UNDERGRADUATE ADMISSIONS DECISIONS OF SELECTIVE INSTITUTIONS: THE IMPACT OF SOCIAL MEDIA INFORMATION

by

Ashley Allison

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

Liberty University

2019

UNDERGRADUATE ADMISSIONS DECISIONS MADE BY COLLEGE ADMISSIONS PERSONNEL OF SELECTIVE INSTITUTIONS: THE IMPACT OF SOCIAL MEDIA INFORMATION

by Ashley Allison

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

Liberty University, Lynchburg, VA

2019

APPROVED BY:

VERONICA SIMS, Ed.D., Committee Chair

MICHAEL PREUSS, Ed.D., Committee Member

MICHAEL TORRENCE, Ph.D., Committee Member

ABSTRACT

This causal comparative study examines the impact of decisions made by college admissions personnel at colleges and universities ranked as Highly Competitive, Highly Competitive Plus, Most Competitive, Very Competitive, and Very Competitive Plus by *Barron's Profiles of American Colleges* (2018). Admissions representatives were asked to evaluate social media content of hypothetical applicants to their institution then complete a trait inference task based on the Deese-Roediger-McDermott false recognition paradigm. A total of 413 institutions were invited to participate in the online activity to establish the effect of online impression formation by admissions personnel and its impact on admissions decisions. The survey was completed by 44 institutional admissions representatives (n = 44). Admissions decisions results were then compared for effects of the treatment utilizing two one-way ANOVAs. A Welch's t-test was then utilized to compare decisions between institutions with a self-reported policy regarding inclusion of social media in admissions decisions and those without such a policy in place. Results found significance on the false recognition paradigm, but not on admissions decisions based on the social media posts nor when institutions were classified by the presence of an institutional policy regarding its use in the admissions process. Thus, it was determined this sample of admissions personnel made spontaneous trait inferences from social media posts of hypothetical applicants. Suggestions for future research are included.

Keywords: social media, college admissions, *Barron's Profiles of American Colleges*, selective institutions, spontaneous trait inference

Contents

List of Tables

List of Figures

List of Abbreviations

Analysis of Variance (ANOVA)

Central Limit Theorem (CLT)

Deese-Roediger-McDermott (DRM)

Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5)

Family Education Rights and Privacy Act (FERPA)

Highly Competitive (HC)

Highly Competitive Plus (HC+)

Historically Black Colleges and Universities (HBCUs)

Most Competitive (MC)

National Association for College Admission Counseling (NACAC)

National Security Agency (NSA)

Very Competitive (VC)

Very Competitive Plus (VC+)

CHAPTER ONE: INTRODUCTION

Overview

The following chapter provides background evidence and context for the dissertation project. Given the rapid adoption of social media technology, there is a dearth of applicable research-based knowledge in this area. While there is research examining social media as a marketing tool, the ways in which social media shapes our impressions are still largely unknown. Legal precedents involving social media are still largely unclear as well. The information that follows attempts to provide a framework from which to understand this phenomenon.

Background

The widespread use of social media software has introduced a new dynamic in the realm of higher education admissions. Social media has rapidly spread worldwide, even though it is a relatively new phenomenon. Facebook alone boasts 1.65 billion active users a month, with 1.09 billion using the site daily in March of 2016 (Facebook, 2016). While privacy options exist to make user profiles less accessible, many adolescents and traditional-aged college students admit they post relatively personal information. This includes information they would be uncomfortable with an employer or potential employer viewing on the public forum collectively known as social media (Patchi & Hinduja, 2010; Peluchette & Karl, 2008). In light of this trend, college admissions committees are taking notice, and some have begun using Google or Facebook to learn more about candidates who have applied to their institution (Kaplan, 2016).

Few colleges and universities have formally addressed the use of social media in making admissions decisions. While admissions officers report occasionally including information regarding a candidate from the Internet in their admissions decisions, only 15% in a recent Kaplan (2012) survey reported an official policy addressing its use in college admissions. Thus,

admissions personnel are potentially allowed to utilize this information with a high degree of flexibility and minimal standardization. Without these, there is no certainty which students' online activity is researched and even what types of activities are considered. This project was designed to investigate institutional practices in these areas. The remainder of this chapter discusses the background of this issue, presents the problem statement, the purpose statement for the dissertation project, and a brief account of the significance of the study. This chapter will also outline the research questions, the hypotheses, and a listing of definitions of pertinent terms.

Social media has quickly become an immersive and pervasive international entity with millions of posts created daily. While the average American citizen was historically a passive consumer of media and technology information, tools such as Facebook, Twitter, Instagram, LinkedIn, SnapChat, and YouTube allow average citizens to invent original material and distribute it globally. While this technological advancement has become a part of education, business, and many other sectors of society, technologically savvy young people initially championed it and remain its heaviest users (Lenhart, Purcell, Smith, & Zickuhr, 2010; "Best and Worst," 2014). A reported 90% of 18-29 year-olds now use various forms of social media, compared with only 12% of this age group in 2005 (Perrin, 2015).

Due to the American economic downturn over the past decade, colleges and universities are increasingly competitive in their endeavor to enroll and retain students (Bergerson & Aldous, 2009) and thus, now use social media to market their programs and recruit potential students. As of 2009, 95% of college admissions departments reported an active university presence on social media sites facilitated by their admissions and recruiting offices (Barnes & Mattson, 2010). Many schools also engage in social media use that allows interaction between prospective students and admissions representatives. Questions regarding application requirements,

university culture, and campus life are often addressed through these means, and lack of online access to school personnel is often a cause for a college to be quickly omitted from consideration by students as colleges they see as desirable institutions (Hayes, Ruschman, & Walker, 2009). Admissions professionals, as the first contact for most students and their families, play an important role in meeting the initial expectations of parents and students. Jargon in higher education is often vague, confusing, and unfamiliar to parents, especially those of first-generation college students who did not experience these patterns themselves (Stieha, 2009). First-generation students and their parents can easily become overwhelmed with the college admissions process and consequently, intimidated, but access to school representatives helps them navigate this unfamiliar process. In this manner, social media facilitates access to admissions information. Further, four out of 10 high school seniors in the class of 2014 reported significant use of the social media platform Twitter, and nearly 40% of those respondents reported monitoring information from (i.e. following) prospective undergraduate institutions ("2014 E-Expectations Report," 2014).

Problem Statement

The practice of gathering information about undergraduate candidates beyond that submitted as application materials is an ongoing activity that has not been thoroughly researched (Kaplan, 2016). In addition, as the use of social media has rapidly increased, higher education admissions departments have failed to maintain pace with this trend (outside the scope of marketing and recruitment of applicants). Given the large majority of adolescents and young adults actively using these sites (Lenhart, Purcell, Smith, & Zickuhr, 2010) and their relative naivety about the possible consequences of included content (Peluchette & Karl, 2008), it is imperative to understand the possible effect of applicants' posts on their future endeavors. The

review of applicant social media content from a university perspective may help promulgate academic cohorts with desired student characteristics and academic orientations.

Purpose Statement

This study will seek to evaluate two ideas. The first is the impact of applicant social media information on admissions decisions to selective undergraduate programs. These decisions are often made by a group of employees, including from the admissions department, when they have access to this information and use it. The second goal of this research is to understand the impact of an institutional policy regarding social media use as college personnel decide whether or not to offer admission to individual applicants.

The purpose of the ex post facto, causal comparative study is to test Correspondent Inference Theory as proposed by Jones and Davis (1965; also cited in Augoustinos, Walker, Donaghue, 2013). This idea is based on Heider's Attribution Theory, as outlined in Weiner (2008), in which a person ascribes motivation for actions taken by others to their internal attributes while distinguishing between intentional and accidental behavior. This pattern is believed to fulfill basic psychological needs for the person making the judgment. In this instance, purposeful online social media activity could be attributed to the personal characteristics of an applicant, and through this attribution, influence the decision to offer or refuse admission to an undergraduate applicant.

The independent variables of this study were the trait inferences group in Jones and Davis' false recognition paradigm. These were divided into three conditions: implied trait, other trait, and control trait groups. For the dissertation study, these were tested as follows: after seeing all faces and associated social media posts and then completing a filler task, participants saw a random mix of faces paired with a trait implied by the social media post (implied trait

group), a trait implied by the social media post of another face (another trait group), or a trait not implied in any of the social media posts (control trait group). The dependent variable was the number of false recognitions (reporting a word was stated in a social media post when it was implied) made by college admissions personnel on the false recognition paradigm task. The study sought to further understand the differences in these false recognitions when institutions were compared based on the presence of a formalized social media policy at each participating institution.

Significance of Study

This dissertation project is an initial formalized attempt to understand the dynamics of college admissions when paired with information from applicant social media. While institutional evaluation of applicants is far from new, the inclusion of information from the public forum of social media is novel. Much of the information surrounding the intersection of these arenas remains anecdotal; thus, an empirical perspective is necessary.

Moreover, there is evidence that spontaneous inference and impression formation are long-lasting and directly influence behavior (Todorov, Mandisodza, Goren, & Hall, 2005; Todorov & Uleman, 2004), but much of this research is laboratory based and markedly different from social media and its context (Levordashka & Utz, 2017). In previous laboratory research, third-person descriptions are often utilized, which significantly impact impressions. These also use stimuli that is extreme in nature (i.e. “I kicked a puppy out of my way,” McCarthy & Skowronski, 2011) which strongly influence impressions (Skowronski & Carlston, 1989). Social media content is rarely this extreme. However, it is self-generated and shared voluntarily, thus highly unreliable due to the nature of strategic self-presentation and the desire to present oneself in a favorable manner (Utz, 2010; Walther, Van Der Heide, Kim, Westerman, & Tong, 2008).

This dissertation project sought to further understand how social media influences admissions decisions given its unique context.

Research Questions

RQ1: Do undergraduate admissions staff members at different levels of *Barron's* (2018) selectivity rankings make significantly different instances of spontaneous trait inferences on the Deese-Roediger-McDermott (DRM) false recognition task?

RQ2: Do undergraduate admissions staff members at different levels of *Barron's* (2018) selectivity rankings make significantly different admissions decisions based on spontaneous trait inferences on the Deese-Roediger-McDermott (DRM) false recognition task?

RQ3: Is there a significant difference in spontaneous trait inferences on the Deese-Roediger-McDermott (DRM) false recognition task among institutions within *Barron's* (2018) classifications for which a policy regarding inclusion of social media in admissions decisions exists and for those without such a policy in place?

Definitions

1. *Barron's Rankings* - *Barron's* (2018) rankings include the top US-based higher educational institutions classified and sorted based on the selectivity of their admissions practices. Published bi-annually (and on occasion, annually), *Barron's Profiles of American Colleges*, as noted in the 2018 edition, only includes institutions recognized by an accrediting agency acknowledged by the U.S. Department of Education and that offer at least a bachelor's degree. This was the broad group of interest in this study. The use of the Plus (+) classifications within the Highly Competitive and Very Competitive categories allow for finer distinctions to be made within the broader context of this ranking system. While the *Barron's* (2018) rankings include other categories

(Competitive, Less Competitive, Non-competitive, and Special), institutions in these categories were not included in the study and thus, will not be defined below.

2. *Most Competitive* - Most Competitive refers to institutions that require a high school graduation rank in the top 10%-20% and grade averages of A to B+. Median test scores of freshmen generally occur between 655 and 800 on the SAT and 29 or above on the ACT. These colleges admit a small percentage of applicants—usually fewer than one-third (Barrons, 2018).
3. *Highly Competitive Plus* - Highly Competitive Plus colleges have median freshman standardized test scores of 645 or more on the SAT or 28 or above on the ACT. They usually accept fewer than one-quarter of applicants (Barrons, 2018).
4. *Highly Competitive* - Highly Competitive institutions generally admit students from the top 20% to 35% of their high school graduating class. Many of these students have averages of B+ to B. Median test scores for freshmen usually range from 620 to 654 on the SAT and 27 to 28 on the ACT. Acceptance rates for this category are noted between a third and a half of those who apply (Barrons, 2018).
5. *Very Competitive Plus* - Schools with the Very Competitive Plus categorization report median freshman scores of 610 or above on the SAT or a score of 26 or higher on the ACT. They usually accept fewer than one third of their applicants (Barrons, 2018).
6. *Very Competitive* - Very Competitive colleges generally admit students whose high school averages are no less than B- and rank in the top 35% to 50% of their graduating class. They generally report median freshman test scores between 573 and 619 on the SAT and from 24 to 26 on the ACT. Commonly, these schools accept between one half and three quarters of their applicants (Barrons, 2018).

7. *College Personnel* - College Personnel are members of an institution's admissions selection committee involved in the evaluation of applicants and the decision to offer admission and who are employed by the institution regardless of their roles outside this process.
8. *Social Media Information* - Social Media Information includes descriptions and depictions of persons included on social media sites to be included in select pseudo applicant applications.
9. *Social Media Sites* - Boyd and Ellison (2007) define Social Media Sites as "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system" (p. 211).

CHAPTER TWO: LITERATURE REVIEW

Overview

Although there is a dearth of empirical information, the connection between social media and higher education has been the focus of previous anecdotal attention. The following chapter will include the theoretical basis for the study and a discussion of the related literature. Context for the need for empirical research in this field will be provided.

Theoretical Framework

Attribution Theory is a social psychology theorem that seeks to describe how common people or "the man on the street" (Faure & Laarni, 2011, p. 211) explains the behavior of self and others (Malle, 2011) using inferences drawn from observed actions (Uleman, Saribay, & Gonzalez, 2008). The origin of this idea can be traced back to a paper Austrian psychologist Fritz Heider published in 1944, *Social perception and phenomenal causality*, which was an initial attempt to hypothesize the way average citizens explain events. Heider's idea was systematized in later publications (the most famous of which was *The psychology of interpersonal relations* published in 1958) which summarized his previous research and suggested most people view the behavior of others as a combination of the person's enduring character traits and the circumstances in which observed behavior occurs (Fiske, Gilbert, Lindzey, 2012). "Attributional rules" are utilized to determine whether character traits or a response to the circumstance was the source of the observed behavior (Fiske, Gilbert, Lindzey, 2012). It was around this concept social psychologist Edward E. Jones built his own research, providing empirical evidence ordinary people consider observed behavior highly informative when it occurs despite (and not because of) situational demands (Critcher, Inbar, & Pizarro, 2012). He later proposed the Theory of Correspondent Inference as a formalized model for

explaining this attribution process and delineating the associated system of rules (as mentioned earlier in Heider's work) by which an observer in the social setting could determine if observed behavior can be attributed to a personal character trait. Ordinary people pay particular attention to behaviors they deem intentional (Jones and Davis, 1965 as cited in Kressel & Uleman, 2010). When a connection can be made between motive and behavior, trait inferences can be reached and a perceived understanding of the person can be assumed (Reeder, 2009). In short, observed behavior can be thought to correspond to an underlying disposition a person possesses (McCartan, 2011) although this is dependent on the social context (McLeod, 2010) and other influencing factors.

Jones and Davis further proposed the social observer uses the consequences of observed behavior (and their perceived unusualness) to gauge the actor's intentions, the social context, and the behavior's desirability in it to determine if those intentions were unexpected enough to provide novel information regarding the actor's dispositional qualities (Fiske, Gilbert, Lindzey, 2012). While it may seem obvious the observed behavior caused the resultant effect, the social observer seeks to understand what exactly about a specific behavior resulted in a particular outcome and, more importantly, if this was the intended result of the person that produced the initial behavior. To state this more succinctly, Jones and Davis proposed the basic problem for the social perceiver is to make an inference based on an analysis of multiple effects of behavior and the resulting outcomes (Hamilton, Way, & Chen, 2009). To ascertain intention, the social perceiver must believe the actor knew what the outcomes of his/her behavior would be, s/he was capable of performing the actions, and s/he intended to perform such actions. This is the basis of Correspondent Inference Theory.

While social perceivers make inferences based on the actual outcome of specific behavior, they also make naïve assumptions about what the results would have been had the actor chosen a different course of action (Baker, Saxe, & Tenenbaum, 2009). When effects of multiple courses of action overlap, Jones and Davis referred to them as "common effects" (Hamilton, Way, & Chen, 2009). The fewer common effects shared between multiple courses of action, the more confident the social perceiver can be of the inference regarding the person's disposition that is based on that action.

The perceived amount of pleasure that could be derived from or the desirability of the outcome of a specific course of action for the actor provides indicators of the intention to produce that outcome. The "expectedness" of results plays a key role in dispositional inference, the understanding of the intended consequence (Schroder, T., 2009, p.4). Alternatively, if the behavior is deemed socially undesirable by the perceiver and the actor chooses this course of action, it is likely the perceiver will make attributions based on this behavior (Hamilton, Way, & Chen, 2009). Along these same lines, if the behavior is expected, it tells little about the actor. It is when social perceivers observe unanticipated actions that they are likely to make attributions based on this instance (Mercer, 2010). Unexpected behavior is more likely to be remembered and thus attributed to a character trait (Brown & Vaughn, 2011).

Lastly, but perhaps most importantly, Jones and Davis make note of the options provided to the social actor. When inferring a disposition, the perceiver often fails to adequately take into consideration the degree to which the actor's options were limited (Critcher et al., 2012). That is, if a social actor behaves in a specific way, the perceiver does not completely account for the variety of external or situational factors that could be influencing behavior (Mercer, 2010).

The Theory of Correspondent Inferences suggests inferring dispositions derived from behaviors performed under extreme duress can lead to faulty attributions (McLeod, 2010). In 1967, Jones and Harris provided evidence that this is exactly what occurs (Weiner, 2008). Although both Heider (in 1958) and Gustav Ichheiser (in 1949) had previously postulated this phenomenon occurred in the attributional process (Rudmin, 2010), Jones and Harris were the first to provide empirical evidence (Fiske, Gilbert, Lindzey, 2012). Specifically, they observed an inclination for observers to take actions "at face value" even when they knew social constraints influenced actors to behave in particular ways, creating a "correspondence bias" (Kressel & Uleman, 2010). This discovery, in violation of the original Theory of Correspondent Inference, led to the conceptualization of the more general "fundamental attribution error" as proposed by Stanford professor Lee Ross several years later in 1977 (Moran, Jolly, & Mitchell, 2014).

The work of Ross (1977) revolved around the attempts of average people to make accurate social judgments regarding themselves and others. He proposed the fundamental attribution error in which the average citizen has a tendency to overestimate dispositional characteristics and underestimate situational influences on the behavior of others (Riggio & Garcia, 2009). Thus, trait judgments based on a specific behavior are expected to persist throughout various contexts. More recently, this work has been heavily expounded upon by several social psychologists including Uleman (with Shimizu & Lee, 2017; with Todorov, 2005 & 2002) and Carlston (with Schneid and Skowronski, 2015; with Skowronski, 1989) under the idea of "spontaneous trait inference." Based on this theory, it is likely specific personality characteristics will be assigned to the authors of information obtained from social media sites by

admissions officers. Subsequent attributions of the character of an applicant may influence the decision to extend or refuse an offer of admission to an institution based on this information.

Although grade point averages, standardized test scores, recommendation letters, and other formal requirements are important factors in college admissions, there is a body of research that indicates personality characteristics play a major role as well. According to Charlton (2009), colleges and universities increasingly take certain personality characteristics, especially those that demonstrate a commitment to high quality coursework over the course of an academic career, into account. Toward this end, evidence supports the notion college admissions officers seek students who will perform successfully throughout their association with the university rather than any evidence they may have to indicate a given IQ at a static point in time. Thus, character judgments based on observed social media behavior may become important in admissions decisions, even if they are faulty conclusions.

Related Literature

While social media is a relatively new invention, its use is widespread and shapes the ways people communicate. Further, it is changing the manner in which admissions departments in higher educational institutions function. The following review describes recent literature related to the current study and provides context for the importance of empirical research about this topic area.

