1-1-2013

Generational Differences In Motivation to Attend College

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GENERATIONAL DIFFERENCES IN MOTIVATIONS TO ATTEND COLLEGE

by

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Bachelor of Arts & Bachelor of Science
Loyola University Chicago, 2011

Submitted in Partial Fulfillment of the Requirements

For the Degree of Master in Education

Higher Education and Student Affairs

College of Education

University of South Carolina

2013

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DEDICATION

This work is dedicated to my parents, Michael and Sally Coté. Your unconditional love and support means more to me than I will ever be able to express.

ACKNOWLEDGEMENTS

First, I would like to thank my Mom and Dad. I truly appreciate all that you have done for me since I started this process. You have both been incredible listeners and supporters throughout this journey. Thank you for providing me with a clear and level head when I was overwhelmed and needed your guidance. Thank you to my sisters as well. Thoughts of you both continually came to mind as I tried to think of examples for why people behave the way they do depending on when they were born.

I would like to thank Dr. Nichole Knutson for letting me hang out in her office and talk about the struggles I was experiencing. I greatly appreciated our conversations and the guidance you gave me when I was struggling to write. Thank you for being a mentor and role model for me in the field of higher education.

Thank you to my friends around the country and my friends and supervisors in the Student Success Center. Thank you for putting up with me constantly trying to view the reason for every behavior and situation we experience from a generational perspective. Thank you for being a distraction when I needed to clear my head and the constant encouragement you gave me throughout this process. I could not have done this without you.

Dr. Jennifer Keup (chair) gave my thesis life and perspective. I consider myself extremely lucky to have you as my chair and I have taken every edit and comment and soaked it up like a sponge. I have learned a great deal from you over the past months and

for that I am truly grateful. I would also like to thank Dr. Jenny Bloom (committee) and Dr. Spencer Platt (committee) for their time and support throughout this process.

My wonderful girlfriend Samantha has been a beacon of hope and support for me over the past year. Whether you are listening to my generational rants or offering advice and ideas on how to improve my writing, it made me incredibly happy to be able to share this experience with you. Your support and opinions mean a great deal to me and I am grateful you gave me both during this process.

Finally, I would like to thank the amazing educators whose teachings have motivated me to be the curious and achievement oriented person I am today, especially my 8th grade teacher, Susan Condon. You constantly challenged me to work hard and rise to the potential you saw in me. You pushed me to be a better writer, expand my vocabulary, and most of all, you taught me to be the best that I could be. Thank you for making a difference in my life.

ABSTRACT

The National Center for Education Statistics recently released a report indicating that the amount of full-time students attending college has increased by 45 percent over the past ten years (NCES, 2012). While many reasons assist in explaining this increase in college attendance, this study explored the differences in motivations for attending college across generations. This quantitative study used data collected by the Cooperative Institutional Research Program (CIRP) Freshman Survey to explore the differences in reasons for attending college amongst the Baby Boomer, Generation X, and Millennial generations and predict reasons that may be important to future generations of college students. These reasons were then aligned with motivation theories in order to understand the types of motivation students utilize when deciding to attend college. A two-way repeated measures ANOVA suggested that there is a statistically significant difference in the reasons why the Baby Boomer, Generation X, and Millennial generations wanted to attend college. After aligning each reason with the appropriate motivation theory, it was found that each generation may be motivated to attend college in similar ways. All three generations attended college because of their need to achieve (achievement theory) and the internal rewards (i.e. increase in knowledge, learning about subjects that interest them) that college provides (drive theory). Further, a linear regression suggested that future generations may attend college for similar reasons as past and present generations and will be motivated in the same way, both through their need for achievement and internal rewards.

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CHAPTER ONE

INTRODUCTION

In 1980, Arthur Levine wrote *When Dreams and Heroes Died*. This book served as snapshot of college students in the late 1970s in which Levine described the students that were attending college and their experiences therein. Levine (1980) used data collected by the Cooperative Institutional Research Program's (CIRP) Freshman Survey, studies from the Carnegie Commission and Carnegie Council on Policy Studies in Higher Education, and personal interviews of undergraduate students and university officials. From these data, he found that college students were focused on their personal futures with an emphasis on material gain, a disdain toward the government, and a pessimistic outlook of America's future. Levine (1980) thought this emphasis on the individual would persist and the gap that existed between civic service and personal gain would continue to widen as time went on. For the next decade, his research confirmed these expectations.

Then, in 1990, students' responses to questions on national surveys and in individual interviews began to change. Students began reporting that they felt optimistic about the future of the United States. Their beliefs and attitudes were not as closely focused on the individual and, while there was still fear about the condition of the United States, it seemed as though this new cohort of college students cared enough to do something about these challenges and concerns (Levine & Cureton, 1998). Levine and Cureton (1998) documented these changes in their book, *When Hope and Fear Collide*.

Further, they began to look at the events that affected this new group of students, including the *Challenger* explosion, the *Exxon Valdez* oil spill, and the Rodney King trial. Levine and Cureton (1998) found that these events caused college students to distrust the U.S. government and become more socially and politically active. They also found that college students of the 90's were more optimistic about their lives after college than the college students of the 70's. More specifically, college students of the 90's wanted good paying jobs, positive and healthy relationships, and a good family life. However, Levine and Cureton (1998) found that 90's college students also feared life after college. The amount of national debt, the burgeoning unemployment rate, and an increasing number of social problems (i.e. homelessness, broken families, AIDS, drugs, healthcare) made them fearful about their probability of success (Levine & Cureton, 1998). These types of social and economic events played a large role in determining how college students viewed the world and their society.

In addition to perspectives on social and economic matters, access to higher education represents another important influence on young people's perspective of society and their role in it. Access to higher education has changed significantly over the past seventy years. In 1940, less than one in twelve Americans attended an institution of higher education (Kim & Rury, 2007). In 1980, more than one in three Americans attended some form of higher education (Kim & Rury, 2007). During the mid to late 1940s, college attendance began to rapidly rise (see Table 1.1). This increase was largely due to two new policies in the United States, the G.I. Bill (1944) and the Truman Commission (1947). The G.I. Bill provided veterans of World War II with the funds to attend college and many of them took advantage of this opportunity. In 1947, recipients

of the G.I. Bill accounted for almost fifty percent of college attendees (Kim & Rury, 2007). That same year, the Truman Commission, developed by President Truman, was created to provide the United States with recommendations for future change in higher education (Kim & Rury, 2007). President Truman's Commission is most popularly known for creating a network of public community colleges that students would be able to attend for free (Thelin, 2004). This commission came just in time for thousands of veterans coming back from World War II with their G.I. Bill in hand. Between the G.I. Bill and the Truman Commission, higher education was more accessible then ever before (Kim & Rury, 2007). With the large increase in college attendance, one can infer that many people may have *wanted* to attend college before WWII, but never had the access to before the G.I. Bill and the Truman Commission.

Table 1.1

Overall Postsecondary Enrollments between 1939-40 and 1979-80

	Year				
Students	**1939-40**	**1949-50**	**1959-60**	**1969-70**	**1979-80**
Male	893,250	1,853,068	2,332,617	4,746,201	5,682,877
Female	600,953	805,953	1,307,320	3,258,495	5,877,022

Note: Adapted from Kim & Rury, 2007

College became even more accessible between 1960-1970. There were three factors that accounted for the significant increase in college enrollment during this era. First, there was a huge increase in the country's birthrate after World War II and those children were starting to attend college. These children of the veterans of WWII had more exposure to higher education than any previous generation due to the fact that many of their parents, specifically their fathers, attended college (Kim & Rury, 2007). Second, due to the civil rights movement and the desegregation of higher education institutions, it

was a possibility for many more minority students to attend college than ever before (Kim & Rury, 2007). Finally, women began to attend college at a greater rate than any other time in history (Kim & Rury, 2007). This increase was due to the women's movement of the 1960s and the change in gender roles that expanded the vista of possibilities for women both educationally and in their careers (Kim & Rury, 2007). These women were more likely to work than their mothers and they pushed for greater independence like their brothers were given, including attending college (Strauss & Howe, 1991). This increase in access and attendance shows that people wanted to go to college, but why? What were their motivations for attending college?

Purpose and Theoretical Foundation of the Study

In addition to legislative and social movements that facilitate access to higher education, individual motivation to attend college is a significant aspect of the college choice process. Many researchers try to understand why students go to college and how they choose which college to attend. Understanding students' motivations for attending college is important for college staff, faculty, and administrators because students' motivations often reflect what they want/need from their education. For instance, a student who would like to attend medical school is likely to seek a college education that will provide him or her with the appropriate science background and opportunities to research and intern with professionals in the medical field in order to be a competitive applicant for medical school. This study examines students' reasons for attending college through a motivation lens in order to see the differences in why students attend college and how that decision has changed over time for different cohorts of incoming students.

Generational theory offers a framework to explore the differences in motivation to attend college over time (Comte, 1839, as cited in Strauss & Howe, 1997; Ferrari, 1874; Huntington, 1981; Lancaster & Stillman 2002; Marías, 1967; Mill, 1843, as cited in Strauss & Howe, 1997; Modelski, 1987; Ortega y Gasset 1961; Raines 2003; Schlesinger, 1986; Strauss & Howe, 1991, 1997; Wechssler 1930). Strauss and Howe (1991, 1997) define a generation as "a cohort-group whose length approximates the span of a phase of life and whose boundaries are fixed by peer personality" (1991, p. 61). A span of life, and thus a generation's length, is roughly eighteen to twenty-two years (Strauss & Howe, 1991, 1997). As each phase of life comes to an end, a new generation is born. During youth and young adulthood each generation develops their peer personality. "A peer personality is a generational persona recognized and determined by (1) a common age location; (2) common beliefs and behavior; and (3) perceived membership in a common generation" (Strauss & Howe 1991, p. 64). Together, these three variables allow researchers to better understand the thoughts, values, and behaviors of a generation, including the motivation and decision to attend college.

Generation research has been conducted for decades, however the application of generation research to the college experience is fairly new. Levine (1980) was arguably the first to try to understand the college experience from a generational perspective. As time progressed, the notion of using generation research to define the current cohort of students attending college has become increasingly popular (Deal, Altman, & Rogelberg, 2010; Levine, 1981; Levine & Cureton, 1998; Levine & Dean, 2012; Martin & Tulgan, 2001; Moore, 2007; Myers & Sadaghiani, 2010; Oblinger & Oblinger, 2005; O'Brien, 2007; Smola & Sutton, 2002; Strauss & Howe, 1997; Sweeney, 2006; Tapscott, 2009;

Taylor & Keeter, 2010; Trunk, 2010; Twenge, 2000; 2001; Twenge & Campbell, 2001; 2009; Twenge & Im, 2007; Weiler, 2005; Zemke, 2001). However, there are still many aspects of a generation that must be examined. While students and administrators at the college itself may not be able to ignore the generational perspective, past research in higher education has done just that. This study continues the line of scholarship on generations and their experience with higher education by exploring the notion of motivation to attend college through a generational perspective. The purpose of this study goes beyond using generational theory to just describe student characteristics and strives to understand generational differences in reasons for attending college. It used motivation theories to categorize the reasons for attending college and then examined changes over time in the reasons for attending college. Thus, colleges and universities can better understand why students, past and present, are motivated to attend college. Research was then conducted to assist in predicting the reasons why the next generations may want to attend college.

Therefore, this study is directed by the following research questions:

1. What are the differences in reasons for attending college amongst first-year students in the Baby Boomer, Generation X, and Millennial generations?
2. What do past generation's reasons for attending college suggest about future cohorts of first-year students' in the Millennial generation and iGeneration reasons for attending college?

Theoretical Lens

The current study draws from and creates an intersection between two bodies of theory: generation theory and motivation theory. Each body of theory provides a unique

lens through which to view students' reasons for attending college. Generation and motivation theory provide the context from which this study makes conclusions about the past, present, future generations' motivations for attending college.

Generation Theory

Generations are used to help researchers segment and define history (Strauss & Howe, 1991, 1997). Each generation encounters major historical events, compelling messages, family trends, and technological advances that produce the experiential lens through which they will continue to view their lives (Raines, 2002; Strauss & Howe, 1991, 2000; Zapatka, 2009). This experiential lens can also be referred to as a generational lens because as one person in history experiences these factors their age peer group also experiences them in some form (Strauss & Howe, 1991, 2000). Strauss and Howe (1991) argue that peer groups interpret these historical events similarly, which helps create a generation's identity.

As Strauss and Howe (1991) began to examine generations, they noticed a pattern in behaviors. In their book, *The Fourth Turning,* Strauss and Howe (1997) examined this pattern and found that every four generations, a new generational cycle begins and each generation plays a role in the cycle. Strauss and Howe (1997) believed these cycles could be used to better understand future events and how each generation will react to these events. They do this by using information from past generations and the *role* of each generation in their *cycle* to predict the beliefs, values, characteristics, and expectations of the future generation. This study utilizes Strauss and Howe's (1997) cycles and generational roles to provide a foundation for understanding reason why future students and generations may want to attend college.

This study uses generation theory as the lens in which to view changes in reasons for attending college over time. The segmenting of generations may provide alternative explanations for the changes in reasons for attending college. This study also uses generation research to assist in identifying patterns over time associated with generational characteristics in students' reasons for attending college. Understanding the cyclical nature and roles of generations may assist in creating a more accurate profile in reasons why past, present, and future students want to attend college.

Motivation Theory

The implications of generation theory indicate how one can expect people born in a certain time period to think and behave. This is similar to the goals of motivation research. Motivation can be defined in multiple ways. For this study motivation will be defined as "the underlying reasons for behavior" (Guay et al., 2010). Motivation is defined as such because the National Center for Education Statistics states that over the past ten years the amount of full time students attending college has increased by 45 percent and the amount of part-time students has increased by 26 percent (NCES, 2012). More people are attending college than ever before; clearly the college-going behavior exists. This study will explore some of the underlying reasons why students, past, present, and future, are attending college.

Over time motivation theory and research has experienced significant change. It has transitioned from a mechanistic approach to a more cognitive approach and from broad general theories to theories based on the individual (Graham & Weiner, 1990; Weiner, 1990). Through the years researchers found that people are motivated differently from one another and there is no one theory that is applicable to everyone (Broussard &

Garrison, 2004; Deci et al., 1999; Graham & Weiner, 1990; Guay et al., 2010; Pintrich, 1996; Stiepk, 1996; Usher & Kober, 2012; Weiner, 1990). The CIRP Freshman Survey provides a unique opportunity to understand the motivation of hundreds of thousands of college students in their decision to go to college (Astin, 2003). The CIRP data act as a gateway for this study to understand motivation by examining the reasons students want to attend college. By analyzing the trends in students' reasons for attending college, this research may indicate what types of motivations cohorts of students may have experienced during different time periods. This research provides the unique opportunity to see and better understand the Baby Boomer's, Generation X's, and Millennial's college choice process and to project similar decisions for the iGeneration.

Methodology

The Cooperative Institutional Research Program (CIRP) Freshman Survey is the primary source for the data used in this study. CIRP has been collecting data from entering college freshman since 1966 (Astin, 2003). For the past forty-five years, CIRP has produced a monograph summarizing the data for each year they are collected. These monographs not only show the data collected from each year, but also discuss some of the changes that have been noted amongst first-time full-time students over time. While CIRP discusses the trends in their data, they do not provide an explanation for why these changes may have occurred nor do they discuss the changes from a generational perspective. Looking at these changes through a generational lens may provide a new context to understand the changes in these trends.

This study used the data collected by CIRP to understand better the differences in motivations for attending college. First, these data were used in descriptive analyses to

determine differences in motivation to attend college across three generations. Next, a two-way repeated measures ANOVA was conducted to see if there were statistically significant differences in motivations to attend college amongst generations. Finally, trends analyses were conducted to view the potential changes in motivations for attending college amongst future generations.

Significance of the Study

In President Obama's 2012 race for presidency, he challenged Americans to enroll in at least one year of post-secondary education. President Obama wants America to once again have the "highest proportion of college graduates" by 2020 ("Higher education," 2012). This is not only a call to the people of America, but to America's colleges and universities as well. Colleges and universities need to offer what Americans want in order to attract them to higher education. The implications of this research may provide colleges and university this information. By understanding what motivates each generation to attend college, post-secondary institutions can begin to adapt to different generational needs and attract an array of generations to their institutions.

Understanding the differences in motivation to attend college between generations provides colleges and universities with the opportunity to cater education to the unique needs of the current generation as well as to prepare for future generations (Levine, 1980). "Using history to understand the lives of students and tracking popular culture forms and trends will offer student affairs educators important tools for working with these students in the future" (Coomes & DeBard, 2004, p. 29). Generation research provides colleges and universities with information that assists in the creation of programs that are relevant and, thus, will help develop students to their fullest extent.

Because each generation has their own set of qualities and characteristics unique unto themselves, colleges and universities may not know the extent to which their own programs are effective for their students. Therefore, understanding generational differences can guide and direct college faculty, staff, and administration as they work with a variety of generations on college campuses. As Levine and Cureton (1998) showed, generations differ in their values, beliefs, characteristics and expectations. Through generation research, colleges may understand better the differences between generations and use that information to guide their practices to give each upcoming generation of students the best possible experience. Colleges may use this research to assess their current programs to better understand if their programs align with their students' wants and needs. This study is significant because it will add not just address the generation that is currently attending college, but identify patterns for past generation, and suggest the direction for future generations as well.

While understanding generational differences is important to college faculty, staff, and administrators, it is also important to higher education research. Pascarella (2006) discusses the popularity of higher education research over the past ten years and states, "the next two decades may be a time of unprecedented advances in our understanding of how college affects students" (p. 508). With the research on higher education becoming more popular, it is important that this research is guided and directed towards the needs of current students in higher education. Pascarella (2006) suggests ten directions for future research in higher education. In particular, this study will assist in bringing "systemic inquiry to bear on the rational myths of higher education" (Pascarella, 2006, p. 509-510).

CHAPTER TWO

LITERATURE REVIEW

Examining the generational differences in motivations for attending college draws upon the intersection between the bodies of literature on generations and motivation and, thus, requires the proper context of both topics. Comparing motivations across time is difficult without understanding the characteristics of the individuals one is trying to compare (i.e., generational personalities). Conversely, a hallmark of different generations is how they view their universe and the various pathways of choice in it, which is a function of motivation. This chapter is divided into several sections that approach the review of research from a more theoretical perspective than a typical literature review in order to address motivation theory and generation theory as well as how the current study will fill the gaps in the previous literature.

First, the chapter will discuss motivation theory and address what motivation is and how it is defined for this study. Then a brief history of motivation research covers the changes in motivation theory from early mechanistic perspective to contemporary cognitive perspective as well as a shift in scope from broad general theories to a focus on the individual differences in motivation. The review of motivation theory continues by addressing some of the historically popular theories of motivation, which act as the foundation for much of today's motivation research.

Next, the chapter will address generation theory. It defines generation theory and provides a brief history of it as a foundation for one of the leading theories in current

generation research. This section concludes with a description of the six generations that are currently alive in America. The final section will discuss how the current study will fill the gaps between the motivation and generation literature base.

Motivation

Motivation comes from the Latin *motive* which means, "to move." The goal of early motivation research was to understand what moved a resting organism to a state of activity (Graham & Weiner, 1990; Weiner, 1990). For the purpose of this study motivation will be defined as "the reasons for underlying behavior" (Guay et al., 2010) and the behavior that is being studied will be attending college. By defining motivation and behavior in these terms, it allows the researcher to identify the reasons that students attend college and to understand better the context in which students are motivated toward this action.

Motivation is typically defined from two perspectives, intrinsic and extrinsic motivation. "Intrinsic motivation energizes and sustains activities through the spontaneous satisfactions inherent in effective volitional action" (Deci et al., 1999). Intrinsic motivation is an individual's inherent need to perform tasks from which they derive interest and pleasure. For instance, a person may be intrinsically motivated to build model airplanes. Building model airplanes may make this person happy. No external force is pushing them to build model airplanes. Extrinsic motivation is motivation through external reinforcement. This type of motivation is often used when a child is not performing as well as they could in the classroom. To motivate the student, parents may offer a monetary reward for every 'A' the student receives. If the student values the money more than the amount of time it may take to achieve the 'A', the

student would be motivated to study harder. From an education perspective, intrinsic motivation is more powerful and longer lasting than extrinsic motivation (Deci et al., 1999). Therefore, the assumption can be made that a student who is intrinsically motivated to attend college will be more like to matriculate to college and persist from year to year than a student who is extrinsically motivated.

A recent review of motivation literature by the Center on Education Policy, discusses four major facets of motivation: competence, control/autonomy, interest/value, and relatedness (Usher & Kober, 2012). *Competence* refers to the person's belief about whether or not they have the ability to complete the task (Usher & Kober, 2012). Control/autonomy refers to the degree that a person feels in *control* and can see how their work will have a direct effect on the outcome and having the *autonomy* to decide how they want to complete the task (Usher & Kober, 2012). *Interest/value* refers to how much interest the person has in the task and/or if they value the outcome of the task (Usher & Kober, 2012). *Relatedness* refers to the person's sense of social acceptance if they decide to complete the task or not (Usher & Kober, 2012). These four factors have been determined to effect a person's motivation (Usher & Kober, 2012).

History of Motivation Theory

Over the past eighty years there have been many thoughts and theories about how these conditions are operationalized and organized that have helped shape contemporary motivation theories and offer different insights as to how people are motivated. It is important to understand the history of motivation research because motivation theories used in this study are derived from the trends of motivation history. The following section will provide a brief history of the trends in motivation.

Motivation research began in the early 1930s. During the early stages of motivation research, theories were broad and tried to account for an individual's every thought and behavior. Researchers then began to develop more focused theories that accounted for certain types of human behaviors. Motivation was also initially thought to be unemotional, robotic, and driven by a person's environment (mechanistic). Now motivation researchers consider humans to be rational, educated, and curious decision makers (cognitive); they have agency within the context of motivation.

1930-1960 Motivation Research: The Mechanistic Era.

Researchers between the 1930s and 1960s focused on exploring motor behaviors through mechanical concepts such as instinct, drive, arousal, and need as an explanation for organisms moving from a resting place to action (Graham & Weiner, 1996; Weiner, 1990). Thus, the term mechanistic was applied to this era of motivation research. During this time, experiments were typically conducted on non-human species (Graham & Weiner, 1996; Weiner, 1990). Researchers thought human behavior was too complex to study and therefore not ready for experimentation (Graham & Weiner, 1996; Weiner, 1990). Experimentation between 1930-1960 was typically concerned with depriving the non-human organism of a primary need such as food (Graham & Weiner, 1996; Weiner, 1990). Thus, experiments included watching hungry mice run through a maze to find food and placing monkeys in a room without visual stimulation (Graham & Weiner, 1996; Weiner, 1990).

In 1941, Paul Young commissioned the first chapter on motivation in the *Encyclopedia of Educational Research* to capture this era of mechanistic research. Young also wrote the chapter on motivation in the *Encyclopedia of Educational Research* in

1950. Young was most well known in the field of motivation for his hedonic theory of motivation and one of the first to outline an experimental approach to the study of motivation (Weiner, 1990). The main topics of research presented by Young (1941, 1950) are all closely tied with drive theory, which was the main motivational theory of the time (Weiner, 1990).

Drive theory.

Drive theory and drive reduction theory were developed by Hull in the 1940s. Drive theory refers to an organism's innate need to fulfill certain indispensible needs (Hull, 1943). Researchers believed that organisms operated between two different states, *on* and *off* (Graham & Weiner, 1996; Weiner, 1990). They believed that an organism preferred being in the *off* state as opposed to being *on* or moving. Once an organism was in the *on* state they would do whatever was necessary to fall back into the *off* state (Graham & Weiner, 1996; Weiner, 1990). The *off* state was presumed to be the ideal state, a place of equilibrium, and once this equilibrium was off balance, the organism would take notice (e.g. shivering to tell the organism it is cold and sweating to tell the organism it is hot) and take the necessary steps to fall back into equilibrium (Graham & Weiner, 1996; Weiner, 1990).

Drive reduction theory is the organism's imperative to get back to a state of equilibrium by satisfying their innate need, which most often represent primary needs such as hunger, sex, understanding, etc. (Hull, 1943). Secondary needs such as material objects, career and academic goals, satisfying social norms, etc., are needs that the organism can be conditioned to need (Hull, 1943). If one of these needs becomes active in the organism, it will seek out a way to satisfy the need in the same way as a primary

need. For instance, as a student approaches the age in which their cultural norms deem it time for them to attend college, the student may feel a sense of anxiety if they do not attend college. This anxiety will persist until they can satisfy it. Social norms or conditioning may lead the student to believe their only way to satisfy this anxiety is to attend college, which may bring them back to equilibrium.

