to earn a second bachelor's degree. The second independent variable was gender and the dependent variable was self-reported lifetime income

A statistical analysis program by Intellectus Statistics was used to conduct a two-way ANOVA process correcting for outliers, using a combination of tables, line graphs, a box and whisker plot for each group and variable and removal of extreme outliers. Additional assumptions of normality were examined using Kolmogorov-Smirnov tests. The Assumption of

Equal Variance was examined using the Levene's Test of Equality of Error Variance (Gall, Gall, & Borg, 2007). Effect size will be reported using partial eta squared.

## CHAPTER FOUR: FINDINGS

### Overview

The purpose of this causal-comparative study was to see how entering college later in life (traditional student vs. nontraditional student vs. traditional-plus student) affects self-reported Lifetime Income after graduation with gender consideration. To do this, the researcher examined the income of male and female traditional, nontraditional, and traditional-plus students using a two-way analysis of variance (ANOVA). Intellectus Statistics, an academic statistics tool, was used to analyze the data. This chapter presents the details of the findings of this study, beginning with a reiteration of the research questions and hypotheses, followed by descriptive statistics that are outlined to describe how the data was cleaned before systematically reporting the findings. First, the findings are summarized and then the frequencies are presented followed by reports of the means, standard deviations, and sample size, and finally, the primary results of the ANOVA analysis.

### Research Questions

**RQ1:** Is there a difference in the level of self-reported Lifetime Income of college graduates who were either traditional, nontraditional, or traditional-plus students?

**RQ2:** Is there a difference in the level of self-reported Lifetime Income of college graduates who were either male or female students?

**RQ3:** Is there an interaction in the level of self-reported Lifetime Income of male or female college graduates who were either traditional, nontraditional, or traditional-plus students?

### Null Hypotheses

The null hypotheses for this study are:

**H<sub>0</sub>1:** There is no difference in the level of self-reported Lifetime Income of college graduates who were either traditional, nontraditional, or traditional-plus.

**H<sub>0</sub>2:** There is no difference in the level of self-reported Lifetime Income of college graduates who were either male or female students.

**H<sub>0</sub>3:** There are no interactions in the level of self-reported Lifetime Income of male or female college graduates who were either traditional, nontraditional, or traditional-plus.

### **Descriptive Statistics**

The researcher examined one dependent variable, self-reported Lifetime Income, and two independent variables: Gender, defined as only male or female, and Type of Student, designated as either a traditional, non-traditional, or a traditional-plus student. For the purpose of this study, traditional students are those who enter college within two years after high school graduation and earning a bachelor's degree before turning 25 years old. Nontraditional students are those who enter college later in life, generally, about ten to fifteen years after high school graduation and always over the age of 25 years old (enrollment could have a greater range). The traditional-plus option designates those students who fall into both the traditional and non-traditional categories having earned at least two bachelor's degrees one just after high school graduation and the second later in life.

### **Data Screening**

The researcher collected data from 1,262 participants and assessed the data for discrepancies and inconsistencies that would affect the proper analysis of the data. The researcher removed 448 participants because they did not earn a bachelor's degree from an accredited university. The researcher removed an additional 15 respondents for not providing a response to one or more of the qualifying questions, Gender, Type of Student, or Lifetime Income. The researcher assessed the data for outliers using a box and whisker plot for each group and variable and removal of extreme outliers, resulting in the removal of another 13

participants from the dataset due to extreme outliers, thus leaving 799 cases qualifying data for analysis. Boxplots for extreme outliers by gender and type of student are found in Figure one.

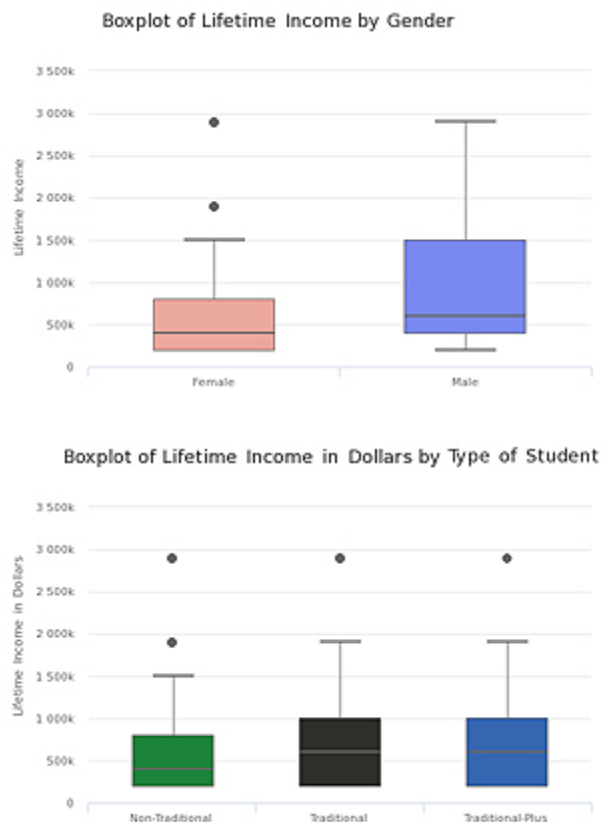


Figure 1. Boxplots for Extreme Outliers

## Summary Statistics

The researcher calculated the summary statistics for each interval and ratio variable, as well as the frequencies and percentages for each nominal variable split by the Type of Student. Non-traditional students Lifetime Income averaged \$614,921.88, while this was \$742,561.56 for the Traditional Students, with the Traditional Plus student average being \$740,507.81. Summary statistics were calculated for the level of self-reported Lifetime Income of college graduates related to Gender. Women earned an average of \$612,074.14 over their lifetime, while men averaged \$853,742.97 in Lifetime Income. The results are shown in Table 2.