Communications Landscape

The widespread usage of social media is changing the landscape of communications (Keitzmann, Hermkens, McCarthy, & Silvestre, 2011). Previously, media users were passive participants in the process of broad, impersonal television, radio, and print. The Internet has revolutionized this as users are in complete control of the creation, publication, production, and

broadcasting of any content they choose (Bolton, et al., 2013). Thus, users of social media sites are essentially the creators of their realities and can shape those realities almost instantaneously, even from mobile devices (Van Dijck & Poell, 2013).

Inherent in this transformation of communication are changes in the preferences by which students seek to connect with others as it is changing the very nature of discourse (Wang, Chen, & Liang, 2013). *The New York Times* reported college students prefer to receive communications digitally, favoring social media sites such as Twitter even over email, which they consider to be antiquated and slow (Rubin, 2013), and student participants overwhelmingly indicated that their preference for any communication was digital, specifically using social media sites. Given the ease of connecting with others who have similar interests, values, and goals, students turned to social media sites not only for these relational connections but for information and general knowledge as well. These results must be considered with caution as participants were from only health science fields ("biotechnology, couple and family therapy, medicine, nursing, occupational therapy, physical therapy, public health, radiological sciences and imaging, and pharmacy" [Giordano, 2011, p. 1]), so the identified outcomes may be more indicative of traits common to students who choose health science professions. Further evidence from Hsu and Wu (2011) and Whiting and Williams (2013) indicate similar responses from the same population.

The Changing College Population

In the 1940s, college students were primarily the children of affluent families and based their life pursuits on the education and guidance they received while enrolled (Altbach, 2011). The future plans of the student and subsequent working life were deemed extensions of the lifelong association the student would cultivate during the educational experience (Geiger,

2011). It was also during this time the notion of who should be able to attend higher educational institutions began to evolve. Previously, a college education was exclusively for those who represented an elite, socially homogenous group of individuals (Altbach, 2011). These were students from upper- and middle-class families and were overwhelmingly Caucasian and male (Geiger, 2011). World War II, however, ushered in a significant decrease in college enrollment on a large scale due to increased tuition and the conscription of males into the armed services (Hogan, 2013; Oreopoulos, & Petronijevic, 2013). The introduction of the GI Bill at the conclusion of WWII saw a massive increase in student enrollment and an increasingly diversified student body as access to higher education was dramatically expanded for males from a more diversified population (Batten, 2011).

During the 1960s and 1970s, due to parallel societal changes, higher education became largely co-educational as federal aid for college students became available in addition to the GI Bill (Demetriou & Schmitz-Sciborski, 2011), and emphasis on student characteristics outside of standardized test scores became common (Sparkman, Maulding, & Roberts, 2012). During the 1980s, competition for students caused a marked increase in the marketing and recruitment efforts of colleges and universities, and thus, changes in the way students chose which institutions to attend (Burdett, 2013). Many students were actively recruited for a variety of reasons and they were able to choose from a wide variety of institutions (Berry & Bass, 2012), although obvious trends related to college choice emerged at this time based on gender, ethnicity, and socioeconomic status (Burdett, 2013). The 1990s again saw a change in the demographic trends and increased diversity of the student body population at colleges and universities. More students of Hispanic origin as well as non-traditional-aged students were enrolling in higher education, but severe declines in federal funding saw an increase in concern over the cost of

higher education, once again changing the manner students selected a school in which to enroll (Gaertner & Hart, 2013; Hemelt & Marcotte, 2011; Villegas, Strom, & Lucas, 2012). The most dramatic and widespread effect on college admissions that resulted has been in the way admissions departments are recruiting students and marketing their respective institutions (Rutter, Roper, & Lettice, in press).

Adolescents and young adult social media use. According to Lenhart, (2015), 92% of teens and young adults (defined as 12-17 year-olds and 18-29 year-olds) with access to the Internet are actively participating in social media sites, many of whom report daily social media use. This is an increase from 2006 and 2008 when only 55% and 65% respectively were actively engaged. Except for the application Twitter, this age group is the largest group of consumers and active participants on all social media sites, with Facebook by far the most widely used (Lenhart, 2015). Facebook has 1.65 billion active users a month (Facebook, 2016). Of teens aged 12-17 and young adults aged 18-29, 92% report daily use of social media technologies (Lenhart, 2015).

The information routinely provided by adolescents and traditional-aged college students online is often personal and can be viewed by large numbers of anonymous users (Ellison, Vitak, Steinfeld, Gray, & Lampe, 2011). While some young people are becoming increasingly more discreet with the information they share and with whom they share it (Yao, 2011), Kramer and Haferkamp (2011) reported college students posted items on Facebook they indicated they were uncomfortable with their current or potential employers viewing. Adolescents can easily make themselves vulnerable to embarrassment, censure, and damage to their reputation, or can even be victimized by others due to the nature of the content they post.

Social media has rapidly become a place in which adolescents and young adults can express their evolving identity while easily exploring various representations of themselves to

the outside world and to the imagined audience their social media posts target (Doornwaard, Moreno, van den Eijnden, Vanwesenbeeck, ter Bogt, 2014). This manipulation of self-presentation is developmentally appropriate, especially at a stage in which peer relationships and feedback are more important than any other relationship maintained (Peter & Valkenburg, 2011). With this powerful peer-to-peer influence, online social networks create a structure of social norms and behavior that is part of self-presentation (Doornwaard et al., 2014; Moreno, Kacvinsky, Pumper, Wachowski, & Whitehill, 2013). Thus, behaviors deemed risky by many adolescents and young adults are rapidly normalized and seen as typical (Peter & Valkenburg, 2011).

Exposure to substance use in all forms of media is linked to substance use in adolescents and young adults (Papacharissi & Gibson, 2011), especially alcohol use (Ridout, Campbell, & Ellis, 2011). The same holds true for displays of sexuality (Thelwall, 2011) and sexualization of the self and others (Rose, Mackey-Kallis, Shyles, Barry, Biagini, Hart, & Jack, 2012). College students with a social media profile exhibit greater risk-taking tendencies than those without such online personas (Litt & Stock, 2011). This powerful "socializing" nature of social media holds more influence than other forms of media due to the interpersonal nature of the interactions and the ability for users to broadcast their own content in a manner previously only available to a limited number of persons at great cost in public forms of mass media (Huang, Unger, Soto, Fujimoto, Pentz, Jordan-Marsh, & Valente, 2014). The ability for it to be viewed by a much wider audience can become problematic, even resulting in victimization as noted above.

Image maintenance and perception. In the same manner humans attempt to manage the impressions they make on others in face-to-face interactions (Merkl-Davies & Brennan, 2011), the level of information control allowed by social networking sites can be manipulated to

advance favorable impressions or, if mismanaged, can facilitate adverse ones. Online communication uniquely complicates this process because of the blending of both static and interactive types of information (Reich, Subrahmanyam, & Espinoza, 2012). Other networking platforms such as web pages, online chat forums, blogs, or email allow the initiator of communication to regulate what information, including that from others, appears with and is associated with their content (Rui & Stefanone, 2013). Additionally, individuals other than the profile owner can contribute information that may or may not advance the impression the profile owner is attempting to convey (Kietzmann, 2011). Contributions made by others reflect the character of their authors but may also influence the reactions of viewers to the profile owner even though s/he did not originate or condone them (Hong, Tandoc, E. Kim, A. Kim, & Wise, 2012).

A social media user, through sites such as Facebook, can request to be "friends" with other users, although this term can be misleading since having a relationship outside of the social network platform is not necessary for this online association (Chung, Chui, & Lee, 2011). After approval, each individual has access to the other's profile information and the ability to comment on his or her "wall" and about photographs, and can see the entire list of the other person's "friends." New connections often evolve through friends of friends even if they have no offline basis for the link (Kim & Lee, 2011). Westerman, Spence, and Van der Heide (2013) provided evidence that others form impressions of a site owner through intentional, but also unintentional displays. As a result, the material left in a profile by one's friends and their associated profile information can influence the perception by others of the "wall" owner's character (Utz, 2010). This content is used as clues by viewers about the profile owner's character and interests based on the association with individuals who posted the material. Even though the profile owner did

not author it, any content on the profile "wall" may imply approval from the profile owner (Rosenberg & Egbert, 2011). These conclusions seem to be mitigated by the existence of a relationship between the observer and the owner of a profile as observers have been shown to make more favorable judgments of friends with whom they have an offline relationship than those they know purely in the online context (DeAndrea & Walther, 2011).

Online versus offline behaviors. According to Pumper, Yeager, and Moreno (2013) online behaviors are indicators of offline actions. They are often directly connected and intertwined with actual behaviors, especially in the case of alcohol consumption among college students (Moreno, et al., 2013). In a study of 68 Facebook accounts owned by college students, Fournier and Clarke (2011) noted 76.5% of them reference alcohol in some form. Egan and Moreno (2011) postulate seeing these prevalent references as acceptable behaviors encourage alcohol and illegal drug use and consumption. Further evidence confirms students who display alcohol-related content on Facebook often report recent use of alcohol, even if they are under the legal drinking age (Moreno, Cox, Young, & Haaland, 2015; Moreno, D'Angelo, Kacvinsky, Kerr, Zhang, & Eickhoff, 2014; Moreno, Christakis, & Ega, 2012).

Females tend to post pictures or videos of alcohol use in social settings while males post solitary pictures of illicit substance use (Egan & Moreno, 2011). Further evidence suggests sexual self-disclosure on social media sites, while it does not correlate to more frequent incidences of risky sexual behaviors offline (Moreno, Brockman, Wasserheit, & Christakis, 2012), does invite online sexual disclosure responses (Bobkowski, Brown, & Neffa, 2012), which can lead to higher sexual self-disclosure in real life (Valkenburg, Sumter, & Peter, 2011).

Social networks also provide a forum for other concerning circumstances. Students who post references to symptoms of a depressive disorder as defined by the fifth edition of the

Diagnostic and Statistical Manual of Mental Disorders (DSM-5), published by the American Psychiatric Association (2013), often report high levels of depressive symptoms in clinical screens (Moreno, Jelenchick, & Kota, 2013). Indicators can include status updates that refer to depressed mood, loss of interest or enjoyment in activities, appetite changes, sleep problems, psychomotor agitation or retardation, loss of energy, feelings of worthlessness or guilt, decreased concentration, or suicidal ideations (American Psychiatric Association, 2013), although students may use social media to seek support for these symptoms through the response from their peers (Moreno, Jelenchick, Grant, Pumper, Richardson, 2011).

Whether colleges review the social media posts of their admissions candidates becomes an important question in light of teenagers' admitted tendency to post information they would not wish someone making a judgment about them to see (Litt, Spottswood, Birnholtz, Hancock, Smith, & Reynolds, 2014). This can even be exacerbated as teenagers admit to disclosing more information about themselves online than in face-to-face interactions (Reich, Subrahmanyam, & Espinoza, 2012). According to a 2012 Kaplan survey, the number of colleges reviewing applicant's social media accounts is increasing. Of the 350 admissions officers from the nation's 500 top colleges and universities who responded to the survey, over one quarter relied on a general Google search or students' Facebook profiles to gather information about candidates, while only one in 10 reported doing so in 2008. This has increased to over a third (35%) of the 403 participants from Kaplan's 2014 survey, the highest percentage since Kaplan began investigating this topic in 2008 (Kaplan, 2014), then again in 2016 to 40% of respondents. Thirty-five percent of the 2012 respondents investigating candidates discovered information that negatively impacted the applicant's chances of admission to the institution. This number has almost tripled from the 12% reported just the year before and was up to 40% in 2016.

The Millennial student. Although the exact year is debated, members of the Millennial generation can be defined as those born after 1980 (DeVaney, 2015). These students are often early adopters of new technology and among the first to seamlessly integrate it into daily life (Anderson & Rainie, 2012). Known as "digital natives," they have been exposed to and immersed in the Internet, computer-based technologies, and often social media,from an early age (Margaryan, Littlejohn, & Vojt, 2011), and their technological involvement far surpasses any other generation (Barnes & Lescault, 2011). They are responsible for a large portion of the six billion text messages sent daily across the globe, with 18-24 year-olds reporting an average of 128 texts each per day and 3853 texts each per month (Burke, 2016) and are considered the traditional college-aged student (Lippincott, 2012), accounting for the majority of enrollment at selective institutions (Hurwitz, Smith, & Howell, 2015).

Characterizations of this population vary, but many often note their attention to social issues, teamwork, achievement, and acceptable conduct (Worley, 2011). They are highly driven to succeed, and increasingly larger numbers enroll in post-secondary institutions (Perry, 2015) since a college degree is viewed as a necessity, similar to their parents' view of attaining a high school diploma (Lawrence, 2012). Millennials have been reared in a "quasi-corporate" social structure that views higher education as a commodity to be purchased (Perry, 2014). In return, they hold high expectations for services and facilities; faculty and universities are attempting to meet these demands to retain students (Worley, 2011). Many students currently perceive the option to add a degree to their resume as a right and a service for which they have paid; in turn, demanding accountability and cost-effectiveness (Perry, 2014). According to Worley (2011), Millennial learners have transitioned to a mode of existence in which they seek to have a degree instead of seeking to be learners; a product of the "student as consumer mind set" (Goldman &

Martin, 2016). If information is not going to be on a test or required in some sort of assignment or class discussion, students see no reason to learn it (Worley, 2011). Minimal effort and the expectation to get high grades, coupled with a parental emphasis on "getting the degree" rather than learning as much as possible, have also led to rampant cheating (Hull, 2012).

Due to the near constant interactivity and stimulation derived from this immersion in technology (Anderson & Rainie, 2012), Millennial students learn differently than their predecessors (Brown, 2011). They are often unreceptive to traditional teaching methods, especially lectures, and report they are unable to relate to them (Nevid, 2011). This generation of students prefers to work collaboratively with others, at their own pace, in informal environments, and prefers to experience the world through multimedia instead of print (Ferri-Reed, 2014; Brown, 2011; Roehl, Reddy, & Shannon, 2013). This change in learning preference has prompted changes in traditional college recruiting and marketing.

Recruitment of Millennial students. The rise of social media has changed the way communication occurs in fundamental ways (Paine, n.d.). Messages are now sent instantly, possibly to a wide audience, and two-way interaction can happen almost as quickly as face-to-face conversations, even from opposite sides of the globe (Thurlow & Poff, 2013). Although social media has affected higher education recruitment, traditional strategies are still heavily utilized outside the digital realm (Nyangau & Bado, 2012).

The typical targets for undergraduate recruitment are students, ages 14-19 (Greenwood, 2012). Before social media use became prevalent, students often chose which college or university to attend based on a single campus visit or a short conversation with a recruiter that likely lasted only a few minutes (Burdett, 2013). With the options facilitated via social media, students can now watch videos, see pictures, and virtually connect with advisors, financial aid

offices, and current students in a few keystrokes instead of merely reading about various institutions and sifting through their printed materials (Constantinides & Stagno, 2011).

College and universities have capitalized on the social media revolution by utilizing it as an effective recruiting tool. Given that most social media users are young adults (Lenhart, 2015), it is not surprising that higher education institutions are actively engaging in this form of communication. Eighty-seven percent of Kaplan (2012) survey respondents, who were college admissions personnel, indicated they use Facebook; 76% utilize Twitter; 73% have an official YouTube page to recruit potential students. Higher education has outpaced Fortune 500 companies in all forms of social media use annually since 2007, and college presidents are far more active in social media than their corporate counterparts (Barnes & Lescault, 2013). Top college officials blog at a significantly higher frequency and post to Twitter and Facebook more often than CEOs in an effort to recruit students and promote the identity of the institution from an executive perspective (Barnes & Lescault, 2013). Admissions departments do not underestimate the importance of these tools as students can interact virtually with institutional representatives and receive real-time answers to their inquiries (Wilson, 2013).

While this can be an extremely effective recruiting tool, colleges and universities are advised to concentrate their efforts on their website presence as more students report visiting a prospective institution's official web site than interacting on social media sites with the school's representatives (Astani, 2013). Alternatively, integrating these two components may be the most effective strategy to reach prospective students. Embedding live chat features directly into the website has been correlated with higher rates of student retention and alumni giving as these are synchronous interactions (digital chat is accessed by visiting the school's website) and still provide the convenience of digital interactions (McAllister, 2012).

First-generation college students experience college and all that is associated with it differently from their peers (Mehta, Newbold, & O'Rourke, 2011). The application process is no exception to this trend. While they may have a consistent support system from their family, it can be difficult for parents without collegiate experience to assist their student through this process (Sy, Fong, Carter, Boehme, & Alpert, 2011). Past research provides evidence that first-generation college students do not receive the same level of support from their parents as non-first-generation students (Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012). A lack of resources, both financial and informational (i.e., knowledge of deadlines, awareness of grants or scholarships), impacts the access, persistence, and completion of first-generation students (Padgett, Johnson, & Pascarella, 2012). Thus, social media can play a part in assisting these students in the application process; one they are often navigating on their own (Wohn, Ellison, Khan, Fewins-Bliss & Gray, 2013).

Prospective students still list the college website as having the most influence in their college decision-making with college print advertising the second most important (Astani, 2013). Students report they utilize university websites to gather facts pertaining to degrees offered, class sizes, requirements for grade point averages or standardized test scores, and to eliminate institutions that do not meet their expectations (usually because an institution does not offer the degree program they seek). After they have narrowed their selections to a small number of possible schools, the importance of social media becomes more apparent (Constantinides & Stagno, 2011). The communication facilitated through social media becomes important as students question their friends who may already attend an institution and as they attempt to get a feel for the norms of a school to attain a "best fit" for themselves (Wohn et al., 2013). Because social media can transcend the bureaucracy of traditional marketing, students feel they are better

able to ascertain if the institution will meet their needs both academically and socially (Nyangau & Bado, 2012). Inquiries are made through current students and admissions representatives with whom they are able to maintain "direct contact" as opposed to time-delayed communications such as print or email (Lovari & Giglietto, 2012). While social media may be ranked as one of the least important factors as students narrow down the multitude of their institutional options (Merrell, 2011), it is valuable as students seek to make final decisions about the schools to which they will apply and afterward as they learn how to be successful at their selected university.

Social capital and the Millennial student. Ever-evolving social media has been linked to building social capital, which refers to the extent an individual can access and utilize their social connections (Ellison, Steinfield, & Lampe, 2011). While these can be tangible, they are often found in emotional support and friendship (Leung, Kier, Fung, Fung, & Sproule, 2011). Further, connections to others and the potential to access resources embedded in social ties are often in the form of contacts made only because of their social network (i.e. friends of friends) (Wohn et al., 2013). Ward, Siegel and Davenport (2012) reported low-income students, most who stated they were first-generation college students, relied on contacts made more accessible through social network sites (i.e. friends who had recently left for college) to ask questions regarding campus life, and especially the application process. Social norms developed in social settings also influence high school students (Rimal & Lapinski, 2015). Blackwell and Pinder (2010) found peer pressure to attend college influenced the decision to enroll in a post-secondary institution as well as in which institution to enroll. This influence is especially strong in students from disadvantaged educational backgrounds (Bowen & Bok, 2016). Cherng, Calarco, and Kao (2013) found the resources available to a student's best friend were a better predictor of four-year college enrollment, especially if the friend had a college-educated mother. This

significance remained even after controlling for socioeconomic factors of both the student in question and the best friend. Students also turn to social media for an indication of the norms associated with various college campuses and often for support when coping with college transition issues (Gray, Vitek, Easton, & Ellison, 2013). This sense of belonging could prove vital to persistence and completion as perception of social support is positively connected to academic achievement (Moore, 2013). Thus, social media has the ability to intensify casual connections that could prove useful for high school students' college aspirations, facilitating the transfer of information about college, and ultimately enhancing expectation of their future college success (Gray, Vitek, Easton, & Ellison, 2013).