While drive theory is not as valued as it once was, some motivation theorists still believe that it has some value. Pink (2009) draws from the works of Harlow (1949) and Deci (1969) to explain a new form of drive theory. Harlow (1949) conducted an experiment where he placed a puzzle and a rhesus monkey in the same room. To Harlow's surprise, the monkey worked on the puzzle until it was solved without any reinforcement or reward. In the absence of a need to reduce a primary need such as hunger, thirst, or shelter, Harlow determined that "the performance of the task provided intrinsic reward" (1949 as cited in Pink, 2009, p. 3). He called this phenomenon intrinsic motivation, where the pleasure derived from the activity is its own reward. (Harlow, 1949 as cited in Pink, 2009).

Several decades later, Pink (2009) used this evolution of drive theory (i.e., intrinsic motivation) as the basis of in the research in his book *Drive*, in which he cites countless examples of business managers who understand that people are motivated to do better when external rewards do not exist and it is the task itself that people are rewarded by. Pink (2009) says this enjoyment of work arrives through three different elements: autonomy, mastery, and purpose. Pink (2009) proposes that people have a desire to be *autonomous* or self-directed to remain motivated. He also suggests that in order to find something that matters to a person, they have to be *engaged* in the activity: it has to mean

something to them and they have to care about it beyond just the need to complete it. Through autonomy comes engagement and through engagement comes mastery (Pink, 2009). Lastly, Pink (2009) discusses the need for *purpose* in his revised version of drive theory. While autonomy and mastery are important in this drive motivation, purpose gives the other two elements context (Pink, 2009). Purpose drives people to do things beyond themselves and when people can align themselves with the purpose of an activity, organization, or company, their motivation increases (Pink, 2009).

Pink's (2009) drive theory may be more applicable in today's field of motivation and may have a more practical use. However, with the trends in motivation research, there is never just one motivation theory to explain all behaviors. The following section discusses another important theory in the history of motivation that is similar to Hull's drive theory: Lewin's field theory.

1960-1970 Motivation Research: The Achievement Era.

The 1960's brought about a shift in motivational psychology away from the mechanistic perspective and toward cognitive perspective (Graham & Weiner, 1996; Weiner, 1990). This shift is seen through certain aspects of drive theory and reinforcement theory, in terms of providing a reward to an individual for completing a task (Graham & Weiner, 1996; Weiner, 1990). However, researchers found that rewards in a competitive setting come from social comparison, which tells an individual that one person is better than the other because one person would receive the reward and the other would not (Weiner, 1990). Therefore, motivation researchers began to understand that there were multiple meanings that can be attached to rewards. Once the field of

motivation realized this, cognitive concepts of motivation began to dominate motivation research.

Not only did the theoretical perspective of motivation shift in the 1960s, so did the way motivation was studied (Graham & Weiner, 1996; Weiner, 1990). Once the cognitive perspective overtook the mechanistic perspective, human behavior and research on human subjects became the primary focus of motivation studies. From researchers' new ability to study human behavior came the main focus of motivation research for the next decade: achievement motivation. Achievement motivation opened the doors for new types of experiments to explore human motivation. Some of the first human experiments on motivation in the early 1960s focused on manipulating the success and failure of participants when performing certain activities (Graham & Weiner, 1996; Weiner, 1990). This was particularly exciting for educational psychologists because could utilize these experimentation methods to study achievement in the classroom (Graham & Weiner, 1996; Weiner, 1990).

As achievement motivation began to take over the field in 1970, other researchers were still clinging to the broad, generalizable theoretical approach of Hull's drive theory (Graham & Weiner, 1996; Weiner, 1990). In order to prove that broad generalizable theories still had a purpose, researchers "isolated the determinants of behavior through the mathematical equation Motive X Probability X Incentive" (Weiner, 1990, p. 66). This equation was dominant in some of the leading research in motivation such as Lewin's field theory (1936), Atkinson's achievement theory (1957, 1964), and Rotter's (1954) social learning theory (Graham & Weiner, 1996; Weiner, 1990).

Field theory.

Lewin developed field theory in 1936. Field theory states both the organism and their environment determine the organism's behavior. Lewin believed there are three factors that attributed to an organism's motivation to achieve a goal: tension (the extent of the organism's need), valance (what exactly the need is), and the organism's psychological distance from the goal. Similar to Hull's drive theory, Lewin also thought tensions, or disequilibrium, motivated organisms to move (Hall & Lindzey, 1978). However, field theory is more concerned with how far this tension could push a person to satisfy it and emphasizes the importance of the environment a person is in at the time of the tension (Hall & Lindzey, 1978). Lewin was one of the first motivation theorists to try to explain behaviors other than those that were exhibited from fulfilling basic or primary needs such as goals (Bernard & Weiner, 1996). For instance, a student whose curiosity (tension) about biology is brought out by her class's lab assignment (environment) and surpasses what she is able to learn from their teacher, she will look elsewhere in order to satisfy her curiosity. She will try to figure out the aspects of biology that she is curious about (valance) and measure her own psychological ability to do so. She may realize that majoring in biology in college could satisfy her curiosity.

Achievement theory.

Murray was the first to coin the term achievement theory in 1938 (Atkinson, 1964). Achievement motivation is better known as the need for achievement or n Ach, which is one of twenty psychological human needs (Atkinson, 1964; Beck, 1978; McClelland, 1953; Pintrich, 1996; Ryan, 2012). It is defined as a person's need or desire for significant accomplishment, mastery of skills, or to perform at a high level (Atkinson, 1964; McClelland, 1961; Murray, 1938). After noting n Ach, McClelland wanted to

know what caused n Ach and why did people who had it perform better than those without it (Beck, 1978). McClelland (1953) stated that n Ach was derived from previous experience with achievement where the person who accomplished the achievement, experienced a positive, hedonic feeling. This feeling encouraged them to continue to seek out this feeling, which resulted in a need to continue to achieve (McClelland, 1953). On the opposite side, if a person experienced a negative feeling after failing a task, this person may develop a fear of failure and then actively avoid situation where they have the potential to fail (McClelland, 1953). For instance, if a person felt they succeeded academically in high school, they may be more motivated to attend college than a student who felt like they struggled academically in high school. Achievement theory does not account for societal pressures and cultural norms and the way these factors interact with a person's need for achievement. To explore this concept, motivation research turned to social learning theory.

Social learning theory.

Social learning theory is based on the work of Rotter (1954). Rotter (1954) noted that the ways in which people behave are derived from their social surroundings. These surroundings, as well as the interaction that a person has with their surroundings, determine someone's personality and behavior (Rotter, 1954). There are four main elements to Rotter's social learning theory: behavior potential, expectancy, reinforcement value, and psychological situation. These four elements assist in predicting someone's motivation and behavior (Pintrich, 1996; Rotter, 1954; Weiner, 1991; Wlodkowski, 1986). Rotter (1954) suggests that there are a certain number of behaviors a person could illicit based on their personality and their current environment and *behavior potential* is

the probability of a person performing a certain behavior. *Expectancy* is the belief that a certain outcome will happen based on a certain behavior; the outcome that a person expects may not indicate what will actually happen but what the person thinks will happen (Pintrich, 1996; Rotter, 1954; Wlodkowski, 1986). *Reinforcement value* is the value that a person places on a particular outcome compared to other potential outcomes (Rotter, 1954). The value placed on expectancy and reinforcement are typically different and neither one is a better indicator of which outcome will actually take place (Pintrich, 1996; Rotter, 1954; Wlodkowski, 1986). The *psychological situation* gives context for the person to determine the expectancy and reinforcement value of a situation (Pintrich, 1996; Rotter, 1954; Wlodkowski, 1986). For instance, a person who is in a positive situation, will typically view all possible outcomes as positive, which will effect how they place the expectancy and reinforcement value (Pintrich, 1996; Rotter, 1954; Wlodkowski, 1986). If a student who grew up in an environment where his role models were successful and had attended some form of higher education, he may place a high expectancy on higher education thinking it will make him successful. If higher education is valued in his community he may also place a higher value on reinforcement, knowing that his community will be proud of him for attending college. If all his peers are attending college as well that will affect the psychological situation and the context he uses to determine these values. Based on Rotter's social learning theory, one could determine from these clues that his probability for attending some form of higher education would be high.

1970-1990 Motivation Research: The Cognitive Era.

Between 1930 and 1970, researchers such as Atkinson, Hull, Rotter, and Lewin created broad generalizable motivation theories. However, towards the end of the 1960s, a new approach began to develop. Studying individual differences in motivation started to gain popularity amongst researchers because they began to realize that their current motivation theories were not applicable to everyone (Graham & Weiner, 1996; Weiner, 1990). When this was coupled with the increased attention that achievement motivation was receiving, researchers wanted to know more about the differences between individuals that were high or low in achievement needs, high or low in internal control, and high or low in other characteristics that may affect a person's motivation (Graham & Weiner, 1996; Weiner, 1990).

During his time as editor of the *Journal of Educational Psychology* from 1979-1984 Ball encouraged motivation research and publications (Weiner, 1990). In this body of work, Ball identified that Hull's (1943) drive theory, Lewin's (1936) field theory, Atkinson's (1964) achievement theory, and Rotter' (1954) social learning theory started to decline in popularity and applicability (Graham & Weiner, 1996; Weiner, 1990). At this same time, motivation research saw an increase in concentrated focus on attribution theory, human behavior, cognitions that were thought to affect motivation, and the individual differences in motivation, specifically with a person's need for achievement (Graham & Weiner, 1996; Weiner, 1990).

1990-2010 Motivation Research.

Over the previous 60 years motivation research had changed from broad, generalizable theories to theories that focus on the difference between individuals. The

field of motivation began to focus heavily on achievement, but only in certain areas such as power, affiliation, exploratory behavior/curiosity, altruism, and aggression (Weiner, 1990). During the latter part of the 1990s there was a push to understand how emotions affect motivation, which had been relatively unexplored in theories of drive, achievement, and cognition (Weiner, 1990). Further, between 1990 and 2010, motivation research continued to focus on individual differences. Broussard and Garrison's (2004) literature review shows that current motivation theory still focuses on cognition. They also state that current motivation research is focused around three questions: Can I do this task? Do I want to do this task and why? What do I have to do to succeed in performing this task? These questions are all driven by past motivation theories that have become more relevant between 1990 and 2010. For example, Atkinson's (1964) achievement theory assists in answering the first question (Can I do this task?). Achievement theory states that the more a person succeeds and achieves the goals the set for themselves, the more likely they are to seek out other opportunities where they need to achieve. By providing students with academic opportunities in which they can succeed, students then will start to build confidence in their academic ability and seek out other academic opportunities. Achievement theory can be used to assist educators and educational researchers with helping students understand that they are academically competent and begin to associate positive attributes to education (Lai, 2011).

Broussard and Garrison (2004) note that expectancy-values theories and intrinsic motivation theories (Deci & Ryan, 1985; Pink, 2009) assist in explaining the second question (Do I want to do this task and why?). Understanding what a person expects from a task and how the value that task provides understanding for *why* they want to perform

that task (Pintrich, 1996; Stipek, 2002; Weiner, 1991). This is the root of expectancy-value theory. Theories based on intrinsic motivation, such as Pink's (2009) interpretation of drive theory, also provide motivation for a person to complete a task based on the self-perceived rewards for completing the task (Lai, 2011).

Broussard and Garrison (2004) state that the final question (What do I have to do to succeed in performing this task?) is answered by theories that have a self-regulation component such as social learning theory. People who are able to utilize self-regulating strategies can frame the way they perceive events and they have a higher sense of self-efficacy (Schunk & Zimmerman, 2007). Utilizing social learning theory can provide an example of the type of behavior needed to achieve a goal. People utilizing this motivation theory use the behavior of others to assist in determining their own behavior. Therefore by watching others perform a task or reach a goal, a person trying to achieve the same goal can then either behave similarly or differently depending on their desired outcome.

Motivation researchers still rely on and utilize many other motivation theories to help explain behavior. Some motivation researchers use older theories, which have been deemed to no longer have relevance to motivation research due to advances in the field, have changed parts of it to make it relevant in today's society, such as Pink (2009) did with drive theory. While some of the theories used in this study may be missing certain factors that can affect motivation, this study strives to utilize them in a way where they explain the necessary behaviors that are being analyzed. The following section connects the motivation theories explored in this section to the current study.

Motivation Theory and the Current Study

The motivational theories described in the previous section provide a lens through which the reasons students want to attend college can be viewed. It is important to align these motivational theories with the reasons that students want to attend college in order for higher education researchers and practitioners to understand the events that may have lead up to a student wanting to attend college. For instance, if a student attends college because that is what all of their friends are doing, one may see that this student was motivated by social expectations, which may be explained by Rotter's social learning theory. If a student achieves many accomplishments, both academic and/or social, in high school, they will likely be confident in their ability to succeed and seek out other opportunities where they can succeed, academically and/or socially, such as attending college. This type of behavior can be explained by Atkinson's achievement theory.

Motivation Theory and Reason for Attending College Alignment

Many researchers have studied the college choice process and the factors that affect it (Alwin & Otto, 1977; Attinasi, 1989; Borus & Carpenter, 1984; Hamrick & Stage, 1995, 2000, 2004; Hearn, 1984; Hossler, Schmit, & Vesper, 1999; Lee & Ekstrom, 1987; Litten and Hall, 1989; Manski and Wise, 1983; Perna & Titus, 2004; St. John, 1990). All of the motivational theories are factors that have the potential to affect a student's decision whether and where to attend college. These factors are important to this study because they will assist in understanding how students engage in the college choice process. Table 2.1 shows the reasons the CIRP Freshman Survey provides for students to indicate which of them were "very important" in their decision to attend college aligned with the motivation theories that are most likely utilized based on the

reason. The following section will provide explanations for why the researcher paired each reason with their corresponding motivation theory.

Table 2.1

Motivation Theory and Reason for Attending College Alignment

Motivation Theory	Reason provided by CIRP and noted by students as "very important" in their decision to attend college
Drive Theory	To learn more about things that interest me
	To make me a more cultured person
	To improve my reading and study skills
	To gain a general education and appreciation of ideas
	Wanted to get away from home[a]
Field Theory	My parents wanted me to go[a]
	Wanted to get away from home[a]
	I could not find a job
	There was nothing better to do
Achievement Theory	To prepare for graduate or professional school
	To be able to make more money
	To be able to get a better job
	To get training for a specific career
Social Learning Theory	A mentor/role model encouraged me to go
	My parents wanted me to go[a]

[a] These reasons are listed multiple times under different motivation theories because they can be interpreted in different ways

Drive Theory.

The following reasons were listed under drive theory because, as Pink (2009)

suggests in the most current update to drive theory, oftentimes people are motivated or driven to do tasks not just because of an external reward, but also for the enjoyment they receive from performing and completing the task. These reasons suggest that a student who selects one or more of these reasons receives self-fulfillment by completing these tasks where they feel like they are bettering themselves. These reasons are: "to learn about things that interest me," "to make me a more cultured person," "to improve my reading and study skills," "to gain a general education and appreciation of ideas," and "wanting to get away from home." The reason "wanted to get away from home" is listed in two different motivation theories because it can be interpreted in different ways. For example, a student may want to get away from home to explore new cultures, activities, and curriculums. There may not be something that is pushing the student away from home, but something that is calling him or her to explore. In this case the student receives fulfillment from leaving home and following and satisfying their curiosity. The other interpretation of this reason is addressed in Lewin's (1936) field theory

Field Theory.

The following reasons were listed under field theory because one of the main concepts of Lewin's (1936) field theory is that the environment the person is in presents tension that motivates an individual to action. These reasons all have to do with tension in a student's environment. The reasons are: "my parents wanted me to go," "wanted to get away from home," "I could not find a job," and "there was nothing better to do." "My parents wanted me to go" and "wanted to get away from home" are listed in two separate theories because these reasons can be interpreted differently. In field theory, "my parents wanted me to go" is interpreted as a student who is in conflict with their parents due to

lack of independence or other issues. The environment that the student is in creates a tension that puts the student in disequilibrium. In order to return to a state of equilibrium the student must fix the tension. A solution may be to go to college and the student may feel like his or her parents are forcing them to go to college depending on the conflict between them. "Wanted to get away from home" is interpreted in a similar manner, as "my parents wanted me to go." There may be some form of tension in the student's home environment that is putting them in disequilibrium and therefore the tension must be solved. The student may decide to remove themselves from the tension and the environment by attending college.

Achievement Theory.

The reasons that were listed under achievement theory where categorized under this theory because they represent a situation in which people who have a need for achievement typically set and act upon goals to meet that need (Atkinson, 1964). In this case, students are setting long-term goals they want to accomplish. The student then decides that the goals can be best accomplished through attending college. Their need for achievement motivates them to accomplish their goals, which in turn motivates them to attend college. The reasons from the CIRP Freshman Survey that fall under this category are: "to prepare for graduate or professional school," "to be able to make more money," "to be able to get a better job," and "to get training for a specific career."

Social Learning Theory.

The reasons listed under social learning theory were placed there because attending college may be a socially learned goal due to external influences, such as social norms or role models/someone a student respects tells them that college is a good option

(Rotter, 1954). The student picks up on the social norms or listens to their role models and starts to think that they need to attend college because that is what everyone else is doing and/or that is what my role models think is best. The reasons are: "a mentor/role model encouraged me to go" and "my parents wanted me to go." "My parents wanted me to go" is listed under two motivation theories because it can be interpreted in different ways. In a social learning theory context, this reason is interpreted as the parents acting as role models, guiding their student toward this path. Another interpretation is that the student could be picking up on social cues from their parents or previous siblings that attended college that it is time for him or her to go to college. In this situation the student may feel that their parents wanted them to go to college due to certain social norms or cues.

Generation Theory

The following sections will outline past and present theories on generation and discuss how they relate to this study. However, it is important to note one must be cautious to apply generation theory to a group of people as opposed to an individual. While everyone in a generation is an individual and must be treated as such, generation theory provides possible explanations for their beliefs, values, behaviors, and expectations in the aggregate (Schleslinger, 1986; Strauss & Howe, 1991, 1997, 2000; Zemke, Raines, & Filipczak, 2000).

History of Generation Theory.

Over the years, generation theorists have recognized different factors that influence a generation's identity. In terms of this study, it is important to understand these factors in order to comprehend and appropriately assess the different reasons why each

generation wants to attend college and how the motivation to attend college changes across generations.

While the popularity of generational research has increased in the late 20th and early 21st centuries, its roots can be traced back much farther. Comte, a French philosopher, was the first to recognize the importance of generational theory in 1839 by stating that generations had become "the master regulators of the pace of social change" (Strauss & Howe 1997, p. 63). This led Mill, in 1843, to discuss how historical change can be measured in "intervals of one generation, during which a new set of human beings have been educated, have grown up from childhood, and taken possession of society" (Schlesinger, 1986, p. 86; Howe & Strauss, 1997).

Ortega y Gasset, Spain's leading generational theorist of the early 20th century, confirmed what previous researchers found: that the study of generations is pivotal to the development of a culture's history (Ortega y Gasset, 1961). He took this concept further by stating that generations are "… the pivot responsible for the movements of historical evolution" (Ortega y Gasset, 1961, p. 15). It was his writings that began to shed light on how each generation affects one another and on the patterns that can be traced in and across generations. He stated that a generation has two variables that affect its position in history (Ortega y Gasset, 1961). First, the reception, how the previous generations will view and behave towards the new generation (Ortega y Gasset, 1961). This can be seen through the ideas and values of the previous generations (Ortega y Gasset, 1961). Second are the thoughts and ideas of the generation itself (Ortega y Gasset, 1961). Ortega y Gasset states, "the spirit of every generation depends upon the equation established between these two ingredients and on the attitude which the majority of the individuals

concerned adopts toward each" (Ortega y Gasset 1961, p. 17). This is how Ortega y Gasset defines a generation's identity.

In 1980, Levine showed the nation how a generation's identity affected their collegiate experience in his book *When Dreams and Heroes Died*. In 1990, Levine continued this line of research with Cureton in *When Hope and Fear Collide*. In this book, they discussed differences between the generational identities of college students across two generations: the Baby Boomers and Generation X. These differences began to open the doors to how generation theory can affect how college faculty, staff, and administrators work with their students. By better understanding students' generational identity and by examining the events that that helped them develop, colleges and universities could be more attuned to the needs of their students. Levine's most recent publication with Dean (2012), *Generation on a Tightrope,* focuses on the current generation of students working their way through college. Levine and Dean describe how Millennials have grown up and the large-scale events that had the greatest affect them. These events were "the advent of the World Wide Web, the worldwide economic recession, the September 11 attack and its aftermath, and the election of Barack Obama as president" (p. 19). Levine and Dean (2012) used these events to classify how the Millennial generation's college experience is different from previous generations. For instance, they discussed the differences in technology and how it has not only changed the way relationships are built and maintained for the Millennial generation, but how it has also affected their access to education, such as the introduction of online classes and universities. One of the many way the economic recession effected higher education was through the increase in students' working hours while attending school (69% in 2009 vs.

60% in 1993) (Levine & Dean, 2012). Through events like the ones listed above, Levine and Dean (2012) illustrate the effects of events on the college population and how they differ amongst generations.

Arguably, two of the most popular generation researchers of the 20th century are Strauss and Howe. Their research has set the tone for many researchers looking to explore generations and their impact. They focus on America's generations and describe the nature of each generation and their contribution to American culture. Strauss and Howe (1991) broadly define a generation as "a special cohort-group whose length approximately matches that of a basic phase of life." This phase of life ranges from 18 to 24 years (Strauss & Howe, 1991, 1997). Strauss and Howe (1991) use two variables to describe a generation: age location and peer personality. A generation's age location is determined by major historical events, compelling messages, family trends, and technological advances that occur during a generation's childhood and early adulthood (Raines 2002; Strauss and Howe 1991, 2000; Zapatka 2009). A generation's identity is a set of generally common behaviors and attitudes that a generation expresses throughout its lifecycle (Strauss & Howe, 1991, 1997).

While Strauss and Howe may be two of the most popular generational researchers of the 20th and 21st century their work is not without fault. Strauss and Howe's work is typically unscientific in terms of how they sample populations. Their samples tend to be unrepresentative of the population they are trying to measure. The data is then analyzed to view historical trends and derive characteristics of how cohorts of people behave over time (Strauss & Howe, 2000, 2003). These characteristics and historical trends serve as the foundation from which Strauss and Howe predict how future generations will think

and behave (Strauss & Howe, 1997, 2000, 2003). However, the impact of the theoretical contribution made by Strauss and Howe (1990, 1997) to generational research cannot be ignored. Their research is cited in most generational research and due to the way they have framed generation theory and research in the 21st century, no study involving generations would be complete without analyzing their findings.

Determining the Length of a Generation.

In determining who belongs in which generation, the argument is often proposed that generation theory may be useless because people are constantly being born. How can one tell the difference between someone born now, a year from now, or even a decade? Making the distinction that generations are defined by specific years becomes complicated. However, Spitzer, a historian, thinks that, "specifying generations is no more arbitrary than specifying social classes, or ideologies, or political movements where there is inevitably a shading off or ambiguity at the boundaries of categories" (as cited in Strauss & Howe, 1991, p. 59). While some people born at the beginning or end of a generation may share similarities with the previous or subsequent generations, researchers can still assign a description to a generation with the understanding that the description may not accurately represent each individual in a generation.

This study uses the duration of American generations as defined by Strauss and Howe (1991). Strauss and Howe (1991, 1997) use the phases of life a person goes through to help define the length of a generation. The phases of life are youth, rising adulthood, midlife, and elderhood (Strauss & Howe, 1991, 1997). The youth segment is defined from ages zero to twenty-two, during which individuals are growing, learning, and being protected by their parents and elders. The young adult segment is defined from

ages twenty-two to forty-three. In America, the age twenty-two typically means just graduating college, being of legal age for most activities, and when many who went into the armed forces at age eighteen are released from duty. During this time, young adults are just starting their career and beginning to build their families. The midlife segment is defined from ages forty-four to sixty-five. The early to mid-forties designation suggests that this is the time period when young adults move into the leadership positions that require the time and experiences of someone in their midlife. During this time, people are taking over the leadership positions of their elders. Elderhood is then defined from ages sixty-six to eighty-seven. The designation of sixty-five is given because this is the age most of the leaders of American society transition from their positions into retirement, starting the final phase of life, elderhood. This is the time when the elders of society are mentoring and passing on their values to the younger generations.