Table 2

*Summary Statistics Table for Total Lifetime Income by Type of Student and Gender*

Variable	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>
Type of Student				
Non-Traditional	\$200K	\$2.9M	\$614,921.88	\$560,588.51
Traditional	\$200K	\$2.9M	\$742,561.56	\$615,024.25
Traditional-Plus	\$200K	\$2.9M	\$740,507.81	\$621,535.96
Gender				
Female	\$200K	\$2.9M	\$612,074.14	\$548,007.94
Male	\$200K	\$2.9M	\$853,742.97	\$649,545.84

Summary statistics were calculated for total Lifetime Income and had an average of \$689,927.02 (*SD* = \$596,937.29, *Min* = \$200,000.00, *Max* = \$2,900,000.00). The results are shown in Table 3.

Table 3

*Summary Statistics Table for Lifetime Income*

Variable	<i>M</i>	<i>SD</i>	<i>n</i>
Lifetime Income in Dollars	\$689,927.02	\$596,937.29	781

**Frequencies and Percentages**

When frequencies and percentages were calculated for Gender, Ethnicity, and Type of Degree split by Type of Student; women constituted the majority of Non-Traditional (67%), Traditional (69%) and Traditional-Plus (62%) students. At least 60% of students were Caucasian in each type of student. Amongst Non-Traditional (60%) and Traditional students (61%), non-STEM degrees were the most common. Amongst Traditional-Plus students, STEM degrees were more common (52%). For Non-Traditional students, the largest grouping had a total student debt

of \$11K to \$34K (28%). For Traditional students, the largest grouping had no debt ( $n = 126$ , 37%). For the Traditional-Plus students, the largest grouping had no debt ( $n = 42$ , 33%).

Frequencies and percentages are presented in Table 4.

Table 4

*Frequency Table for Demographic Variables*

Demographic Variable	<i>n</i> (%)		
	Non-Traditional	Traditional	Traditional-Plus
<b>Gender</b>			
Female	217 (67%)	235 (69%)	80 (62%)
Male	106 (33%)	107 (31%)	48 (38%)
<b>Race</b>			
Asian American	19 (6%)	37 (11%)	18 (14%)
Black or African American	46 (14%)	35 (10%)	16 (12%)
Caucasian	206 (64%)	233 (68%)	78 (60%)
Hispanic or Latino	32 (10%)	30 (9%)	14 (11%)
Middle Eastern American	1 (<.1 %)	0 (<.1 %)	0 (<.1 %)
Multiracial	6 (2%)	5 (1%)	2 (2%)
Native American or Alaska Native	8 (2%)	2 (1%)	1 (1%)
Native Hawaiian or Pacific Islander	3 (1%)	1 (0%)	0 (0%)
Other	3 (1%)	0 (0%)	0 (0%)
<b>Type of Degree</b>			
Non-STEM	196 (60%)	208 (61%)	62 (48%)
STEM	129 (40%)	133 (39%)	67 (52%)

*Note.* Due to rounding errors, column-wise percentages may not equal 100%.

For the Lifetime Income range of \$0 - \$200K, the most frequently observed category of Gender was Female ( $n = 203$ , 82%) and the most frequently observed category of Type of Student was Non-Traditional ( $n = 121$ , 48%). For the \$201K-\$400K range, the most frequently observed category of Gender was Female ( $n = 89$ , 65%) and the most frequently observed category of Type of Student was Traditional ( $n = 60$ , 43%). For the \$401K-\$600K range, the



most frequently observed category of Gender was Female ( $n = 64$ , 63%) and the most frequently observed categories Type of Student were Non-Traditional and Traditional, each with an observed frequency of 44 (43%). For the \$601K - \$800K range, the most frequently observed category of Gender was Female ( $n = 63$ , 64%) and the most frequently observed category of Type of Student was Traditional ( $n = 43$ , 44%). For the \$801K - \$999K range, the most frequently observed category of Gender was Female ( $n = 49$ , 73%) and the most frequently observed category of Type of Student was Traditional ( $n = 27$ , 40%). For the \$1Million-\$1.5Million range, the most frequently observed categories of Gender were Female and Male, each with an observed frequency of 38 (50%) and the most frequently observed category of Type of Student was Traditional ( $n = 42$ , 55%). For the \$1.5 Million-\$1.9 Million range, the most frequently observed category of Gender was Male ( $n = 17$ , 71%) and the most frequently observed category of Type of Student was Traditional ( $n = 13$ , 54%). For \$2 Million-2.9 Million range, the most frequently observed category of Gender was Female ( $n = 13$ , 59%) and the most frequently observed category of Type of Student was Traditional ( $n = 10$ , 43%). For the Over \$2.9 Million and up range, the most frequently observed category of Gender was Male ( $n = 12$ , 67%) and the most frequently observed category of Type of Student was Traditional ( $n = 10$ , 56%) (Westfall & Henning, 2013). Frequencies and percentages are presented in Table 5.