Millennial students have been repeatedly assured they are individually distinctive and have been given credit as the facilitators for the future success of the United States (Darlow, Norvilitis, & Scheutze, 2017). Many feel they will perform in the top 20% of their occupation as an adult and they look for special treatment from authority figures (U.S. Chamber of Commerce Foundation, 2012). These pervasive attitudes may be the result of typically smaller families with parents who had more time and resources to devote to their children (Fingerman, et al., 2012). Millennials played an integral role in the familial structure and decision-making process (Little & Price, 2013). An amplified perspective of their worth has been fostered by the increased parental attention and decision-making power in the families of Millennial students (Darlow, Norvilitis, & Scheutze, 2017).

An outcome of the increased belief of Millennials in their uniqueness is the high volunteerism rate and increased participation in social and civic responsibilities over that of previous generations (Fingerman et al., 2012). Many indicate they plan to change their country and, in turn, their worlds (Telefonica, 2013). According to Moore, Warta, and Erichsen (2014)

college students choose to volunteer most often as it aligns with their values of helping others followed by the opportunity to learn by engaging in a novel experience. Sixty-three percent of incoming freshmen reported occasional volunteer work and 14% stated they volunteer on a weekly basis (Higher Education Research Institute, 2013). While enhanced service and volunteer opportunities, such as service learning and improved governmental support, have been linked to high rates of volunteer service hours for this population, the number of students required to perform these services still does not explain this trend (McGlone, Spain, & McGlone, 2011). Multiple researchers indicate the motivation to create attractive college admissions portfolios as the basis for this movement instead of the desire to better themselves or society (Shawn, 2015).

Another result of feeling special is the expectation of increased choices in products to consume, as well as educational options (Han, 2014). Yo-Lee, Lee, and Velez (2013) note Millennials view the library as an entity to provide them space to work collaboratively and allow them access to needed technology services, instead of as the key source for finding answers to academic questions. Many Millennials believe it is the responsibility of the institution to provide social space, such as the library, for collaborative academic efforts (Lippincott, 2012). Fissel (2013) notes these students also expect to have input on institutional policies and procedures, although they accept the authority once decisions have been made.

Expectations of campus life are likely to affect student recruitment and decision-making (Pizzolato & Hicklen, 2011). Millennials have often never shared a bedroom and are likely to expect the same in college housing (Turner & Thompson, 2014). Collaboration with peers is a high priority for these students. Thus, they expect space in the university to work collaboratively with their classmates (Yo-Lee, Lee, & Velez, 2013).

Millennial students and their parents. When recruiting Millennial students, institutions will increasingly be required to appeal not only to prospective students, but also their parents (LeMoyne, 2011). Many students are often making collegiate decisions in conjunction with their parents, thus meeting parental needs may increase the likelihood of enrollment for Millennials (Pizzolato & Hicklen, 2011). Han (2014) noted the importance of providing information and services outside of traditional subjects and courses that will separate a school from others. Highlighting college backstory and traditions, student-led organizations, and community involvement are key to appealing to student and parental observations of being special as these highlight the moral functioning of this population (Holm, 2012).

High levels of parental protection continue into college with much of the Millennial population (Pizzolato & Hicklen, 2011). Parental involvement has markedly increased since the matriculation of Generation X (those born 1965-1979) (McHenry & Ash, 2013). Many have labeled the extensive involvement of the parents of Millennials as "hovering" or as "helicopter parents" due to their constant oversight of their student(s) (Fingerman et al., 2012). It is not uncommon for these parents to contact universities to ask for advice, make a complaint, or intervene on behalf of their student (Schiffrin et al., 2014). In addition, the increased communicative abilities made possible by email, instant messaging, and social media allow for near constant contact between students and parents. According to Hofer (2011), students contacted their parents an average of 13.4 times a week. This increased parental contact has caused college campuses to respond with intensive programs to prepare both students and parents for the transition to college instead of the mere receptions offered in the past (Pizzolato & Hicklen, 2011). Several institutions have gone to the extent of creating a specified office or department to handle parental and familial relationships and/or parental associations (Little &

Price, 2013). These are a few techniques by which institutions can possibly recruit and retain students due to increasing satisfaction of both students and their parents (Turner & Thompson, 2014).

Due to the violence in schools witnessed by Millennial students and their parents, many seek a collegiate campus with a history of proactive safety precautions and policies that address their safety concerns (Sulkowski & Lazarus, 2011). Institutions with a history of providing a safe environment can advertise it for recruitment of Millennials while those whose history may be blemished can easily assure parents of the policies and procedures they have implemented and of their continuing efforts to ensure students are as safe as possible (Tas & Ergin, 2012). Because campus safety statistics for college campuses are available to parents and students online, institutions can embrace this scrutiny not only as a means of campus safety, but also as a means of Millennial student recruitment (Sulkowski & Lazarus, 2011).

Because the parents of Millennial students wish to remain heavily involved in their students' lives, they may expect colleges and universities to keep them informed of their students' progress and any problems or issues that may arise, without regard to the stringent privacy laws to which institutions are required to adhere in the Family Education Rights and Privacy Act (FERPA) (Little & Price, 2013). Since FERPA prohibits the release of any information contained in the education record of students 18 or older without the student's written consent, universities can incorporate education of these restrictions in parent orientation programs and emphasize the legal and safety implications therein (Perry, 2015).

When recruiting Millennial students, colleges highlight the various opportunities offered by the institution for students to make a successful transition to their chosen field and career (Riggsby-Gonzalez, 2016). Counseling centers and their specific services, including those

dealing with career choices as well as emotional well-being, are important (Brunner, Wallace, Reymann, Sellers, & McCabe, 2014). Further, internship programs and university-facilitated experiences not only serve to intrigue students but also provide parents with a sense of value toward a specific institution regarding the long-term success of their students (Pizzolato & Hicklen, 2011).

Millennial students seek a traditional college experience, and institutions can highlight how they can offer this involvement when recruiting this population (Carson, 2013). Providing Millennials with opportunities to participate in shaping the campus, academic offerings, and extracurricular activities can be emphasized toward this end (Fissel, 2013). Millennials are comfortable succeeding in a variety of contexts and receiving recognition for their accomplishments. Thus, their potential for success at an institution needs to be highlighted as an effective recruitment tool (Little & Price, 2013).

Performance-Based Funding

College personnel are under increasing pressure not only to offer admissions to students that will attend their institution, but also to those who will remain until degree completion. Although some states have passed legislation in an attempt to restore reduced funding for public 2- and 4-year schools, many are still well below pre-recession levels. After adjusting for inflation, Mitchell, Leachman, and Masterson (2016) report almost 10 billion fewer dollars in funding than before the economic downturn of 2008.

The first formalized program to link state funding of higher education to performance metrics was in Tennessee beginning with the 1979-80 school year in order to address mounting concerns over performance assessment and pervasive frustration with enrollment-based funding (Kelchen & Stedrak, 2016). Several states eventually followed this example with 21 adopting

similar programs by 2001, and 26 by 2007 (McLendon & Hearn, 2013). However, 14 states who had adopted performance-based measures discontinued them within this same time frame (Miao, 2012). Thus, the success of such models was a source of much debate, although critics and proponents agreed there were critical initial design flaws in many of these systems (McLendon & Hearn, 2013). More specifically, there was a failure to recognize differences in individual institutions and their missions and in the adoption of rigid requirements that focused on completed degrees instead of progress toward degrees (Miao, 2010).

A recent resurgence of these models has gained traction and the state of Tennessee is once again on the forefront of this movement. In 2010, Tennessee dropped all components of funding based on enrollment measures in favor of an output-based formula (McLendon & Hearn, 2013). These changes focused largely on three core areas of measurement: output metrics that included degrees awarded, graduation rates, or time to degree completion as well as research incentives, progress metrics, the second and a large part of this formula, included transfer rates (from a two-year to four-year institution), successful course completion, time and credit toward a degree, student progression or credit accumulation, advancement through remedial courses, adult education, and job placement after graduation, and lastly, economic development metrics focused on earned research money across the institutions and degrees linked to the state's workforce development goals (SRI International, 2012). Other states have followed, implementing similar models, including Ohio and Indiana, while Colorado, Arkansas, and Texas have incorporated these metrics to account for only a portion of their higher educational funding (McLendon & Hearn, 2013).

Effects of Performance-Based Funding. With this shift to emphasize outcomes and progression, the effectiveness and realistic practice of this model has been called into question.

Although there are staunch advocates on both sides of this ideology, recent research has yielded mixed results. More research into the long-term effects of such funding is needed.

Opponents of performance-based funding claim it has little to no impact on associate or baccalaureate degree attainment (Tandberg & Hillman, 2013) and what effect it evidences is often negative, indicating fewer students are attaining degrees (Hillman, 2016). These effects may be particularly harmful at Historically Black Colleges and Universities (HBCUs) as students often take longer to complete their degrees as they are often working or taking additional developmental courses (Flannery, 2014). Further, colleges subject to performance-based funding formulas receive $30-$40 fewer per student in federal Pell revenue per full-time student (Fain, 2016). Many fear this will soon lead to the adoption of more selective admissions criteria that target students who require less financial aid to meet their costs of attendance (Kantrowitz, 2016).

Despite the bleak picture painted by performance-based funding opponents, there is recent evidence that degree attainment increases under these models; however, it is only after an average of seven years (Tandberg & Hillman, 2013) and often only for students enrolled full-time (Fain, 2017). While, as previously noted, Pell funding decreases per full-time student under these formulas, more state appropriations are given directly to institutions which increase the flexibility with which they can be utilized (Fain, 2016). Community colleges in states utilizing performance-based measures spend slightly more on student services and support programs that aid all students, but especially those deemed at-risk, toward degree completion (Kantrowitz, 2016). Regardless of funding source, state and school policies should ensure access to higher education and success within it as equitably as possible.

Social Media Policy

According to Barnes and Lescault (2011), a significant number of colleges and universities are utilizing social media networks and search engines to research students and applicants. Specifically, the use of search engines like Google or Yahoo decreased while investigating an applicant on social media sites increased from 2008 to 2011 (Barnes & Lescault, 2011). Many are searching for information to more effectively recruit a specific demographic of students and better focus their resources on current students who (they concluded) would likely be appropriate matches for their institutions (Barnes & Lescault, 2011). In contrast, some institutions openly report they are utilizing social media platforms such as Facebook and Twitter to research applicants (Lytle, 2011), although there remains a scarcity of empirical research in this area.

Of the 350 schools represented by respondents to the Kaplan (2012) survey of college admissions personnel, only 15% indicated there was an official institutional policy addressing the use of social media content in admissions decisions. Of this group, 69% indicated the policies prohibited admissions personnel from using social media or Google searches to delve into the Internet usage of their admissions applicants. To further highlight the changes in the importance of a social media policy to address its use in admissions decisions, research from the University of Massachusetts Dartmouth indicates similar results, but exhibits an increasing number of institutions are beginning to address this issue (Hernandez, 2012). In the 2009-2010 academic term, 32% of respondents reported a social media policy, while this number jumped to 44% in 2010-2011 and 49% in 2014 from the same respondents. While it is encouraging to note the upward trend indicated by these results, 19% of admissions personnel indicated they did not know if any policy of this kind existed at their institutions (Barnes and Lescault, 2014). Even if

a social media policy is in place at an institution, not all admissions officers follow it (Badowski-Koenig, 2014).

Thus, college admissions departments and personnel are, in large part, allowed a high degree of flexibility, and the information obtained can be used at their discretion when seeking information on potential students. Additionally, without a formalized policy to address this issue with regard to all applicants, this information search can be inconsistently applied across applicants. To ensure required documentation of the equal treatment of all applicants, especially for state institutions, this practice must be delineated and regulated.

While there are anecdotal stories addressing the consequences of student social media posts and college admissions, there has been limited empirical research in this area. The paucity of research into the effective uses of official policy regarding social media in organizational contexts is slowly being remedied. This trend, however, has not caught on in higher education institutions. Much of the current knowledge regarding social media policies is based on business entities, but much can still be relevant.

Policies at various postsecondary institutions cover extremes from no policy or governance to examples such as at Northern Illinois University, which requests monthly counts of all interactions, screen shots of all interactions, and documentation if each interaction is positive, negative, or neutral (Howard, 2013). Some of the more moderate policies require employees who post to blogs to indicate their opinions are their own and unaffiliated with the university's (Lachman, 2013). Within legal limits, what faculty, staff members, and students say on their personal social media profiles is protected by the First Amendment, as long as they clearly indicate they are not speaking on the institution's behalf (Howard, 2013). Contrary to

this stance, authors of official university accounts, associated with specific departments, the university library, or a specific course are liable for posted content (Hayes & Cooley, 2013).

Lacking a policy to directly address this issue, higher education institutions leave themselves in legally undefined positions. Although discussed in more detail in the following section, laws concerning social media and its usage are falling far behind current legal precedents (Loeffler, 2012). The use of social media in admissions decisions holds the potential to violate the First, Fourth, and/or Fifth amendments of the US Constitution (Badowski-Koenig, 2014). While the intention may be to utilize social media to screen potential students in an effort to protect the institution from possible embarrassment, there may be long-term ramifications to the practice. It will likely be that no precedent is established unless students who are denied entry into their school of choice take legal action (Badowski-Koenig, 2014).

Previous research in this area has recommended that a clear policy be in place to define appropriate usage and what content is deemed appropriate (Russell & Stutz, 2014). Policies with specificity are important, along with clear examples of inappropriate content, in order to give a precise picture of what is expected (Turley, 2013). These policies are appropriate to provide oversight, monitoring, and uniform use throughout the organization while also including the corporate social media strategy, and identifying who is responsible for oversight, why social media is important to the organization, and a list of recommended actions for participation (Brinkley, 2014).

Ethical considerations. The legal and ethical implications of the use of social media cannot be overlooked. Social communications have traditionally been considered private, yet their broadcast in a public forum such as social media negates that right (Claypoole, 2014). This

brings up ethical considerations for admissions personnel searching social media for information about potential students. Questions such as the following are important to consider:

- Is it acceptable for someone outside an individual's social network to view that person's social media information?
- Is it ethical for social media to be used for decisions that are non-social in nature such as school admissions, employee selection, disciplinary matters, or others with significant impact?

Interpreting personality characteristics, professionalism, and other personal matters are not only complex tasks, but also must be navigated carefully to avoid legal consequences (De Wolf & Heyman, 2015). Also, the current nature of some social media applications blurs the already unclear boundaries of what is considered a public forum. For instance, SnapChat is an instant message program allowing individuals to send messages to another device where they are visible for a short, predetermined period (approximately 6-10 seconds) before the message disappears. With a few simple keystrokes, a screen shot of these messages can be captured and their transient nature circumvented. These screenshots can then be sent as a picture to any working email address including college admissions staff. It is unclear at what point in time use of this information is appropriate.

Expectations of privacy in social media. At present, there is no case law addressing the use of social media information within the context of college admissions and little guidance since many situations have not been tested in court (Madden, Cortesi, Gasser, Lenhart, & Duggan, 2012). A precedent has been established regarding the public nature of social media posts to applications such as Facebook. However, issues regarding status updates to accounts with private user profiles or posts shared only with specified contacts are still unclear. While there

has been an explosion of social media platforms with many introduced in the last 10 years, privacy concerns raised by social media sharing are still governed by laws unable to anticipate the popularity of this form of communication (Loeffler, 2012). Practitioners in a wide range of fields are left to use their own "best judgment" (Tillman, Dinsmore, Chasek, & Hof, 2013). While there is no broad or all-inclusive legislation to address these issues, there is a basic "patchwork" structure from various relevant legislation and regulations addressing differing segments of the privacy concerns raised by social media (Del Riego, Sanchez-Abril, & Levin, 2012).

Many justifiable arguments have been postulated to support the notion that there is no reasonable expectation of privacy within the context of digital, social media sites although previous legal rulings have upheld the necessity of obtaining a warrant for access to instant messaging transcripts and email communications (Henderson, 2012). Most disagreement with this explanation is founded on traditional privacy laws concerned with encroachment on physical spaces under normative circumstances (Sanchez-Abril, Levin, & Del Riego, 2012). For example, a trespass (including the use of telescopic lenses or long-range microphones) accessing a private residence would invoke a violation of this concept (Bagley, 2011). Information posted on the Internet has a lower expectation of privacy, therefore viewing by potential employers or university personnel does not constitute a legal invasion of privacy (Belanger & Crossler, 2011).

Most jurisdictions in the United States acknowledge four privacy torts: (1) intrusion upon seclusion, (2) false light, (3) appropriation of name or likeness, and (4) public disclosure of private facts (Del Riego, Sanchez-Abril, & Levin, 2012). While all of these have been referenced in arguments concerning digital privacy, the first is the most applicable to the focus of this project. The Second Restatement Torts § 652 in 1977 (as referenced by Walker, 2012),

which refers to intrusion upon seclusion, states "one who intentionally intrudes…upon the solitude or seclusion of another or his private affairs or concerns, is subject to liability…if the intrusion would be highly offensive to a reasonable person" (p. 2). This law's applicability to social media remains vague. Some sort of privacy expectation exists under this tort as most social media sites require some sort of username and password log-in. Thus, any furtively gathered information from such sites could be argued to be covered under this law (Del Riego, Sanchez-Abril, & Levin, 2012).

The opposing stance is that information on social media sites can be considered publicly disseminated and thus no longer protected by this tort (Scott-Hayward, Fradella & Fischer, 2015). According to Zansberg and Fischer (2011), US courts have likened content added and published on social media sites to "shouting from a rooftop or posting a sign on a kiosk in the town square" (p. 3). Privacy policies, to which all users must consent in order to create an account, from many of these sites note their function is for informational purposes, and users should be aware a wide audience could view any information posted by account holders (Sanders, 2012). Because the nature of the internet is public, courts have further correlated social network posts to a publically-accessible bulletin board instead of private digital communication (Zansberg & Fischer, 2011).

When a social media user intends to keep his/her profile information and posts private, there are certain settings that can be selected to control the level and type of information seen by particular online associates, but the default settings of these applications remain open to the public (Madejski, Johnson & Bellovin, 2011). Without the knowledge or skill set to change these defaults, users may not understand the control they have over account settings (Liu Gummadi, Krishnamurthy, & Mislove, 2011). Ironically, the founder and Chief Executive

Officer of Facebook, Mark Zuckerberg noted if given the opportunity to "create Facebook today, user information would by default be public, never private" (Rizk, 2013, p. 958). The option to choose who can view social media publications has provided legal decisions counter to the notions presented above by Zansberg and Fischer (2011).

Privacy settings that do not restrict who is able to view content are not protected under the Fourth Amendment (protection from unreasonable search and seizure, arbitrary arrests, surveillance and covers privacy concerns) (Henderson, 2012). For example, tweets from a public Twitter account, videos on a public YouTube page, or posts and comments on public Facebook pages are considered open to the public. It is when messages are sent from one individual to another or to a select group of individuals that the Fourth Amendment may cover these interactions, no matter how numerically large that group may be. Thus, the importance of user privacy preferences becomes significant (Henderson, 2012).

According to Henderson (2012), there is a large unexplored area of applicable law among the extremes of current thinking that can be categorized into three subgroups: subscriber information, transactional information, and non-public communications. Subscriber information consists of demographics the provider demands for a user to generate an account or profile. Often these include personal identifying information, payment arrangements, the length of the desired service, and other details considered protected. Information required by the social media provider to enable communications is considered transactional. This includes with whom the user communicates, when they do, and a list of their approved online connections through the provider or "friends," as Facebook titles them. Lastly, non-public communications are those disseminated to a limited number of associates. Photos posted privately instead of to a public forum or private messages sent over the social media network to specified users would constitute

such communication. Only the latter is considered covered under current interpretations of the Fourth Amendment's reasonable expectations of privacy (Henderson, 2012).