As each phase of life comes to an end, a new generation is born. During youth and young adulthood each generation develops their peer personality. "A peer personality is a generational persona recognized and determined by (1) a common age location; (2) common beliefs and behavior; and (3) perceived membership in a common generation" (Strauss & Howe, 1991, p. 64). These three variables give a generation their peer personality, which allows researchers to better understand the thoughts, values, and behaviors of a generation.

The beliefs and behaviors of a generation help researchers to understand the boundaries of generations. Examining the frequency of measurable social pathologies, use of technologies, and compelling social messages in generations shows researchers the differences in time between them (Strauss & Howe, 1991). The increasing or decreasing

frequency of these social behaviors, use of technologies, and compelling social messages, act as indicators for behaviors and beliefs of a generation (Strauss & Howe, 1991). Some of these indicators include: education, accidents, divorce, drug use, alcoholism, voting, and unemployment (Strauss & Howe, 1991). While each individual in a generation may not exhibit the same beliefs and behaviors that are noted by the indicators, these individuals are typically aware they are different than their peers and are straying away from the generational norm (Strauss & Howe, 1991).

Lastly, the extent to which an individual identifies with their generation assists researchers in determining the boundaries of a generation (Strauss & Howe, 1991). An individual's perception of their own generation, gives researchers an indication when generations begin to change (Strauss & Howe, 1991). Individuals also intuitively understand who belongs in the previous and following generations (Strauss & Howe, 1991). Researchers also use an individual's expectations of their own future to tell where they belong in a generation and to understand generational boundaries (Strauss & Howe, 1991).

Cycles and Patterns of Generations

In their book, *The Fourth Turning,* Strauss and Howe state "The reward of a historian is to locate patterns that recur over time…" which has been extremely valuable in generation research (p. 2). These patterns or cycles assist in understanding generations and how they are similar and different from previous generation. They allow researchers to draw conclusions about future generations from their placement in a generation cycle and from previous generations who were in the same place in their generation cycle. This study utilizes these cycles as a foundation to assist in predicting the motivations of future

generations of students in their decision to attend college.

Researchers from across centuries have noticed a repeating four-part generational cycle (Huntington, 1981; Marías, 1967; Modelski, 1987; Schlesinger, 1986; Strauss & Howe, 1991, 1997; Wechssler, 1930). The cycle of these archetypes can be seen in the Old Testament and epics from authors like Homer and Virgil, the philosopher Polybius may have been the first deliberately write about it. He saw that in the political regimes of the Greco-Roman city-states that a pattern, "from kingship to aristocracy to democracy to anarchy- from which a new kingship would emerge" (Strauss & Howe 1997, p. 87). Fifteen hundred years after Polybius discussed this political trend, philosopher Ibn Khaldun also observed a similar pattern in the political realm of the Islamic culture. He named the four cycles ignoring, despising, founding, and admiring (Strauss & Howe, 1997). Other names have been given to this cycle such as reflective, anticustom, initiating, and conformist by Julián Marías (1967), the protégé of Ortega y Gasset; revolutionary, reactionary, harmonizing, and preparatory by Giuseppe Ferrari (1874); organic, personal, mechanical, and mathematical by Eduard Wechssler (1930); moralizing, cynical, institutionalizing, and hypocritical by Samuel Huntington (1981); reason, intuition, feeling, and sensation by the well-known psychologist Carl Jung; and lastly, normative, competitive, constructive, and adaptive by George Modelski (1987) (as cited in Strauss and Howe 1997).

Strauss and Howe (1997) describe this cycle using the seasons in a year as a metaphor. Just as summer and winter are described as harsher, opposing, and more prominent times of the year, spring and fall are milder and less prominent, but also oppose each other. Each of the four seasons happens over the cycle of a year. When the

last season in the cycle ends, the seasons repeat the cycle.

Generations go through a similar four-part cycle depending on the historical location of their birth. Strauss and Howe (1997) describe these historical locations as turnings. The first turning is called a High, which is a time of building community and putting aside individualism. People born during a High create a new civic order by which people live. The second turning is an Awakening, when the new order proposed by people born in the High is challenged. This is typically a time of spiritual exploration as opposed to scientific exploration. The third turning is called the Unraveling. During this time, individualism is high and people challenge everything. The fourth turning is called Crisis. Problems that were ignored in the past now affect the immediate safety of a society and need to be solved. Communities must unite in order to solve these problems and the communities take an aggressive and determined stance against the problems that threaten their livelihood. The turning in which a person is placed depends on when they are born (Strauss & Howe, 1991, 1997).

An archetype is assigned to the people born during a turning. These archetypes can be traced throughout history and are the patterns that have been spotted by many education researchers. They assist in creating descriptions for generations' behaviors and attitudes. By understanding the current and future generation's archetype, researchers begin to understand and predict students' behaviors and attitudes. These archetypes will assist this study by providing some descriptive characteristics about past, current, and future generations' behaviors and attitudes and how they affect students' reasons for attending college.

Using Strauss and Howe's (1997) archetypes, individuals born during a High are called a Prophet generation, those born during an Awakening are called a Nomad generation, individuals born during an Unraveling are called a Hero generation, and anyone born during a Crisis is part of an Artist generation (Strauss & Howe 1997). Table 2.3 shows the current generations that are still alive in America, their archetype, and their birth year.

Table 2.2

Generation Archetypes, Names, and Birth Years

Generation Types	Generation Name	Birth Year
Hero	G.I.	1901-1924
Artist	Silent	1925-1942
Prophet	Baby Boomer	1943-1960
Nomad	Generation X	1961-1981
Hero	Millennial	1982-2003
Artist	iGeneration	2004-?

A generation cycle begins with a Prophet generation. A Prophet generation grows up during a post-Crisis period, being particularly self-absorbed. As they grow older, there is a great emphasis on family and spiritual development. They are also known for their determination in the areas of values, morals, and religion. They expect their children to be dutiful and listen without question and their reward is endless opportunities for success. They strive to set good examples for their children by showing them the strengths of a hero. Examples of members from a Prophet generation include Benjamin Franklin, Abraham Lincoln, and Franklin Roosevelt (Strauss & Howe, 1997).

A Nomad generation grows up unprotected and often left alone, since their parents and elders are challenging the status quo. This forces them to create a tough exterior and, as they grow older, they value honor and personal survival. They are known

for their practical approach to leadership with an emphasis on the self as opposed to the community. Examples of members from a Nomad generation include Nathaniel Bacon, Dwight Eisenhower, and George Washington (Strauss & Howe, 1997).

A Hero generation is typically protected as children. They grow up appreciating their generational community and strive to overcome challenges and achieve excellence. They are overly confident and known for their values of community and technology and their contributions to economic and political affluence. Examples of members from a Hero generation are Thomas Jefferson, John F. Kennedy, and Ronald Reagan (Strauss & Howe, 1997).

An Artist generation grows up seeing the sacrifices of their parents, who are facing a crisis. They are extremely protected (more so than Heroes). As they grow, they conform and look to their parents as role models and guides. During adulthood they are flexible and work to build a consensus on the issues they face. Examples of members from an Artist generation are John Quincy Adams, Andrew Jackson, and Theodore Roosevelt (Strauss & Howe, 1997). To better understand the archetypes and how they relate to each phase of life in terms of the turnings they progress through see table 2.3.

Table 2.3

Generation Archetypes, Phase of Life, and Turnings

	Generation Archetype			
Phase of Life	**Prophet**	**Nomad**	**Hero**	**Artist**
Childhood	High	Awakening	Unraveling	Crisis
Young Adult	Awakening	Unraveling	Crisis	High
Midlife	Unraveling	Crisis	High	Awakening
Elderhood	Crisis	High	Awakening	Unraveling

These descriptions of the different archetypes provide this study with necessary descriptive characteristics that may assist in understanding why past, current, and future generations of students want to attend college.

Generation descriptions.

As previously discussed, it is important to have an understanding of each generation's identity because their identity has effected their surrounding generations through the roles in which they play (i.e., positions of power, parents, political leadership, children, etc.). Currently there are six generations alive in America. This study focuses on understanding the differences in reasons for attending college between three of the six generations: the Baby Boomers generation, Generation X, and the Millennial generation. The CIRP Freshman Survey started in 1966 and collection of the data used for this study did not start until 1971. Hence there is no data for when the G.I. or Silent generation were in college. The iGeneration generation has not reached college yet, so there is not data for this generation. The next section will focus on providing a brief description of the generational identity for G.I.s, Silent, and iGeneration's and a more in-depth description of the Baby Boomers, Generation X, and Millennials, as they are the main focus of this study.

The G.I. Generation.

The G.I. generation was born between 1901 and 1924 (Strauss & Howe, 1991, 1997). Strauss and Howe (1997) found their role to be Hero, which means they were born during an Unraveling and grew up during a Crisis: World War II. They are also known as the greatest generation for not just their heroic actions in World War II, but for their commendations in academia and politics. Their generation has won the most Nobel prizes

and is responsible for many of the major laws and amendments over the past 100 years (Strauss & Howe, 1991, 1997). From their youth to old age, the government has followed and catered to the needs of the G.I. generation. This was a determined generation focused on developing America to becoming a great super power. They also were steadfast parents, who wanted to be role models for their children (Strauss & Howe, 1991). Through their hard work and dedication, Americans that came of age in this generation saw economic and industrial growth like was never seen before (Strauss & Howe, 1991).

The Silent Generation.

The Silent generation was born between 1925 and 1942 (Strauss & Howe, 1991). Strauss and Howe (1997) deemed this generation to be Artists. They were born during a Crisis, the Great Depression, and grew up during a High. Members of the Silent generation had a great respect for the G.I. generation and saw them as the heroes of the time (Strauss & Howe, 1991). They wanted to be just like the G.I. and imitated their actions and behaviors as much as they could (Strauss & Howe, 1991). This generation was born during the Great Depression, which resulted in lower birth rates. Thus, the Silent generation was smaller than both the previous generation (G.I.) and the following generation (Baby Boomers) (Strauss & Howe, 1991). This generation got married earlier than any other generation and was also affected by the sexual revolution and divorce epidemic of the late 20th century (Strauss & Howe, 1991).

The Silent generation boasted support for underrepresented people. They are home to many of the feminist leaders of the 1960s-1980s as well as many of the civil rights leaders (Strauss & Howe, 1991). They are a generation of understanding and led with this philosophy. This generation is also known as the Lucky Few due to the fact that

they received some of the best benefits that this country has to offer, simply by being born at the right time (Carlson, 2008). These benefits included rising to adulthood during an affluent time in American history (1947-1964), having a stable family structure, easier access to higher education, and a clear pathway to white-collar jobs (Carlson, 2008; Strauss & Howe, 1991).

Baby Boomer Generation.

The Baby Boomer generations represents the start of a new cycle of generations in America. The cycle begins with Baby Boomers being born during a High (1943-1960) and rising to adulthood during an Awakening (Strauss & Howe, 1997). As previously discussed, generations born during an Awakening challenge the status quo and break away from the community that their previous generations built (Strauss & Howe, 1997). This is exactly what the Boomer generation did. The generation was not as protected during childhood as previous generations were; their parents (G.I. and Silent) were off saving America from the crises of the world. These children also had access to new technology, the television, and new medical treatments, most notably immunizations for childhood illnesses such as polio and diphtheria (Strauss & Howe, 1991).

The challenging and rebellious nature of this generation begins to show during their teenage years. Accidental death rates, drunk driving, illegitimate births, teen unemployment, and crime rates all rose during this time period (Lancaster & Stillman, 2002; Strauss & Howe, 1991). SAT scores decreased each year during the Baby Boomer's high school years (Strauss & Howe, 1991). During the sexual revolution of the 1970's, premarital sexual activity doubled in women and rose by three percent in men (Strauss & Howe, 1991). Then came the age of protesting the Vietnam War. Strauss and

Howe (1991) state that, "the effort to avoid service in Vietnam was a more pervasive generational bond than service in the war itself" (p. 306). Into the 1980's, Boomers split away from the religions of their parents and explored New Age and evangelical religions (Strauss & Howe, 1991). This generation is also known as the "Me generation" (Stillman & Lancaster, 2002). This generation's focus on themselves is shown by the importance they place on their individual careers.

Currently, Baby Boomers hold many of the leadership positions in this country and the transition may not be easy as they begin to retire. As parents, they are protective of their children and provide them an environment where they feel special (Levine & Dean, 2012). They want their children to grow up striving to succeed with the power and knowledge that they can do anything (Levine & Dean, 2012). The nature of this generation is still to challenging authority. However, instead of distrusting their elders, now they distrust the youth of this country (Strauss & Howe, 1991).

Generation X.

Born between 1961 and 1981, Strauss and Howe's (1991, 1997) generation theory describes Generation X as being born during an Awakening and rising to adulthood during an Unraveling. Members born during an Awakening are known as Nomads and are known for being survivors and being unprotected as children (Strauss & Howe, 1997).

Generation X is often said to be the forgotten, middle child, generation. This generation was also smaller than the previous and following generations. The low numbers of Generation X contributed to a change in American culture and economy. This was the first generation whose mothers began using contraception to prevent pregnancy

(Lancaster & Stillman, 2002; Strauss & Howe, 1991; Zemke, Raines, & Filipczak, 2000). This was also the first generation whose families needed a dual income in order to survive (Lancaster & Stillman, 2002; Zemke, Raines, & Filipczak, 2000). This meant that parents were leaving their children home alone or in day cares for more time than any previous generation. This created an overarching theme of this generation, survivors (Lancaster & Stillman, 2002; Zemke, Raines, & Filipczak, 2000). Early members of this generation grew up witnessing the only war that America has ever lost, the Vietnam War. They witnessed Richard Nixon as the first U.S. President to resign in one of the biggest political scandals in U.S. history. They saw Iran take sixty-six Americans hostage in 1979 and the disaster of the Space Shuttle Challenger in 1986. This generation grew up during a time where America was struggling and they were left on their own to figure out their own survival.

Their self-reliant attitude is contrasted by a need to have a sense of family, even if that meant creating a surrogate family made of close friends (Zemke, Raines, & Filipczak, 2000). Members of Generation X are also known for their non-conforming attitudes. They have a strong dislike for many of the topics, events, and ideas of the generations just before (Baby Boomers) and after them (Millennials) (Zemke, Raines, & Filipczak, 2000). Generation X holds their personal lives dearly and do not share the same work values as the Baby Boomers before them. They would rather work as they need to instead of spending their lives working. (Lancaster & Stillman, 2002; Zemke, Raines, & Filipczak, 2000).

The Millennial Generation.

Millennials were born between 1982 and 2004 during an Unraveling phase.

Strauss and Howe (1991, 1997) note that those born during an Unraveling take on the generational persona of Hero. The Millennial generation has more trust in the government and place a higher importance on community then members of the Baby Boomer generation or Generation X (Levine & Dean, 2012; Strauss & Howe, 2000; Winograd & Hais, 2008). Generation researchers have deemed this generation to be very protected by their parents (Carney-Hall, 2008; Howe & Strauss, 2000; Marsh, 2007), better educated (Levine & Dean, 2012; Strauss & Howe, 2000; Taylor & Keeter 2010), more interpersonally connected (Coomes & DeBard; 2004; Lancaster & Stillman 2002; Levine & Dean, 2012; Prensky, 2001), and more diverse (Coomes & DeBard, 2004; Levine & Dean, 2012; Strauss & Howe, 2000; Wilson & Gerber, 2008; Winograd & Hais, 2008) than previous generations.

When a generation has been studied as much as the Millennial generation has, researchers often develop contradictory perspectives. Kelley (2012) calls these contradictory perspectives "tensions." She states that there may be value in these tensions in that they are unique to generation literature and these tensions are unique to this generation. Kelley (2012) describes the tensions in the Millennial generational identity as *We/I, Conventional/Customizable, and Technologically Entrenched/Experiential*.

We/I: Many researchers have deemed this generation to be team-oriented with an emphasis on helping each other succeed (Howe & Strauss, 2003; Meyers & Sadaghiani, 2010; Moore, 2007; Zemke, 2001). However there is also an emphasis of needing to succeed and be the best (DeWall, 2011; Twenge et al., 2008; Westerman, 2011).

*Conventional/Customizable***:** This generation has grown up in a very structured environment and researchers have found they enjoy the structure and following the rules

(Raines, 2002; Howe & Strauss, 2000). However, with the technology available to them and having grown up in the most diverse generation the United States has seen, they are used to different and unique lifestyles and using technology in new ways that benefit them and make their life better such as in communicating with others and creating more sophisticated learning environments (Dede, 2005; Harris & Hofer 2011; McCann & Giles, 2006; Myers & Sanaghiani, 2010; New Politics Institute, 2006; Tapscott 2009).

*Technologically Entrenched/Experiential***:** Murillo (2011) argues that Millennials are not just utilizing technology as a tool to make their lives easier; they are using it to live their lives. Kelly (2012) notes that while there is no empirical evidence to show the extent to which Millennials are experiential, much of the research conducted on Millennials in the workplace suggests their experiential nature. Experiential refers to the idea that Millennials learn best though active learning or learning by doing (Kelly, 2012). Raines (2002) states that Millennials want to be challenged and to work on projects where they are constantly learning. This is a generation that has been pushed by their parents to experience new things and from that they enjoy working with hands-on experiences (Weiler, 2005), games, and case studies (Sweeney, 2006).

Kelley's (2012) descriptions of the unique intrapersonal tensions that exist in Millennials provides an insight into the sometimes contradictory nature of defining generational identities, but also offers an interesting insight to the thoughts and perceptions of Millennials. Some of the key events that have taken place during their lifetime add to Millennials' thoughts and perceptions as well as their generational identity. In 2009, Levine and Dean surveyed undergraduate students asking them about the most influential events in their lives. They responded with the "advent of the World

Wide Web, the worldwide economic recession, the September 11 attack and its aftermath, and the election of Barack Obama as president" (p. 19). These events provide a context through which researchers can view the thoughts and behavior of Millennials.

iGeneration.

The iGeneration is the term to describe the current infants in America who were born since 2005. While not a universally-accepted term, iGeneration has been mentioned by numerous researchers and, according to a survey on *USA Today*'s website, it has been an overwhelming choice for the name of this generation after famous Apple products (iPod, iPhone, iPad, iTouch) that many people use today (Horovitz, 2012). Another name offered by Strauss and Howe (who also named the previous generation) from a survey in 2005 is the Homeland generation. This name was chosen due to the events of 9/11 where more parents may choose to keep their children at home and indoors (Strauss & Howe, 2003). Other names such as the Neomillennials (Dede, 2005) and the Pluralists (Frank N. Magid Associates, Inc., 2012) have also been assigned to this new generation. A survey conducted by Frank N. Magid Associates, Inc. (2012) predicts that this generation will be the last generation of Caucasian majority, be the most positive about the changes in diversity in America, have more diverse social circles than previous generations, be more likely to believe in the "American Dream," be more individualistic due to Generation X's protective parenting style, and observe an increase in mixed gender roles in society.

Strauss and Howe (2008) compare this generation with the Silent generation. Both generations were born during a Crisis and rose/will rise to adulthood during a High (Strauss & Howe, 1997). Strauss and Howe (1997) state that these generations may be more indecisive and more likely to see the previous generation for their faults and work

to fix those faults. They grow up protected by their parents, even more so than the previous generation. In this case, Generation X will typically raise members of the iGeneration. Frank N. Magid Associates, Inc. reports that Generation X parenting styles will be much more individual. They state that Generation X parents will be more realistic, push their children to be the best, teach their children how to be successful, and look out for their own children's interests and not worry about other people's children. However, for now, the oldest members of the iGeneration are barely through 3rd grade and it is important that generation researchers do not try to assign a generational identity to them too soon as it will change with new events, compelling messages, impact of new technology, and family trends (Raines, 2003; Strauss & Howe, 1991; Zapatka, 2009).

Motivation and Generation Theory

Over the past eighty years, motivation theory has progressed from general broad theories to ones that are based on understanding the motivation of an individual within his or her environment. For instance, Rotter's social learning theory requires the observer to understand the cultural and societal norms of the time and the individual's perspective on these norms in order to understand how a person's motivation. In another example, the environment and a need or tension, create motivation for a behavior in Lewin's field theory. In this study, the researcher suggests that generation theory can assist in explaining the backgrounds and environment for groups of people born during a certain time. This understanding provides some insight into the underlying reasons why each group attended college.

A generation's identity is formed by major historical events, compelling messages, family trends, and technological advances that produce the experiential lens

through which they will continue to view their lives (Raines, 2002; Strauss & Howe, 1991, 2000; Zapatka, 2009). A generation's identity provides a snapshot into a generation's thoughts, feelings, and behaviors, which allows researchers to understand what motivates each generation to behave and act in certain ways. Many researchers use a generation's identity to collect details about what motivates each generation. Typically research has used this information to discuss how to motivate generations academically and in the workplace.

McGlynn (2008) discusses part of the Millennial's generational identity: 1) their attachment to technology, 2) their attraction toward community contrasted with a self-centered attitude, and 3) their close connection to their parents. She then discusses how to use their generational identity, to motivate them to persist through academic programs, specifically in college. She suggests that in order to motivate Millennials to persist through colligate academics, colleges need to be engage them in their academics through convenient access to the classroom via online classroom software, direct them towards personal strengths and they can use their strengths to benefit the community, and engage their parents because their close connection with their Millennial gives them the opportunity to academically motivate their student.

Raines (2003) discusses the compelling messages that have directed at Millennials and how these messages can assist supervisors in motivating their Millennial workforce. "Be smart- you are special," "connect 24/7," "achieve now," and "serve your community" are the messages Millennials have continuously heard throughout their childhood (Raines, 2003, p. 20). Using these messages, Raines (2003) suggests that supervisors: challenge their Millennial employees, Millennials want to achieve and will

rise to the challenge; let them work with their friends, this generation thrives off of peer to peer connection (especially virtually) and a supportive community; respect them, they have been told they are special their whole lives and they work better in an environment that supports and respects them as an individual; and be flexible, this generation has a lot they want to accomplish from recreational activities to saving their community, they need to feel like their jobs care about the whole person, not just who he/she is at work.

McGlynn (2008) and Raines (2003) both use generational identity to describe how to motivate Millennials academically and in the workplace. There is an intersection between motivation and generations and it lies in the context that a generation's identity can provide about their environment and background. Motivation theory needs to understand the background and environment of a person to understand how and why they are motivated to behave a certain way. For instance, achievement theory needs to understand a person's experience with achievement to determine how likely they are to seek out other opportunities to succeed. Being raised in an achievement oriented environment means that someone who has succeeded at many achievements will have a need for achievement and someone who has failed to reach their achievements may develop a fear of failure. Understanding their environment is necessary to determining their level of achievement and a generation's identity can assist in describing that environment.

In this study, motivation theory is used to better understand the reason why students want to attend college. Generation theory is used to provide context for understanding the environments that helped shape a person's motivation. Thus, this study uses the intersection of these theoretical positions to explore why generations of students

were motivated to attend college. This study provides a generation and motivation context through which to view the reasons why students want to attend college.

CHAPTER THREE

METHODS

The purpose of this study was to explore the differences between generations' reasons for attending college and to predict the reasons why future generations may want to attend college. This study focuses on two research questions:

1. What are the differences in reasons for attending college amongst first-year students in the Baby Boomer, Generation X, and Millennial generations?
2. What do past generation's reasons for attending college suggest about future cohorts of first-year students' in the Millennial generation and iGeneration reasons for attending college?

This chapter discusses the methods that were used to conduct this study. The current study uses quantitative, longitudinal data in secondary data analyses to address the research questions. In order to appropriately answer the first research question descriptive analyses and a two-way repeated measures ANOVA were conducted to analyze the differences in reasons for attending college across the Baby Boomer, Generation X, and Millennial generations. Next, time series extrapolation and liner regressions were conducted in order to answer the second research question. These data and analytical approaches were selected in order understand the extent to which differences between generations are significant and accurately predict changes in future students' reasons for attending college.