Table 5

*Frequency Table for Gender and Type of Student Relationships to Lifetime Income*

Lifetime Income Ranges	Gender		Type of Student		
	female	male	Non-Traditional	Traditional	Traditional-Plus
\$0 – \$200K	203 (82%)	46 (18%)	121 (48%)	94 (37%)	37 (15%)
\$201K-\$400K	89 (65%)	48 (35%)	54 (39%)	60 (43%)	25 (18%)
\$401K-\$600K	64 (63%)	38 (37%)	44 (43%)	44 (43%)	14 (14%)

\$601K- \$800K	63 (64%)	35 (36%)	42 (43%)	43 (44%)	13 (13%)
\$801K- \$999K	49 (73%)	18 (27%)	25 (37%)	27 (40%)	15 (22%)
\$1M-\$1.5M	38 (50%)	38 (50%)	19 (25%)	42 (55%)	15 (20%)
\$1.5 M-\$1.9 M	7 (29%)	17 (71%)	6 (25%)	13 (54%)	5 (21%)
\$2 M-2.9 M	13 (59%)	9 (41%)	9 (39%)	10 (43%)	4 (17%)
>\$2.9M	6 (33%)	12 (67%)	7 (39%)	10 (56%)	1 (6%)

*Note.* Due to rounding errors, column-wise percentages may not equal 100%.

Females constituted the majority of participants with Non-Traditional (67%), Traditional (69%) and Traditional-Plus (62%) students. At least 60% of students were Caucasian in each Type of Student. The most common degree type was non-STEM with Non-Traditional (60%) and Traditional students (61%). However, the Traditional-Plus students reflected that STEM degrees were more common (52%). For Non-Traditional students, the largest grouping had a total student debt of \$11K to \$34K (28%). For Traditional students, the largest grouping had no debt (n = 126, 37%). For the Traditional-Plus students, the largest grouping had no debt (n = 42, 33%). Table 6 presents the frequencies and percentages for demographics by each Type of Student. Table 6 presents frequencies and percentages for student loan amount and status by each Type of Student.

Table 6

*Frequency Table of Total Student Debt and Student Loan Status by Type of Student*

Variable	Type of Student		
	Non-Traditional	Traditional	Traditional-Plus
Total Student Debt			
Did not have student loans	82 (25%)	126 (37%)	42 (33%)
Under \$10,000	5	59 (17%)	16 (12%)
\$11K to \$34K	90 (28%)	93 (27%)	24 (19%)
\$35K \$59K	58 (18%)	39 (11%)	28 (22%)
\$60K to \$90K	33 (10%)	18 (5%)	13 (10%)

Above \$1,000,000	14 (4%)	8 (2%)	5 (4%)
<b>Student Loan Status</b>			
I did not have student loans	95 (29%)	138 (40%)	54 (42%)
I paid back (or intend to pay back) all of my student loans	119 (36%)	144 (42%)	41 (32%)
I paid part of my student loans and had the rest forgiven through one of the programs available and <i>did not hurt my credit</i>	40 (12%)	20 (6%)	15 (12%)
I defaulted on all of my student loans using a forgiveness program and <i>did not hurt my credit</i>	25 (8%)	7 (2%)	3 (2%)
I paid back more than half of my student loans but defaulted on the rest <i>hurting my credit</i>	26 (8%)	26 (8%)	15 (12%)
I defaulted on my student loans and <i>hurt my credit</i>	22 (7%)	8 (2%)	1 (1%)

*Note.* Due to rounding errors, column-wise percentages may not equal 100%.

### Means and Standard Deviations

The average age for Non-Traditional students was 41.61 years old and 38.8 years old for Traditional students. The Traditional-Plus students were the youngest, with an average age of 37.13 years. Table 7 represents the range, means, and standard deviations of age for each Type of Student. Table 8 represents means, standard deviations, and sample size by Gender and Type of Student.

Table 7

#### *Summary Statistics for Type of Student Median Age*

Type of Student	Min Age	Max Age	<i>M</i>	<i>SD</i>
Non-Traditional	30.00	65.00	41.61	10.80
Traditional	30.00	65.00	38.80	10.22
Traditional-Plus	30.00	65.00	37.13	8.12

Table 8

*Summary Statistics for Gender and Type of Student*

Combination	<i>M</i>	<i>SD</i>	<i>n</i>
Female : Non-Traditional	\$582,158.88	\$560,589.48	214
Male : Non-Traditional	\$696,009.80	\$562,650.93	102
Female : Traditional	\$626,202.59	\$540,938.48	232
Male : Traditional	-	\$688,783.30	100
Female : Traditional-Plus	\$651,125.00	\$536,902.85	80
Male : Traditional-Plus	\$846,702.13	\$666,846.80	47

*Note.* - indicate sample size was too small to calculate the statistic.