"**Big Data" in college admissions**. Although there is no widely recognized definition (Rubinstein, 2013), the term "big data" can loosely be defined as "a data set that is so large, it is difficult to process using standard statistical software" (Snijders, Matzat, & Reips, 2012, p.1) or as information that can be used to access "hidden information and surprising correlations" (Rubenstein, 2013, p.1). Thus, computational algorithms have been employed utilizing computer software to gather, analyze, and compare vast amounts of data and their interactions (Boyd & Crawford, 2012). In other words, big data encompasses the novel ways organizations (including government, business, and education) are combining vastly diverse and seemingly unrelated pieces of information. By using specific statistical techniques, these entities can extract analyses to derive meaning from these vast amounts of data to guide administrative decisions for these organizations. In higher education, these techniques facilitate knowledge in order to provide services that meet the needs of students, faculty, staff, and other constituents of the academic system (Al-Twijri & Noaman, 2015). For instance, Virginia Commonwealth University (Douglas-Gabriel, 2015) and Wichita State University (Ungerleider, 2013) are utilizing these techniques to identify currently enrolled students at risk for dropping out before degree completion. Information from assignment grades; course grades; professor evaluations; how many hours a student is enrolled during each semester; whether the student works full-time, part-time, or not at all; the amount of assistance the student receives from family; and other pieces of information are gathered to predict which students are likely to encounter problems (Ungerleider, 2013). These students are then targeted for academic tutoring services or other university support (Douglas-Gabriel, 2015). Further, these factors as well as current progress through the

degree, can alert staff to students who may be at risk for attrition (Barnds, 2013). Specifically, an institution can enter transcript information of their graduates and determine when most of them took important courses for their major. For instance, at Virginia Commonwealth University, specific courses were designated in every major as "success markers" to identify important classes students should be finishing at different points as they progress toward degree completion. If students have not successfully passed freshman-level courses by the end of their first year, they would be flagged for referral to an academic counselor as they enrolled for their sophomore level classes (Douglas-Gabriel, 2015). Administrative decisions such as these are driven by big data analysis to improve the retention and ultimate degree completion of students.

Taking this idea to the practice of college admissions, these models can be utilized in an attempt to predict the success rate of potential students before they are admitted to the institution (Ungerleider, 2013). Institutions nationwide "engage in very sophisticated data-gathering efforts to try to predict the behavior of students in the process of choosing a college" (Barnds, 2013, p.1). Various forms of data are gathered on prospective students, including interactions over social media platforms, and entered into large databases utilizing predictive analysis tools. When an application is received, these institutions already have a file of information on the student apart from what was sent as part of the formal application process (Lloyd, 2014) as they have identified, collected, maintained, analyzed, and leveraged a wide variety of data as they work to recruit and admit students (Barnds, 2013). The most common examples of the way higher education institutions utilize big data, according to Barnds (2013), are to find students, to determine how the student was first contacted regarding admission to the institution, to gauge demonstrated interest, to ascertain where the student listed the school on their FAFSA, and to learn the date the student applied to the university.

As students meet the academic standards for admissions, the results of these data analyses are often used to predict which students are the most likely to enroll at a specific institution. Students who have communicated with admissions staff during the application process and who listed the institution first on their federal aid application are seen to exhibit demonstrated interest: the goal of this data analysis. The demonstrated interest in these categories, above and beyond the required application materials, increases a student's chance of gaining admission to a specific institution (Lloyd, 2014).

Although utilizing big data predictive techniques has evident benefits, there are significant privacy concerns surrounding the collection of this data (Rubenstein, 2013). The recent controversy concerning leaked documents that revealed the scope of data collection by the National Security Agency (NSA) highlighted the balance between privacy risks and big data collection opportunities (Polonetsky & Tene, 2013). While diverse groups argue for the potential benefits and advances to gathering this data, others are concerned the data collection may become intrusive (Boyd & Crawford, 2012). Protection currently offered under common law, which is traditionally the legal route utilized for helping individuals seek redress for privacy harms, does not address this issue (Hartzog & Selinger, 2013).

Social media policy in college admissions. The National Association for College Admission Counseling (NACAC), a US-based professional organization for both high school and post-secondary admissions counselors, provides resources for ethical and socially responsible college admissions advising (National Association for College Admission Counseling, 2014). As part of this effort, suggestions for implementing social media policies in college admissions and other important aspects for institutions to consider were addressed in 2009. Implementation recommendations made by experts from various fields such as school

counseling, audiology, dentistry, general health care, and physical therapy (Cain, 2011; Chretien, Farnan, Greyson, & Kind, 2011; Gagnon & Sabus, 2014; Henry & Molnar, 2013; Mullen, Griffith, Greene, & Lambie, 2013; Smaka, 2011) were also considered in creating guiding questions. NACAC's (2009) questions for consideration in the formation of a social media in a higher education institution are as follows:

1. How will social media information be reviewed in systemized format?
2. How will applicants' identities be verified or information be validated?
3. Who will conduct social media reviews?
4. How much time will be spent on this part of the admissions process?
5. What are the standards to which this information will be held? Do these standards correlate to any college success measures?
6. How much weight will be given to this information when compared to other admissions requirements?
7. Will state schools be able to document equal treatment of all applications given the use of online information? Will the inclusion of photos, videos, and other materials be documentable?

Information regarding this policy and the institution's use of their social media sites can be made available to potential students before they apply for admission (Davis, Deil-Amen, Rios-Aguilar, & Canche, 2012). It should, however, be made clear that schools are not allowed to discriminate on legally protected status demographics (i.e., age, race, sex, disability status) discovered through their social media sites (McCoy, 2011).

Summary

This investigation seeks to understand whether the inclusion of social media information in the review of college applicants has an impact on the ultimate decision to offer or decline admission to a potential student. It also seeks to understand the impact an institutionalized policy regarding the use of social media has on these decisions. In accordance with Attribution Theory and the subsequent Theory of Correspondent Inferences, which holds the potential to provide insight in light of social media in college admissions decisions, a literature review has been presented to summarize the current literature on this topic. As evidenced by this synthesis, there is an obvious gap in research regarding the effects of this practice. The researcher seeks to provide information to contribute to a resolution of this situation.

CHAPTER THREE: METHODS

Overview

This study sought to understand the possible impact of spontaneous trait inferences derived from information posted by college applicants on social media, and subsequent university admissions decisions. Previous research in the area of trait attribution has relied heavily on either the false recognition paradigm (Risavy, Komar, & Brown, 2010; Newman 1993) or the cued recall strategy (Hassin, Bargh, & Uleman, 2002; Elsbach, Cable, & Sherman, 2010; Todorov & Uleman, 2004; Shimizu, Lee, & Uleman, 2017; Stewart, Weeks, & Lupfer, 2003). The current research sought to build and expand on the false recognition paradigm work of Levordashka and Utz (2017) by utilizing social media as a means for conveying trait information and to address the research questions previously discussed. The chapter describes the design of the completed research and the investigative process for examining the research questions and hypotheses. The main components of the methodology are the design, research questions, null hypotheses, instrumentation, procedures, and data analysis.

Design

An ex post facto, causal comparative design was employed utilizing an established trait inference paradigm and comparing group means. The ultimate intention was to evaluate the response of admissions officers to social media posts of potential college students and determine how these posts may impact trait inferences across *Barrons* (2018) classifications. An online tool was utilized for convenience of the participants to complete the previously validated paradigm tasks (Todorov & Uleman, 2002; Levordashka & Utz 2017) and follow-up questions. After completion of the trait inference paradigm task, the researcher was able to establish the effect of online impression formation by admissions personnel and its impact on admissions

decisions. Spontaneous trait inference results were then compared across *Barron's* (2018) rankings based on the presence of an institutional policy regarding social media use.

Research Questions

The purpose of this project was to evaluate the impact of spontaneous trait inferences based on social media information on undergraduate applicant admissions into higher educational institutions. Further, the aim was to determine if there were significant differences among the trait inferences and thus, on admissions decisions made by personnel employed by an institution with a formalized policy to address social media information on admissions procedures and those without a formal policy. The research questions were examined from the perspective of the admissions representative and their spontaneous trait inferences based on applicant information from social media posts.

RQ1: Do undergraduate admissions staff members at different levels of *Barron's* (2018) selectivity rankings make significantly different instances of spontaneous trait inferences on the Deese-Roediger-McDermott (DRM) false recognition task?

RQ2: Do undergraduate admissions staff members at different levels of *Barron's* (2018) selectivity rankings make significantly different admissions decisions based on spontaneous trait inferences on the Deese-Roediger-McDermott (DRM) false recognition task?

RQ3: Is there a significant difference in spontaneous trait inferences on the Deese-Roediger-McDermott (DRM) false recognition task among institutions within *Barron's* (2018) classifications for which a policy regarding inclusion of social media in admissions decisions exists and those without such a policy in place?

Hypotheses

The null hypotheses for this study were:

$H_0$1: Admissions staff members at different levels of *Barron's* (2018) selectivity rankings do not make significantly different instances of spontaneous trait inferences on the Deese-Roediger-McDermott (DRM) false recognition task.

$H_0$2: Undergraduate admissions staff members at differing levels of *Barron's* (2018) selectivity rankings do not make significantly different admissions decisions based on spontaneous trait inferences on the Deese-Roediger-McDermott (DRM) false recognition task.

$H_0$3: No significant difference in spontaneous trait inferences on the Deese-Roediger-McDermott (DRM) false recognition task will exist among institutions within *Barron's* (2018) classifications in which a policy regarding inclusion of social media in admissions decisions exists and those without such a policy in place.

Participants and Setting

Participants in the dissertation project included respondents to an online trait inference paradigm activity completed by professionals in the college admissions process. All schools listed under the *Barron's* (2018) classifications of Most Competitive, Highly Competitive Plus, Highly Competitive, Very Competitive Plus, and Very Competitive were offered an opportunity to participate. An email was sent to the admissions department of each university with a link to an online activity. The online activity was programmed to allow only one response from a single IP address to counter skewing of results due to multiple respondents from a single institution. Thus, respondents also included a convenience sample base. Institutions were referred to in broad context of their *Barron's* (2018) classifications.

Given the nature of the online activity, no specific setting was generalizable to all respondents. Representatives from admissions departments at any level were included in the sample if they were involved in the application review process for the institution.

Instrumentation

A widely accepted measure to study false memories was initially researched by James Deese in 1959, but not popularized until the work of Roediger and McDermott (1995) decades later. This false recognition paradigm is a popular procedure dubbed the Deese-Roediger-McDermott (DRM) paradigm and is one of the most widely recognized methods for studying false memories in humans (Pardilla-Delgado & Payne, 2017). The researcher utilized the DRM task to determine trait inferences made by admissions personnel. This paradigm has a history of high internal consistency with Cronbach's alpha scores between .83 and .95 across multiple experiments in several disciplines (Rim, Min, Uleman, Chartrand & Carlston, 2013; Cassidy & Gutchess, 2015; Payne, 2005). Participants first saw a number of photos of unknown persons paired with descriptions that implied traits without explicitly stating those traits (learning phase). They were asked to read these descriptions without any directions regarding forming impressions based on them (Levordashka & Utz, 2017). After a filler task, the participants were shown the same pictures paired with a single word and asked if that word appeared in the original description (recall phase). Todorov and Uleman (2002) have demonstrated that if the word from the recall phase was implied by the description from the learning phase, participants make more mistakes indicating the word was explicitly stated in the description. This false recognition occurs because participants infer and associate the implied traits with the picture shown in the learning phase (Levordashka & Utz, 2017). In other words, participants do not differentiate between the information actually presented and their trait inference based on the presented information (Johnson, Hashtroudi, & Lindsay, 1993). For the current research, innocuous social media posts replicating those of Levordashka and Utz (2017), translated into English, were utilized as the stimuli instead of trait-implying descriptions. The posts were paired with faces

from the database of Bainbridge, Isola, and Olivia (2013) of similar attractiveness and memorability. Participants randomly saw the social media updates of 36 applicants to their institutions on screen and were instructed to study each for approximately five seconds before continuing to the next. This was the learning phase of the experiment. Twelve of the social media updates explicitly stated a character trait that appeared in the social media posts in the learning phase and served as the filler task between the learning phase and the measurement of responses on the independent variable conditions. These were not included in analysis. The remaining 24 were randomly divided into the following groups:

- Eight faces were paired with a trait implied by the social media post (implied trait group).
- Eight faces were paired with a trait implied by the social media post paired with a different face (other trait group).
- Eight faces were paired with a novel trait not implied in any of the social media posts (control trait group).

For each of these conditions, participants were shown the same faces as in the learning phase paired with a single word and asked if the word appeared in that person's social media post. Following each of the social media presentations, participants were asked if they would offer admission to the individual represented in the social media post.

Procedures

Directors (or other executive personnel, if titled differently) of the admissions department at each institution in the identified *Barron's* (2018) categories were contacted by email and informed of the research and its importance to the growing body of knowledge in this field. They were then sent a follow-up email weekly reminding them of the research topic and asking them to participate voluntarily in the study. Each email included consent forms for participants

as well as a link to the online activity. By agreeing to participate, the admissions staff members understood they were not to be compensated for their inclusion but would be afforded copies of the final written project upon request.

The online activity, created based on the previous work of Todorov and Uleman (2002) and Levordashka and Utz (2017), was used to gather data and was hosted in an interactive online platform. This system allowed participants to answer questions via their personal computers at a convenient time and location. The asynchronous, virtual environment allowed for flexibility and control in data presentation as information was easily displayed randomly, increasing data reliability. Each link was valid for one representative to complete the online survey. The activity did not gather personal information to allow participants to remain anonymous although the link sent to each *Barron's* (2018) categorical rankings was unique to that classification so the researcher could ascertain differences among the identified rankings.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this research was to evaluate the impact of applicant social media information on admissions decisions to selective undergraduate programs and to understand the impact of an institutional policy addressing social media use in admissions evaluations. Utilizing the Deese-Roediger-McDermott (DRM) paradigm, the researcher was able to measure the occurrence of false recognitions made by admissions personnel. This chapter will present the results of the statistical analysis of the comparison of false recognitions among the identified categories of *Barron's* (2018) selectivity rankings and among institutions with formalized institutional policies on the use of social media in admissions decisions.

Research Questions

The research questions for this study were:

RQ1: Do undergraduate admissions staff members at different levels of *Barron's* (2018) selectivity rankings make significantly different instances of spontaneous trait inferences on the Deese-Roediger-McDermott (DRM) false recognition task?

RQ2: Do undergraduate admissions staff members at different levels of *Barron's* (2018) selectivity rankings make significantly different admissions decisions based on spontaneous trait inferences on the Deese-Roediger-McDermott (DRM) false recognition task?

RQ3: Is there a significant difference in spontaneous trait inferences on the Deese-Roediger-McDermott (DRM) false recognition task among institutions within *Barron's* (2018) classifications for which a policy regarding inclusion of social media in admissions decisions exists and those without such a policy in place?

Null Hypotheses

The null hypotheses for this study were:

$H_0$1: Admissions staff members at different levels of *Barron's* (2018) selectivity rankings do not make significantly different instances of spontaneous trait inferences on the Deese-Roediger-McDermott (DRM) false recognition task.

$H_0$2: Undergraduate admissions staff members at differing levels of *Barron's* (2018) selectivity rankings do not make significantly different admissions decisions based on spontaneous trait inferences on the Deese-Roediger-McDermott (DRM) false recognition task.

$H_0$3: No significant difference in spontaneous trait inferences on the Deese-Roediger-McDermott (DRM) false recognition task will exist among institutions within *Barron's* (2018) classifications for which a policy regarding inclusion of social media in admissions decisions exists and those without such a policy in place.

Descriptive Statistics

All institutions in the identified *Barron's* (2018) rankings were sent an email requesting permission for admissions personnel to complete an online version of the DRM paradigm. The survey was active during the Fall 2018 academic semester from November 6 to November 20. The dependent variable was the number of false recognitions from admissions personnel from institutions in the identified *Barron's* (2018) categories. The three conditions of the independent variable were the pairing of faces with social media posts in the implied trait group, other trait group, and control trait group. Participants were drawn from a convenience sample previously divided by admissions selectivity as published in the 2018 version of *Barron's Profiles of American Colleges*.

Of the total 413 schools emailed, 47 responded with approval. A total of 44 surveys were completed in their entirety. Two surveys were excluded from data analysis as they were not finished. Thus, 44 (N=44) surveys were analyzed.

Hypothesis One

Data obtained for the dependent variable, the number of false recognitions in each *Barron's* (2018) selectivity category, can be found in Table 1. *Barron's* (2018) selectivity categorical (Most Competitive, Highly Competitive Plus, Highly Competitive, Very Competitive Plus, Very Competitive) mean scores and standard deviations were $M = 16.750$, $SD = 7.700$; $M = 15.200$, $SD = 4.147$; $M = 9.167$, $SD = 3.920$; $M = 9.000$, $SD = 7.457$; $M = 16.063$, $SD = 6.049$, respectively.

Table 1

False Recognitions Among Barron's *(2018) Selectivity Categories*

	Barron's (2018) Selectivity Category	*M*	*SD*	*N*
DRM False Recognition Mean Scores	Most Competitive	16.750	7.700	12
	Highly Competitive Plus	15.200	4.417	5
	Highly Competitive	9.167	3.920	6
	Very Competitive Plus	9.000	7.457	5
	Very Competitive	16.063	6.049	16

Hypothesis Two

Institutions at various level of the *Barron's* (2018) rankings answered whether they would offer a student admission to their institution after seeing their social media post in one of the three levels of the independent variable. The number of "Yes" or "No" answers to this question for each descriptor that appeared in the survey is listed below in Table 2. They are reported by their *Barron's* (2018) classifications. Cumulatively, the Highly Competitive classification listed the most "No" answers (28) regarding offering admissions, while the Very Competitive Plus category marked the least (11). The Very Competitive classification marked "No" 26 times while Most Competitive and Highly Competitive Plus indicated "No" 24 and 18

times respectively. The descriptor of "Dishonest" was marked as "No" for admissions 28 times while the next highest "No" answers were "Unsuspecting" and "Lazy" with nine each. The descriptors "Optimistic" and "Egoistic" were rejected seven times each while "Indecisive" and "Clumsy" were marked six each. "Frustrated" was marked as "No" five times while the indicators "Spontaneous," "Helpful," "Diligent," "Curious," "Clever," and "Arrogant" each received three. The descriptors "Tidy," "Sad," "Meticulous," and "Generous" each received two while "Relaxed," "Jealous," "Insidious," and "Friendly" received one each. The only descriptors that did not received "No" answers were "Healthy" and "Brave."