Research Tools & Data Collection

This study uses data collected by the Cooperative Institute Research Program (CIRP) Freshman Survey in secondary data analyses. This national, longitudinal survey has been collecting data from first-time full-time students for the past forty-five years (Higher Education Research Institute, 2013). CIRP, which is located at the Higher Education Research Institute (HERI) at the University of California, Los Angeles, has surveyed over 15 million students and 1,900 institutions since 1966 (Higher Education Research Institute, 2013). The survey is administered to students before they begin classes at their new institution, often during orientation or welcome week activities. A copy of the most recent CIRP Freshman Survey is provided in Appendix A. Historically, students complete the survey as a paper instrument, although CIRP introduced online survey administration for the Freshman Survey in 2012 Higher Education Research Institute, 2013). Once the student finishes the survey, the completed questionnaires are collected and sent to a third-party survey-processing firm contracted by the CIRP headquarters ("Higher education research," 2013). The data is collected and analyzed by CIRP and results are distributed to participating colleges and universities. CIRP then aggregates the national data and weights them such that the survey respondents approximate the responses of all first-time, full-time, first-year students attending accredited four-year colleges and universities in the United States that year. Thus, the aggregate data are nationally representative. CIRP publishes an annual monograph that illustrates the national average results of weighted survey data (i.e., national norms) as well as an analysis of key themes that the data indicate about the students entering four-year colleges and universities that year. The CIRP Freshman Survey has high validity and

reliability as well as a small standard error due to the large sample size (Pryor et al., 2012).

The survey asks students about range of items including demographics, family characteristics, high school experiences, personal beliefs and values, reasons for attending college, and expectations about the collegiate experience. This study uses data from one bank of questions on the survey that asks: "In deciding to go to college, how important to you was each of the following reasons?" (Pryor et al., 2012). The survey then provides a number of different response options depending on the year. Between 1971 and 2006, the number of response options has changed from year to year, but has always included a variation of the same thirteen response options. The response options are as follows:

Table 3.1

Response Options provided by the CIRP Freshman Survey

Reasons why students may want to attend college
A mentor/role model encouraged me to go
I could not find a job
My parents wanted me to go
There was nothing better to do
To be able to get a better job
To be able to make more money
To get training for a specific career
To gain a general education and appreciation of ideas
To improve my reading and study skills
To learn more about things that interest me
To make me a more cultured person
To prepare for graduate or professional school
Wanted to get away from home

The student then responds whether they felt that reason was "very important," "somewhat important," or "not important." In their annual reports of weighted national data, CIRP publishes the percentage of students that indicated each reason was "very important" in

deciding to go to college. Again, the number of reasons presented to students differs from year to year. Some years all thirteen reasons are presented, some years only five reasons are presented, and some years the question is not asked on the survey. This means there are missing data for some questions depending on the year.

Sample & Population

The population for this study is first-time full-time students attending four-year colleges and universities in the United States. The CIRP Freshman Survey defines first-time full-time students as either students who have graduated high school in the past year or have been out of high school for more than a year and have not taken classes at another postsecondary institution and will be attending a postsecondary institution full-time (Pryor et al., 2012).

The sample that the CIRP Freshman Survey uses, and thus is the sample for the current study, is the institutions that participate in the survey each year the question of interest was asked from 1971-2006 The sample includes four-year private and public colleges and universities. While community colleges can utilize the CIRP Freshman Survey, their results are not included in the national norms. Colleges and universities must meet certain requirements to be included in the national norms. They must admit first-time first-year students and grant baccalaureate-level degrees or higher as listed in the U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS) (Pryor et al., 2012). Colleges and universities pay a fee in order to participate in the CIRP Freshman Survey by contacting the CIRP office. While the recruitment efforts of CIRP attempt to garner a balanced institutional sample each year, the fact that the

survey is a fee-based service does introduce a degree of self-selection bias among the participating institutions.

Data Analysis

The secondary data collected by CIRP and used in this study was first divided into three variables. There were two primary variables of interest used in this study: generation and reason for attending college. The variable "reasons" represent the response options that CIRP lists for students to indicate how important that reason was in deciding to attend college. The response options can be seen in Table 3.2. The variable titled "generations" indicates the students in one of three generation that the responded to the CIRP question about reasons for attending college (i.e., "In deciding to go to college, how important to you was each of the following reasons?"). The three levels of the variable "generations" are Baby Boomer (BM), Generation X (X), and Millennial (ML). The third variable is the measurement of one of the primary variables "reasons." The third variable designated as "response" is the aggregate percentage of students who selected the respective response option (i.e. "I could not find a job") as "very important" in deciding to attend college for a specific year.

There are three generations examined in this study, the Baby Boomer, Generation X, and Millennial generations. The data provided by the CIRP Freshman Survey was split according to the years each generation began to attend college, starting when the first year in the generation began college and ending when the last year in the generation began college. This study assumes that traditional college students, especially the ones who fill out the CIRP Freshman Survey, begin college at the age of eighteen. The Baby Boomer generation was born between 1943 and 1960, therefore, according to the

assumption of this study, the Baby Boomer generation's first year in college was in 1961 and their last first year in college was 1978. The CIRP Freshman Survey did not start asking the question, "In deciding to go to college, how important to you was each of the following reasons?" until 1971. Therefore, the only data collected pertain to the Baby Boomer generation was between 1971 and 1978. Generation X was born between 1961 and 1981, therefore Generation X's first year in college was in 1979 and their last first year was in 1999. Data for this generation was collected from the CIRP Freshman Survey between the 1979 and 1999. Lastly, Millennials were born between 1982 and 2004, therefore, Millennial's first year in college was in 2000 and their last first year in college will be in 2022. Data was collected from the CIRP Freshman Survey for the Millennial generation between 2000 and 2006. While CIRP does provide data for the Millennial generation between 2007 and 2012, the researcher chose to exclude this data because between 2007 and 2012, CIRP did not use many of the response options that they typically used on their survey between 1971 and 2006. Using the data with a significant amount of missing points can affect the reliability of statistical results and therefore data collected by the CIRP Freshman Survey between 2007 and 2012 was not included in this study.

However, depending on the response option, only certain years have data because the CIRP Freshman Survey either did not provide the initial question ("In deciding to go to college, how important to you was each of the following reasons?") or CIRP did not provide the response option for that year. Table 3.3 shows the years in which the CIRP Freshman Survey did not provide the question, "In deciding to go to college, how important to you was each of the following reasons?" and did not provide each response

option. Appendix B shows an expanded version of table 3.3 that shows each individual year the CIRP Freshman Survey provided and did not provide the initial question and the individual response options.

Table 3.2

Years the Question and Response Options were excluded from the CIRP Freshman Survey

Question/Reason	Years excluded from CIRP Freshman Survey
In deciding to go to college, how important to you was each of the following reasons?	1966-1970; 1972-1975
A mentor/role model encouraged me to go	1971-1991; 2004
I could not find a job	1971; 1985-1988
My parents wanted me to go	1985-1988
There was nothing better to do	1966-1970; 1972-1975
To be able to get a better job	1985-1988
To be able to make more money	1966-1970; 1972-1975
To get training for a specific career	1971-1998
To gain a general education and appreciation of ideas	1966-1970; 1972-1975
To improve my reading and study skills	2004-2006
To learn more about things that interest me	1998
To make me a more cultured person	1998
To prepare for graduate or professional school	1995-1998
Wanted to get away from home	1971; 1985-1988

Descriptive Analysis

To answer the first research question (What are the differences in reasons for attending college amongst the Baby Boomer, Generation X, and Millennial generations?), this analysis provides a descriptive introduction to the differences in reasons for attending college for the Baby Boomer, Generation X, and Millennial generations. CIRP provides an average of the students' responses for each response option that were indicated as "very important" each year. These aggregate responses were then averaged over the range of years for each generation for each response option. For instance, CIRP provides response option data for reasons for going to college for the Baby Boomer generation

between 1971 and 1979. Then, for each response option, the available data between 1971 and 1979 was averaged. This provides one percentage that represents the importance of that response option in deciding to attend college for the Baby Boomer generation. This process was done for each response option across each generation. Generational responses were averaged according to the years that CIRP recorded data for that response option. Table 3.3 and Appendix B indicate which years the CIRP Freshman Survey did not collect data for both the initial question, "In deciding to go to college, how important to you was each of the following reasons?" and each response option.

Two-Way Repeated Measures ANOVA

A two-way repeated measures analysis of variance (ANOVA) with unbalanced data was then conducted to assist in answering the first research question Using SPSS, a two-way repeated measures ANOVA was selected because it shows statistically significant differences between two factors, in this case generations and reasons, and their effect on another variable, in this case students' response to the question, "In deciding to go to college, how important to you was each of the following reasons?" Repeated measures indicates that the same type of subject is being studied over time, in this case that subject is first-time full-time college students. There are a different number of years for each generation and there is missing data in some years due to the fact CIRP did not provide a certain reason for a particular year or did not ask the question entirely. This creates a different number of data points for each generation and therefore the data are considered unbalanced. However, an ANOVA is robust, meaning that if there are missing data, the analyses may still provide meaningful results.

Trends Analysis

This study utilizes trends analysis methods in order to understand better the differences amongst generations as well as predict the reasons why members of the iGeneration will want to attend college. Cohen, Manion, and Morrison (2005) discuss when it is appropriate to use trends analysis and the strengths and weaknesses of trends analysis.

Cohen, Manion, and Morrison (2005) state that using trends analysis is appropriate for two reasons. First, trends analysis can be used if "the selected factors" are "studied continuously over time" (Cohen, Manion, & Morrison, 2005, p.179). This study analyzes secondary data collected over the past forty-five years. Secondly, trends analysis is appropriate if the researcher is using collected data to predict future trends (Cohen, Manion, & Morrison, 2005). This indicates that trends analysis is appropriate for this study because the researcher wants to use data to predict future generation's reasons for attending college.

The strengths and weaknesses of trends analysis must also be discussed in order to see the positive aspects of the analysis as well as the potential limitations of this method. Due to the fact that variables are being studied continuously over time, the study maintains a clear focus and allows researchers to see patterns in data over time and use the collected data as a base from which to predict and forecast future trends. However, unforeseen variables and attempting to predict too far into the future can negatively affect the accuracy of a trends analysis (Cohen, Manion, & Morrison, 2005). Metcalf (2013) states that while using trends analysis for predictive purposes may provide a general indication of which way (negative or positive) trends are heading, it is very difficult to

predict specific points when the trend line will change direction. The further a study is predicting into the future, the more data the trends analysis will need to be accurate (Cohen, Manion, & Morrison, 2005; Metcalf, 2013). Metcalf (2013) also discusses the role of unforeseen variables; the farther a trends analysis tries to predict into the future, the higher the potential for unpredicted factors to arise that may affect the forecast of future trends.

While trends analysis has both strengths and weaknesses, it was deemed appropriate for this study because the goal is to understand how first-year college students' reasons for attending college have changed between the Baby Boomer, Generation X, and Millennial generations. This data will then be used to predict the reasons why the rest of the Millennial generation and the future iGeneration will want to attend college.

Time Series Extrapolation.

In order to address the second research question (What do past generation's reasons for attending college suggest about future cohorts of first-year students' in the Millennial generation and iGeneration reasons for attending college?) multiple statistical analyses were conducted. First, a time series extrapolation was conducted. A time series extrapolation predicts future values of a variable based on values that have already been collected for that variable. The assumption of a time series extrapolation is that the variable will continue to behave similarly in the future as it did in the past. This study uses time series extrapolation to provide a prediction of the future response percentages for reasons for attending college based on students' previous responses to the question,

"In deciding to go to college, how important to you was each of the following reasons?" and the generation to which they belong.

Linear Regression.

Lastly, using SPSS, the response percentages for each year and reason were plotted on a graph and a linear regression was calculated in order to see the directionality of response options. This was done in order to see increases or decreases in past and current students' reasons for attending college and to project potential directions for the responses of future cohorts on these measures. This is similar to the time series extrapolation. However, a linear regression will provide a general direction (increasing/decreasing) in the degree to which future students from the Millennial generation and the early cohorts of the iGeneration place importance on the respective reasons for attending college. A linear regression also provides a regression equation which may be used to predict the future value of each response option based on the year.

The linear regression was then used to predict the future value of each response option for the last first year of college for the Millennial generation and the iGeneration. These future values were then ranked within their respective generation and placed alongside with the values and rank within the generation of each response option from the Baby Boomer generation and Generation X. This was done in order to see the changes in the ranking of importance of reasons to attend college across each generation.

Limitations

When interpreting the methodology and results of this study, certain limitations must be considered. For this quantitative exploratory study there were three overarching limitations: 1) the generalizability of generation theory, 2) the use of secondary data, and

3) the effects of missing data.

When working with generation theory it is important to understand that generation theory and generation descriptions do not account for every member of a generation. Generation theory is aggregate and, therefore, hides individual differences. The assumption can be made that describing generations can lead to stereotyping. While the attributes to generations may not apply to every person, they are valuable in making generalizations, not stereotyping them. Generalizations "give us the insights, awareness, and empathy that can lead to new approaches, changes in our own behavior, and adaptations that can create more understanding, cohesiveness, creativity, and productivity" (Raines, 2003, p. 11).

Using secondary data to conduct this study poses another limitation. These data were collected previously and were not collected for the purpose of this study. For instance, the question and the response options put forth by the CIRP Freshman Survey were not designed to test the motivation theories with which they are being aligned. The researcher used the available data to evaluate and align motivation theories with the response options provided by CIRP. This is a subjective process, which may differ between researchers' interpretation of the response options and motivation theories. The researcher recognizes that this may cause a bias in the study. However, the researcher did a thorough review of motivation theory to inform the best alignment of the reasons to motivational theory.

Another limitation that exists in the data with respect to the fact that the reasons for attending college were determined a priori, does not allow for an open-ended response, and, thus, may not represent the full range of motivations for students to attend

college. Just from talking with students, one may hear many reasons why they wanted to attend college that may not be included on the survey. CIRP has predetermined these reasons and students may feel like they have to choose one that does not necessarily apply to them. Therefore the data may be skewed to show that some reasons are more important than they actually are due to the fact that students cannot indicate their own reasons for attending college

Finally, there are missing data in the key variables of interest for the current study. Due to CIRP providing only some of the response options each year or sometimes leaving out the question entirely, gaps exist for certain years in the trends for the reasons for attending college. Also, since CIRP did not start asking this question until 1971, there is no data for G.I. and Silent generations (which is why their motivations for attending college were not examined in this study) and there is a significant portion of data missing from the Baby Boomer generation. There are data that reflect a portion of why Millennials want to attend college. However, the Millennial generation is still going to college. Each year more data is added to the Millennial generation which could affect the analyses in this study. The missing data could show that there are differences between generations when there may not be any differences at all. The years that data is missing can be seen in Table 3.3 and Appendix B.

CHAPTER FOUR

RESULTS & DISCUSSION

The purpose of this study is to understand better the differences between generations' motivations for attending college. This study focused on two research questions:

1. What are the differences in reasons for attending college amongst first-year students in the Baby Boomer, Generation X, and Millennial generations?
2. What do past generation's reasons for attending college suggest about future cohorts of first-year students' in the Millennial generation and iGeneration reasons for attending college?

First, an examination of "reasons for attending college" was conducted. In order to do this an average of the aggregates of each year across the range of years for each generation was generated in order to see how important each reason for going to college was to each generation. Next, a two-way repeated measures ANOVA was conducted in order to detect statistically significant differences in the reasons why each generation wanted to attend college. Following the two-way repeated measures ANOVA, a time series extrapolation was conducted in order to predict trends regarding the importance of each response option for the rest of the Millennial generation as well as the early cohorts of the iGeneration. Lastly, a linear regression for each response option was conducted in order to provide further information about the importance of each response option for

future cohorts of students, most notably the rest of the Millennial generation and the early cohorts of the iGeneration.

Descriptive Analysis

This section provides a descriptive introduction to the two-way repeated measures ANOVA and the time series analysis. Comparing averages of the aggregates of the "reasons" for each year across the range of years for each generation provides suggestive evidence about the importance of each reason as compared to the other reasons in a generation. This will provide context for the ANOVA and time series analysis discussed later in this chapter by showing which response options were the most important for each generation in their decisions to attend college. Note that the percentages cannot be compared across different generations because the generations do not have an equal representation of available data. For instance, the CIRP Freshman Survey only provides data for the Baby Boomer generation between 1971 and 1979, eight years of data, while there is available data for Generation X between 1980 and 2000, twenty years of data. It would be inaccurate to compare the Baby Boomer response percentages to the Generation X response percentages because Generation X has more data. However the rank order provided for each reason can be compared across generations. Table 4.1 shows the results of averaging the aggregates of "reasons" for each year across the range of years for each generation. This table suggests the importance that each generation placed on the respective reason for attending college. The average percentage of annual aggregate responses that a certain reason was "very important" to a generation's decision to go to college for each response option for each generation are shown in bold. The rank of how important each response option was to a generation is in parentheses.

Table. 4.1

Average Percent and Rank for Important Reasons for Deciding to Go to College Across Generations

Reasons Noted as Very Important in Deciding to Go To College	Average % and Rank for Boomers	Average % and Rank for Gen X	Average % and Rank for Millennials
To learn more about things that interest me	**75.4** (1)	**74.8** (2)	**77.2** (1)
To be able to get a better job	**71.4** (2)	**75.0** (1)	**71.1** (2)
To get training for a specific career	**n/a**	**71.6** (3)	**71.1** (3)
To gain a general education and appreciation of ideas	**68.9** (3)	**65.3** (5)	**65.1** (5)
To be able to make more money	**52.9** (4)	**68.4** (4)	**70.0** (4)
To prepare for graduate or professional school	**44.1** (5)	**52.0** (6)	**57.4** (6)
To make me a more cultured person	**35.9** (6)	**39.2** (8)	**41.4** (7)
To improve my reading and study skills	**34.6** (7)	**40.9** (7)	**41.1** (8)
My parents wanted me to go	**28.0** (8)	**34.0** (9)	**38.8** (9)
Wanted to get away from home	**10.4** (9)	**16.6** (10)	**21.5** (10)
A mentor/role model encouraged me to go	n/a	**14.0** (11)	**14.5** (11)
I could not find a job	**4.2** (10)	**5.4** (12)	**5.6** (12)
There was nothing better to do	**2.3** (11)	**2.6** (13)	**3.8** (13)

Notes: n/a indicates that the reason was not included consistently on the survey during this generation's time in college

Table 4.1 shows each response option, the average of aggregates for each year across the range of years for each generation, and the rank order in terms of how important that response option is relative to the other response options of that generation. Table 4.1 shows the top response options students for why the Baby Boomer, Generation X, and Millennial generations wanted to attend college. It also shows the response options that may not have been as important for these generations in deciding to go to college. The ranking of each of these response options can lead to better understanding the type(s) of motivation theories that these generations utilize when deciding whether or

not to attend college. The top five reasons for attending college are similar across all three generations. "To learn more about things that interest me," "to be able to get a better job," "to get training for a specific career," "to gain a general education and appreciation of ideas," and "to be able to make more money" were in the top five for each generation. However, "to get training for a specific career," was not a provided response option for the Baby Boomer generation, their other top reason for attending college was "to prepare for graduate or professional school." The bottom five reasons for attending college for each generation were similar as well. "My parents wanted me to go," "wanted to get away from home," "a mentor/role model encouraged me to go," "I could not find a job," and "there was nothing better to do" were in the bottom five for each generation. However, "a mentor/role model encouraged me to go," was not a provided response option for the Baby Boomer generation, their other bottom reason for attend college was "to improve my reading and study skills."

Tables 4.2-4.5 show each response option, the average of aggregates for each year across the range of years for each generation, and the ranking of importance for each generation categorized by the motivation theory they were aligned with in table 2.1.

Table 4.2

Response Options aligned with Achievement Theory

	Baby Boomers	**Generation X**	**Millennials**
To prepare for graduate or professional school	44.1% (5)	52% (6)	57.4% (6)
To be able to make more money	52.9% (4)	68.4% (4)	70% (4)
To be able to get a better job	71.4% (2)	75% (1)	71.1% (2)
To get training for a specific career	n/a	71.6% (3)	71.1% (3)

Notes: n/a indicates that the reason was not included consistently on the survey during this generation's time in college

Table 4.2 indicates that three of the response options ("to prepare for graduate school," "to be able to make more money," and "to be able to get a better job" for Baby Boomers, "to be able to make more money," "to be able to get a better job," and "to get training for a specific career" for Generation X and Millennials) aligned under achievement theory are ranked in the top five most important reasons why students decide to attend college for all three generations. This suggests that all three generations may typically be motivated to attend college because of their need for achievement.

Table 4.3

Response Options aligned with Drive Theory

	Baby Boomers	Generation X	Millennials
To learn more about things that interest me	75.4% (1)	74.8% (2)	77.1% (1)
To gain a general education and appreciation of ideas	68.9% (3)	65.3% (5)	65.1% (5)
To make me a more cultured person	35.9% (6)	39.2% (8)	41.4% (7)
To improve my reading and study skills	34.6% (7)	40.9% (7)	41.1% (8)
Wanted to get away from home	10.4% (9)	16.6% (10)	21.5% (10)

Table 4.3 shows that two of the response options ("to learn more about things that interest me" and "to gain a general education and appreciation of ideas") aligned under drive theory are ranked in the top five most important reasons why students decide to attend college for all three generations. It is also interesting to note that the reason, "wanted to get away from home" was in the bottom three for each generation. This indicates that "wanted to get away from home" may not have typically been an important reason in deciding to attend college for the Baby Boomer, Generation X, and Millennial generations. Drive theory is defined as the enjoyment one receives when completing the

task for the sake of completing it as opposed to completing the task for an external reward. This table and rank order of these response options suggest that all three generations may be motivated to attend college because of the enjoyment they receive from accomplishing tasks. While this type of motivation may be important to each generation when deciding to attend college, it may not be a very influential type of motivation because only two of the four response options listed under drive theory are in the top five reasons for attending college for each generation.

Table 4.4

Response Options aligned with Field Theory

	Baby Boomers	**Generation X**	**Millennials**
My parents wanted me to go	28% (8)	34% (9)	38.8% (9)
Wanted to get away from home	10.4% (9)	16.6% (10)	21.5% (10)
I could not find a job	4.2% (10)	5.4% (12)	5.6% (12)
There was nothing better to do	2.3% (11)	2.6% (13)	3.8% (13)

Table 4.4 indicates that all of the response options aligned under field theory are ranked in the bottom five reasons why students decide to attend college for all three generations (only eleven response options were given for the Baby Boomer generation). Field theory is implemented when a person is motivated by their environment and a particular need or tension. A person will be motivated to act in a certain way depending on how that person's environment is affecting them at the time the need or tension occurs. Field theory relies on the timing of the need or tension and the nature of the environment at the time the need or tension occurs. Table 4.4 and the ranking order suggest that all three generations do not typically use field theory as a means of motivation when deciding to attend college.

Table 4.5

Response Options aligned with Social Learning Theory

	Baby Boomers	Generation X	Millennials
A mentor/role model encouraged me to go	n/a	14% (11)	14.5% (11)
My parents wanted me to go	28% (8)	34% (9)	38.8% (9)

Notes: n/a indicates that the reason was not included consistently on the survey during this generation's time in college

Table 4.5 shows that all of the response options aligned under social learning theory are ranked in the bottom five reasons why students decide to attend college for all three generations (only eleven response options were given for the Baby Boomer generation). Social learning theory is when a person is motivated to do something based on the social norms of their community, by what others expect of them, and/or by what other people are doing. Table 4.5 and the ranking of the response options under social learning theory, suggest that all three generations were not typically motivated to attend college based on social norms, expectations, and/or what other people were doing.

Tables 4.2-4.5 indicated that all three generations use both achievement motivation and drive motivation when deciding whether or not attend college. It suggests that generations choose to attend college because they have a desire to make themselves better. Whether it is through getting a better job, making more money, to learn more about things that interest them, or to gain a general education, the Baby Boomer, Generation X, and Millennial generations want to become better people. They enjoy learning for the sake of learning, but appreciate the knowledge for what it can do for their careers and life after college. While there may be subtle differences in the ranking order for each generation, the top five response options are similar across each generation.

Despite this suggestive evidence, the question remains, is there a significant difference in why generations want to attend college? To answer this question, a two-way repeated measures ANOVA was conducted.

Two-Way Repeated Measure ANOVA

The following section discusses the results of the two-way repeated measures ANOVA. A two-way repeated measures ANOVA was selected for this study because it shows significant differences between two factors, in this case generations and reasons, and their effect on another variable, in this case response. Repeated measures indicates that the same type of subject is being studied over time, in this case that subject is first-time full-time college students. In order for the two-way repeated measures ANOVA to report valid data, three assumptions must be tested. These assumptions are: there are no outliers in any group, each group's data (or residuals) is normally distributed, and each group's data (or residuals) has equal variance (called homogeneity of variances).