**Two-Way ANOVA**

The researcher conducted a two-way ANOVA to determine whether there were significant differences in self-reported Lifetime Income between Type of Student with Gender considerations. Where there were significant effects, the researcher conducted Tukey pairwise comparisons as a *post-hoc* analysis. Prior to conducting the analysis, the researcher assessed the assumptions of normality using a Kolmogorov-Smirnov test. The researcher already removed outliers from the dataset. The Assumption of Equal Variance was examined using Levene's Test of Equality of Error Variance (Gall, Gall, & Borg, 2007). Effect size will be reported using partial eta squared.

**Kolmogorov-Smirnov Test Results.** A Kolmogorov-Smirnov test was conducted in order to determine whether the distribution of Lifetime Income was significantly different from a normal distribution. If the histogram is asymmetrical or a bell-shaped curve, normality can be assumed (Rockinson-Szapkiw, 2013). A result with a  $p > .05$  determines the tenability of assumption and normal distribution. Lifetime Income ( $D = 0.21$ ,  $p < .001$ ) had a distribution that significantly differed from normality, thereby failing the assumptions of normality. Large

sample sizes, as in this research, can be overly powerful while not relating accurate results because in reality, data is not exactly distributed in a normal bell curve. Therefore, the violation of normality can be acceptable (Feigelson, & Babu, 2018; Filion, 2015; Ghasemi, & Zahediasl, 2012). The results of the Kolmogorov-Smirnov Test are presented in Table 9.

Table 9

*Kolmogorov-Smirnov Test Results*

Variable	<i>D</i>	<i>p</i>
Lifetime Income	0.21	< .001

**Levene's Test Results.** Levene's test was conducted for Lifetime Income by the Type of Student to assess the homogeneity of variance assumption. The homogeneity of variance assumption requires the variance of the dependent variable to be approximately equal in each group (Gall, Gall, & Borg, 2007). A significance level greater than .05 indicates that equal variance can be assumed (Rockinson-Szapkiw, 2013). The result of the Levene's test was not significant,  $F(2, 778) = 2.64$ ,  $p = .072$ , indicating that the assumption of homogeneity of variance was met (Intellectus Statistics, 2017).

## Results

### Hypotheses

**Null hypothesis One.** The first null hypothesis stated that there is no difference in the level of self-reported Lifetime Income of college graduates who were either traditional students, nontraditional students or traditional-plus students. The results of the ANOVA indicated there were significant differences in Lifetime Income among the levels of traditional, non-traditional

and traditional-plus students. The results are presented in Table 13 and graphically represented in Figure 2.

Table 10

*Analysis of Variance Table for Lifetime Income by Type of Student*

Term	SS	df	F	p	$\eta_p^2$
Type of Student	$3.05 \times 10^{12}$	2	4.32	.0124	0.01
Residuals	$2.75 \times 10^{14}$	778			

The eta squared was 0.01, indicating that the Type of Student explains approximately 1% of the variance in lifetime income. The means and standard deviations are presented in Table 12. The results of the main effect of Type of Student were significant,  $F(2, 769) = 7.02$ ,  $p < .001$ ,  $\eta_p^2 = 0.02$ . This indicates that there are differences in the Lifetime Income of college graduates. For the main effect of Type of Student, the mean of Lifetime Income for non-traditional student ( $M = \$614,921.88$ ,  $SD = \$560,588.51$ ) was significantly smaller than for traditional students ( $M = \$742,561.568$ ,  $SD = \$615,024.25$ ). Therefore, the first null hypothesis may be rejected.

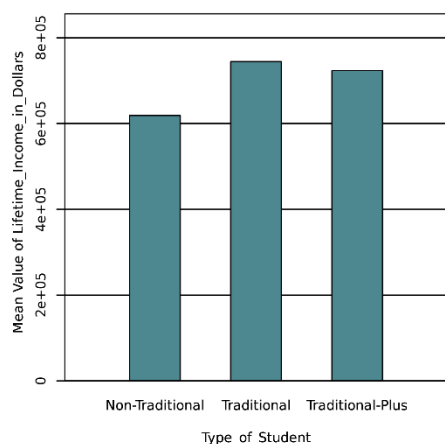


Figure 2. Lifetime Income in Dollars Means by Type of Student

**Post-hoc.** To examine the differences among the variables further, Tukey pairwise comparisons were conducted for all significant effects. For the main effect of Type of Student, was significant at the 95% confidence level,  $F(2, 771) = 4.21, p = .015, \eta_p^2 = 0.01$ , indicating there were significant differences in Lifetime Income by Type of Student levels. The mean of Lifetime Income for Non-Traditional ( $M = \$618,908.23, SD = \$562,892.33$ ) was significantly smaller than for Traditional ( $M = \$744,195.78, SD = \$615,228.06$ ) and the Traditional-plus ( $M = \$740,507.81, SD = \$621,535.96$ ) which, was not significantly different from the Traditional Student. There were no other significant effects found. The means and standard deviations are presented in Table 12.

Table 11

*Means, Standard Deviations, and Sample Size: Lifetime Income by Type of Student*

Combination	<i>M</i>	<i>SD</i>	<i>n</i>
Non-Traditional	\$614,921.88	\$560,588.51	320
Traditional	\$742,561.56	\$615,024.25	333
Traditional-Plus	\$740,507.81	\$621,535.96	128

*Note.* - indicate sample size was too small to calculate the statistic.