Table 2

Number of Times Admission Marked Denied/Accepted Based on IV Descriptors

Barron's (2018)

Selectivity Category	Participants	Yes	No
Most Competitive	12		
Arrogant		12	0
Brave		12	0
Clever		12	0
Clumsy		11	1
Curious		11	1
Diligent		11	1
Dishonest		2	10
Egoistic		10	2
Friendly		12	0
Frustrated		11	1
Generous		12	0
Healthy		12	0
Helpful		12	0
Indecisive		11	1
Insidious		12	0
Jealous		11	1
Lazy		8	4
Meticulous		12	0
Optimistic		11	1
Relaxed		12	0
Sad		11	1
Spontaneous		12	0
Tidy		12	0

	Unsuspecting	12	0
Highly Competitive Plus	5		
	Arrogant	4	1
	Brave	5	0
	Clever	4	1
	Clumsy	2	3
	Curious	5	0
	Diligent	5	0
	Dishonest	4	1
	Egoistic	3	2
	Friendly	4	1
	Frustrated	5	0
	Generous	5	0
	Healthy	5	0
	Helpful	5	0
	Indecisive	3	2
	Insidious	4	1
	Jealous	5	0
	Lazy	5	0
	Meticulous	4	1
	Optimistic	5	0
	Relaxed	4	1
	Sad	4	1
	Spontaneous	4	1
	Tidy	4	1
	Unsuspecting	4	1
Highly Competitive	6		
	Arrogant	5	1
	Brave	6	0
	Clever	5	1
	Clumsy	4	2
	Curious	5	1
	Diligent	6	0
	Dishonest	4	2
	Egoistic	4	2
	Friendly	6	0
	Frustrated	3	3
	Generous	4	2
	Healthy	6	0
	Helpful	4	2
	Indecisive	4	2
	Insidious	6	0
	Jealous	6	0
	Lazy	3	3

Meticulous		6	0
Optimistic		4	2
Relaxed		6	0
Sad		6	0
Spontaneous		4	2
Tidy		5	1
Unsuspecting		4	2
Very Competitive Plus	6		
Arrogant		6	0
Brave		6	0
Clever		6	0
Clumsy		6	0
Curious		6	0
Diligent		5	1
Dishonest		3	3
Egoistic		6	0
Friendly		6	0
Frustrated		6	0
Generous		6	0
Healthy		6	0
Helpful		5	1
Indecisive		6	0
Insidious		6	0
Jealous		6	0
Lazy		6	0
Meticulous		6	0
Optimistic		4	2
Relaxed		6	0
Sad		6	0
Spontaneous		6	0
Tidy		6	0
Unsuspecting		4	4
Very Competitive	16		
Arrogant		15	1
Brave		16	0
Clever		15	1
Clumsy		16	0
Curious		15	1
Diligent		15	1
Dishonest		4	12
Egoistic		15	1
Friendly		16	0
Frustrated		15	1
Generous		16	0

Healthy	16	0
Helpful	16	0
Indecisive	15	1
Insidious	16	0
Jealous	16	0
Lazy	14	2
Meticulous	15	1
Optimistic	14	2
Relaxed	16	0
Sad	16	0
Spontaneous	16	0
Tidy	16	0
Unsuspecting	14	2

The means and standard deviations for Hypothesis Two for each level of the dependent variable, the number of admissions denials in each *Barron's* (2018) selectivity category, can be found in Table 3. *Barron's* (2018) selectivity categorical (Most Competitive, Highly Competitive Plus, Highly Competitive, Very Competitive Plus, Very Competitive) mean scores and standard deviations were $M = 16.750$, $SD = 7.700$; $M = 15.200$, $SD = 4.147$; $M = 9.167$, $SD = 3.920$; $M = 9.000$, $SD = 7.457$; $M = 16.063$, $SD = 6.049$, respectively.

Table 3

Admissions Denials Among Barron's *(2018) Selectivity Categories*

	Barron's (2018) Selectivity Category	*M*	*SD*	*N*
Admissions Denial Mean Scores	Most Competitive	2.000	2.662	12
	Highly Competitive Plus	3.600	3.209	5
	Highly Competitive	4.667	3.777	6
	Very Competitive Plus	9.000	1.517	5
	Very Competitive	1.500	2.605	16

Hypothesis Three

According to Kaplan (2016), approximately 40% of admissions personnel examine the social media accounts of applicants. The online survey tool for the current research asked each participant to self-report the presence of a policy at their institution that addresses the use of applicant social media in admissions decisions. Of the participants in the Most Competitive (n=12) rankings, five (38%) reported an approved policy; in the Highly Competitive Plus (n=5) category, four (80%) reported such a policy; one respondent (17%) reported a policy in the Highly Competitive (n=6) ranking; three (50%) confirmed such a policy from each of the Very Competitive Plus (n=6) and Very Competitive (n=16) rankings (50% and 19% respectively). These are widely variant from the national average as reported above by Kaplan (2016). These figures are reported in Table 4.

Table 4

Social Media Policy Reported by Barron's *(2018) Selectivity Categories*

Barron's (2018) Selectivity Category	*Participants(n)*	Participants reporting *SM policy*	*Percentage*
Most Competitive	12	5	41.67%
Highly Competitive Plus	5	4	80.00%
Highly Competitive	6	1	17.67%
Very Competitive Plus	6	3	50.00%
Very Competitive	16	3	18.75%
Total	44	16	36.36%

Results

Results of this ex post facto, causal comparative research study include initial screening procedures of data, tests of the hypotheses, and data analysis in the form of a one-way ANOVA and Welch's t-test. Both procedures assume normally distributed populations, independence of data, and homogeneity of variance (Skidmore & Thompson, 2013). Data screening,

assumptions, and analysis results are presented by individual hypothesis. Violations of these assumptions in the current study are discussed here as well if applicable.

Data Screening

Data screening was conducted on all raw data for each of the hypotheses of the research. The researcher sought inconsistencies and extreme values while also checking for outliers and missing data. Any data exclusion is discussed below.

Hypothesis One. Data screening was conducted for the dependent variable (number of false recognitions) on each level of the independent variable (Most Competitive, Highly Competitive Plus, Highly Competitive, Very Competitive Plus, Very Competitive categories). Data was organized and assessed to determine any unusual scores or irregularities using three screening methods to ensure applicable assumptions were met.

A total of 46 participants accessed the online survey tool by the deadline of November 20, 2018. Two of the surveys were started but not completed in their entirety and thus excluded from analysis. The final total sample size was 44 (n=44). Initial screening did not reveal data with obvious errors, inconsistencies, omissions, or unusual responses (i.e. responding with the same answer to every question). Box and Whisker plots were used for each cohort to look for outliers in the data (See Figure 1). As noted by Figure 1, there were two outliers in the data, both in the Very Competitive data set. They are considered extreme as they lie more than one and a half times the length of the box from its edge (Weissgerber, Milic, Winham, & Garovic, 2015). Thus, they were excluded from the data analysis.

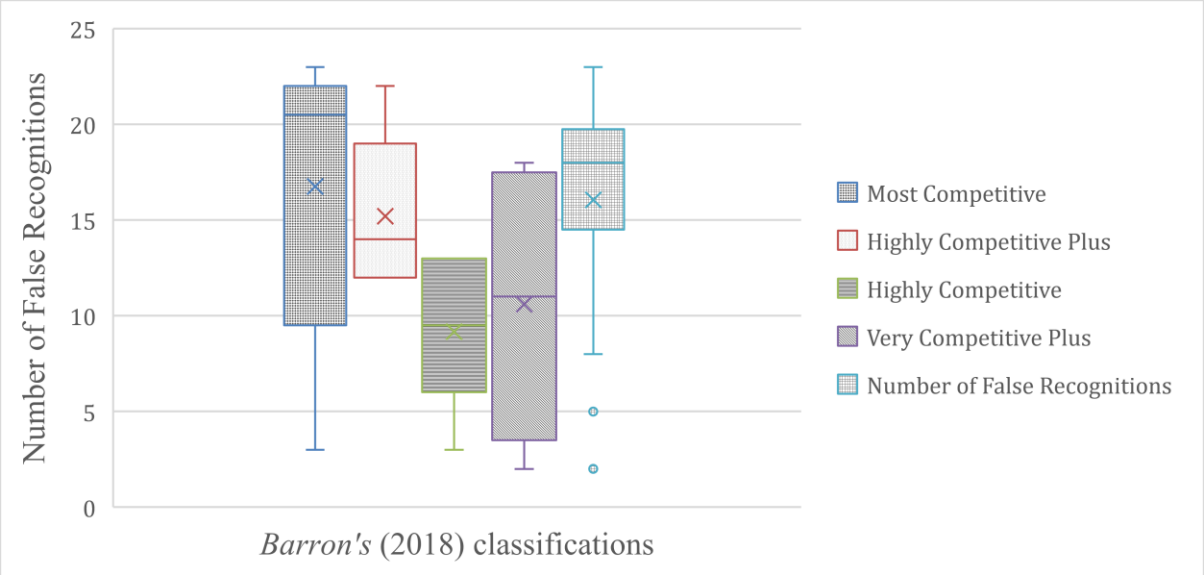

Figure 1: Box and Whiskers plots for each included category of *Barron's* (2018) rankings included in Hypothesis One. The figure identifies two outliers in the Very Competitive classification.

Assumptions. The One-Way Analysis of Variance makes several assumptions about data that must be considered. The first of these regards the population from which data is derived. The assumption of normalcy is often applied across all observations of the independent variable. However, when it is the case, the treatments of the independent variable do not affect the dependent variable (Kozak & Piepho, 2017). Thus, tests of normalcy must be considered for each level of the independent variable separately. Shapiro-Wilk tests of normalcy were conducted for each classification from the *Barron's* (2018) rankings included in the current research. Shapiro-Wilk is appropriate as there were fewer than 50 participants in each of the Barron's (2018) classifications (Palmer, Langbehn, Tabrizi, & Papoutsi, 2018). The Shapiro-Wilk test for the Most Competitive category resulted in a p-value ($p = 0.001$) less than the established significance value ($a = 0.05$), thus it is assumed the population of this category is not normally distributed. The Shapiro-Wilk for the Highly Competitive Plus category resulted in a p-value ($p = 0.209$) which was greater than the established significance value ($a = 0.05$). The

population of the Highly Competitive Plus is considered normally distributed. The Highly Competitive category yielded a p-value ($p = 0.542$) greater than the significance value ($a = 0.05$) so its population is considered normally distributed. The p-value ($p = 0.586$) of the Very Competitive Plus category is not considered significant at the established value ($a = 0.05$); thus, the population is considered normally distributed. The population of the Very Competitive classification is considered not normally distributed based on its Shapiro-Wilk p-value ($p = 0.012$) which is less than the significance value ($a = 0.05$). Based on these values, three of the five populations included in the current research are normally distributed. The one-way ANOVA is highly robust to violations of this assumption, even across various manipulations of conditions (Blanca, Alacon, Arnau, Bono, & Bendayan, 2017; Schmider, Ziegler, Danay, Beyer, & Buhner, 2010), so can still function with this level of exception.

Table 5

Shapiro-Wilk Test for Normality

Barron's (2018) Selectivity Category	*Statistic (W)*	*df*	*Critical (W)*
Most Competitive	0.722	11	0.861
Highly Competitive Plus	0.842	4	0.751
Highly Competitive	0.913	5	0.778
Very Competitive Plus	0.910	4	0.751
Very Competitive	0.846	15	0.887

A second assumption of the one-way ANOVA is the independence of observations. The survey was hosted by online software that prevented more than one IP address from accessing the survey. No participant could complete the survey more than once and surveys were named for specific Barron's (2018) classifications. Institutions only received a link to the survey for their classification. Thus, independence of observations can be concluded.

Homogeneity of variance assumes each of the categories of the *Barron's* (2018) classifications have the same variance. The one-way ANOVA is robust to violations of this assumption if group sizes are equal. In the dissertation project, the participants in each level of the independent variable ranged from five to 16. Thus, a test of homogeneity of variance needed to be conducted. A Levene test resulted in a non-significant result ($p = 0.833$ at $a = 0.05$ significance) allowing the researcher to conclude equal variances among the *Barron's* (2018) classifications (See Table 6). Given the adherence to this assumption, despite the differences in group sizes, the one-way ANOVA remained the best option for analyzing the current data with respect to Hypothesis One.

Table 6

Levene Test for Homogeneity of Variance (Hypothesis One)

Statistic (W)	*p-value*	*Critical (W)*
0.363	0.833	2.612

Hypothesis Two. The second hypothesis of the project predicts that significantly different admissions decisions will occur among the levels of the *Barron's* (2018) rankings. Screening was conducted for the relevant data by looking for unusual responses such as answering every question with the same answer or other consistent pattern across responses (i.e. alternating yes, no throughout the survey). Across the 44 completed surveys (n=44), no responses were found to be unusual.

A Box and Whisker Plot for the data for Hypothesis Two was constructed to look for outliers in the data. According to Figure 2 below, two outliers were identified; one in the Most Competitive classification and one in the Very Competitive classification. These two data points were excluded from the data analysis as they are considered extreme as they lie more than one

and a half times the length of the box from its edge (Weissgerber, Milic, Winham, & Garovic, 2015).

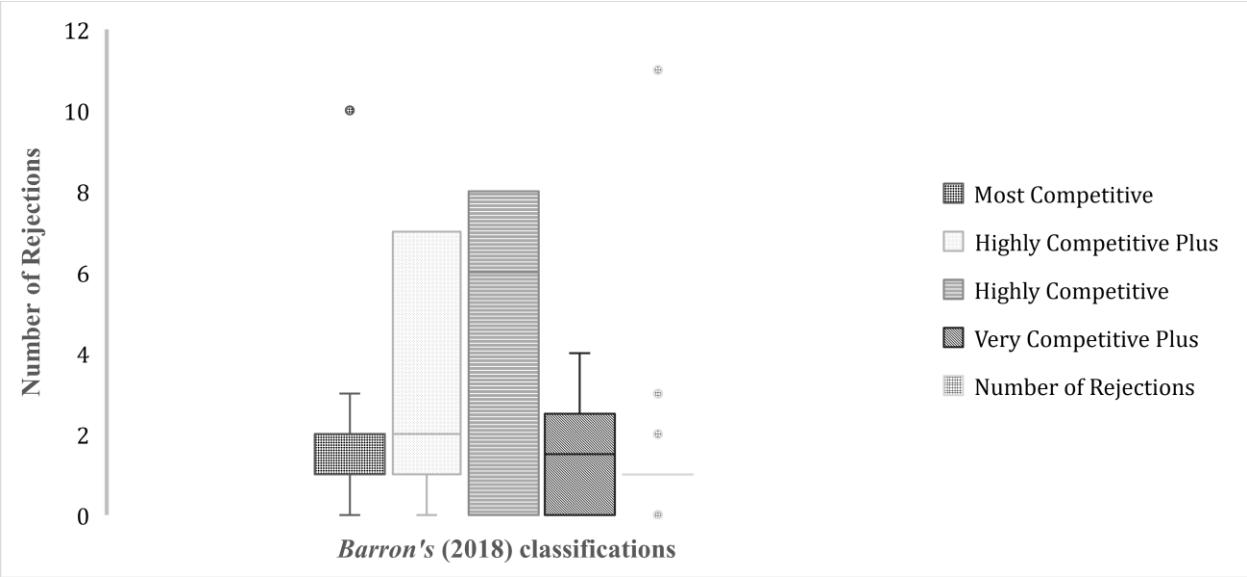

Figure 2: Box and Whiskers plots for each category of *Barron's* (2018) rankings included in Hypothesis Two. The figure identifies two outliers each in different cohorts (Most Competitive and Very Competitive).

Assumptions. The three assumptions for the one-way ANOVA as listed for the previous hypothesis are applicable to Hypothesis Two as well. The first is the assumption of population normality. Shapiro-Wilk tests for normalcy were conducted for each level of the independent variable. For the Most Competitive results, the population is considered normal as the p-value ($p = 0.183$) is larger than the significance value ($a = 0.05$). The Highly Competitive Plus population is considered normal given the p-value ($p = 0.181$) is greater than the significance level ($a = 0.05$). The p-value ($p = 0.077$) for the Highly Competitive classification is greater than the significance value, thus it has a normally distributed population. The Very Competitive Plus population is considered normal as the p-value ($p = 0.452$) is greater than the significance level ($a = 0.05$). However, the Very Competitive classification reports a p-value ($p = 0.001$) less

than the significance level ($a = 0.05$); thus, it is considered not normally distributed. However, given the robustness of the one-way ANOVA to this assumption (Blanca, et al., 2017; Schmider, et al., 2010), this remains an appropriate analysis technique for this hypothesis.

The assumption of independence is the second criteria for the one-way ANOVA. As previously noted, the online survey tool only allowed one unique IP address to open the survey and surveys were specific to each *Barron's* (2018) classification. While the survey content was identical, the name of the survey was unique to each selectivity ranking.

The third assumption of the one-way ANOVA is homoscedasticity. While this ANOVA is robust to violations of this assumption if group sizes are equal, the differing group sizes in the current research warrant a Levene test (See Table 7). A non-significant result ($p = 0.401$ at $a = 0.05$ significance) was found with this test. Given adherence to this assumption, although the group sizes are not uniform, one-way ANOVA remains a viable analysis technique for Hypothesis Two.

Table 7

Levene Test for Homogeneity of Variance (Hypothesis Two)

Statistic (W)	*p-value*	*Critical (W)*
1.036	0.401	2.606

Hypothesis Three. According to Kaplan (2016), 40% of institutions report a policy addressing how an applicant's social media may be utilized in admissions decisions. Hypothesis Three of the dissertation project concerns differences in the admissions decisions of those with such a policy and those without. Participants self-reported in the online survey if their institutions followed a policy concerning social media use in this manner. As previously noted, those that reported having a policy ranged from just under 18% to 80% within the *Barron's*

(2018) classifications. However, when these are taken in their entirety, the total number of institutions reporting a social media policy falls close to the Kaplan (2016) report of 40% at 36.36%. Initial data screening to identify outliers or abnormal data was conducted and a Box and Whisker plot created. Three points in the "No Policy" category were more than one and a half times the length of the box from its edge (Weissgerber, Milic, Winham, & Garovic, 2015) and were thus excluded from the analysis (See Figure 3).

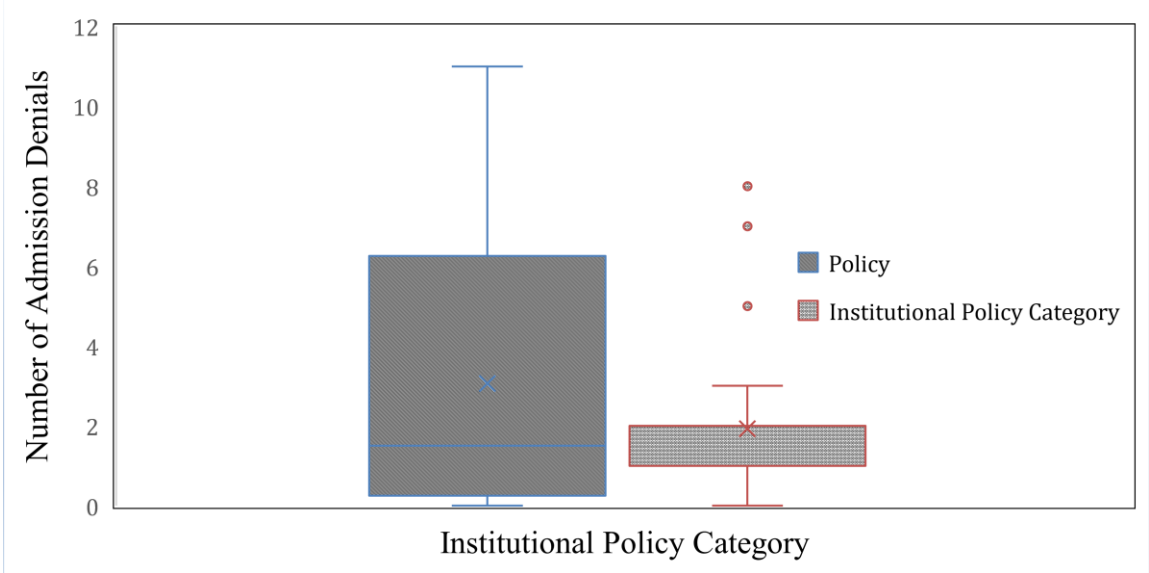

Figure 3: Box and Whiskers plots for admissions denials based on self-reported institutional social media policy. The figure identifies three outliers in the No Policy category.

Assumptions. Assumptions for Welch's t-test are identical to the assumptions for the one-way ANOVA. The first assumes the data are from a normally distributed population. The Shapiro-Wilk test for the group identified both the policy and non-policy groups as non-normal. The group with an institutional policy had a p- value ($p = 0.0019$) which was less than the critical value ($a = 0.05$), indicating a non-normal population. The p-value ($p = 0.002$) was less that the significance level ($a = 0.05$), again indicating a non-normally distributed population. However,

given the small sample sizes of the current research, the researcher must rely on the Central Limit Theorem (CLT) which postulates these populations would tend toward normalcy if more observations were gathered (Avigad, Holzl, & Serafin, 2017). The t-test remains viable for testing Hypothesis Three.