The first assumption requires detection of any outliers in the trends data for each response option for each year. A boxplot was used to detect for any outliers in this dataset. The boxplot test was chosen to detect for any outliers because it is a widely accepted and convenient way of graphically illustrating the dataset in order to view any outliers. Figure 4.1 shows the boxplot for the two-way repeated measures ANOVA. The boxplot tests for outliers by putting the data on a chart. If there are any outliers they will be indicated by a small circle or star and they will set outside of the box as can be seen in figure 4.1. There were ten outliers detected in this dataset as assessed by inspection of a boxplot. The researcher decided not to remove these outliers because there were not many outliers and he believes they will not materially affect the results.

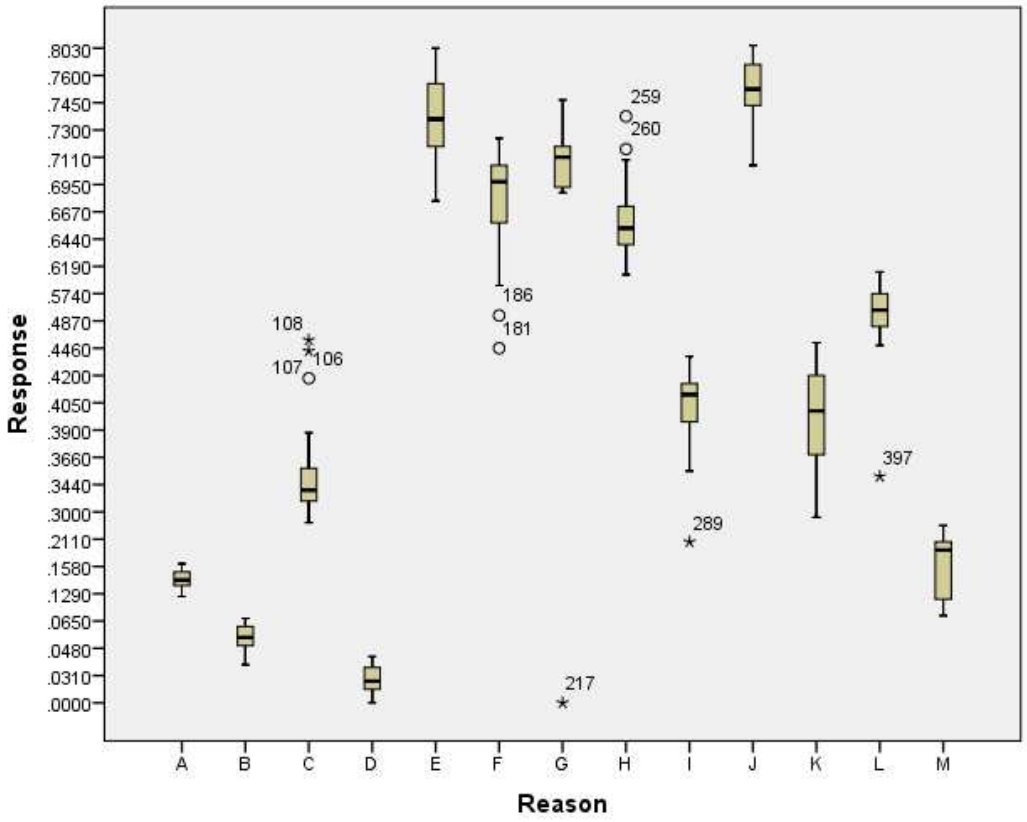

Figure 4.1. Two-Way Repeated Measures ANOVA Boxplot

The second assumption tests the normal distribution of the data set. A Shapiro-Wilk's test was conducted in order to test the normal distribution of the dataset. A Shapiro-Wilk test is used when the dataset contains less than 2,000 cases, which fits the parameters of the current study. In the Shapiro-Wilk test, the null hypothesis is that the dataset is normally distributed and the alternative hypothesis is that the dataset is not normally distributed. In order to prove that the data is normally distributed, the alternative hypothesis must be rejected. The Shapiro-Wilk test typically uses a 95% confidence level. Therefore in order to reject the alternative hypothesis the significance value must be $p>0.05$. If $p>0.05$ then, according to the Shapiro-Wilk test, the dataset is normally distributed. Table 4.6 shows the significance values for the Shapiro-Wilk tests for each reason within each generation.

Table 4.6

Significance Values for the Shapiro-Wilk Test for Normal Distribution of Data

Reason	Baby Boomer	Generation X	Millennial
A mentor/role model encouraged me to go	X[a]	0.872	0.077
I could not find a job	1	0.167	0.682
My parents wanted me to go	0.016[b]	0.042	0.201
There was nothing better to do	0.85	0.001[b]	0.034[b]
To be able to get a better job	0.771	0.051	0.168
To be able to make more money	0.445	0.023[b]	0.995
To get training for a specific career	X[a]	X[a]	0.289
To gain a general education and appreciation of ideas	0.836	0.417	0.15
To improve my reading and study skills	0.509	0.49	0.659
To learn more about things that interest me	0.845	0.417	0.15
To make me a more cultured person	0.86	0.213	0.156
To prepare for graduate or professional school	0.114	0.04	0.787
Wanted to get away from home	0.446	0.003	0.821

[a]Not enough data provided
[b]Not normally distributed

There are four data points that are not normally distributed ($p < .05$) and three data points that did not have enough data available to provide significance levels for the Shapiro-Wilk test. The researcher determined that the four data points that were not

normally distributed were caused by a lack of data for the variable. Due to the somewhat robust nature of the two-way repeated measures ANOVA, the researcher decided to leave these data points even though they were not normally distributed.

The final assumption required an ANOVA is a test for homogeneity of variance. This test was required in order to make sure that the variance (how spread out the distribution is) within each group (in this case, generation) is equal. Levene's test of homogeneity of variance was used in order to assess this data set. Levene's test was chosen because this dataset has a relatively normal distribution, meaning that the response percentages for each across each generation are normally distributed. In Levene's test, the null hypothesis is that the dataset has homogeneity of variance and the alternative hypothesis is that the data set does not have homogeneity of variance. In order to determine if there is homogeneity of variance the alternative hypothesis must be rejected. Levene's test typically uses a confidence level of 95%. Therefore in order to reject the alternative hypothesis the significance value must be $p>0.05$. If $p>0.05$ then, according to the Levene's test, the dataset has homogeneity of variance. According to Levene's test of homogeneity of variance, this data set does not have equal variances ($p < .05$). Since this assumption for a two-way repeated measures ANOVA was not met, it needs to be understood how this could potentially effect the results. Unequal variances may mean that the significance value for the two-way repeated measures ANOVA may be underestimated, meaning the significance value may be larger than indicated. The two-way repeated measures ANOVA is fairly robust and may be able to handle unequal variances. Unequal variances become an issue if the significance value is only marginally significant. In order to understand the effect unequal variances will have on the results,

the significance value of the two-way repeated measures ANOVA will be examined in the following paragraph.

After checking for outliers, normal distribution, and homogeneity of variance, the two-way repeated measures ANOVA was then conducted. A two-way repeated measures ANOVA was selected because it shows significant differences between two factors, in this case generations and reasons, and their effect on another variable, in this case response to the question, "In deciding to go to college, how important to you was each of the following reasons?" Repeated measures indicates that the same subject is being studied over time, in this case that subject is first-time full-time college students. The goal of this model is to reveal if there are statistically significant differences in why different generations want to attend college. The two-way repeated measures ANOVA revealed that there is a statistically significant difference between the reasons why Baby Boomers, Generation X, and Millennials wanted to attend college, $F(2, 333)= 39.067$, $p < .0001$, partial $n^2= .190$. The *F* indicates an F-test was used, the F-statistic (39.067) and the degrees of freedom (2, 333) indicate a point on the F-distribution that determines the statistical significance, $p<0.0001$ indicates that the two-way repeated measures ANOVA is statistically significant at the 99.99% confidence level and that there is a 0.01% chance that this model committed a Type I error (i.e., false positive). Since the significance value of the two-way repeated measures ANOVA is so low, it can be seen that the unequal variances did not greatly affect the significance of the results.

The two-way repeated measures ANOVA indicated that there is a statistically significant difference between the reasons why different generations wanted to attend college. The researcher then wanted to understand what exactly those differences were. In

order to do this a post-hoc test was conducted to determine which specific reasons are significantly different amongst the generations. However, due to the unbalanced data set, SPSS was unable to conduct any post-hoc tests. The researcher was unable to conduct post-hoc test because of missing data points in the dataset as well as not having enough data points for the Baby Boomer generation.

Time Series Extrapolation

Ideally, a time series extrapolation would use previous data points to predict the relative percentage that each reason should get for each future year (i.e., using changes in reasons for attending college across Baby Boomer, Gen X, and Millennial generations to predict the responses of the iGeneration). The researcher attempted to employ this statistical test, but limitations in the data made the extrapolation inaccurate and the results unreliable. Two specific issues with the data made a time series extrapolation an unrealistic option for data analysis in this study.

One of the issues in creating an accurate prediction comes from the lack of data for the variables of interest at certain time points. This was particularly relevant for the Baby Boomer generation although there were some missing data for Generation X (1985-1988). As shown in table 3.3, the CIRP Freshman Survey did not ask the question, "In deciding to go to college, how important to you was each of the following reasons?" at all, during 1966-1970 and 1972-1975. When conducting an extrapolation, large gaps in a data set affect the reliability of the prediction. It also makes the points at both ends of that gap somewhat less useful because these points then act as outliers, which also affect the reliability of the extrapolation.

The other issue in conducting the time series extrapolation was trying to predict too far into the future. One of the goals of this study was to try to predict the reasons the iGeneration would want to attend college. The iGeneration will begin their first year in college in 2023. The last cohort of the iGeneration will enter college between 2041 and 2045 based on the current assumptions regarding the duration of a generation. Therefore the time series extrapolation would need to predict between 35 and 39 years into the future. The current data set only provides information for 36 years and there are gaps in the data set. While the two-way repeated measure ANOVA is robust with unbalanced data, a time series extrapolation needs a balanced dataset in order to be accurate and reliable.

Given these reasons, a time series extrapolation with the limited data set yielded unreliable and inaccurate predictions. Therefore results derived from the time series extrapolation were not recorded for this study. However an examination of linear trends for the data available for each reason for attending college provided the researcher with suggestive evidence to predict future directions of responses on these items among first-year students in the iGeneration.

Linear Regression

In order to best understand the results of this study, the following section will discuss in full detail the results of one of the response options for a reason to attend college in the CIRP Freshman Survey. Thereafter, in order to organize the data in a meaningful manner, the results for each reason will be discussed in the context of the motivation theory that it falls under.

In order to derive predictions from the data set, trends lines based upon linear regressions were drawn using SPSS. A linear regression was calculated based on the data for each question. From these regression equations, trend lines were drawn and increases and decreases in the importance of a reason for attending college can be tracked across time. Tracking these patterns in responses to the survey questions about reasons for attending college across generations offers suggestive evidence for predictions for future student responses on these measures. Similar to the time series extrapolation, a problem with linear regressions is that the further into the future the prediction must go, the less accurate and reliable it becomes. Therefore the linear regression is illustrated and discussed solely in terms of directionality (increasing/decreasing), which represents more accurate insight for the remaining Millennial generation as well as the early cohorts of the iGeneration.

In order to accurately calculate the linear regressions, the data set must be tested for three assumptions regarding errors: independence of errors, homoscedasticity of errors, and normally distributed errors.

Linear Regression Assumptions for "I could not find a job"

The independence of errors assumption is necessary in order to see if the error terms are related to each other. If the error terms are related to each other, then the linear regression will not have independence of errors, which could affect the significance of the linear regression. The Durbin-Watson test is used in this study because it is the most common and most widely accepted way of testing the independence of errors. The Durbin-Watson test measures the correlation between the error terms and the previous error term producing the D-statistic. The D-statistic ranges between 0 and 4. The closer

the D-statistic is to 2, the more likely there is independence of errors. The smaller the D-statistic is, the more likely there is positive autocorrelation, which means the error terms are correlated and therefore, not independent. This can lead to inflation in the significance of the linear regression. A D-statistic between 1.5 and 2.5 is a comfortable range to assume there is independence of errors.

As shown in Table 4.7 that the D-statistic for the reason "I could not find a job" is 0.924. This statistic is outside of the likely range for independence of errors and it seems that the independence of errors may be positively auto-correlated. This means that the dataset for the reason "I could not find a job" has violated the assumption of independence. Since this assumption for a linear regression was not met, it needs to be understood how this could potentially affect the results. Since the D-statistic is lower than 1.5 and therefore likely to be positively auto-correlated, the significance for this linear regression may be inflated.

The next assumption that must be tested is that there is homoscedasticity of errors. This means that the variance around the regression line is similar for all values. If the variance for all values is not similar, it means there is heteroscedasticity of errors. If heteroscedasticity of errors is present, it could bias the significance of the regression. The presence of heteroscedasticity may also indicate that there are other violations in the assumptions of the linear regression. A scatterplot is typically used to check for homoscedasticity. If homoscedasticity of errors is present, the points on the scatterplot will be spread evenly across the x-axis (Regression Standardized Prediction Value) and the y-axis (Regression Standardized Residuals). If they are not evenly spread and differ in

height, looking more like a funnel shape, then there is a violation of homoscedasticity of errors.

Figure 4.2 shows the scatterplot for the reason "I could not find a job." The points in the scatterplot are spread evenly the x-axis and y-axis. From the scatterplot it can be determined that this linear regression has homoscedasticity of errors. This means that this linear regression has independence of errors and that this assumption holds true.

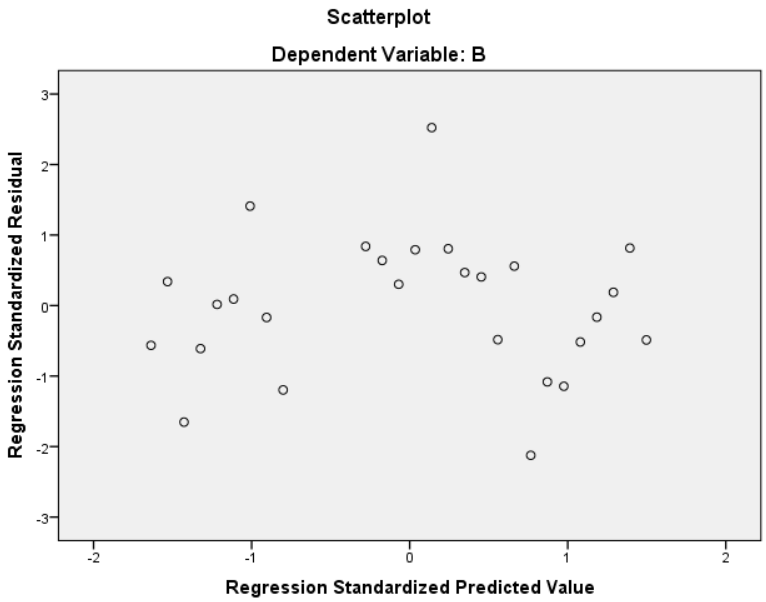

Figure 4.2. "I could not find a job" Scatterplot

The final assumption that must be tested is the normally distributed errors. Testing for normally distributed errors identifies if there are any outliers in the dataset for this linear regression and if the dataset for this linear regression is normally distributed. Testing for normally distributed errors is done visually by observing one of three different figures. By observing a histogram, boxplot, or a normal probability plot, whether or not there is a normal distribution of errors can be seen. All three figures are used interchangeably to observe the normal distribution of errors and one method is not

better than the other. This study used a normal probability plot to see if there was a normal distribution of errors. In order to see if there is a normal distribution of errors in a normal probability plot, the points along the line will slightly bend around the line. If the points on the normal probability plot are far off of line (i.e. make an "S" shape or look skewed one way or another) that suggests that either the dataset for that linear regression is not normally distributed and/or the dataset for that linear regression contains outliers.

Figure 4.3 shows the normal probability plot of the linear regression for the reason "I could not find a job." The points along the line slightly bend around line suggesting that the dataset for this linear regression is normally distributed.

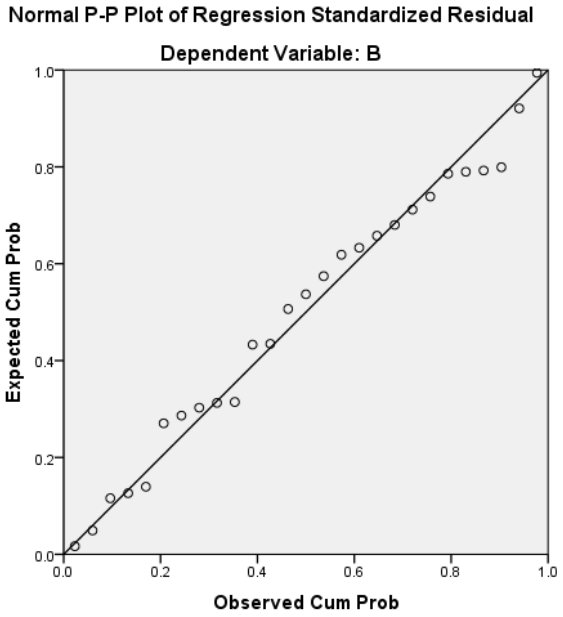

Figure 4.3. "I could not find a job" Normal P-P Plot

A linear regression is fairly robust to faults in the dataset, meaning that if one assumption is not met it may not significantly affect the results of the linear regression. However, it is important to understand that since the reason "I could not find a job" did

not meet the independence of errors assumption, the significance value of the results may be inflated/overestimated.

Linear Regression Results for "I could not find a job"

Table 4.7 shows the results of the linear regression for reason "I could not find a job." The following section will define what each of these statistics mean and why they are important to know when conducting a linear regression.

Table 4.7

Linear Regression Results for "I could not find a job"

	F-Statistic	Regression and Residual Degrees of Freedom (respectively)	P-value	Regression Equation	R^2	Rate of Change per Year
I could not find a job	9.112	(1, 25)	$p<0.01$	0.0004 (Y>1971) + 0.0434	26.7%	0.04%

The F-test is typically used when trying to determine if a model is a good fit for the dataset. In the context of this study, the F-test determines if the regression equation is statistically significant for this dataset. Running the F-test returns an F-statistic, which, when used with the degrees of freedom, corresponds to a specific point along the F-distribution. Locating that point on the F-distribution returns a *p-value*. The *p-value* determines whether or not the model is statistically significant depending on the confidence level the researcher has put forth. For this study, a 99% confidence level ($p<0.01$) is used in order to reduce the likelihood of receiving a false positive (Type I error).

For the reason "I could not find a job" the regression equation is statistically significant at a confidence level of 99%, $F(1, 25)= 9.112$, $p< 0.01$. Where F indicates that the F-test was used, the F-statistic (9.112) and the regression and residual degrees of freedom (1, 25, respectively) indicate a point on the F-distribution that determines the statistical significance, and $p< 0.01$ indicates that the regression equation is statistically significant as determined by the 99% confidence level and there is only a 1% chance that this model committed a Type I error (false positive).

The next statistic in table 4.7 is the regression equation. A linear regression is usually set up as y=mx+b. Where *y* is the predicted value, *m* is the slope of the equation, *x* is a value along the x-axis, and *b* is the y-intercept. The regression equation determines the slope and position of the linear regression. The regression equation provides valuable information such as the direction of the linear regression (positive/negative) as indicated by the slope. The regression equation is also the basis for predicting future values along the linear regression. By determining the value of *x* and plugging it into the regression equation, the predicted value can be determined and plotted along the linear regression.

The regression equation for the reason "I could not find a job" is y=0.0004x+0.0434. Table 4.7 shows the regression equation as y=0.0004(Y>1971)+0.0434. For this study, the *x-value* is the years since 1971. In order to receive an accurate prediction for how important this reason will be for first-time full-time students in 2020, the years since 1971 would need to be calculated. In this case 49 would be the *x-value*. The slope also suggests that the linear regression is positive and may continue to increase. The slope also determines the percent rate of increase per year. To determine the percent rate of increase per year, the slope (0.0004) is multiplied by

100. This indicates that each year the reason "I could not find a job" will increase in importance by 0.04%. This statistic is shown in the last column in Table 4.7.

Lastly, it is important to consider how much variation in the percentage response of students who indicate one of the given reasons was very important in their decision to attend college (response variable) is explained by the year the response was given (explanatory variable). In order to do this, the R^2 statistic is calculated. The R^2 value indicates the proportion of variance in the future response variable that can be explained by the explanatory variable. In this study the future response variable is the percentage of students who responded that a response option ("I could not find a job") was very important when deciding to attend college and the explanatory variable is the generation the response was given. The R^2 ranges between 0 and 1. The closer the R^2 is to 1, the better the explanatory variable is able to explain the variance in the response variable and the better the linear regression will predict future values. If R^2 is closer to 0 it suggests that the explanatory variable does not explain much of the variance in the response variable and that it may not provide a good prediction of future response values. There is no one answer in determining a good R^2 value because there are many other variables that could affect the response variable along with the explanatory variable(s) in the study. However an R^2 that is very close to 1, may indicate that the explanatory variable(s) is too similar to the response variable.

The R^2 value for the reason "I could not find a job" is 26.7% as indicated by table 4.7. In this study, the future response variable is the percentage of students who responded "I could not find a job" was a very important reason as to why they decided to attend college and the explanatory variable is the generation in which the response is

given. The generation in which the response is given accounted for 26.7% of the explained variability in the percentage of students who responded "I could not find a job" was a very important reason as to why they decided to attend college. This statistic indicates that the generation in which the response is given in good predictor of the percentage of students that will respond "I could not find a job" is a very important reasons in deciding why they want to attend college. However, and R^2 value of 26.7% also indicates that there are other variables that also assist in predicting the percentage of students that will respond "I could not find a job" is a very important reasons in deciding why they want to attend college.

Figure 4.4 shows the linear regression and the dataset for the reason "I could not find a job." This figure is included to provide a visual example of what the linear regression looks like compared to the actual dataset.

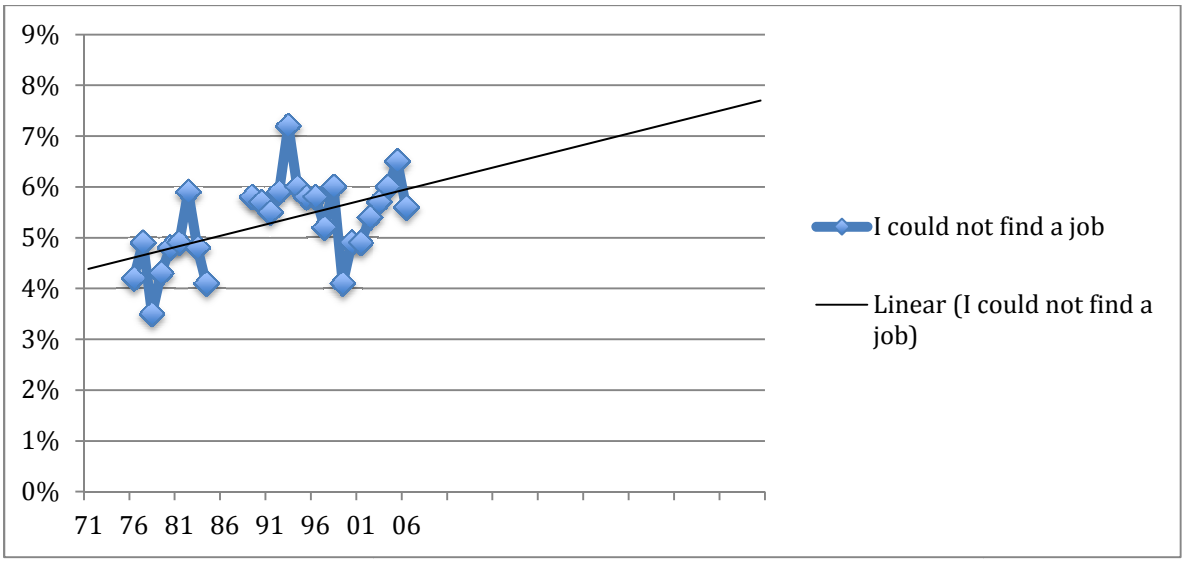

Figure 4.4. "I could not find a job" Trend Line

Linear Regressions for Response Options

The following sections will discuss the results of the linear regressions for each of the response options provided by the CIRP Freshman Survey under the motivation theory to which they have been aligned.

Achievement Theory

Table 4.8 shows the necessary statistics in order to interpret the findings from each response option's linear regression. Figure 4.5 shows the trend lines for each response option under achievement theory. The response options "to be able to get a better job" and "to get training for a specific career" were unable to meet many of the assumptions that are necessary when running a linear regression (i.e.- low Durbin-Watson statistic, heteroscedasticity of errors), which creates a bias in the model. While the model does suggest that the rest of the Millennial generation and the early cohorts of the iGeneration may find these reasons continually less important, the biases present may be providing a false result. Therefore it is difficult to derive any conclusions from these two models. The trend lines for both response options are indicated by dashes on figure 4.5.