**Null hypothesis Two.** The second null hypothesis stated there was no difference in the level of self-reported Lifetime Income of college graduates who were either male or female students. The results for the main effect of Gender were significant, at the 95% confidence level,  $F(1, 773) = 29.09, p < .001$ , indicating there were significant differences in Lifetime Income based on Gender, as shown in Table 14 and graphically represented in Figure 3.

Table 12

*Analysis of Variance Table for Lifetime Income by Gender*

Term	<i>SS</i>	<i>df</i>	<i>F</i>	<i>p</i>	$\eta_p^2$
Gender	$9.87 \times 10^{12}$	1	29.09	< .001	0.04
Residuals	$2.62 \times 10^{14}$	773			

The mean of Lifetime Income for females ( $M = \$ 612,074.14$ ,  $SD = \$548,007.94$ ) was significantly less than for Males ( $M = \$ 853,742.97$ ,  $SD = \$ 649,545.84$ ). The results are found in Table 11. A result is usually considered significant if the p-value is .05 and the p-value for Gender is < .001, which is less than .05. Therefore the second null hypothesis may be rejected.

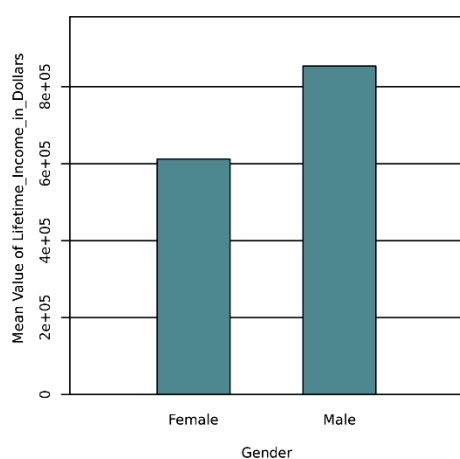


Figure 3. Lifetime Income in Dollars Means by Gender

**Null hypothesis Three.** The third null hypothesis stated there would be no interactions in the level of self-reported Lifetime Income of male or female college graduates who were either traditional, nontraditional or traditional-plus students. The interaction occurred between the traditional and non- traditional students, therefore the third null hypothesis may be rejected.

The results of the ANOVA in the interaction between Gender and Type of Student indicated there were significant differences in Lifetime Income by the values found between Gender and the Type of Student interaction are shown in Table 13. The main effect, Gender was



significant at the 95% confidence level,  $F(1, 769) = 23.54, p < .001, \eta_p^2 = 0.03$ , indicating there were significant differences in Lifetime Income by Gender levels. The main effect, Type of Student was significant at the 95% confidence level,  $F(2, 769) = 7.02, p < .001, \eta_p^2 = 0.02$ , indicating there were significant differences in Lifetime Income by Type of Student levels. The interaction between Gender and Type of Student was significant at the 95% confidence level,  $F(2, 769) = 4.14, p = .016$ , indicating there were significant differences of Lifetime Income by the values of the Gender: Type of Student interaction term.

Table 13

*Analysis of Variance Table for Lifetime Income by Gender and Type of Student*

Term	SS	df	F	p	$\eta_p^2$
Gender	$7.86 \times 10^{12}$	1	23.54	< .001	0.03
Type of Student	$4.68 \times 10^{12}$	2	7.02	< .001	0.02
Gender :Type of Student	$2.76 \times 10^{12}$	2	4.14	.016	0.01
Residuals	$2.57 \times 10^{14}$	769			

The mean of Lifetime Income for the combination of Female and Non-Traditional (M = \$582,158.88, SD = \$560589.48) was significantly smaller than for Male and Traditional (M = \$1017,940.00, SD = \$688783.30). The mean of Lifetime Income for the combination of Male and Non-Traditional (M = \$696,009.80, SD = \$562650.93) was significantly smaller than for Male and Traditional (M = \$1,017,940.00, SD = \$688783.30). The mean of Lifetime Income for the combination of Female and Traditional (M = \$626,202.59, SD = \$540938.48) was significantly smaller than for Male and Traditional (M = \$1,017,940.00, SD = \$688783.30). The mean of Lifetime Income for the combination of Male and Traditional (M = \$1,017,940.00, SD = \$688,783.30) was significantly larger than for Female and Traditional-Plus (M = \$651,125.00,

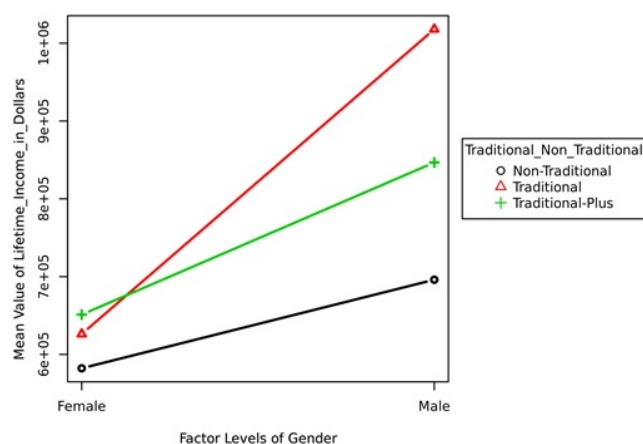
SD = \$536,902.85). The means and standard deviations are presented in Table 14 and a graphical representation in Figure 4, no other significant effects were found.