The assumption of independence of observations has been explored previously and is applicable to a t-test as well. The nature of the online survey tool ensured no participant could complete the survey more than once to create overlapping observations. Differently labelled surveys sent to each classification of the *Barron's* (2018) rankings also ensured each respondent's answers were included as part of the correct classification. Thus, independence of observations can be assumed.

The homogeneity of variance of the current data set can be found with an F test. Results of this analysis concluded unequal variances among the groups. The p-value ($p = 0.028$) is less than the critical value ($a = 0.05$); thus, these two populations do not have equal variances (See Table 5). Thus, for Hypothesis Three, the Welch's t-test, is the best option for analysis of the current data given its adherence to the assumption of normalcy with the CLT, but does not assume equal variances (Delacre, Lakens, & Leys, 2017).

Table 8

F Test for Homogeneity of Variance (Hypothesis Three)

Statistic (f)	*p-value*	*Critical (f)*
2.607	0.028	2.343

Data Analysis

Hypothesis One ANOVA results. The first null hypothesis stated admissions staff members at different levels of *Barron's* (2018) selectivity rankings would not make significantly

different instances of spontaneous trait inferences on the DRM false recognition task. A one-way ANOVA was used to test this hypothesis. The F-value (F = 2.784) indicates large variance was found among the *Barron's* (2018) classifications; more than what would be found by chance. This notes a significant effect of the independent variable, validating a rejection of null Hypothesis One.

Table 9

ANOVA results (Hypothesis One)

	Sum of Squares	df	*Mean Square*	*F*	*p-value*
Between Groups	452.424	4	113.106	2.784	0.039
Within Groups	1624.821	40	40.621		
Total	2077.244	44			

Hypothesis Two ANOVA results. The null second hypothesis stated admissions staff members at different levels of *Barron'*s (2018) selectivity rankings would not make significantly different admissions decisions based on the social media posts of pseudo applicants. A one-way ANOVA was used to test this hypothesis. According to Table 7, the F-value (F = 1.785) indicates an insignificant variance was found among the *Barron's* (2018) classifications. This notes a minimal effect of the independent variable thus Null Hypothesis Two is accepted.

Table 10

ANOVA results (Hypothesis Two)

	Sum of Squares	df	*Mean Square*	*F*	*p-value*
Between Groups	54.217	4	13.552	1.785	0.151
Within Groups	303.783	40	7.595		
Total	358	44			

Hypothesis Three t-test results. The Welch's t-test, robust to violations of homoscedasticity of variance as discussed above, yielded a non-significant result among institutions reporting a social media policy and those without. The results of the t-test (p = 0.273) indicate no statistically significant differences among these groups and their admissions decisions on the potential applicants' social media posts in the current research. Null Hypothesis Three is accepted.

Table 11

Welch's t-Test (Hypothesis Three)

Statistic (t)	*p-value*	*Critical (t)*	*Effect size*
1.123	0.273	0.863	0.400

CHAPTER FIVE: CONCLUSIONS

Overview

The outcomes of the dissertation project reinforce the need for further exploration into this area of higher education admissions. Kaplan Test Prep has been integral in gathering initial information and disseminating survey results that prompt important conversation around these topics and in helping narrow gaps of knowledge in this field. Specifically, this investigation sought to understand how administrators involved in these decisions utilize social media with the hope of ultimately increasing their awareness of potential tendency toward allowing social media posts to influence their opinions of candidates in subtle ways. This concluding chapter will discuss the data, its analysis, and implications in the current field of higher education admissions. The limitations of this analysis to current practice are explored as well as recommendations for future research.

Discussion

The purpose of this ex post facto, causal comparative study was to build on previously published literature, especially that of Levordashka and Utz (2017) and Todorov and Uleman (2002) in an effort to understand two constructs. The first was the impact of social media information on admissions of hypothetical applicants to selective undergraduate institutions as identified by *Barron's* (2018) rankings. The second of these was to understand the impact of an institutional policy addressing how social media information may be used in admissions decisions.

Trait Inferences

The first research question asked if significantly different instances of false trait recognitions were made by admissions personnel on the DRM paradigm at differing levels of

Barron's (2018) selectivity rankings. To measure false recognitions, representatives from the Most Competitive, Highly Competitive Plus, Highly Competitive, Very Competitive Plus, and Very Competitive categories competed an online survey as previously discussed. A one-way ANOVA at the significance level of 0.05 ($a = 0.05$) indicated a significant difference in the false recognition scores among the *Barron's* (2018) categories, thus the researcher rejected the null hypothesis.

These findings are consistent with previous work by Hamilton, Way, and Chen (2009) that notes if a behavior is deemed socially undesirable, it is likely the observer will make attributions based on this behavior. If the behavior is unexpected, it is more likely to be remembered (Brown &Vaughn, 2011). This is confirmed by the current research given the descriptor "Dishonest" was falsely recognized more than any other. The actual post referencing this trait stated, "Found a purse…now I'm $100 richer." While the word "dishonest" did not appear in this post, the trait implied was recognized by over a third of respondents (37%) furthering the idea that traits deemed unexpected or undesirable are remembered and persist throughout various contexts (Lee, Shimizu, Masuda, & Uleman, 2017).

Recent research into this area has examined explanations outside of spontaneous trait inference to understand the ways in which behaviors are ascribed by observers. According to Korman and Malle (2016), behaviors are predominantly explained in terms of mental states when they are considered puzzling. While spontaneous trait inference focuses on ascribing traits to the person, mental states explain behavior as a manifestation of a person's current state instead of ongoing character. This is counter to the current research that indicates a lasting character impression, especially if a behavior is viewed as undesirable.

Admissions Decisions

The second of the current research questions asked if significantly different admissions decisions were made by admissions personnel based on the social media posts of hypothetical applicants. Results of the one-way ANOVA conducted to test this idea did not indicate significant results. Thus, the null hypothesis is accepted.

According to Charlton (2009), certain personality characteristics that demonstrate commitment to high-quality course work are increasingly considered in the applicant review process. Goodwin and Hein (2016) identified only 20-25% of a student's college achievement is predicted from high school grade point average or scores on standardized entrance exams. They further claim non-cognitive factors are the most important in predicting student success, including a positive attitude, personal study habits and self-discipline regarding schoolwork, and an active learning approach. The current research supports this idea when examining the descriptors that indicated few instances of admission rejection. Words such as "diligent," "brave," "friendly," "clever," and "meticulous" were cumulatively denied admission one time at most. The potential students associated with these descriptors were consistently offered admission, regardless of *Barron's* (2018) classification.

On the opposite end of this spectrum, there are problems associated with explicit use of non-cognitive criteria for admission to higher education. In high stakes admission, which is the focus of this project, reliance on high school GPA and standardized test scores has been evidenced to predict first-year academic performance (Westrick, Le, Robbins, Radunzel, & Schmidt, 2015). Further, cumulative GPA in the junior and senior years were predicted by self-reported high school GPA and ACT composite scores (Curtsinger & Ahmadi, 2016). This is counter to the current findings of low instances of rejections on non-cognitive factors.

Interestingly, the strongest predictors of student success seem to lie in a combination of high school GPA and admissions test scores and the non-cognitive factors. According to Saunders-Scott, Braley, and Stennes-Spidahl (2018), high school GPA and admissions test scores were excellent predictors of GPA in college, but poor predictors of retention. However, non-cognitive factors, such as grit and perceived stress, predicted college GPA poorly, but were statistically significant indicators of retention. Thus, in this dissertation project, persons with the non-cognitive descriptors mentioned above were rarely denied admissions if these were indicators of student retention.

Social Media Policy

The last hypothesis of the investigation examined the differences in admissions decisions for institutions with a policy regarding social media use in the admissions process. The Welch's t-test found no significant differences in these groups, thus the null hypothesis was accepted. There were no significant differences in the false recognitions made on the DRM paradigm among schools that had adopted such a policy and those without such a policy in place.

There is a dearth of empirical literature in this area; however, attention is being drawn to it. Social media has traditionally been utilized to market institutions and programs, especially highlighting athletic teams, but approximately half of Kaplan (2016) respondents are utilizing social media to investigate applicants. While the majority do not report a formalized policy regarding what admissions personnel can/cannot do when researching an applicant on social media, many that are in place prohibit personnel from investigating applicants in this manner in any way (Pasquini & Evangelopoulos, 2017). The non-significant findings in the current research could be attributed to the lack of differentiation of the types of policies that may be in place at an institution when the respondent reported they had one. While their institution may

have a policy, it may prohibit all investigation of applicants on social media, thus the respondent's experience doing so may not be different than those respondents who reported no such policy at their institutions.

Implications

The research described above is important as it provides guidance for admissions personnel at selective institutions as well as to administrators and policy makers in this field. There is evidence of the benefits of attending a selective institution, especially for high-achieving, low-income students (Bastedo, Bowman, Glasner, & Kelly, 2018), but students in general, from these institutions consistently report higher earnings, steady employment patterns, more health-related behaviors, less reliance on public assistance programs, increased civic participation, and more indicators of personal well-being (Ma, Pender, & Welch, 2016). Thus, the necessity for policies addressing the admissions process for these institutions in the current technologically driven social context is important. The evidence presented here confirms that the admissions personnel surveyed created spontaneous trait inferences based on social media posts. This is important as it holds the potential to skew the opinions and eventual admissions decisions made by admissions officers, should it be a general characteristic.

Given that the current research demonstrates the tendency to form trait inferences beyond given information, personnel decisions to determine who is included in the admissions process, especially when viewing social media, should be taken with consideration. Logically, single social media posts do not imply general character traits, but they occur without deliberate intention. The admissions process is often vague, so decisions about who is admitted are not to be taken lightly. The current research highlights the importance of careful selection of the admissions committee at these institutions.

Also, the inconsistency of having policy in this area across the institutions included in the investigation that guides admissions personnel about how to handle social media points to the need for this issue to be addressed on a wide scale. While some respondents reported a policy, it was not clear whether this policy allowed personnel to access social media of applicants or prohibited it completely. Given the wealth of information that can be unearthed utilizing the Internet, this is an area higher education institutions should consider addressing. For example, there are institutions that ask for applicants' social media username/handle to interact with potential students utilizing these tools. Many also include a statement indicating information found in these accounts will not be used in the admissions process. However, clear policies should be in place to address any instances when applicants' social media presents information that calls their admission into question.

Limitations

The dissertation project relied on an online survey tool to gather data from participants without experimental impact on their environment. While the question regarding a social media policy was essential for answering Research Question Three, it was a self-report measure, which relies on participant honesty. There was not a way to confirm this information while protecting respondents' anonymity.

The low response rate is not unusual with external surveys; however, it was lower than the response rate expected in academic studies. The investigation recorded a 10.65% response rate, which is lower than the 36.1% reported for academic research in 1999 by Baruch. However, he notes a downward trend in response rates since 1975, so this may be an example of this continuing decline. The time in the academic term could have impacted this low response rate. The fall semester is often a busy time for admissions personnel attempting to recruit

students. Many institutions' representatives had automatic email messages indicating they were traveling out of town to recruit applicants. Also, there is a current lawsuit concerning the admissions practices of a selective institution that would fall into one of the *Barron's* (2018) categories included in the present study. Given the yet undecided outcome of this litigation, representatives may have been hesitant to bring any scrutiny to their own institutional admissions practices.

Recommendations for Future Research

The results of the present study raise several topics for future research in this area. A limitation of this research was a lack of differentiation among the kinds of institutional policies that address social media use in admissions. While the initial intent was to understand if familiarity with how to utilize social media when evaluating applicants would change the admissions decisions respondents reported, it did not have an impact. However, respondents could have self-reported an institutional policy addressing this topic, but the policy may state social media use was prohibited entirely.

While the research indicated admissions personnel made false recognitions based on the social media posts of hypothetical applicants, it did not address the length of time these impressions endured. Given the real-world implications of selective college admissions decisions, the length of the trait inferences formed is important given the possibility that a student might reapply. Future research into this area should determine not only the length of time of these impressions, but also their strength and effect on the decisions for applicants.

An area that was not addressed in this research was the cause for the significantly different number of false recognitions reported among the different rankings of the *Barron's* (2018) classifications. These instances did not follow an obvious rationale such as the order of

the selectivity categories. Further, future research should address the number of admissions denials among the rankings. While it would seem likely that the Most Competitive category would have the most denials as it is the most selective and the Highly Competitive classification would have the least; this was not the case. Further investigation should examine why these categories did not report admissions decisions that aligned with the level of admissions selectivity.

REFERENCES

2014 E-expectations report: The online preferences of college-bound high school seniors and their parents. (n.d.). Retrieved October 8, 2015, from https://omniupdate.com/_resources/pdfs/research/2014_eexpectations.pdf

Al-Twijri, M. I. & Noaman, A. Y. (2015). A new data mining model adopted for higher institutions. *Procedia Computer Science, 65,* 836-844.

Altbach, P. G. (2011). Patterns of higher education development. *American higher education in the twenty-first century: Social, political, and economic challenges* (3rd ed.). P. G. Altbacj, P. J. Gumport, & R. O. Berdalhl (Eds.). Baltimore, MD: Johns Hopkins University Press.

American Psychiatric Association, (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.

Anderson, J. Q. & Rainie, L. (2012). Millennials will benefit and suffer due to their hyperconnected lives. *Pew Research Center.* Retrieved from http://s3.amazonaws.com/academia.edu.documents/30881000/PIP_Future_of_Internet_2012_Young_Brains_PDF.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1500044568&Signature=AERMH4SPOJFMcK71lRoXumns324%3D&response-contentdisposition=inline%3B%20filename%3DMillennials_Will_Benefit_and_Suffer_Due.pdf

Ask the experts: Letters of recommendation and college interviews. (n.d.). Retrieved November 8, 2015, from https://www.petersons.com/college-search/ask-experts-letters-recommendation.apx

Astani, M. (2013). A decade of changes in university website design. *Issues in Information Systems, 14*(1), 189-196.

Astin, A. W. & Antonio, A. L. (2012). *Assessment for excellence: The philosophy and practice of assessment and evaluation in higher education* (2nd ed.). Lanham, MD: Rowman and Littlefield.

Augoustinos, M., Walker, I., & Donaghue, N. (2013). *Social cognition: An integrated introduction* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Average high school GPAs increased since 1990 (2011, April 19). *U.S. News and World Report.* Retrieved from http://www.usnews.com/opinion/articles/2011/04/19/average-high-school-gpas-increased-since-1990

Avigad, J., Kolzl, J., & Serafin, L. (2017). A formally verified proof of the Central Limit Theorem. *Journal of Automated Reasoning, 59*(4), 389-423.

Badowski-Koenig, C. (2014). The virtual line in the sand: Consequences of social media on college admissions and job applications of digital natives. (Unpublished master's thesis). North Central University, Naperville, IL.

Bagley, A. W. (2011). Don't be evil: The Fourth Amendment in the age of Google, national security and digital papers and effects. *Albany Law Journal of Science and Technology, 21*, 153-191.

Bainbridge, W. A., Isola, P., & Olivia, A. (2013). The intrinsic memorability of face photographs. *Journal of Experimental Psychology General, 142*, 1323-1334.

Baker, C. L., Saxe, R., & Tenenbaum, J. B. (2009). Action understanding as inverse planning. *Cognition, 113*(3), 329-349.

Barnds, W. K. (2013, June 19). Does Big Data know best? NSA and college admissions. *Huffington Post*. Retrieved January 26, 2016.

Barnes, N. G. & Lescault, A. M. (2011). *Social media adoption soars as higher ed reevaluates and experiments its use of new communications tools.* Retrieved from https://www.sncr.org/sites/default/files/higherEd.pdf

Barnes, N. G. & Lescault, A. M. (2013). *College presidents out-blog and out-tweet corporate CEO's as higher ed delves into social media to recruit students*. Retrieved from http://www.umassd.edu/media/umassdartmouth/cmr/studiesandresearch/CollegePresidentsBlog.pdf

Barnes, N. G. & Mattson, E. (2014). *Higher ed documents social media ROI: New communication tools are a game changer.* Retrieved from http://www.prweb.com/releases/2012/7/prweb9734866.htm

Barnes, N. G. & Mattson, E. (2010). Social media and college admissions: Higher-ed beats business in adoption of new tools for third year. Retrieved from https://www.umassd.edu/media/umassdartmouth/cmr/studiesandresearch/socialmediaadmissions.pdf

Barron's Educational Series. (2018). *Profiles of American Colleges 2018* (37th ed.). Hauppauge, NY: Barron's Educational.

Baruch, Y. (1999). Response rate in academic studies: A comparative analysis. *Human Relations, 52*(4), 421-438.

Bassiri, D. & Schulz, E. M. (2003). Constructing a universal scale of high school course difficulty. *ACT Research Report Series 2003-4,* June 2003. Retrieved from https://www.act.org/research/researchers/reports/pdf/ACT_RR2003-4.pdf

Bastedo, M. N., Bowman, N. A., Glasener, K. M., & Kelly, J. L. (2018). What are we talking about when we talk about holistic review? Selective college admissions and its effects on low-SES students. *The Journal of Higher Education, 89*(5), 782-805.

Batten, D. D. (2011). The G. I. Bill, higher education, and American Society. *Grove City College Journal of Law and Public Policy, 2*(1), 13-30.

Belanger, F. & Crossler, R. E. (2011) Privacy in the digital age: A review of information privacy research in information systems. *MIS Quarterly, 35*(4), 1017-1042.

Belfield, C. & Crosta, P. M. (2012). Predicting success in college: The importance of placement tests and high school transcripts. *Community College Research Center, 42.* Retrieved from http://hdl.handle.net/10022/AC:P:13086

Bergerson, A. & Aldous, E. (2009). *College choice and access to college: Moving policy, research, and practice to the 21st century.* Hoboken, NJ: Jossey-Bass.

Berry, D. M. & Bass, C. P. (2012). Successfully recruiting, surveying, and retaining college students: A description of methods for the risk, religiosity, and Emerging Adulthood Survey. *Research in Nursing and Health, 35*(6), 659-670.

Best and worst: Media habits of the class of 2014 - Niche Ink. (2014, June 17). Retrieved October 8, 2015, from https://ink.niche.com/best-worst-media-habits-class-2014/2/

Billet, S. & Ovens, C. (2015). Learning about work, working life and post-school options: Guiding students' reflections on paid part-time work. *The Journal of Education and Work, 20*(2), 25-90.

Blackwell, E., & Pinder, P. (2014). What are the motivational factors of first-generation minority college students who overcome their family histories to pursue higher education? *College Student Journal, 1*, 45-56.

Blanca, M. J., Alarcon, R., Arnau, J., Bono, R., & Bendayan, R. (2017). Non-normal data: Is ANOVA still a valid option? *Psicothema, 29*(4), 552-557.

Bobkowski, P. S, Brown, J. D., & Neffa, D. R. (2012). "Hit me up and we can get down." *Journal of Children and Media, 6*(1), 119-134.

Bolton, R. N., Parasuraman, A., Hoefnagels, A., Migchels, Kabadayi, S., Gruber, T., …Solnet, D. (2013). Understanding Generation Y and their use of social media: A review and research agenda. *Journal of Service Management, 24*(3), 245-267.

Bowen, W. G. & Bok, D. (2016). *The shape of the river: Long-term consequences in considering race in college and university admissions.* Princeton, NJ: Princeton University Press.

Boyd, D. & Crawford, K. (2012). Critical questions for big data. *Information, Communication, and Society, 15*(5), 662-679.

Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication, 13,* 210-230.

Brinkley, M. (2014, April). Governance Perspectives: #Social media risk. *Internal Auditor*, 67-69.

Brown, P. (2011 February). Teaching the Millennial students. Paper presented at the annual meeting of the American Society of Business and Behavioral Sciences, Las Vegas, Nevada. Retrieved from http://asbbs.org/files/2011/ASBBS2011v1/PDF/B/BrownP.pdf

Brown, V. R. & Vaughn, E. D. (2011). The writing on the (Facebook) wall: The use of social networking sites in hiring decisions. *Journal of Business and Psychology, 26*, 21-225.