The response options "to prepare for graduate or professional school" and "to be able to make more money" provide more accurate models from which to base predictions. The linear model for both response options suggests that they will each continue to increase slightly (0.5% per year) in importance for the remaining Millennials and early cohorts of the iGeneration. The generation in which the response is given explains 76.4% of the variance in the percentage of students who responded, "to prepare for graduate or professional school" as a very important reason in deciding to attend

college. This suggests that the generation in which the response was given is a good indicator for this response option and will provide more accurate predictions. The generation in which the response is given explains 58.7% of the variance in the percentage of students who responded, "to be able to make more money" as a very important reason in deciding to attend college. This suggests that the generation in which the response was given is a good indicator for this response option and will provide more accurate predictions.

Overall, the reasons listed under achievement theory may be likely to be relevant motivators for the rest of the Millennial generation and the iGeneration to attend college because two of the response options ("to prepare for graduate or professional school" and "to be able to make more money") will continue to increase in importance at a rate of 0.5%/year and three of these response options were in the top five for each generation which can be seen from table 4.8. The significantly fast increase in importance (0.5% per year) in the response options, "to prepare for graduate or professional school" and "to be able to make more money" may indicate that this reason may be a more important reason to future generations when deciding to attend college as soon as the early cohorts of the iGeneration. "To be able to get a better job," "to get training for a specific career," and "to be able to make more money" were in the top five for Generation X and Millennials and "to be able to get a better job," "to be able to make more money," and "to prepare for graduate or professional school" were in the top five for the Baby Boomers.

Table 4.8

Reasons Aligned with Achievement Theory: Results

	Independence of Errors (Durbin-Watson)	Homoscedasticity of Errors?	Normal Distribution of Errors?	Regression Equation	Explained Variance	Rate of Change per Year	P-value[c]
To prepare for graduate or professional school	0.731[a]	Yes	Yes	0.005 (Y>1971)[b] + 0.4245	76.4%	0.5%	p<0.01
To be able to make more money	0.317[a]	Yes	Yes	0.005 (Y>1971)[b] + 0.5655	58.7%	0.5%	p<0.01
To be able to get a better job	0.863[a]	No	Yes	-0.0003 (Y>1971)[b] + 0.7419	1.63%	-0.03%	p>0.01
To get training for a specific career	0.842[a]	No	Yes	-0.0024 (Y>1971)[b] + 0.7886	11.4%	-0.24%	p<0.01

Notes: [a] The threshold for a lack of independence is between 1.5 and 2.5. If the Durbin-Watson statistic is less than 1.5 the statistical significance may be inflated. If it is above 2.5 the statistical significance may be underrated; [b] Y>1970 indicates "years since 1971"; [c] This study uses a confidence level of 99%, there *p* must be less than 0.01 in order to be considered statistically significant.

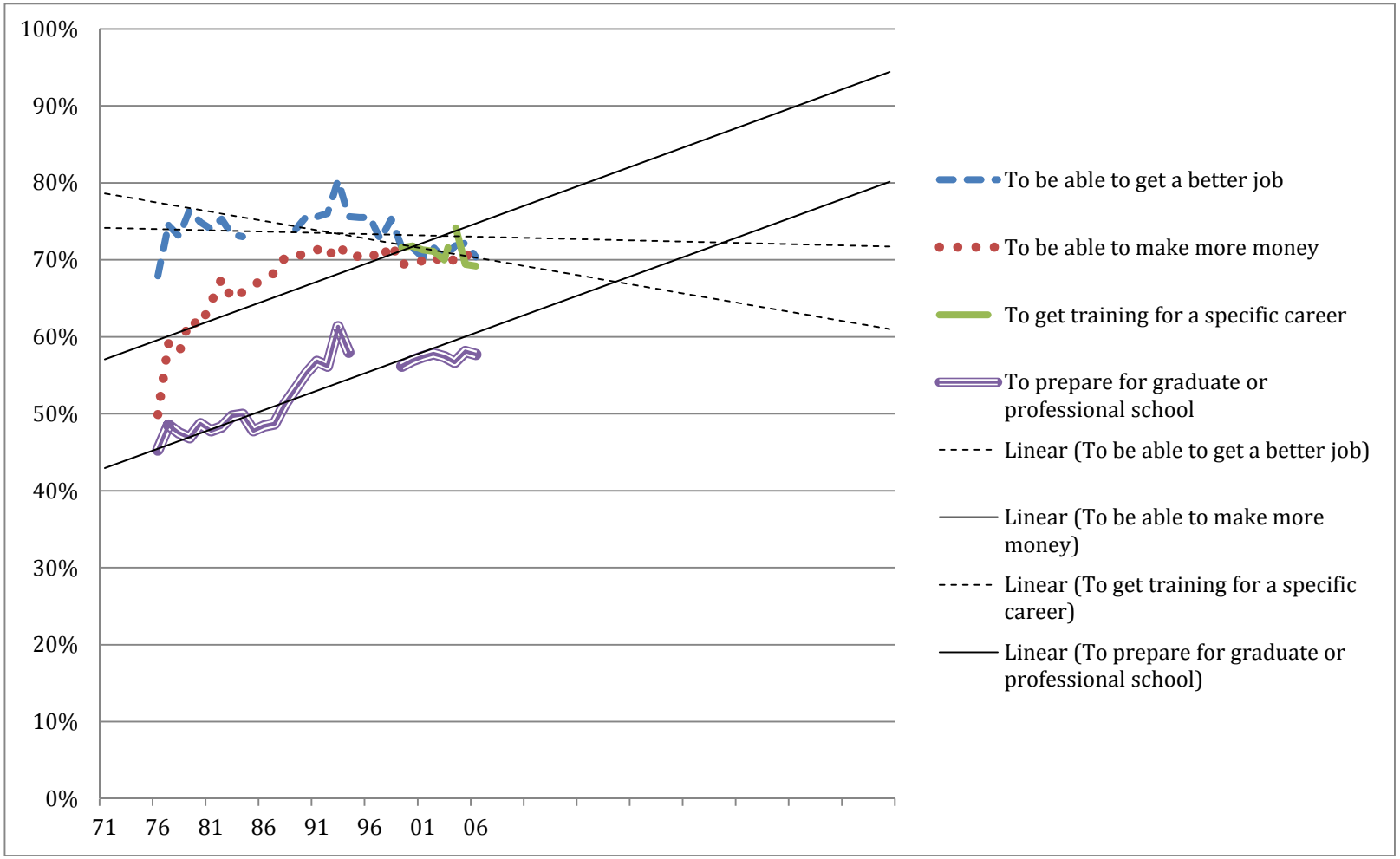

Figure 4.5. Reasons Aligned with Achievement Theory, Responses Over Time, and Trend Lines

Drive Theory

Table 4.9 shows the statistics for interpreting the drive theory linear regressions. Figure 4.6 shows the trend lines for each response option under drive theory. The response options "to make me a more cultured person" and "wanted to get away from home" were unable to validate two of the three the necessary assumptions needed to conduct a linear regression (low Durbin-Watson statistic, heteroscedasticity of errors). The linear regression for each response option does suggest that the rest of the Millennial generation and the early cohorts of the iGeneration may find these reasons continually more important. However, the biases present in these statistics may be providing a false result. Therefore, it is difficult to derive any conclusions from these two models because of the bias present.

The response options "to learn more about things that interest me," "to gain a general education and appreciation of ideas," and "to improve my reading and study skills" provide more accurate linear regressions from which to base predictions. The linear regressions for the response options "to learn more about things that interest me" and "to improve my reading and study skills" suggest that they will continue to increase (0.09% per year and 0.22% per year, respectively) in importance for the remaining Millennials and early cohorts of the iGeneration. The linear regression for the response option "to gain a general education and appreciation of ideas" suggests that it will decrease (-0.15%/year) in importance for future college students. The generation in which the response is given explains 21.4%of the variance in the percentage of students who responded "to learn more about things that interest me," 22.1% of the variance for "to gain a general education and appreciation of ideas," and 23.1% of the variance for "to

improve my reading and study skills" as very important reasons in deciding to attend college. This suggests that the generation in which the response was given is a good indicator for these response options and will provide more accurate predictions.

The reasons listed under drive theory may likely be relevant motivators for the rest of the Millennial generation and the early cohorts of the iGeneration to attend college because some of the response options will continue to increase in importance over time (with the exception of the reason "to gain a general education and appreciation of ideas" which will decrease at a rate of -.015% per year) and two of the response options ("to learn more about things that interest me" and "to gain a general education and appreciation of ideas") have been in the top five reasons for attending college for all three of the past generations which can be seen from table 4.9. However, with the indication that the response option "to gain a general education and appreciation of ideas" will decrease over time, this response option may not be as important to future generations as it has been for past generations.

Table 4.9

Reasons Aligned with Drive Theory: Results

	Independence of Errors (Durbin-Watson)	Homoscedasticity of Errors?	Normal Distribution of Errors?	Regression Equation	Explained Variance	Rate of Change per Year	P-Value[c]
To learn more about things that interest me	1.283[a]	Yes	Yes	0.0009 (Y>1971)[b] + 0.7361	21.4%	0.09%	p<0.01
To gain a general education and appreciation of ideas	0.831[a]	Yes	Yes	-0.0015 (Y>1971)[b] + 0.6876	22.1%	-0.15%	p<0.01
To make me a more cultured person	1.076[a]	No	Yes	0.0024 (Y>1971)[b] + 0.3446	47.6%	0.24%	p<0.01
To improve my reading and study skills	0.946[a]	Yes	Yes	0.0022 (Y>1971)[b] + 0.3580	23.1%	0.22%	p<0.01
Wanted to get away from home	0.367[a]	No	Yes	0.0047 (Y>1971)[b] + 0.0698	89.5%	0.47%	p<0.01

Notes: [a]The threshold for a lack of independence is between 1.5 and 2.5. If the Durbin-Watson statistic is less than 1.5 the statistical significance may be inflated. If it is above 2.5 the statistical significance may be underrated; [b]Y>1970 indicates "years since 1971"; [c]This study uses a confidence level of 99%, there *p* must be less than 0.01 in order to be considered statistically significant.

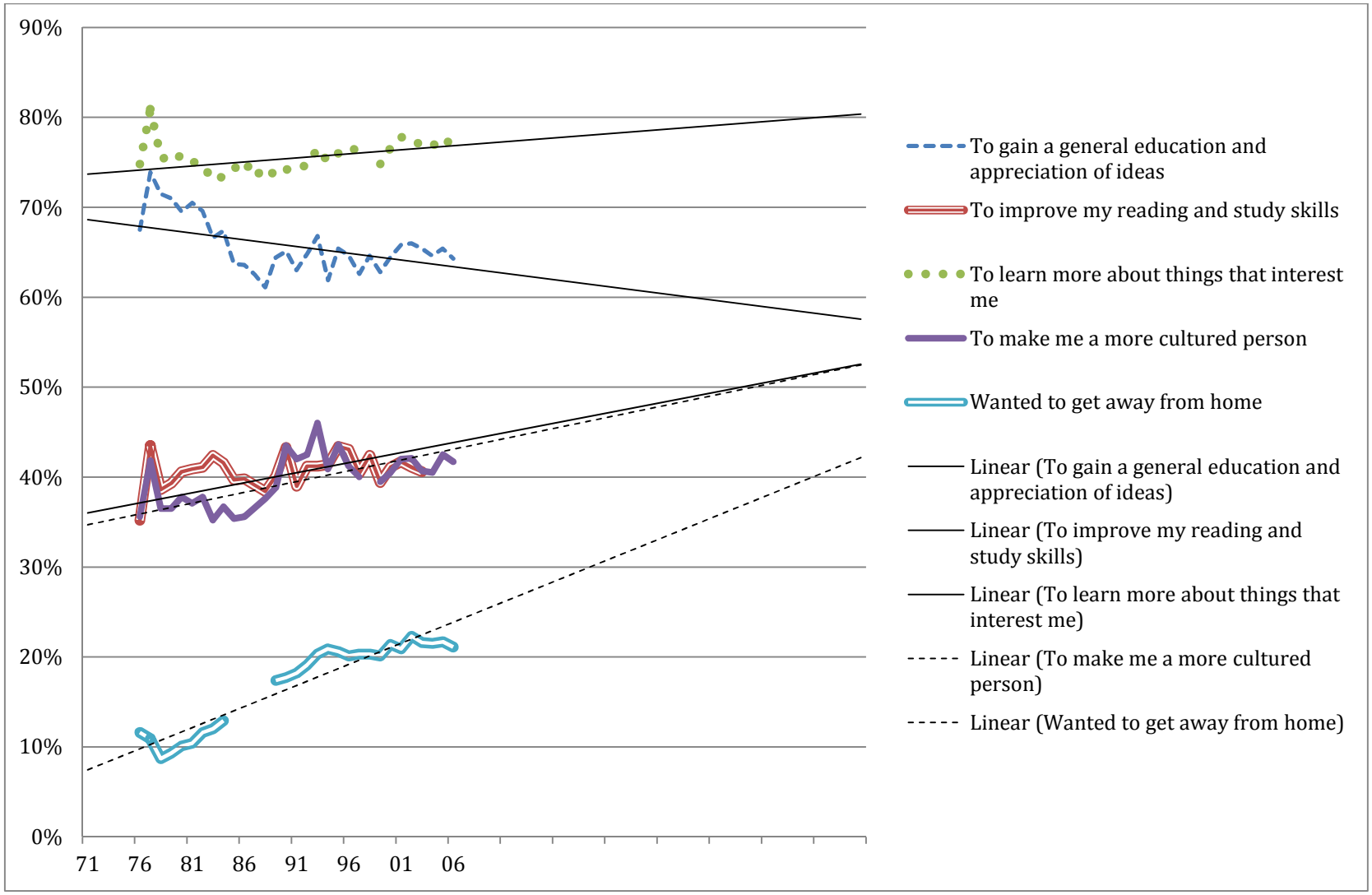

Figure 4.6. Reasons Aligned with Drive Theory, Responses Over Time, and Trend Lines

Field Theory

Table 4.10 shows the statistics for interpreting the field theory response options' linear regressions. Figure 4.7 shows the trend lines for each response option under field theory. The response options "wanted to get away from home" was unable to validate two of the three the necessary assumptions needed to conduct a linear regression (low Durbin-Watson statistic, heteroscedasticity of errors). The linear regression for this response option does suggest that the rest of the Millennial generation and the early cohorts of the iGeneration may find this reason continually more important, the biases present may be providing a false result. Therefore, it is difficult to derive any conclusions from this linear regression because of the bias present in the model.

The response options "my parents wanted me to go," "I could not find a job," and "there was nothing better to do" provide more accurate linear regressions from which to base predictions. The linear regressions for the response option "my parents wanted me to go," suggests that it will increase in importance at a significant rate of 0.35% per year. The generation in which the response is given also explains 62.3% of the variance in the percentage of students who responded, "my parents wanted me to go" as a very important reason in deciding to attend college. The rate of increase in importance each year indicates that this reason will become more important quickly for future generations of college students as soon as the early cohorts of the iGeneration.

The linear regressions for the response options, "I could not find a job," and "there was nothing better to do" suggest that they will continue to increase (0.04% per year and 0.06% per year, respectively) in importance for the remaining Millennials and early cohorts of the iGeneration. The generation in which the response is given explains

26.7% and 82.1% of the variance in the percentage of students who responded, “my parents wanted me to go,” “I could not find a job,” and “there was nothing better to do” (respectively) as very important reasons in deciding to attend college. This suggests that the generation in which the response was given is a good indicator for these response options and will provide more accurate predictions.

Overall, the reasons listed under field theory may be relevant motivators for the rest of the Millennial generation and the early cohorts of the iGeneration to attend college. While all of the response options have typically not been as important to the past three generations, they continue to increase in importance over time. While, table 4.10 indicates that all five reasons have been in the bottom five reasons noted as very important for attending college for all three generations, the response option “my parents wanted me to go” may increase at a relatively fast pace (0.35% per year). This rate indicates that this reason will move out of the bottom five reasons as early as the early cohorts of the iGeneration. This emergent reason may be one of the biggest differences in why future generations of students may want to attend college.

Table 4.10

Reasons Aligned with Field Theory: Results

	Independence of Errors (Durbin-Watson)	Homoscedasticity of Errors?	Normal Distribution of Errors?	Regression Equation	Explained Variance	Rate of Change per Year	P-Value[c]
My parents wanted me to go	0.924[a]	Yes	Yes	0.0035 (Y>1971)[b] + 0.2699	62.3%	0.35%	p<0.01
Wanted to get away from home	0.367[a]	No	Yes	0.0047 (Y>1971)[b] + 0.0698	89.5%	0.47%	p<0.01
I could not find a job	1.402[a]	Yes	Yes	0.0004 (Y>1971)[b] + 0.0434	26.7%	0.04%	p<0.01
There was nothing better to do	1.626[a]	Yes	Yes	0.0006 (Y>1971)[b] + 0.0157	82.1%	0.06%	p<0.01

Notes: [a]The threshold for a lack of independence is between 1.5 and 2.5. If the Durbin-Watson statistic is less than 1.5 the statistical significance may be inflated. If it is above 2.5 the statistical significance may be underrated; [b]Y>1970 indicates "years since 1971"; [c]This study uses a confidence level of 99%, there *p* must be less than 0.01 in order to be considered statistically significant.

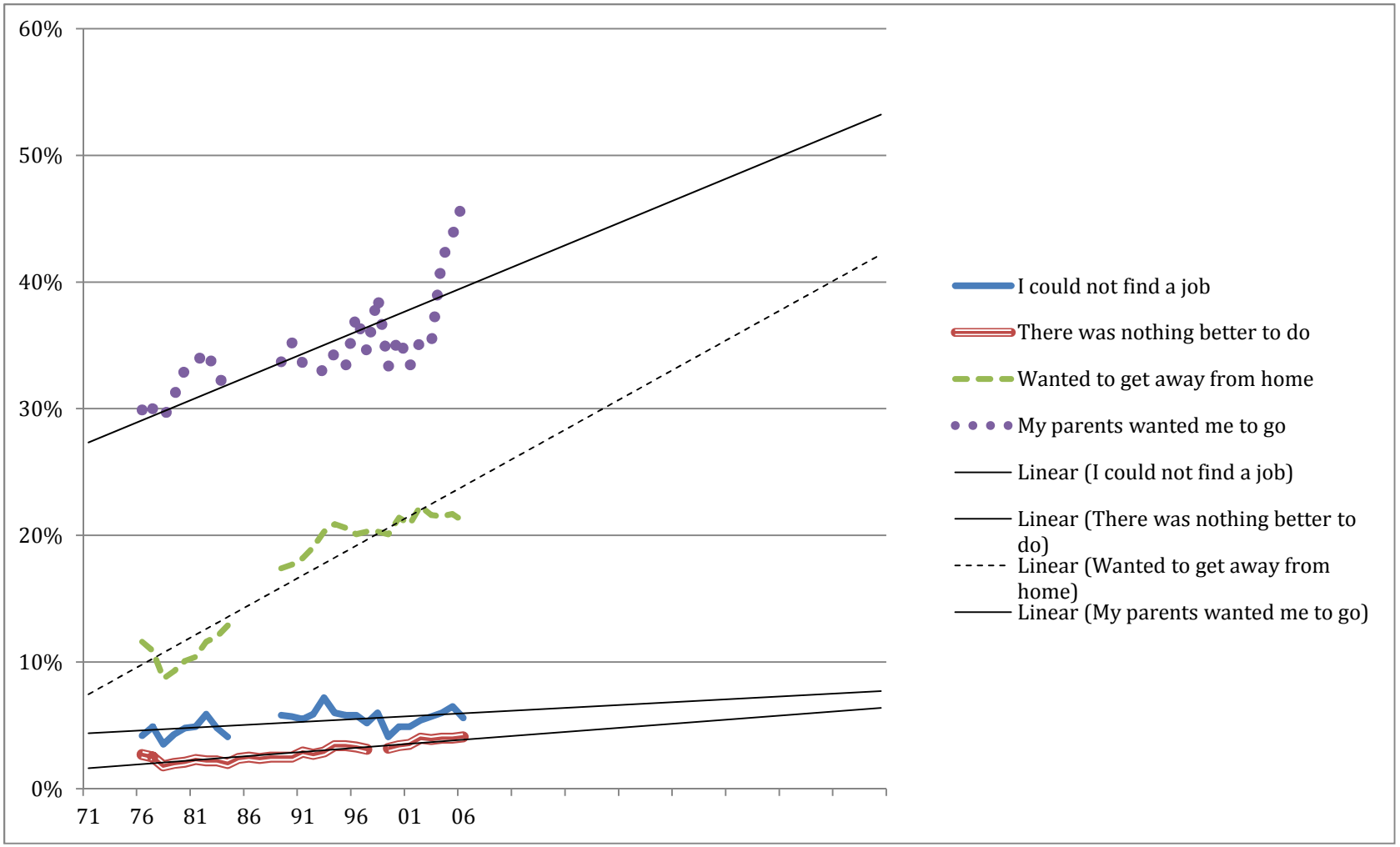

Figure 4.7. Reasons Aligned with Field Theory, Responses Over Time, and Trend Lines

Social Learning Theory

Table 4.11 shows the statistics for interpreting the social learning theory response options' linear regressions. Figure 4.8 shows the trend lines for each response option under social learning theory. The response options "a mentor/role model encouraged me to go" and "my parents wanted me to go" provide accurate linear regressions from which to base predictions, however they both violate the assumption of independence of errors, which indicates that the significance value of this linear regression may be inflated. This is important to know when interpreting the results of this linear regression. The linear regressions for the response option "my parents wanted me to go," suggests that it will increase in importance at a significant rate of 0.35% per year. The generation the response is given also explains 62.3% of the variance in the percentage of students who responded, "my parents wanted me to go" as a very important reason in deciding to attend college. The rate of increase in importance each year indicates that this reason will become more important quickly for future generations of college students.

The linear regressions for the response options "a mentor/role model encouraged me to go" suggest that it will continue to increase (0.12% per year) in importance for the remaining Millennials and early cohorts of the iGeneration. The generation in which the response is given explains 19.8%of the variance in the percentage of students who responded, "a mentor/role model encouraged me to go" as very important reasons in deciding to attend college. This suggests that the generation in which the response was given is a good indicator for this response option and will provide more accurate predictions.

The reason "a mentor/role model encouraged me to go" may not be relevant a motivator for the rest of the Millennial generation and the early cohorts of the iGeneration to attend college because while it continue to increase in importance over time, is has typically not been as important to the past three generations. However, the response option "my parents wanted me to go" may increase at a relatively fast pace (0.35% per year). This rate indicates that this reason will move out of the bottom five reasons as early as the early cohorts of the iGeneration. This emergent reason may be one of the biggest differences in why future generations of students may want to attend college.

Table 4.11

Reasons Aligned with Social Learning Theory: Results

	Independence of Errors (Durbin-Watson)	Homoscedasticity of Errors?	Normal Distribution of Errors?	Regression Equation	Explained Variance	Rate of Change per Year	P-Value[c]
A mentor/role model encouraged me to go	1.195[a]	Yes	Yes	0.0012 (Y>1971)[b] + 0.1079	19.8%	0.12%	p<0.01
My parents wanted me to go	0.924[a]	Yes	Yes	0.0035 (Y>1971)[b] + 0.2699	62.3%	0.35%	p<0.01

Notes: [a]The threshold for a lack of interdependence is between 1.5 and 2.5. If the Durbin-Watson statistic is less than 1.5 the statistical significance may be inflated. If it is above 2.5 the statistical significance may be underrated; [b]Y>1970 indicates "years since 1971"; [c]This study uses a confidence level of 99%, there *p* must be less than 0.01 in order to be considered statistically significant.