Table 14

*Means, Standard Deviations, and Sample Size for Lifetime Income, Gender, and Type of Student*

Combination	<i>M</i>	<i>SD</i>	<i>n</i>
Female : Non-Traditional	\$582,158.88	\$560,589.48	214
Male : Non-Traditional	\$696,009.8	\$562,650.93	102
Female : Traditional	\$626,202.59	\$540,938.48	232
Male : Traditional	-	\$688,783.3	100
Female : Traditional-Plus	\$651,125	\$536,902.85	80
Male : Traditional-Plus	\$846,702.13	\$666,846.8	47

*Note.* - indicate sample size was too small to calculate the statistic.



*Figure 4.* Lifetime Income in Dollars by Means by factors levels of Gender and Type of Student

## Summary

Chapter Four presented the details of the data collected to analyze how entering college later in life affected lifetime income. The researcher conducted a two-way ANOVA to determine if there were differences in lifetime income based on the type of student, gender, and the interaction between type of student and gender. Traditional students had a significantly

higher lifetime income than non-traditional students, and male respondent's lifetime earnings were significantly higher than females. There was an interaction between the level of lifetime income between gender and type of student. Chapter Five presents a discussion of these findings based on the existing literature.

## **CHAPTER FIVE: CONCLUSIONS**

### **Overview**

Each year, millions of American high school graduates will choose to go directly to college while millions of others choose to delay college enrollment to enter the labor force to not only establish their educational path, but also set the future of their financial credit risk and lifetime earning potential.

### **Discussion**

The most noted reason for achieving a higher degree is to acquire knowledge, build skills, and develop relationships to empower individuals so they can improve their lives and increase potential earnings (Bollinger, 2015; Pew Research Center, 2014; Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012; Stephens, Hamedani, & Destin, 2014). The purpose of this causal-comparative study was to see how entering college later in life (traditional student vs. nontraditional student vs. traditional-plus student) affects self-reported Lifetime Income after graduation with Gender considerations.

While data were collected from 1,262 participants, only 799 participant's data qualified to be used to complete the analysis. To best analyze the data, a two-way ANOVA was conducted to examine the differences between a dependent and two independent variables (Gall, Gall, & Borg, 2007). The dependent factor in this hypothesis is the level of self-reported Lifetime Income measured by student type, traditional, non-traditional, or traditional-plus, and Gender.

### **Null Hypothesis One**

The first research question in this study investigated the probability of a difference in the level of self-reported Lifetime Income of college graduates by student type. The null hypothesis

stated; there was no difference in the level of self-reported Lifetime Income of college graduates who were either traditional, nontraditional students, or traditional-plus students and due to the evidence, it was rejected.

A result is usually considered significant if the p-value is .05 and the p-value for the Lifetime Income by student type is .024, which is less than .05. Therefore, the null hypothesis was rejected. The data reflects an interesting anomaly, reflected in Figure 4, where the traditional-plus student's income was less than that of the traditional student. This indicates a need for further investigations because the

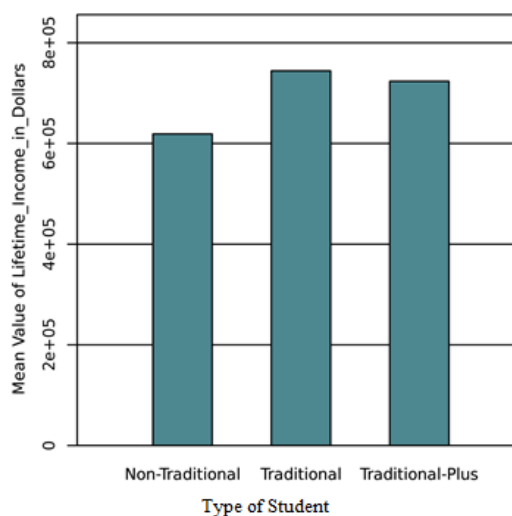


Figure 5 Lifetime Income Means by Type of Student

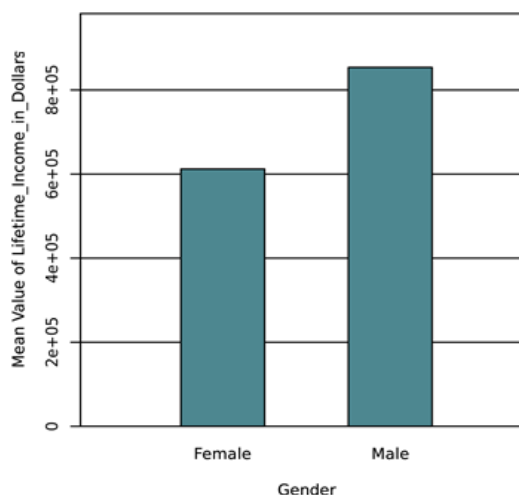
traditional-plus student is both a traditional and a non-traditional student, which gives credence that other significant factors are governing how education interplays with lifetime income. The literature review noted that while all college degree holders earn more than a high school graduate, a 2015 study by Georgetown University found that experienced college graduate's average wage was almost twice in comparison to the younger recent college graduates (Carnevale & Cheah, 2015; Bollinger, 2015). However, the data reflects that the traditional student earned more than the nontraditional or the traditional-plus students. The results would indicate that the Pew Research Center's report (2011), which found that 86% of the public consider higher education as a way to gain knowledge and personal growth has merit upholding the idea that not everyone attends college for financial gain. In addition, 61% of American's value character, getting along with others, and work ethic more than a college education (Pew