Brunner, J. L., Wallace, D. L., Reymann, L. S., Sellers, J. J., & McCabe, A. G. (2014). College counseling today: Contemporary students and how counseling centers meet their needs. *Journal of College Student Psychotherapy, 28*(4), 257-324.

Burdett, K. (2013). *How students choose a college: Understanding the role of internet based resources in the college choice process* (Unpublished doctoral dissertation). University of Nebraska, Lincoln, NE.

Burke, K. (2016, May 24). Sixty-three texting statistics that answer all your questions. Retrieved from https://www.textrequest.com/blog/texting-statistics-answer-questions/

Cain, J. (2011). Social media in health care: The case for organizational policy and employee education. *American Journal of Health-System Pharmacy, 68,* 1-36-1040.

Carnegie Education Foundation. (2010). *Basic Classification Methodology.* Retrieved from http://classifications.carnegiefoundation.org/methodology/basic.php

Carson, N. (2013, May). Why the "Me Generation" label doesn't fit millennials. *Topeka Capital Journal, 16. Retrieved from* http://search.proquest.com.ezproxy.liberty.edu:2048/docview/1353327816?pq-origsite=summon

Cassidy, B. S. & Gutchess, A. H. (2015) Neural responses to appearance-behavior congruity. *Social Cognition, 33*(3), 211-226.

Charlton, B. G. (2009). Do elite US colleges choose personality over IQ? *Medical Hypotheses, 73,* 127-129.

Cherng, H. Y. S., Calarco, J. M., & Kao, G. (2013). Along for the ride: Best friends' resources and adolescents' college completion. *American Education Research Journal, 50*(1), 76-106.

Cheung, C. M. K., Chiu, P. Y., & Lee, M. K. O. (2011). Online social networks: Why do students use Facebook? *Computers in Human Behavior, 27*(4), 1337-1343.

Chretien, K. C., Farnan, J. M., Greyson, S. R., & Kind, T. (2011). To friend or not to friend? Social networking and faculty perceptions of online professionalism. *Academic Medicine, 86*(12), 1545-1550.

Claypoole, T. F. (2014, January). Privacy and social media. *Business Law Today, 1*, 1-12.

College Board. (2015). "Admissions decisions: What counts?" Retrieved November 8, 2015, from https://professionals.collegeboard.com/guidance/applications/decisions

Community service and college admissions study: Why it matters. (2010). Retrieved November 8, 2015, from http://www.youthunitedcd.org/DoSomething.org_College_Admissions_Study.pdf

Constantinides, E. & Stagno, M. C. Z. (2011). Potential of the social media as instruments of higher education marketing: A segmentation study. *Journal of Marketing for Higher Education, 21*(1), 7-24.

Critcher, C. R., Inbar, Y., & Pizarro, D. A. (2012). How quick decisions illuminate moral character. *Social Psychology and Personality, 4*(3), 308-315.

Curtsinger, T. & Ahmadi, A. (2016). The role of high school GPA and ACT score and its components: A predictor of college success. Retrieved from https://scholarworks.moreheadstate.edu/cgi/viewcontent.cgi?article=1111&amp=&context=student_scholarship_posters&amp=&sei-redir=1&referer=https%253A%252F%252Fscholar.google.com%252Fscholar%253Fhl%253Den%2526as_sdt%

253D0%25252C43%2526as_ylo%253D2015%2526q%253Dhigh%252Bschool%252Bgpa%252Band%252Bact%252Bpredict%252Bcollege%252Bsuccess%2526btnG%253D#search=%22high%20school%20gpa%20act%20predict%20college%20success%22

Darlow, V., Norvilitis, J. M., & Scheutze. (2017). The relationship between helicopter parenting and adjustment to college. *Journal of Child and Family Studies, 26*(6), 1536-1545.

Davis, C. H. F., Deil-Amen, R., Rios-Aguilar, C., & Canche, M. S. G. (2012). *Social media in higher education: A literature review and research directions.* Unpublished manuscript.

De Wolf, R. & Heyman, R. (2015, February). Privacy and social media. *The International Encyclopedia of Digital Communication and Society, 1,* 1-6.

DeAndrea, D. C. & Walther, J. B. (2011). Attributions for inconsistencies between online and offline self-presentations. *Communications Research, 38*(6), 805-825.

Deese, J. (1959). On the prediction of occurrence of particular verbal intrusions in immediate recall. *Journal of Experimental Psychology, 58*(1), 17-22.

Del Riego, A., Sanchez-Abril, P., & Levin, A. (2012). Your password or your paycheck: A job applicant's murky right to social media privacy. *Journal of Internet Law, 16*(3), 17-26.

Delacre, M., Lakes, D., & Leys, C. (2017). Why psychologists should by default use Welch's t-test instead of student's t-test. *International Review of Social Psychology, 30*(1), 92-101.

Demetriou, C. & Schmitz-Sciborski, A. (2011). Integration, motivation, strengths, and optimism: Retention theories past, present and future. In R. Hayes (Ed.). *Proceedings of the 7th National Symposium on Student Retention, 2011, Charleston.* (pp.300-312). Norman, OK: The University of Oklahoma.

DeVaney, S. A. (2015). Understanding the Millennial generation. *Journal of Financial Service Professionals, 69*(6), 11-14.

Doornwaard, S. M., Moreno, M. A., van den Eijnden, R. J. J. M., Vanwesenbeeck, I., & Ter Bogt, T. F. M. (2014). Young adolescents' sexual and romantic reference displays on Facebook. *Journal of Adolescent Health, 55*(4), 535-541.

Douglas-Gabriel, D. (2015, June 14). Colleges are using big data to identify when students are likely to flame out. *The Washington Post.* Retrieved January 26, 2016.

Dwoskin, L. B., Bergman-Squire, M., & Patullo, J. (2014). Skelton's in the closet? Legal development in screening applicants and employees. *Employee Relations Law Journal, 39*(4), 24-48.

Egan, K. & Moreno, M. (2011). Alcohol references on undergraduate males' Facebook profiles. *Journal of Adolescent Health, 48*(2), S77-S78.

Ellison, N. B., Steinfield, C., & Lampe, C. (2011). Connection strategies: Social capital implications of Facebook-enables communication practices. *New Media and Society, 13*(6), 873-892.

Ellison, N. B., Vitak, J., Steinfeld, C., Gray, R., & Lampe, C. (2011). Negotiating privacy concerns and social capital needs in a social media environment. In S. Trepte & L. Reinecke (Eds.), *Privacy online: Perspectives on privacy and self-disclosure in the social web* (19-32). Berlin: Springer Berlin Heidelberg.

Elsbach, K. D., Cable, D. M., & Sherman, J. W. (2010). How passive 'face time' affects perceptions of employees: Evidence of spontaneous trait inference. *Human Relations, 63*(6), 735-760.

Facebook. (2016). Stats. Retrieved from http://newsroom.fb.com/company-info/

Factors in the admission decision (2009). *NACAC Research to Practice Brie*f, 6. Retrieved from http://www.nacacnet.org/research/PublicationsResources/Marketplace/Documents/RTPBrief_Factors.pdf

Fain, P. (2016, April 4). Public colleges may be responding to state performance funding by enrolling fewer lower income students. *Inside Higher Ed*. Retrieved from https://www.insidehighered.com/news/2016/04/04/public-colleges-may-be-responding-state-performance-funding-enrolling-fewer-low

Fain, P. (2017, July 21). Study on Performance-Based Funding in three states. *Inside Higher Ed.* Retrieved from https://www.insidehighered.com/quicktakes/2017/07/21/study-performance-based-funding-3-states

Faure, M. & Laarni, E. (2011). Social Stigma. In F. Parisi (Ed.), *Production of legal rules* (pp. 205-228). Northhampton, MA: Edward Elgar.

Ferri-Reed, J. (2014). Building innovative multi-generational teams. *The Journal for Quality and Participation, 37*(3), 20-22.

Fingerman, K. L., Cheng, Y. P., Wesselmann, E. D., Zarit, S., Furstenberg, F., & Birditt, K. S. (2012). Helicopter parents and landing pad kids: Intense parental support of grown children. *Journal of Marriage and Family, 74*(4), 880-896.

Fiske, S. T., Gilbert, D. T., & Lindzey, G. (2012). *Handbook of social psychology* (5th ed.). Hoboken, NJ: Wiley Publishing.

Fissel, J. (2013). *Baby boomers, generation x, and Millennials: The attitudes of three generations toward their higher education objectives in Georgia community colleges.* Unpublished dissertation. Old Dominion University, Norfolk, VA.

Flannery, M. E. (2014, April 22). Performance-Based Funding: Chasing outcomes over real learning. *NEA Today*. Retrieved from http://neatoday.org/2014/04/22/performance-based-funding-chasing-outcomes-over-real-learning/

Fournier, A. K. & Clarke, S. W. (2011). Do college students use Facebook to communicate about alcohol? An analysis of student profile pages. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 5*(2). Retrieved from https://cyberpsychology.eu/article/view/4246/3292

Furedi, F. (2010). Introduction to the marketisation of higher education and the student as consumer. In M. Molesworth, R. Scullion, & E. Nixon (Eds.), *The marketization of higher education and the student as consumer* (1-8). Florence, KY: Taylor and Francis Publishing.

Gaertner, M. N. & Hart, M. (2013). Considering class: College access and diversity. *Harvard Law and Policy Review,* 7(2), 367-403.

Gagnon, K. & Sabus, C. (2014). Professionalism in a digital age: Opportunities and considerations for using social media in health care. *Physical Therapy, 94*(6), in press.

Geiger, R. L. (2011). The ten generations of American higher education. In P. G. Altbacj, P. J. Gumport, & R. O. Berdalhl (Eds.). *American higher education in the twenty-first century: Social, political, and economic challenges* (3rd ed.). Baltimore, MD: Johns Hopkins University Press.

Giordano, C. (2011). The use of social media by graduate health science students: The Thomas Jefferson University experience. *Health Policy Newletter, 24*(3), 1.

Gray, R., Vitek, J., Easton, E. W., & Ellison, N. B. (2013). Examining social adjustment to college in the age of social media: Factors influencing successful transitions and persistence. *Computers & Education, 67,* 193-207.

Green, G. & Jaquess, S. N. (1987). The effect of part-time employment on academic achievement. *The Journal of Educational Research, 80*(6), 325-329.

Greenwood, G. (2012). Examining the presence of social media on university web sites. *Journal of College Admission, 216,* 24-28.

Goldman, Z. W. & Martin, M. M. (2016). Millennial students in the college classroom: Adjusting to academic entitlement. *Communication Education, 65*(3), 365-367.

Goodwin, B. & Hein, H. (2016). Research says/The X Factor in college success. *Educational Leadership, 73*(6), 77-78.

Hamilton, D. L., Way, N., & Chen, J. M. (2009). Understanding complexities of inferences. *Psychological Inquiry, 20,* 53-57.

Han, P. (2014). A literature review on college choice and marketing strategies for recruitment. *Family and Consumer Sciences Research Journal, 43*(2), 120-130.

Hartzog, W. & Selinger, E. (2013). Big Data in small hands. *Stanford Law Review, 66*(81), 1-10.

Hassin, R. R., Bargh, J. A., & Uleman, J. S. (2002). Spontaneous causal inferences. *Journal of Experimental Social Psychology, 38*(5), 515-522.

Hayes, L. & Cooley, S. J. (2013). Social media—striking the balance between employer interests and employee rights. *The Computer and Internet Lawyer, 30*(7), 1-5.

Hayes, T. J., Ruschman, D., & Walker, M. M. (2009). Social networking and an admissions tool: A case study in success. *Journal of Marketing for Higher Education, 19*(2), 109-124.

Heider, F. (1944). Social perception and phenomenal causality. *Psychological Review, 51,* 358–374.

Heider, F. (1958). *The psychology of interpersonal relations.* New York, NY: Wiley.

Hemelt, S. W. & Marcotte, D. E. (2011). The impact of tuition increases on enrollment at public colleges and universities. *Educational Evaluation and Policy Analysis, 33*(4), 435-457.

Henderson, S. E. (2012). Expectations of privacy in social media. *Mississippi College Law Review, 31,* 227-247.

Henry, R. K. & Molnar, A. L. (2013). Examination of social networking professionalism among dental and dental hygiene students. *Journal of Dental Education, 77*(11), 1425-1430.

Hernandez, G. (2012). *US colleges and universities report social media ROI, decreases costs and increases efficiency.* Retrieved from http://www.prweb.com/releases/2012/7/prweb9734866.htm

Higher Education Research Institute. (2013). *Findings from the 2012 administration of the Your First College Year (YFCY): National Aggregates.* Retrieved from http://www.heri.ucla.edu/yfcyPublications.php

Hillman, N. W. (2016). *Why performance-based college funding doesn't work* (Report No. 4) Retrieved from The Century Foundation: https://tcf.org/content/report/why-performance-based-college-funding-doesnt-work/

Hofer, B. K. (2011). Student-parent communication in the college years: Can students grow up on an electronic tether? *The Bulletin, 79*(2), 12-15.

Hogan, D. P. (2013). Transitions and social change: The early lives of American men. In S. M. Henry (Ed.), *Symbiosis, Volume II* (pp.173-220). New York, NY: Academic Press.

Holm, T. (2012). Managing Millennials: Coaching the next generation. *Forensic, 97*(2), 25-38.

Hong, S., Tandoc, E., Kim, E. A., Kim, B., Wise. (2012). The real you? The role of visual cues and comment congruence in perceptions of social attractiveness from Facebook profiles. *Cyberpsychology, Behavior, and Social Media, 15*(7), 339-344.

Howard, J. (2013, September 27). Worried about messages, colleges scrutinize social media. *The Chronicle of Higher Education, 60*(4). Retrieved from http://go.galegroup.com.ezproxy.liberty.edu:2048/ps/retrieve.do?sgHitCountType=None&sort=DASORT&inPS=true&prodId=AONE&userGroupName=vic_liberty&tabID=T002&searchid=R1&resultListType=RESULT_LIST&contentSegment=&searchType=AdvancedSearchForm&currentPosition=37&contentSet=GALE|A351742921&&docId=GALE|A351742921&docType=GALE&role=&docLevel=FULLTEXT

Hsu, C. L. & Wu, C. C. (2011). Understanding users' continuance of Facebook: An integrated model with the Unified Theory of Acceptance of use of technology, Expectation Disconfirmation Model, and Flow Theory. *International Journal of Virtual Communities and Social Networking, 3*(2), 16-32.

Huang, G. C., Unger, J. B., Soto, D., Fujimoto, K., Pentz, M. A., Jordan-Marsh, M., & Valente, T. W. (2014). Peer influences: The impact of online and offline friendship networks on adolescent smoking and alcohol use. *Journal of Adolescent Health, 54*(5), 508-514.

Hull, H. G. (2012). Legal ethics for the Millennials: Avoiding the compromise of integrity. *University of Missouri-Kansas City Law Review, 80*(4), 271-286.

Hurwtiz, M., Smith, J., & Howell, J. S. (2015). Student age and the collegiate pathway. *Journal of Policy Analysis and Management, 34*(1), 59-84.

Ischheiser, G. (1949). *Misunderstandings in human relations: A study in false social perception.* Chicago, IL: University of Chicago Press.

Johnson, M. K., Hashtroudi, S., & Lindsay, D. S. (1993). Source monitoring. *Psychological Bulletin, 114*, 3-28.

Junco, R., & Cotten, S. (2012). No A 4 U: The relationship between multitasking and academic performance. *Computers and Education, 59*(2), 505-514.

Kantrowitz, M. (2016, April 7). In Darwinian world of performance-based funding, the neediest students are the losers. *The Chronicle of Higher Education.* Retrieved from https://www.chronicle.com/article/In-Darwinian-World-of/236010

Kaplan Test Prep. (2012). Kaplan Test Prep survey finds that college admissions officers' discover of material damaging to applicants nearly triples in a year. Retrieved from http://press.kaptest.com/press-releases/kaplan-test-prep-survey-finds-that-college-admissions-officers-discovery-of-online-material-damaging-to-applicants-nearly-triples-in-a-year

Kaplan Test Prep. (2014). Kaplan Test Preps 2014 Survey of College Admissions Officers. Retrieved from http://press.kaptest.com/wp-content/uploads/2014/09/Kaplan-Test-Preps-2014-Survey-of-College-Admissions-Officers1.pdf

Kaplan Test Prep. (2016). Kaplan Test Prep survey: Percentage of college admission officers who check out applicants' social media profiles hits new highs; triggers include special talents, competitive sabotage. Retrieved from https://www.kaptest.com/blog/press/2016/01/13/kaplan-test-prep-survey-percentage-of-college-admissions-officers-who-check-out-applicants-social-media-profiles-hits-new-high-triggers-include-special-talents-competitive-sabotage/

Kelchen, R. & Stedrak, L. J. (2016). Does performance-based funding affect colleges' financial priorities? *Journal of Education Finance, 41*(3), 302-327.

Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons, 54*(3), 241-251.

Kim, J., & Lee, J. R. (2011). The Facebook paths to happiness: Effects of the number of Facebook friends and self-presentation on subjective well-being. *Cyberpsychology, Behavior, and Social Networking, 14*(6), 359-364.

Kobrin, J. L., Patterson, B. F., Shaw, E. J., Mattern, K. D., Barbuti, S. M. (2008). Validity of the SAT for predicting first-year college grade point average. *College Board Research Report 2008-5.* Retrieved from http://research.collegeboard.org/sites/default/files/publications/2012/7/researchreport-2008-5-validity-sat-predicting-first-year-college-grade-point-average.pdf

Korman, J. & Malle, B. F. (2016). Grasping for traits or reasons? How people grapple with puzzling social behaviors. *Personality and Social Psychology Bulletin, 42*(11), 1451–1465.

Kozak, M. & Piepho, H. M. (2017). What's normal anyway? Residual plots are more telling than significance tests when checking ANOVA assumptions. *Journal of Agronomy and Crop Science, 204,* 86-98.

Kramer, N. C. & Haferkamp, N. (2011). Online self-presentation: Balancing privacy concerns and impression construction on social networking sites. In S. Trepte & L. Reinecke (Eds.), *Privacy online: Perspectives on privacy and self-disclosure in the social web* (127-141). Berlin: Springer Berlin Heidelberg

Kressel, L. M. & Uleman, J. S. (2010). Personality traits function as causal concepts. *Journal of Experimental Social Psychology, 46*(1), 213-216.

Lachman, V. D. (2013). Social media: Managing the ethical issues. *Ethics, Law, and Policy, 22*(5), 326-329.

Lawrence, L. (2012). Bachelors degree: Has it lost its edge and its value? *Christian Science Monitor.* Retrieved from http://www.csmonitor.com/The-Culture/Family/2012/0617/Bachelor-s-degree-Has-it-lost-its-edge-and-its-value

Lee, H., Shimizu, Y., Masuda, T., & Uleman, J. S. (2017). Cultural Differences in Spontaneous Trait and Situation Inferences. Journal of Cross-Cultural Psychology, 48(5), 627–643.

LeMoyne, T. & Buchanan, T., (2011). Does "hovering" matter? Helicopter parenting and its effect on well-being. *Sociological Spectrum, 31,* 399-418.

Lenhart, A. (2015). *Teens, Social Media, and Technology Overview 2015*. Retrieved from http://www.pewinternet.org/2015/04/09/teens-social-media-technology-2015/

Lenhart, A. Purcell, K., Smith, A., & Zickuhr, K. (2010). Social media and mobile internet use among teens and young adults. *Pew Research Center.* Retrieved from http://web.pewinternet.org/~/media/Files/Reports/2010/PIP_Social_Media_and_Young_Adults_Report_Final_with_toplines.pdf

Levordashka, A. & Utz, S. (2017), Spontaneous trait inferences on social media. *Social Psychology and Personality Science, 8*(1), 93-101.