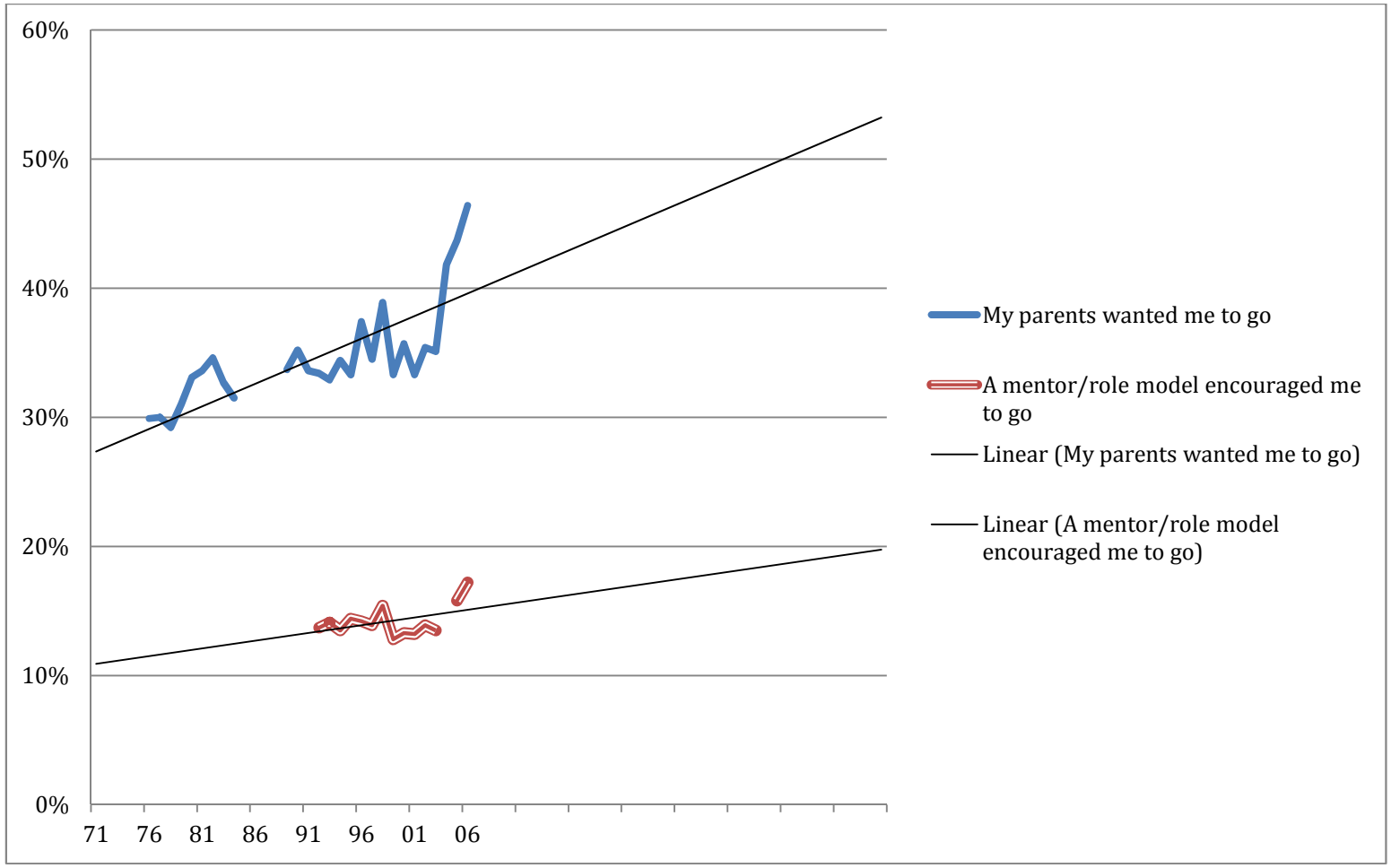

Figure 4.8. Reasons Aligned with Social Learning Theory, Responses Over Time, and Trend Lines

Table 4.12 shows each generation and the response percentage for reason for attending college in the last cohort of first-year students for each generation. This table shows the changes in the importance of each response option over time as well as the rank order for each response option within a generation. The CIRP Freshman Survey provided data for Baby Boomer generation and Generation X. Since Millennials and the iGeneration have not had their last first year of college, the linear regression equation was used to calculate the predicated importance of each response option for the last cohort of first-year students in the Millennial generation and the iGeneration in their last first year of college. The predicted importance of each generation is shown in bold and the rank of how important each response option was to a generation is in parentheses.

Table 4.12

Last First Year of College Importance of Response Options and Rank Order for each Generation

	Baby Boomer (1978)	Generation X (1999)	Millennial (2022)	iGeneration (2044)
A mentor/role model encouraged me to go	**n/a**	**12.8% (11)**	**16.9% (11)**	**20.0% (11)**
I could not find a job	**3.5% (10)**	**4.1% (12)**	**6.4% (12)**	**7.4% (12)**
My parents wanted me to go	**29.2% (8)**	**33.3% (9)**	**44.8% (9)**	**53.9% (7)**
There was nothing better to do	**1.8% (11)**	**3.2% (13)**	**4.6% (13)**	**6.2% (13)**
To be able to get a better job	73.1% (2)	71.6% (3)	72.7% (3)	71.9% (4)
To be able to make more money	**57.9% (4)**	**69.3% (4)**	**82.1% (1)**	**95.1% (1)**
To get training for a specific career	n/a	71.6% (2)	66.6% (5)	60.4% (5)
To gain a general education and appreciation of ideas	**71.5% (3)**	**62.8% (5)**	**61.1% (6)**	**57.2% (6)**
To improve my reading and study skills	**38.6% (6)**	**39.4% (8)**	**47.0% (7)**	**52.7% (9)**

To learn more about things that interest me	**75.6% (1)**	**74.8% (1)**	**78.2% (2)**	**80.5% (3)**
To make me a more cultured person	36.5% (7)	39.5% (7)	46.7% (8)	52.9% (8)
To prepare for graduate or professional school	**47.5% (5)**	**56.2% (6)**	**68.0% (4)**	**81.0% (2)**
Wanted to get away from home	8.7% (9)	20.1% (10)	31.0% (10)	43.2% (10)

Note: n/a indicates that this response option was not provided by the CIRP Freshman Survey during the respective year. Bold rows meet two out of three of the linear regression assumptions and are more accurate than non-bold rows.

The results of table 4.12 indicate that the top five most important reasons for the Millennial and iGeneration stayed the same. "To be able to make more money," "to prepare for graduate or professional school," "to learn more about things that interest me," "to be able to get a better job," and "to get training for a specific career" are the top five predicted reasons when deciding to come to college for the Millennial generation and iGeneration. "To be able to make more money" was the fourth most important reason for both the Baby Boomer generation and Generation X, however it jumped to the most important predicted reason for Millennials and the iGeneration. "To prepare for graduate or professional school" was also more important to the iGeneration than it was to the Baby Boomer, Generation X, and Millennial generations. "To get training for a specific career" was the second most important reason to Generation X. However, it dropped to the fifth most important reason for both the Millennial generation and the iGeneration. The bottom five reasons that were typically least important to each generation typically stayed the same across each generation. "There was nothing better to do," "I could not find a job," "a mentor/role model encouraged me to go," "wanted to get away from home," and "my parents wanted me to go" were typically the least important reasons in deciding to attend college for each past and future generation. However, "a mentor/role

model encouraged me to go" was not a response option when the Baby Boomer generation was in their last first year of college. Their last bottom five reason was "to make me a more cultured person." The predictions for the iGeneration actually had a significant increase in the importance of the reason, "my parents wanted me to go" in deciding to attend college. The increase was so significant that it was not in the bottom five least important reasons for the iGeneration. Therefore the last bottom five reason for the iGeneration was "to improve my reading and study skills."

Conclusions

The results of study indicate that there are significant differences in why different generations want to attend college. While averaging the aggregate of each year across the range of years for each generation could show the subtle differences in response options across generations by looking at the rank order, this study could not statistically prove the specific differences in response options across generations. For the most part, each generation responded that the same five response options were the most important reasons when deciding to attend college ("to learn more about things that interest me," "to be able to get a better job," "to get training for a specific career," "to gain a general education and appreciation of ideas," and "to be able to make more money"; the response option "to get training for a specific career" was not provided by CIRP during the Baby Boomer generation, therefore "to prepare for graduate or professional school" succeeds). However, there are subtle differences in the ranking order of each response options as table 4.1 indicates. This is further supported by the results of the two-way repeated measures ANOVA that indicated that there are statistically significant differences in why the Baby Boomers, Generation X, and Millennials attend college.

The linear regressions found that many of the response options may continue to increase in importance as time goes on. While many of the response options may increase over time, in terms of their rate of increase or decrease each year, the same top five response options may not change for future generations because the growth rate per year for other reasons for attending college would take some time to surpass the top five response options. However, there is empirical evidence of emergent areas of motivation as well as some areas that may become less important. "My parents wanted me to go," "to prepare for graduate or professional school," and "to be able to make more money" all indicate that they will increase at relatively fast rates (0.35% per year, 0.5% per year, and 0.5% per year, respectively). All three also indicate that the generation the response is given is a good predictor of the percentage of students who will respond to each response option (62.3%, 76.4%, and 58.7%, respectively). This data suggests that these reasons will become more important to future generations as soon as the early cohorts of the iGeneration.

The linear regression also shows that one of the top five response options ("to gain a general education and appreciation of ideas") may decrease in importance (-0.15% per year) when deciding to attend college for future generations. This reason also indicates that the generation the response is given is a good predictor of the percentage of students who will respond to this response option (22.1%). This data suggests that this reason will become less important to future generations. This change may take some time due to the predicted slower rate of decrease in importance for this reason (-0.15%).

Overall, the results show that each generation uses a mix of achievement and drive theories as motivators to attend college. Reasons under field theory and social

learning theory do not play as large of a role as a motivator for any of the generations when deciding to attend college. This may indicate that students typically want to attend college to better themselves and are not motivated to attend by external pressures such as their environment, parents, and friends.

The results also suggest shifts in the most important reasons in deciding to attend college for future. These changes indicate a shift in type motivation students will utilize when deciding to attend college. The emergence of the reason, "my parents wanted me to go" suggests that future generations may utilize social learning theory more when deciding to attend college. The results also show that drive theory may not be as readily utilized by future generations when deciding to attend college. While the response option "to gain a general education and appreciation of ideas" slowly decreases in the percentage of students that find this reason to be very important in deciding to attend college each year and thusly decreases in rank order for the iGeneration, the response option "to learn more about things that interest me" increases in the percentage of students who find it to be a very important reason in deciding to attend college, but also decreases in its rank order for the iGeneration. Decreases in rank order from both of these response options for the iGeneration and no significant gains in rank order from the other response options under drive theory indicate that this type of motivation may become less utilized in future generations of college students.

CHAPTER FIVE

IMPLICATIONS & RECOMMENDATIONS

The purpose of this quantitative study was to explore the differences between generations' reasons for attending college and to predict the reasons why future generations may want to attend college. Using data collected by the CIRP Freshman Survey, the researcher found that there are statistically significant differences in the reasons why different generations want to attend college, which response options will increase and decrease in importance for future generations wanting to attend college, and the types of motivation that future generations may utilize when determining whether or not to attend college.

Implications for Practice

The current study offers a scholar-practitioner approach for faculty, staff, and institutions regarding generational differences and trends in reasons why students want to attend college because the implications discussed in this section are grounded in research and practical for institutions to implement. By understanding the reasons that will remain important to future generations, the emergent reasons that will become important to future generations, and the reasons that will decrease in importance for future generations, colleges and universities can strengthen programs that already reflect the most important reasons why future students will want to attend college, create and initiate new programs that reflect the emergent reasons future generations will want to attend to

college, and cut back on programs that are not consistent with the important reasons why future students want to attend college.

As the results of this study show, there are statistically significant differences in the reasons why generations want to attend. Institutions can use this information to better inform their practices as generations change over time. The differences in generations affect their collegiate experiences and from this study it is shown that they come to college with different expectations (Levine, 1980; Levine & Cureton, 1996; Levine & Dean, 2012). Colleges need to adapt to these changes in order to provide an appropriate education for their students. The response options that are explored in the following sections have met all but one of one of the assumptions of conducting a linear regression and, thus, are more reliable. Response options that did not meet two out of three of the assumptions are not explore because the results of their linear regression may not be accurate.

Reasons that will Persist in Importance Across Generations

"To learn more about things that interest me" is a reason that has and will continue to persist across generations as an important reason in deciding to attend college. Colleges and universities that offer opportunities for their students to explore the subjects that interest them such as undergraduate research and/or a variety of majors will continue to attract students. Offering a multitude of majors and providing undergraduates with research opportunities allows them explore their passions. Students may also be unsure of what interests them and may want to attend college to figure that out. By offering exploratory programs such as clubs and organizations that meet for personal exploration, an undecided major, and academic career and major exploration advisors,

colleges and universities are telling students that it is perfectly fine not to know what the are interested, but the school offers programs to help them figure it out. The continuation of these types of programs both allow students to further explore topics that already interest them and programs that allow a student to figure out what interests them will be important in attracting future generations to colleges and universities.

Another reason that will continue to persist in importance in generations is "to improve my reading and study skills." Through a first year seminar and/or a first year English course, institutions can provide a time and place for students to improve their reading and study skills. Institutions have the opportunity to work with students on their reading and study skills in these types of courses because often, especially in a first year seminar course, the curriculum is more flexible and revolves around the transition to college. Since students across generations have continually found this to be an important reason in deciding to come to college, it will be important that colleges continue reflect this in one way or another, whether it is through academic coaching, first year seminar, English courses, or tutoring.

Reasons that will Emerge in Importance Across Generations

The reason "my parents wanted me to go" continues to increase, indicating that parents will continue to play a larger role in their child's academic aspirations. Research has deemed this phenomenon "helicopter parents" (Carney-Hall, 2008; Howe & Strauss, 2003; Monaco & Martin, 2007). These parents are highly involved in their child's life and want to be involved in all decisions made (Carney-Hall, 2008; Howe & Strauss, 2003; Monaco & Martin, 2007). As this trend continues to increase as is indicated by this study, institutions may find it beneficial to offer parent programs not only while students

are attending college, but also continuing to work in a holistic way with the student's family during their college search process. These programs could serve as a way to keep parents involved and informed with and informed about the college process in ways that are appropriate for both parents and students. This type of involvement may attract parents to an institution so they can feel involved in their child's process as well as increase student success in that college environment.

As the reason "to be able to make more money" increases, students are going to be looking for institutions to that provide them with the necessary education and experience to obtain high paying jobs. For institutions, this means having an effective career center that not only assists students in obtaining jobs as they graduate, but also provides necessary internship experiences. Since this is one of the Millennials' top three reasons for attending college, it would benefit institutions to market their career centers to potential students as well as post-graduate job information, especially average salary for graduates.

Finally, more and more students are and will continue coming to college to prepare for graduate or professional school. These are students driven by a need for achievement. They will be attracted to institutions that offer five-year bachelors and masters degree programs. Institutions that create and market direct admit programs to their or other institution's graduate schools will be very popular with Millennials and the iGeneration.

Reasons that will Decrease in Importance Across Generations

Students continually want "to gain a general education and appreciation of ideas." The decrease over time in this reason for attending college shows that students may

become less interested in a *general* education and instead want to focus solely on their area of interest, such as their major. Colleges and universities that offer a core curriculum or a general education that all students must take, may receive some push back from future Millennials and members of the iGeneration. While a core curriculum/general education allows for students to explore and learn about various subjects, it also requires them to take extra classes in areas students may not be interested and therefore, they may not perform as well. Core curriculums and general educations that allow students to pick and choose classes under certain disciplinary headings they want to take in order to complete the requirement will be more popular and ultimately more successful amongst generations that want to only focus on academic areas they want to learn about.

Recommendations for Future Research

Examining motivations/reasons for attending college qualitatively across the current generation in college could provide a better, deeper understanding of the reasons and motivations students attend college. While the college choice process and the reasons provided by the CIRP Freshman Survey cover many reasons students may want to attend college, however they may be missing some reasons. In order to figure out the reasons they may be missing as well as to understand where a student's reason for attending college comes from, could be better understood using a qualitative study. A qualitative longitudinal study could provide more information on the differences between generations why generations want to attend college and what has influenced the formation of those reasons.

This study did not use demographic information such as sex, race, ethnicity, type of school, religion, and socio-economic status. Exploring differences between

generations, using the demographic factors previously listed could provide a better insight as to why the differences amongst generations exist. For instance, in Chapter 1, the civil and women's rights movements in the 1960s and 70s increased college access for minority and women students. These historical events could have prompted minority and women students to attend college for a different reason then white males at the time. Therefore these demographic factors should be taken into account in future studies to provide a better insight into the difference both between generations and within a generation.

The differences in motivations to attend college between generations are also reflected in the student-parent relationship, since the parent and student typically come from different generations. These differences in motivations to attend college can create disconnect between students and their parents. The research findings of this study also suggest that students and parents will continue to grow closer and students will continue to rely on the advice of their parents in terms of whether and where to attend college. Between the generational disconnect and the suggested growing relationship between students and their parents, this creates a tension in the research, which should be further explored. In the coming decades, the relationship between students and their parents should be further examined, specifically in terms of how it affects a student's decision whether and where to attend college and the student's collegiate experience.

Pascarella (2006) noted that a future direction for higher education research is a replication of existing studies. He illustrated that the replication of existing studies could provide more valid results and often time in higher education, studies are not replicated like they are in other fields (i.e. sciences). Future research should replicate the differences

in reasons why generations want to attend college. A limitation that this study had was an unbalanced data set. As time goes on and if CIRP continues to ask these questions on their Freshman Survey, more data will be present on the Millennial generation. The more data there is the more accurate predictions about future generations will be. In this way replicating the study in the future will produce more accurate results and allow researchers to better understand the differences between Generation X, the Millennial generation, and the iGeneration. Unfortunately it would be difficult to collect further information on this subject matter about the Baby Boomer generation. Since this generation was a large part of the reason the data set was unbalanced, future research may choose to leave this generation out when comparing difference between generations.

Conclusions

The purpose of this study was to understand better the motivations of generations to attend college. In order to do this, the researcher explored the differences in reasons why different generations wanted to attend college. This study also wanted to predict the reasons why future generations may want to attend college. As higher education transitions from one generation to the next, it is important to understand the differences between each generation so college faculty, staff, and administrators can provide them each with a collegiate experience that meets their unique needs. The generations explored in this study were the Baby Boomer, Generation X, and Millennial generations.

This study was guided by two research questions: 1) What are the differences in reasons for attending college amongst the Boomer, Generation X, and Millennial generations? 2) What do past generation's reasons for attending college suggest about future generation(s) reasons for attending college? This study found that there are

significant differences in the reasons why different generations want to attend college. This study also found that generations are motivated to attend college in similar ways. First, all three generations were motivated to attend college because they had goals they wanted to achieve, such as "to make more money," to get training for a specific career," and/or "to prepare for graduate or professional school." Secondly, each generation appreciates the other benefits that college has to offer. They receive sense of fulfillment from learning "about things that interest" them and gaining "a general education and appreciation of ideas." Overall this study found the Baby Boomer, Generation X, and Millennial generations are typically motivated to attend college through achievement based needs as well as internal rewards they perceive they will acquire from attending college. This study also found that future generations may be typically motivated to attend college by similar types of motivation as past generations. The remainder of the Millennial generation and iGeneration that will attend college may find that the most important reasons they decide to attend college will be "to make more money". The iGeneration may also find that attending college because they want "to prepare for graduate or professional school" will be more important to them than it has been to previous generations. The iGeneration and the remainder of the Millennial generation may be more motivated to attend college because of the goals they want to achieve than past generations were because four of the typically top five most important reasons in deciding to attend college are all under achievement theory ("to make more money," "to prepare for graduate or professional school," "to be able to get a better job," and "to get training for a specific career" are all aligned with achievement motivation and "to learn more about things that interest me" is aligned with drive motivation). This may indicate

that the remainder of the Millennial generation and the iGeneration may typically be motivated to attend college to accomplish their external goals (achievement) as opposed to receiving internal rewards (drive).

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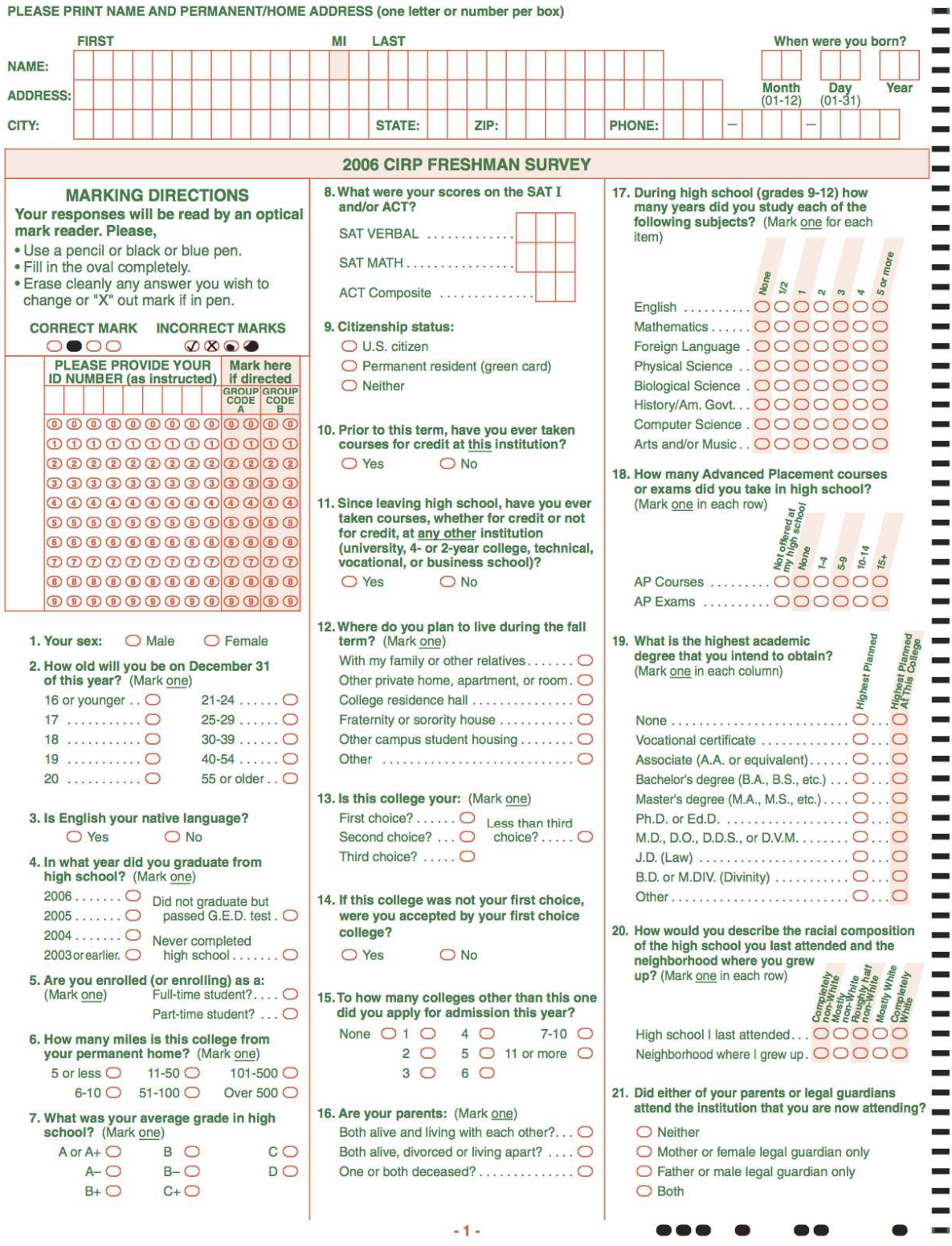

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When were you born? Month (01-12) | Day (01-31) | Year

2006 CIRP FRESHMAN SURVEY

MARKING DIRECTIONS

Your responses will be read by an optical mark reader. Please,

- Use a pencil or black or blue pen.
- Fill in the oval completely.
- Erase cleanly any answer you wish to change or "X" out mark if in pen.