Research Center, 2011). However, the literature substantiated that where and when a student attends a university are considerations for future job-earning potential (Deming et al, 2016; Kim, Tamborini, & Sakamoto, 2015; Nunley, Pugh, Romero, & Seals, 2016). All or a combination of these factors may play an important role in the way students view their college education, therefore higher lifetime earnings may not be the purpose of one or more of the student types causing the skew in the data. While there are many possibilities, unemployment and underemployment in the liberal arts career fields have caused past graduates to return to college to develop skills in fields with higher earnings and better job prospects (Delamater, 2016), which could account for the lower lifetime income of those who returned to school for a second bachelor's rather than earn a master's degree.

### **Null Hypothesis Two**

The second research question investigated the probability of no difference in the level of self-reported Lifetime Income of college graduates who were either male or female students.

The null hypothesis stated there was no difference in the level of self-reported Lifetime Income of college graduates who were either male or female students, which was rejected by the evidence. The results from the data responding to the second hypothesis are not surprising or unexpected and are graphically shown in Figure 7. The Gender income gap has long been a contentious point of research



*Figure 6* Lifetime Income Means by factors levels of Gender

and discussions. The U.S. Census Bureau, Center for Economic Studies (2017) reports that in

2016, women made 82% of men's average earnings and the gap has remained around 80% for the last decade. The earning gap for females without children is around 87% while those with children earn only about 75% of their male counterparts (U.S. Bureau of Labor Statistics, 2016). However, while the census bureau is among the most cited reference for Gender pay gaps, others find their statistics unreliable because they do not consider all the facts, such as hourly pay, part-time work, as well as unadjusted demographic subgroups like education level and occupations (Boll, Jahn, & Lagemann, 2017; Gould, Schieder, & Geier, 2016). However, even with these factors included, female earnings are overall more than 20% less than the male colleagues are.

### **Null Hypothesis Three**

The third research question investigated the interactions between the factors. The null hypothesis stated there are no interactions in the level of self-reported Lifetime Income of male or female college graduates who were either traditional or nontraditional students. An interaction occurs when a level changes the interaction of the other levels (Cozby, 2015). The evidence showed an interaction between the traditional and non-traditional students, and hence this explains why the third null hypothesis was rejected.

A common assumption to this interaction may be that the traditional-plus student should dominate the groups earning more over their lifetime because they have additional higher education credentials. However, the data reflects that those who were traditional students earning a second bachelor's degree do not earn as much as their single degree colleagues. There are a number of possible explanations for this anomaly, such as economic recessions and high dollar student loans, which are also considered responsible for college graduates being underemployed working in jobs that do not require a college degree (Abel, Deitz, & Su, 2014; Graff, 2016). The data reflected that STEM degrees were more frequent (52%) of the

traditional-plus students. This data supports the concept that students returning for a second degree may be trying to move from a lower paying non-STEM degree to a higher paying STEM career field (Delamater, 2016), which could repress their lifetime income at lower levels. However, the data reflected that only 52% of the traditional-plus students hold STEM degrees and 48% have non-STEM degrees (Table 4) making it less likely.

### **Summary**

Changes in society have encouraged significant growth in non-traditional students enrolling in universities to complete a degree program (Allen, 2013; Blau & Thomas-Maddox, 2014; Stephenson, 2015). The purpose of this study was to evaluate how entering college later in life (traditional student vs. nontraditional student vs, traditional-plus student) affects self-reported Lifetime Income with Gender consideration. Whereas the evidence is overwhelming, showing that traditional students earn more in their lifetime than the non-traditional students, the data does not account for factors such as social and economic influences and student-specific circumstances. Students enter college for extrinsic reasons and while job security is a primary reason, a college education is not a guarantee for better employment (Tumuhekia, Zeelenb, & Openjuruc, 2016). The results of this study inspired additional questions as to the effects of entering college later in life and characterizes a small-scale experiment that determined a greater need to investigate delayed enrollment further.

While attaining higher education has proven to provide higher lifetime wages, few studies have explored the difference in Lifetime Income based on the time of life an individual completed his or her bachelor's degree (Niu & Tienda, 2013; Tamborini, Kim, & Sakamoto, 2015). The data from this study reflects that, overall, the traditional students who participated in this research have, to date, earned higher lifetime wages than their non-traditional colleagues.



However, not taken into consideration in this research is the student's family history and cultural background, which plays a significant role in Lifetime Income, especially when individuals earn the same degree from the same school (Bartik & Hershbein, 2016; Tamborini, Kim, & Sakamoto, 2015; U.S. Department of Labor, 2016). A primary consideration to provide a balance to the analysis was the cost of earning a degree to include student loans and the actual dollar amount of earning a higher degree. The data gathered from the sample reported that the most frequent response was that the participant did not have student loans, and of those who reported having student loans, the most frequent response was that all their student loans were repaid. This data disproportionately conflicts with the current literature, which reflects that 71% of all undergraduates receive financial aid and 42% of those are student loans (U.S. Department of Education National Center for Education Statistics, 2013). The ICAS report noted that 11.8% of those in repayment in 2012 had defaulted by 2014 (U. S. Department of Education – National Center for Educational Statistics *DE-NCES*, 2015). The significant growth of those students defaulting on their loans sparked the Obama administration to pass the Gainful Employment Act 34 C.F.R. § Parts 600 and 668 (2014) to limit government student loan funds from being given to colleges and universities for degrees and certificates that do not directly support professional employment.

While the population was above average for the repayment of student loans, they were on target with the national average in Gender. This study's population reflected that males earn higher lifetime wages than females, as validated through several current studies (Gould, Schieder, & Geier, 2016; Tamborini, Kim, & Sakamoto, 2015; U.S. Bureau of Labor Statistics, 2016). This study separated Gender degree-types by STEM or non-STEM degrees as shown in Table 16. Females at 64% significantly favored non-STEM degrees over the STEM, which

supports other studies reflecting that the STEM fields are underrepresented by females (Mau, Perkins, & Mau, 2016; Wang, Eccles, & Kenny, 2013). The fact that STEM occupations generally earn more than the non-STEM occupations could account for the discrepancies and inequalities in lifetime earnings between male and female participants.

Table 15

*Frequency Table for Gender by Type of Degree*

Type of Degree	Female	Male
Non-STEM	340 (64%)	124 (48%)
STEM	189 (36%)	136 (52%)

*Note.* Due to rounding errors, column-wise percentages may not equal 100%.

The interactions between Gender and Type of Student were unanticipated in that the traditional-plus student who fell into both the traditional and the non-traditional categories with more than one bachelor's degree equating to a lower Lifetime Income than their traditional colleagues, albeit an income that was still higher than that of the non-traditional students. These results may be an anomaly within this specific population but could also show a need to research traditional-plus students more in-depth.

### **Implications**

The decision to enter college at age 18 years old is one of the most important decisions a student will make because it can set the student's life in motion, thereby determining where s/he will be in ten to twenty years. Many studies look at lifetime earnings among college graduates, but they are generally measured by degree level, and few discuss the timeline in which the student earns their degree (Niu & Tienda, 2013; Tamborini, Kim, & Sakamoto, 2015).

Timelines are an important concern because career fields and annual earnings are societal dependents, meaning that time itself can create a burden in making a career-for-life decision.

The U.S. Bureau of Labor Statistics' Occupational Employment Statistics program (2018) keeps an updated report of careers that are in decline, mostly due to automation and technology. However, popular career fields, such as, computer programmers, computer operators, and chief executives, are already on the career decline list. Therefore, someone earning a degree in computer programming today, may find it difficult to find a job in that field by 2026 (U.S. Bureau of Labor Statistics; Occupational Employment Statistics program, 2018). The study reinforces the idea that traditional students should ensure they consider future advancements and changes in their selected career fields before they decide on a career path.

### **Limitations**

Several limitations were identified throughout this study. Although the sample size was large, minority ethnic groups were underrepresented with only 12.14% Black or African American, 9.5% Hispanic, 9.2% Asian American and 64.7% Caucasian. Females were overrepresented, making up 66.58% of the population, which may have skewed the outcomes but there is not enough research in this area to make a determination.

While the traditional and non-traditional groups were fairly even, the traditional-plus group was added after data collection because the data analysis noted that those with second bachelor's degrees earn less than the traditional student with only one bachelor's degree, which is an important anomaly. This warrants further investigation to ensure this is accurate data and to determine why this group fell below in lifetime earnings than their traditional colleagues. Additionally, the high number of respondents (448) was removed because they did not earn their degree from an accredited institution, which would have altered the final findings. The reason for this is because, while most of their frequency numbers paralleled with the analyzed

respondents their STEM career numbers accounted for 65% of those respondents compared to the 42% analyzed in this study.

### **Recommendations for Future Research**

This study generated many questions and opened many opportunities regarding how delayed enrollment affected Lifetime Income and should be replicated with different concentrations. Future studies should strive for stronger focus groups that take into account the individual's economic status as well as the nation's economic status. Future studies should also consider including a higher minority population and include a special emphasis on first-generation college student's challenges.

The mean age of respondents in this study was 47, however, as earnings tend to grow with age, it may be better to collect data from a smaller and older group and then subgroup respondents by professions, such as, civil engineers or nurses rather than STEM or non-STEM. Career fields should be reviewed for past, present, and future economic growth or stagnation to reflect the life cycle of the career field. Career fields that are dominated by one social group and social influences, such as, careers within a single-family structure, would be an excellent target for a follow-on study. That is to say, an individual who is following in one or both parent's career fields may have advantages that others do not.

Future research may include a study that considers the whole college personification by better defining the individual with stronger grouping techniques, such as, those who join the military or those who go to college for sports. The traditional-plus group warrants further investigations to identify the student's reasons for earning a second undergraduate degree rather than a master's degree, and how the facts influenced their career choices. The removed group of 448 who did not earn their degree from an accredited university offers another opportunity to

investigate as to why this group was mostly in STEM career paths. The anomaly that the traditional-plus group earned less lifetime income than the traditional students is noteworthy and calls for additional and more in-depth research into the possible causes.

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