CORRECT MARK ○●○○ INCORRECT MARKS ✓ ⊗ ◒ ◒

PLEASE PROVIDE YOUR ID NUMBER (as instructed) | Mark here if directed: GROUP CODE A | GROUP CODE B

1. **Your sex:** ○ Male ○ Female

2. **How old will you be on December 31 of this year?** (Mark one)
   - 16 or younger ○
   - 17 ○
   - 18 ○
   - 19 ○
   - 20 ○
   - 21-24 ○
   - 25-29 ○
   - 30-39 ○
   - 40-54 ○
   - 55 or older ○

3. **Is English your native language?** ○ Yes ○ No

4. **In what year did you graduate from high school?** (Mark one)
   - 2006 ○
   - 2005 ○
   - 2004 ○
   - 2003 or earlier ○
   - Did not graduate but passed G.E.D. test ○
   - Never completed high school ○

5. **Are you enrolled (or enrolling) as a:** (Mark one) Full-time student? ○ Part-time student? ○

6. **How many miles is this college from your permanent home?** (Mark one)
   - 5 or less ○
   - 6-10 ○
   - 11-50 ○
   - 51-100 ○
   - 101-500 ○
   - Over 500 ○

7. **What was your average grade in high school?** (Mark one)
   - A or A+ ○
   - A– ○
   - B+ ○
   - B ○
   - B– ○
   - C+ ○
   - C ○
   - D ○

8. **What were your scores on the SAT I and/or ACT?**
   - SAT VERBAL
   - SAT MATH
   - ACT Composite

9. **Citizenship status:**
   - ○ U.S. citizen
   - ○ Permanent resident (green card)
   - ○ Neither

10. **Prior to this term, have you ever taken courses for credit at this institution?** ○ Yes ○ No

11. **Since leaving high school, have you ever taken courses, whether for credit or not for credit, at any other institution (university, 4- or 2-year college, technical, vocational, or business school)?** ○ Yes ○ No

12. **Where do you plan to live during the fall term?** (Mark one)
    - With my family or other relatives ○
    - Other private home, apartment, or room ○
    - College residence hall ○
    - Fraternity or sorority house ○
    - Other campus student housing ○
    - Other ○

13. **Is this college your:** (Mark one)
    - First choice? ○
    - Second choice? ○
    - Third choice? ○
    - Less than third choice? ○

14. **If this college was not your first choice, were you accepted by your first choice college?** ○ Yes ○ No

15. **To how many colleges other than this one did you apply for admission this year?**
    - None ○
    - 1 ○
    - 2 ○
    - 3 ○
    - 4 ○
    - 5 ○
    - 6 ○
    - 7-10 ○
    - 11 or more ○

16. **Are your parents:** (Mark one)
    - Both alive and living with each other? ○
    - Both alive, divorced or living apart? ○
    - One or both deceased? ○

17. **During high school (grades 9-12) how many years did you study each of the following subjects?** (Mark one for each item)

	None	1/2	1	2	3	4	5 or more
English	○	○	○	○	○	○	○
Mathematics	○	○	○	○	○	○	○
Foreign Language	○	○	○	○	○	○	○
Physical Science	○	○	○	○	○	○	○
Biological Science	○	○	○	○	○	○	○
History/Am. Govt.	○	○	○	○	○	○	○
Computer Science	○	○	○	○	○	○	○
Arts and/or Music	○	○	○	○	○	○	○

18. **How many Advanced Placement courses or exams did you take in high school?** (Mark one in each row)

	Not offered at my high school	None	1-4	5-9	10-14	15+
AP Courses		○	○	○	○	○
AP Exams		○	○	○	○	○

19. **What is the highest academic degree that you intend to obtain?** (Mark one in each column)

	Highest Planned	Highest Planned At This College
None	○	○
Vocational certificate	○	○
Associate (A.A. or equivalent)	○	○
Bachelor's degree (B.A., B.S., etc.)	○	○
Master's degree (M.A., M.S., etc.)	○	○
Ph.D. or Ed.D.	○	○
M.D., D.O., D.D.S., or D.V.M.	○	○
J.D. (Law)	○	○
B.D. or M.DIV. (Divinity)	○	○
Other	○	○

20. **How would you describe the racial composition of the high school you last attended and the neighborhood where you grew up?** (Mark one in each row)

	Completely non-White	Mostly non-White	Roughly half non-White	Mostly White	Completely White
High school I last attended	○	○	○	○	○
Neighborhood where I grew up	○	○	○	○	○

21. **Did either of your parents or legal guardians attend the institution that you are now attending?**
    - ○ Neither
    - ○ Mother or female legal guardian only
    - ○ Father or male legal guardian only
    - ○ Both

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22. How much of your first year's educational expenses (room, board, tuition, and fees) do you expect to cover from each of the sources listed below? (Mark one answer for each possible source)

	None	Less than $1,000	$1,000 to 2,999	$3,000 to 5,999	$6,000 to 9,999	over $10,000
a. My Own or Family Resources						
Parents, other relatives or friends	○	○	○	○	○	○
Spouse	○	○	○	○	○	○
Savings from summer work	○	○	○	○	○	○
Other savings	○	○	○	○	○	○
Part-time job on campus	○	○	○	○	○	○
Part-time job off campus	○	○	○	○	○	○
Full-time job while in college	○	○	○	○	○	○
b. Aid Which Need Not Be Repaid						
Pell Grant	○	○	○	○	○	○
Supplemental Educational Opportunity Grant	○	○	○	○	○	○
State Scholarship or Grant						
Merit-based	○	○	○	○	○	○
Need-based	○	○	○	○	○	○
College Work-Study Grant	○	○	○	○	○	○
College Grant/Scholarship (other than above)	○	○	○	○	○	○
Other private grant	○	○	○	○	○	○
Government Aid						
GI military benefits	○	○	○	○	○	○
ROTC	○	○	○	○	○	○
Other Government Aid	○	○	○	○	○	○
c. Aid Which Must Be Repaid						
Stafford Loan (GSL)	○	○	○	○	○	○
Perkins Loan	○	○	○	○	○	○
Other College Loan	○	○	○	○	○	○
Other Loan	○	○	○	○	○	○
d. Other Than Above	○	○	○	○	○	○

23. How many individuals in your household are dependent on your parents for financial support? (Include yourself and your parents)

○ 1 ○ 4
○ 2 ○ 5
○ 3 ○ 6 or more

24. What is your best estimate of your parents' total income last year? Consider income from all sources before taxes. (Mark one)

○ Less than $10,000 ○ $50,000-59,999
○ $10,000-14,999 ○ $60,000-74,999
○ $15,000-19,999 ○ $75,000-99,999
○ $20,000-24,999 ○ $100,000-149,999
○ $25,000-29,999 ○ $150,000-199,999
○ $30,000-39,999 ○ $200,000-249,999
○ $40,000-49,999 ○ $250,000 or more

25. Do you have any concern about your ability to finance your college education? (Mark one)

None (I am confident that I will have sufficient funds) ○
Some (but I probably will have enough funds) ○
Major (not sure I will have enough funds to complete college) ○

26. Current religious preference: (Mark one in each column)

	Yours	Father's	Mother's
Baptist	Y	F	M
Buddhist	Y	F	M
Church of Christ	Y	F	M
Eastern Orthodox	Y	F	M
Episcopalian	Y	F	M
Hindu	Y	F	M
Islamic	Y	F	M
Jewish	Y	F	M
LDS (Mormon)	Y	F	M
Lutheran	Y	F	M
Methodist	Y	F	M
Presbyterian	Y	F	M
Quaker	Y	F	M
Roman Catholic	Y	F	M
Seventh Day Adventist	Y	F	M
United Church of Christ/ Congregational	Y	F	M
Other Christian	Y	F	M
Other Religion	Y	F	M
None	Y	F	M

27. For the activities below, indicate which ones you did during the past year. If you engaged in an activity frequently, mark (F). If you engaged in an activity one or more times, but not frequently, mark (O) (Occasionally). Mark (N) (Not at all) if you have not performed the activity during the past year. (Mark one for each item)

	Frequently	Occasionally	Not at all
Attended a religious service	F	O	N
Was bored in class	F	O	N
Participated in organized demonstrations	F	O	N
Tutored another student	F	O	N
Studied with other students	F	O	N
Was a guest in a teacher's home	F	O	N
Smoked cigarettes	F	O	N
Drank beer	F	O	N
Drank wine or liquor	F	O	N
Felt overwhelmed by all I had to do	F	O	N
Felt depressed	F	O	N
Performed volunteer work	F	O	N
Played a musical instrument	F	O	N
Asked a teacher for advice after class	F	O	N
Voted in a student election	F	O	N
Socialized with someone of another racial/ethnic group	F	O	N
Came late to class	F	O	N
Used the Internet:			
For research or homework	F	O	N
To read news sites	F	O	N
To read blogs	F	O	N
Performed community service as part of a class	F	O	N
Discussed religion	F	O	N
Discussed politics	F	O	N
Read a newspaper for:			
National and global news	F	O	N
Local news and information	F	O	N
Schoolwork	F	O	N

28. Rate yourself on each of the following traits as compared with the average person your age. We want the most accurate estimate of how you see yourself. (Mark one in each row)

	Highest 10%	Above Average	Average	Below Average	Lowest 10%
Academic ability	○	○	○	○	○
Artistic ability	○	○	○	○	○
Computer skills	○	○	○	○	○
Cooperativeness	○	○	○	○	○
Creativity	○	○	○	○	○
Drive to achieve	○	○	○	○	○
Emotional health	○	○	○	○	○
Leadership ability	○	○	○	○	○
Mathematical ability	○	○	○	○	○
Physical health	○	○	○	○	○
Public speaking ability	○	○	○	○	○
Religiousness	○	○	○	○	○
Self-confidence (intellectual)	○	○	○	○	○
Self-confidence (social)	○	○	○	○	○
Self-understanding	○	○	○	○	○
Spirituality	○	○	○	○	○
Understanding of others	○	○	○	○	○
Writing ability	○	○	○	○	○

29. What is the highest level of formal education obtained by your parents? (Mark one in each column)

	Father	Mother
Grammar school or less	○	○
Some high school	○	○
High school graduate	○	○
Postsecondary school other than college	○	○
Some college	○	○
College degree	○	○
Some graduate school	○	○
Graduate degree	○	○

30. In deciding to go to college, how important to you was each of the following reasons? (Mark one answer for each possible reason)

	Very Important	Somewhat Important	Not Important
My parents wanted me to go	V	S	N
I could not find a job	V	S	N
Wanted to get away from home	V	S	N
To be able to get a better job	V	S	N
To gain a general education and appreciation of ideas	V	S	N
There was nothing better to do	V	S	N
To make me a more cultured person	V	S	N
To be able to make more money	V	S	N
To learn more about things that interest me	V	S	N
To prepare myself for graduate or professional school	V	S	N
A mentor/role model encouraged me to go	V	S	N
To get training for a specific career	V	S	N

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31. Mark only three responses, one in each column.

(M) Your mother's occupation
(F) Your father's occupation
(Y) Your probable career occupation

NOTE: If your father or mother is deceased, please indicate his or her last occupation.

- Accountant or actuary (Y) (F) (M)
- Actor or entertainer (Y) (F) (M)
- Architect or urban planner (Y) (F) (M)
- Artist (Y) (F) (M)
- Business (clerical) (Y) (F) (M)
- Business executive (management, administrator) (Y) (F) (M)
- Business owner or proprietor (Y) (F) (M)
- Business salesperson or buyer (Y) (F) (M)
- Clergy (minister, priest) (Y) (F) (M)
- Clergy (other religious) (Y) (F) (M)
- Clinical psychologist (Y) (F) (M)
- College administrator/staff (Y) (F) (M)
- College teacher (Y) (F) (M)
- Computer programmer or analyst (Y) (F) (M)
- Conservationist or forester (Y) (F) (M)
- Dentist (including orthodontist) (Y) (F) (M)
- Dietitian or nutritionist (Y) (F) (M)
- Engineer (Y) (F) (M)
- Farmer or rancher (Y) (F) (M)
- Foreign service worker (including diplomat) (Y) (F) (M)
- Homemaker (full-time) (Y) (F) (M)
- Interior decorator (including designer) (Y) (F) (M)
- Lab technician or hygienist (Y) (F) (M)
- Law enforcement officer (Y) (F) (M)
- Lawyer (attorney) or judge (Y) (F) (M)
- Military service (career) (Y) (F) (M)
- Musician (performer, composer) (Y) (F) (M)
- Nurse (Y) (F) (M)
- Optometrist (Y) (F) (M)
- Pharmacist (Y) (F) (M)
- Physician (Y) (F) (M)
- Policymaker/Government (Y) (F) (M)
- School counselor (Y) (F) (M)
- School principal or superintendent (Y) (F) (M)
- Scientific researcher (Y) (F) (M)
- Social, welfare, or recreation worker (Y) (F) (M)
- Therapist (physical, occupational, speech) (Y) (F) (M)
- Teacher or administrator (elementary) (Y) (F) (M)
- Teacher or administrator (secondary) (Y) (F) (M)
- Veterinarian (Y) (F) (M)
- Writer or journalist (Y) (F) (M)
- Skilled trades (Y) (F) (M)
- Laborer (unskilled) (Y) (F) (M)
- Semi-skilled worker (Y) (F) (M)
- Unemployed (Y) (F) (M)
- Other (Y) (F) (M)
- Undecided (Y)

32. Mark one in each row:

(1) Disagree Strongly
(2) Disagree Somewhat
(3) Agree Somewhat
(4) Agree Strongly

- There is too much concern in the courts for the rights of criminals (4) (3) (2) (1)
- Abortion should be legal (4) (3) (2) (1)
- The death penalty should be abolished (4) (3) (2) (1)
- Marijuana should be legalized (4) (3) (2) (1)
- It is important to have laws prohibiting homosexual relationships (4) (3) (2) (1)
- Racial discrimination is no longer a major problem in America (4) (3) (2) (1)
- Realistically, an individual can do little to bring about changes in our society (4) (3) (2) (1)
- Wealthy people should pay a larger share of taxes than they do now (4) (3) (2) (1)
- Same-sex couples should have the right to legal marital status (4) (3) (2) (1)
- Affirmative action in college admissions should be abolished (4) (3) (2) (1)
- Federal military spending should be increased (4) (3) (2) (1)
- The federal government should do more to control the sale of handguns (4) (3) (2) (1)
- Only volunteers should serve in the armed forces (4) (3) (2) (1)
- The federal government is not doing enough to control environmental pollution (4) (3) (2) (1)
- A national health care plan is needed to cover everybody's medical costs (4) (3) (2) (1)
- Undocumented immigrants should be denied access to public education (4) (3) (2) (1)
- Through hard work, everybody can succeed in American society (4) (3) (2) (1)
- Dissent is a critical component of the political process (4) (3) (2) (1)
- Colleges have the right to ban extreme speakers from campus (4) (3) (2) (1)
- The chief benefit of a college education is that it increases one's earning power (4) (3) (2) (1)
- The federal government should raise taxes to reduce the deficit (4) (3) (2) (1)

33. During your last year in high school, how much time did you spend during a typical week doing the following activities?

Hours per week:	None	Less than 1 hour	1-2	3-5	6-10	11-15	16-20	Over 20
Studying/homework	○	○	○	○	○	○	○	○
Socializing with friends	○	○	○	○	○	○	○	○
Talking with teachers outside of class	○	○	○	○	○	○	○	○
Exercise or sports	○	○	○	○	○	○	○	○
Partying	○	○	○	○	○	○	○	○
Working (for pay)	○	○	○	○	○	○	○	○
Volunteer work	○	○	○	○	○	○	○	○
Student clubs/groups	○	○	○	○	○	○	○	○
Watching TV	○	○	○	○	○	○	○	○
Household/childcare duties	○	○	○	○	○	○	○	○
Reading for pleasure	○	○	○	○	○	○	○	○
Playing video/computer games	○	○	○	○	○	○	○	○

34. Are you: (Mark all that apply)

- White/Caucasian ○
- African American/Black ○
- American Indian/Alaska Native ○
- Asian American/Asian ○
- Native Hawaiian/Pacific Islander ○
- Mexican American/Chicano ○
- Puerto Rican ○
- Other Latino ○
- Other ○

35. How would you characterize your political views? (Mark one)

- ○ Far left
- ○ Liberal
- ○ Middle-of-the-road
- ○ Conservative
- ○ Far right

36. Below are some reasons that might have influenced your decision to attend this particular college. How important was each reason in your decision to come here? (Mark one answer for each possible reason)

	Very Important	Somewhat Important	Not Important
My relatives wanted me to come here	(V)	(S)	(N)
My teacher advised me	(V)	(S)	(N)
This college has a very good academic reputation	(V)	(S)	(N)
This college has a good reputation for its social activities	(V)	(S)	(N)
I was offered financial assistance	(V)	(S)	(N)
The cost of attending this college	(V)	(S)	(N)
High school counselor advised me	(V)	(S)	(N)
Private college counselor advised me	(V)	(S)	(N)
I wanted to live near home	(V)	(S)	(N)
Not offered aid by first choice	(V)	(S)	(N)
Could not afford first choice	(V)	(S)	(N)
This college's graduates gain admission to top graduate/professional schools	(V)	(S)	(N)
This college's graduates get good jobs	(V)	(S)	(N)
I was attracted by the religious affiliation/orientation of the college	(V)	(S)	(N)
I wanted to go to a school about the size of this college	(V)	(S)	(N)
Rankings in national magazines	(V)	(S)	(N)
Information from a website	(V)	(S)	(N)
I was admitted through an Early Action or Early Decision program	(V)	(S)	(N)
The athletic department recruited me	(V)	(S)	(N)
A visit to the campus	(V)	(S)	(N)

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37. Below is a list of different undergraduate major fields grouped into general categories. Mark only one oval to indicate your probable field of study.

ARTS AND HUMANITIES
- Art, fine and applied ... 1
- English (language and literature) ... 2
- History ... 3
- Journalism ... 4
- Language and Literature (except English) ... 5
- Music ... 6
- Philosophy ... 7
- Speech ... 8
- Theater or Drama ... 9
- Theology or Religion ... 10
- Other Arts and Humanities ... 11

BIOLOGICAL SCIENCE
- Biology (general) ... 12
- Biochemistry or Biophysics ... 13
- Botany ... 14
- Environmental Science ... 15
- Marine (Life) Science ... 16
- Microbiology or Bacteriology ... 17
- Zoology ... 18
- Other Biological Science ... 19

BUSINESS
- Accounting ... 20
- Business Admin. (general) ... 21
- Finance ... 22
- International Business ... 23
- Marketing ... 24
- Management ... 25
- Secretarial Studies ... 26
- Other Business ... 27

EDUCATION
- Business Education ... 28
- Elementary Education ... 29
- Music or Art Education ... 30
- Physical Education or Recreation ... 31
- Secondary Education ... 32
- Special Education ... 33
- Other Education ... 34

ENGINEERING
- Aeronautical or Astronautical Eng ... 35
- Civil Engineering ... 36
- Chemical Engineering ... 37
- Computer Engineering ... 38
- Electrical or Electronic Engineering ... 39
- Industrial Engineering ... 40
- Mechanical Engineering ... 41
- Other Engineering ... 42

PHYSICAL SCIENCE
- Astronomy ... 43
- Atmospheric Science (incl. Meteorology) ... 44
- Chemistry ... 45
- Earth Science ... 46
- Marine Science (incl. Oceanography) ... 47
- Mathematics ... 48
- Physics ... 49
- Statistics ... 50
- Other Physical Science ... 51

PROFESSIONAL
- Architecture or Urban Planning ... 52
- Family & Consumer Sciences ... 53
- Health Technology (medical, dental, laboratory) ... 54
- Library or Archival Science ... 55
- Medicine, Dentistry, Veterinary Medicine ... 56
- Nursing ... 57
- Pharmacy ... 58
- Therapy (occupational, physical, speech) ... 59
- Other Professional ... 60

SOCIAL SCIENCE
- Anthropology ... 61
- Economics ... 62
- Ethnic Studies ... 63
- Geography ... 64
- Political Science (gov't., international relations) ... 65
- Psychology ... 66
- Social Work ... 67
- Sociology ... 68
- Women's Studies ... 69
- Other Social Science ... 70

TECHNICAL
- Building Trades ... 71
- Data Processing or Computer Programming ... 72
- Drafting or Design ... 73
- Electronics ... 74
- Mechanics ... 75
- Other Technical ... 76

OTHER FIELDS
- Agriculture ... 77
- Communications ... 78
- Computer Science ... 79
- Forestry ... 80
- Kinesiology ... 81
- Law Enforcement ... 82
- Military Science ... 83
- Other Field ... 84
- Undecided ... 85

DO NOT WRITE IN THIS AREA

38. Please indicate the importance to you personally of each of the following: (Mark one for each item)

(N) Not Important (S) Somewhat Important (V) Very Important (E) Essential

- Becoming accomplished in one of the performing arts (acting, dancing, etc.) ... E V S N
- Becoming an authority in my field ... E V S N
- Obtaining recognition from my colleagues for contributions to my special field ... E V S N
- Influencing the political structure ... E V S N
- Influencing social values ... E V S N
- Raising a family ... E V S N
- Having administrative responsibility for the work of others ... E V S N
- Being very well off financially ... E V S N
- Helping others who are in difficulty ... E V S N
- Making a theoretical contribution to science ... E V S N
- Writing original works (poems, novels, short stories, etc.) ... E V S N
- Creating artistic work (painting, sculpture, decorating, etc.) ... E V S N
- Becoming successful in a business of my own ... E V S N
- Becoming involved in programs to clean up the environment ... E V S N
- Developing a meaningful philosophy of life ... E V S N
- Participating in a community action program ... E V S N
- Helping to promote racial understanding ... E V S N
- Keeping up to date with political affairs ... E V S N
- Becoming a community leader ... E V S N
- Improving my understanding of other countries and cultures ... E V S N
- Participating in an organization like the Peace Corps or AmeriCorps/VISTA ... E V S N

39. What is your best guess as to the chances that you will: (Mark one for each item)

(N) No Chance (L) Very Little Chance (S) Some Chance (V) Very Good Chance

- Change major field? ... V S L N
- Change career choice? ... V S L N
- Participate in student government? ... V S L N
- Get a job to help pay for college expenses? ... V S L N
- Work full-time while attending college? ... V S L N
- Join a social fraternity or sorority? ... V S L N
- Play varsity/intercollegiate athletics? ... V S L N
- Make at least a "B" average? ... V S L N
- Need extra time to complete your degree requirements? ... V S L N
- Participate in student protests or demonstrations? ... V S L N
- Transfer to another college before graduating? ... V S L N
- Be satisfied with your college? ... V S L N
- Participate in volunteer or community service work? ... V S L N
- Seek personal counseling? ... V S L N
- Communicate regularly with your professors? ... V S L N
- Socialize with someone of another racial/ethnic group? ... V S L N
- Participate in student clubs/groups? ... V S L N
- Participate in a study abroad program? ... V S L N

40. Do you give the Higher Education Research Institute (HERI) permission to include your ID number should your college request the data for additional research analyses? HERI maintains strict standards of confidentiality and would require your college to sign a pledge of confidentiality. ○ Yes ○ No

The remaining ovals are provided for questions specifically designed by your college rather than the Higher Education Research Institute. If your college has chosen to use the ovals, please observe carefully the supplemental directions given to you.

41. A B C D E
42. A B C D E
43. A B C D E
44. A B C D E
45. A B C D E
46. A B C D E
47. A B C D E
48. A B C D E
49. A B C D E
50. A B C D E
51. A B C D E
52. A B C D E
53. A B C D E
54. A B C D E
55. A B C D E
56. A B C D E
57. A B C D E
58. A B C D E

THANK YOU!

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APPENDIX B

Years Response Options were not provided on the CIRP Freshman Survey (1971-1988)

X=Included; --- = Not Included	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
A mentor/role model encouraged me to go	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
I could not find a job	-	-	-	-	X	X	X	X	X	X	X	X	X	X	-	-	-	-
My parents wanted me to go	X	-	-	-	X	X	X	X	X	X	X	X	X	X	-	-	-	-
There was nothing better to do	X	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X
To be able to get a better job	X	-	-	-	X	X	X	X	X	X	X	X	X	X	-	-	-	-
To be able to make more money	X	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X
To get training for a specific career	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
To gain a general education and appreciation of ideas	X	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X
To improve my reading and study skills	X	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X
To learn more about things that interest me	X	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X
To make me a more cultured person	X	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X
To prepare for graduate or professional school	X	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Wanted to get away from home	-	-	-	-	X	X	X	X	X	X	X	X	X	X	-	-	-	-

APPENDIX B

Years Response Options were not provided on the CIRP Freshman Survey (1989-2006)

X=Included; --- = Not Included	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06
A mentor/role model encouraged me to go	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X
I could not find a job	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
My parents wanted me to go	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
There was nothing better to do	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
To be able to get a better job	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
To be able to make more money	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
To get training for a specific career	-	-	-	-	-	-	-	-	-	-	X	X	X	X	X	X	X	X
To gain a general education and appreciation of ideas	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
To improve my reading and study skills	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
To learn more about things that interest me	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X
To make me a more cultured person	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X
To prepare for graduate or professional school	X	X	X	X	X	X	-	-	-	-	X	X	X	X	X	X	X	X
Wanted to get away from home	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X