Leyden, P., Teixeira, R., & Greenberg, E. H., (2007). *The progressive politics of the Millennial generation: The emerging evidence on why the younger generation is boosting progressive prospects for the early 21st century*. A report presented to the New Politics Institute, Washington, DC. Retrieved from http://ndn-newpol.civicactions.net/sites/ndn-newpol.civicactions.net/files/NPI-Millennials-Final.pdf

Lippincott, J. K. (2012). Information commons: Meeting Millennials' needs continued. *Journal of Library Administration, 52*(6-7), 538-548.

Lipscomb, S. (2007). Secondary school extracurricular involvement and academic achievement: A fixed effects approach. *Economics of Education Review, 26*(4), 463-472.

Litt, D. M. & Stock, M. L. (2011). Adolescent alcohol-related risk cognitions: The roles of social Valente, norms and social networking sites. *Psychology of Addictive Behaviors, 25*(4), 708-713.

Litt, E., Spottswood, E., Birnholtz, J., Hancock, J. T., Smith, M. E., Reynolds, L. (2014, February 15-19). Awkward encounter of an "other" kind: Collective self-presentation and face threat on Facebook. In S. R. Fussell, W. G. Lutters, M. R. Morris, & M. Reddy. *Computer Supported Cooperative Work, CSCW '14*. Paper presented at ACM 2014, Baltimore, MD (449-460). New York, NY: Association for Computing Machinery.

Little, M. & Price, M. (2013). Recruiting parents, retaining families. *References Services Review, 41*(2), 182-191.

Liu, Y., Gummadi, K. P., Krishnamurthy, B., & Mislove, A. (2011. November). *Analyzing Facebook privacy settings: User expectations vs. reality.* Paper presented at the ACm SIGCOMM conference on Internet measurement, Berlin, Germany.

Lloyd, T. (2014, January 14). How college application change in the era of Big Data. *Marketplace*. Retrieved January 26, 2016.

Loeffler, C. (2012). Privacy issues in social media. *IP Litigator, 18*(5), 12-18.

Lovari, A. & Giglietto, F. (2012). *Social media and Italian universities: An empirical study on the adoption and use of Facebook, Twitter, and YouTube*. Unpublished manuscript,

Department of Political Sciences, Sciences of Communications and Informatics, Universitia di Sassari, Sassari, Italy.

Lytle, R. (2011, October 10). College admissions official turn to Facebook to research students. *U.S. News and World Report.* Retrieved from http://www.usnews.com/education/best-colleges/articles/2011/10/10/college-admissions-officials-turn-to-facebook-to-research-students

Ma, J., Pender, M., & Welch, M. (2016). Education pays 2016: The benefits of higher education for individuals and society. *Trends in Higher Education Series*, December 2016. Retrieved from https://files.eric.ed.gov/fulltext/ED572548.pdf

Madden, M., Cortesi, S., Gasser, U., Lenhart, A., & Duggan, M. (2012). Parents, teens, and online privacy. *Pew Research Center.* Retrieved from http://files.eric.ed.gov/fulltext/ED537515.pdf

Madejski, M., Johnson, M., & Bellovin, S. M. (2011). *The failure of online social network privacy settings.* Unpublished manuscript. Department of Computer Science, Columbia University, New York, NY.

Malle, B. F. (2011). Attribution theories: How people make sense of behaviors. In D. Chadee (Ed.), *Theories in social psychology* (72-95). Hoboken, NJ: Wiley-Blackwell.

Margaryan, A., Littlejohn, A., Vojt, G. (2011). Are digital natives a myth or reality? University students' use of digital technologies. *Computers and Education, 56*(2), 429-440.

McAllister, S. M. (2012). How the world's top universities provide dialogic forums for marginalized voices. *Public Relations Review, 38*(2), 319-327.

McCartan, R. (2011). *Relevant psychological theory and research: Critical discussion of the factors which make social judgment of ourselves and others difficult*. Unpublished manuscript.

McCarthy, R. J. & Skowronski, J. J. (2011). What will Phil do next? Spontaneously inferred traits influence predictions of behavior. *Journal of Experimental Social Psychology, 47*, 321-332.

McCoy, L. (2011). 140 characters or less: Maintaining privacy and publicity in the age of social networking. *Marquette Sports Law Review, 203*(21), 203-218.

McGlone, T., Spain, J. W., & McGlone, V. (2011). Corporate social responsibility and the Millennials. *Journal of Education for Business, 86*(4), 195-200.

McHenry, W. K. & Ash, S. R. (2013). Knowledge management and collaboration: Generation X vs. Generation Y. *International Journal of Business and Social Science, 4*(12), 78-87.

McLendon, M. K., & Hearn, J. C. (2013, November-December). *The resurgent interest in performance-based funding for higher education: Who wants performance-based funding and why? Answering those questions is important if we wish to defend funding formulas that support high-quality education.* American Association of University Professors. Retrieved from https://www.aaup.org/article/resurgent-interest-performance-based-funding-higher-education#.WoXj7VKWyCg

McLeod, S. A. (2010). *Attribution Theory - Simply Psychology.* Retrieved from http://www.simplypsychology.org/attribution-theory.html

Mehta, S. S., Newbold, J. J., & O'Rourke, M. A. (2011). Why do first-generation students fail? *College Student Journal, 45*(1), 20-35.

Mercer, J. (2010). *Reputation and international politics.* Ithaca, NY: Cornell University Press.

Merkl-Davies, D. M. & Brennan, N. M. (2011). A conceptual framework of impression management: New insights from psychology, sociology and critical perspectives. *Accounting and Business Research, 41*(5), 415-437.

Merrell, N. (2011). Social media for social research: Applications for higher education communications. In L. A. Wankel & C. Wankel (Eds.), *Higher education administration with social media: Cutting edge technologies in higher education, Vol. 2*. (25-48), Bingley, UK: Emerald Group Publishing Limited.

Miao, K. (2012, August). *Performance-based funding of higher education: A detailed look at best practices in six states*. Center for American Progress. Retrieved from https://www.americanprogress.org/issues/education-postsecondary/reports/2012/08/07/12036/performance-based-funding-of-higher-education/

Mitchell, M., Leachman, M., & Masterson, K. (2016). *Funding down, tuition up: State cuts to higher education threaten quality and affordability at public colleges.* Retrieved from https://www.cbpp.org/sites/default/files/atoms/files/5-19-16sfp.pdf

Moore, A. (2013). *First generation college students: Indicators of college persistence and graduation.* Unpublished dissertation. Saint Mary's College of California, Moraga, CA.

Moran, J. M., Jolly, E., Mitchell, J. P. (2014). Spontaneous mentalizing predicts the fundamental attribution error. *Journal of Cognitive Neuroscience, 26*(3), 569-576.

Moreno, M. A., Brockman, L. N., & Christakis, D. A. (2009). "Oops, I did it again": A content analysis of adolescents' displayed sexual references on MySpace. *Journal of Adolescent Health*, 44(2), S22-S23.

Moreno, M. A., Brockman, L. N., Wasserheit, J. N., & Christakis, D. A. (2012). A pilot evaluation of older adolescents' sexual reference displays on Facebook. *Journal of Sex Research, 49*(4), 390-399.

Moreno, M. A., Christakis, D. A., & Egan, K. G. (2012). Associations between displayed alcohol references on Facebook and problem drinking among college students. *JAMA Pediatrics, 166*(2), 106-200.

Moreno, M. A., Cox, E. D., Young, H. N., Haaland, W. (2015). Underage college students alcohol displays on Facebook and real-time alcohol behaviors. *Journal of Adolescent Health, 56*(6), 646-651.

Moreno, M. A., D'Angelo, J., Kacvinksky, L. E., Kerr, B., Zhang, C., Eickhoff, J. (2014). Emergence and predictors of alcohol reference displays on Facebook during the first year of college. *Computers in Human Behavior, 30*, 87-94.

Moreno, M. A., Jelenchick, L. A., Grant, A., Pumper, M. A., & Richardson, L. (2011). Depression disclosures on Facebook: Associations with self-report and perceptions of peers. *Journal of Adolescent Health, 48*(2), S81-S120.

Moreno, M. A., Jelecnhick, L. A., & Kota, R. (2013). Exploring depression symptom references on Facebook among college freshmen: A mixed methods approach. *Open Journal of Depression, 2*(3), 35-41.

Moreno, M. A., L., Pumper, M. A., Wachowski, L., & Whitehill, J. M. (2013). Associations between social media displays and event-specific alcohol consumption by college students. *WMJ: Official Publication of the State Medical Society of Wisconsin, 112*(6), 251-256.

Morgan, E. M., Snelson, C., & Elison-Bowers, P. (2010). Image and video disclosure of substance use on social media websites. *Computers in Human Behavior, 26*(6), 1405-1411.

Mullen, P. R., Griffith, C., Greene, J. H., & Lambie, G. W. (2013). *Social media and professional school counselors: Ethical and legal considerations.* Unpublished manuscript, University of Central Florida, Orlando, FL.

National Association for College Admission Counseling. (2014 June). *Vision*. Retrieved from http://www.nacacnet.org/about/Pages/Vision.aspx

Nevid, J. (2011). Teaching the Millennials. *Association for Psychological Science Observer, 24*(5), 17-25.

Newman, L. S. (1993). How individuals interpret behavior: Idiocentrism and spontaneous trait inference. *Social Cognition, 11*(2), 243-269.

Nicholas, A. J. (2008). Preferred learning methods of the Millennial generation. *International Journal of Learning, 15*(6), 27-34.

Nyangau, J. Z. & Bado, N. (2012). Social media and marketing of higher education: A review of the literature. *Journal of the Research Center for Educational Technology (RCET),*(1), 38-51.

Oreopoulos, P. & Petronijevic, U. (2013). Making college worth it: A review of the returns to higher education. *The Future of Children, 23*(1), 41-65.

Padgett, R. D., Johnson, M. P., & Pascarella, E. T. (2012). First-generation undergraduate students and the impacts of the first year of college: Additional evidence. *Journal of College Student Development, 53*(2), 243-266.

Paine, K. D. (n.d.). How to set benchmarks in social media: Exploratory research for social media, lessons learned. Unpublished manuscript. Retrieved from http://www.pricetargetmedia.com/how_to_set_benchmarks_in_social_media.pdf

Palmer, C. E., Langbehn, D., Tabrizi, S. J., & Papoutsi, M. (2018). Test-retest reliability of measures commonly used to measure striatal dysfunction across multiple testing sessions: A longitudinal study. *Frontiers in Psychology, 8,* 63-76.

Papacharissi, Z. & Gibson, P. L. (2011). Fifteen minutes of privacy: Privacy, sociality, and publicity on social network sites. In S. Trepte & L. Reinecke (Eds.), *Privacy online: Perspectives on privacy and self-disclosure in the social web* (75-89). Berlin: Springer Berlin Heidelberg.

Pardilla-Delgado, E. & Payne, J. D. (2017). The Deese-Roediger-McDermott (DRM) Task: A simple cognitive paradigm to investigate false memories in the laboratory. *Journal of Visualized Experiments, 31*(119).

Pasquini, L. A. & Evangelopoulos, N. (2017). Sociotechnical stewardship in higher education: A field study of social media policy documents. *Journal of Computing in Higher Education, 29*(2), 218-239.

Payne, B. K. (2005). Conceptualize control in social cognition: How executive functioning modulates the expression of automatic stereotyping. *Journal of Personality and Social Psychology, 89*(4), 488-503.

Peluchette, J. & Karl, K. (2008). Social networking profiles: An examination of student attitudes regarding use and appropriateness of content. *CyberPsychology and Behavior, 11*(1), 95-97.

Perrin, A. (2015, October 8). Social media usage: 2005-2015. Retrieved October 8, 2015, from http://www.pewinternet.org/files/2015/10/PI_2015-10-08_Social-Networking-Usage-2005-2015_FINAL.pdf

Perry, D. M. (2014, March 17). Faculty members are not cashiers: Why the "customer service" lingo in academe is bad for students. *The Chronicle of Higher Education.* Retrieved from http://www.chronicle.com/article/Faculty-Members-Are-Not/145363

Perry, M. (2015). Finding middle ground: Expectation of and enrollment strategies for Millennial students. *College and University, 90*(3), 39-42.

Peter, J. & Valkenburg, P. M. (2011). Adolescents' online privacy: Toward a developmental perspective. In S. Trepte & L. Reinecke (Eds.), *Privacy online: Perspectives on privacy and self-disclosure in the social web* (221-234). Berlin: Springer Berlin Heidelberg.

Phillips, K. N., Pickett, A., Garfinkel, S. L. (2011, May/June). Embedded with Facebook: DoD faces risks from social media. *CrossTalk*, 25-29.

Pizzolato, J. E. & Hicklen, S. (2011). Parent involvement: Investigating the parent-child relationship in Millennial college students. *Journal of College Student Development, 52*(6), 671-686.

Polonetsky, J. & Tene, O. (2013). Privacy and Big Data: Making ends meet. *Stanford Law Review 66*(25), 25-33.

Pumper, M. A., Yaeger, J. P., & Moreno, M. A. (2013). Perceptions and use of social networking sites in the United States and Ecuador: A mixed-methods approach. *College Student Journal, 47*(3), 478-484.

Reeder, G. D. (2009). Mindreading: Judgments about intentionality and motives in dispositional inference. *Psychological Inquiry, 20*(1), 1-18.

Reich, S. M., Subrahmanyam, K., & Espinoza, G. (2012). Friending, IMing, and hanging out face-to-face: Overlap in adolescents' online and offline social networks. *Developmental Psychology, 48*(2), 356-368.

Restatement (Second) of Torts § 652 (1977).

Ridout, B., Campbell, A., & Ellis, L. (2011). "Off your Face(book)": Alcohol in online social identity construction and it relation to problem drinking in university students. *Drug and Alcohol Review, 31*(1), 20-26.

Riggio, H. R. & Garcia, A. L. (2009). The power of situations: Jonestown and the fundamental attribution error. *Teaching of Psychology, 36*(2), 108-112.

Riggsby-Gonzalez, L. (2016). *The helicopter parent phenomenon: Examining the effects of strong parental attachment on the transition of Millennial emerging adults from college to the workplace.* Unpublished doctoral dissertation, Auburn University, Auburn, AL.

Rim, S. Y., Min, K. E., Uleman, J. S., Chartrand, T. L., & Carlston, D. E., (2013). Seeing others through rose-colored glasses: An affiliation goal and positivity bias in implicit trait impressions. *Journal of Experimental Social Psychology, 49*, 1204-1209.

Rimal, R. N. & Lapinski, M. K. (2015). A re-explication of social norms, ten years later. *Communication Theory, 25*(4), 393-409.

Risavy, S. D., Komar, S., & Brown, D. J. (2010). Spontaneous trait inferences and organizational actions: The formation of organization personality perceptions. *Canadian Journal of Behavioural Science, 42*(3), 139-149.

Rizk, H. (2013). Fundamental right or liberty?: Online privacy's theory for co-existence with social media. *Howard Law Journal, 56*(3), 951-982.

Roediger, H. & McDermott, K. B. (1995). Creating false memories: Remembering words not presented in lists. *Journal of Experimental Psychology, Learning, Memory, and Cognition, 21*(4), 803-814.

Roehl, A., Reddy, S. L., & Shannon, G. J. (2013). The flipped classroom: An opportunity to engage Millennial students through active learning. *Journal of Family and Consumer Sciences, 105*(2), 44-49.

Rose, J., Mackey-Kallis, S., Shyles, L., Barry, K., Biagini, D., Hart, C., & Jack, L. (2012). Face it: The impact of gender on social media images. *Communication Quarterly, 60*(5), 588-607.

Rosenberg, J. & Egbert, N. (2011). Online impression management: Personality traits and concerns for secondary goals as predictors of self-presentation tactics on Facebook. *Journal of Computer Mediated Communication, 17*(1), 1-18.

Rubin, C. (2013, September). Technology and the College Generation. *New York Times*. Retrieved from http://www.nytimes.com/2013/09/29/fashion/technology-and-the-college-generation.html

Rubinstein, I. S. (2012). Big Data: The end of privacy or a new beginning? *International Data Privacy Law,* 12-26.

Rudmin, F. W. (2010). Phenomenology of acculturation: Retrospective reports from the Philippines, Japan, Quebec, and Norway, *Culture Psychology, 16*(3), 313-332.

Rui, J. R. & Stefanone, M. A. (2013). Self-presentation, self-esteem and social network perspectives. *Information, Communication, and Society, 16*(8), 1286-1305.

Russell, R. & Stutz, M. (2014, February). Social media: What employers need to know. *Journal of Internet Law.* 3-6.

Rutter, R., Roper, S., & Lettice, F. (in press). Social media interaction, the university brand and recruitment performance. *Journal of Business Research.*

Sanchez-Abril, P., Levin, A., & Del Riego, A. (2012). Blurred boundaries: Social media privacy and the twenty-first century employee. *American Business Journal, 49*(1), 63-124.

Sanders, S. D. (2012). Privacy is dead: The birth of social media background checks. *Southern University Law Review, 39,* 243-264.

Saunders-Scott, D., Braley, M. B., & Stennes-Spidahl, N. (2018). Traditional and psychological factors associated with academic success: Investigating best predictors of college retention. *Motivation and Emotion, 42*(4), 459-465.

Schiffrin, H. H., Liss, M., Miles-McLean, H., Geary, K. A., Erchull, M. J., & Tashner, T. (2014). Helping or hovering? The effects of helicopter parents on college students' well-being. *Journal of Child and Family Studies (23),* 548-557.

Schmider, E., Ziegler, M., Danay, E., Beyer, L., & Buhner, M. (2010). Is it really robust? Reinvestigating the robustness of ANOVA against violations of the normal distribution assumption. *Methodology, 6,* 147-151.

Schneid, E. D., Carlston, D. E., & Skonronski, J. J. (2015). Spontaneous evaluative inferences and their relationship to spontaneous trait inferences. *Journal of Personality and Social Psychology, 108*(5), 681-696.

Schroder, T. (2009). *A model of language-based impression-formation and attribution among Germans.* Unpublished doctoral dissertation, Freie Universitat Berlin, Berlin, Germany.

Scott-Hayward, C. S., Fradella, H. F., & Fischer, R. G. (2015). Does privacy require secrecy? Societal expectations of privacy in the digital age. *American Journal of Criminal Law, 43,* 1-49.

Seppanen, S. & Gualtieri, W. (2012). *The Millennial generation: A research review*. Retrieved from https://www.uschamberfoundation.org/sites/default/files/article/foundation/MillennialGeneration.pdf

Shawn, M. (2015). Social good and the competitive advantage of doing it well. (Unpublished honors thesis). University of Arkansas.

Shimizu, Y., Lee, H., & Uleman, J. S. (2017). Culture as automatic processes for making meaning: Spontaneous trait inferences. *Journal of Experimental Social Psychology, 69,* 79-85.

Simonson, M. (2010). Millennials—oh really? *Distance Learning, 7*(2), 80-93.

Skidmore, S. T. & Thompson, B. (2013). Bias and precision of some classical ANOVA effect sizes when assumptions are violated. *Behavior Research Methods, 45*(2), 536-546.

Skowronski, J. J. & Carlston, D. E. (1989). Negativity and extremity biases in impression formation: A review of explanations. *Psychological Bulletin, 105,* 131-142.

Smaka, C. (2011). Seven reasons to rethink social media. *Audiology Practices, 3*(3), 12-19.

Snijders, C., Matzat, U., & Reips, U. D. (2012). "Big Data": Big gaps of knowledge in the field of internet science. *International Journal of Internet Science, 7,* 1-5.

Sparkman, L., Maulding, W., & Roberts, J. (2012). Non-cognitive predictors of student success in college. *College Student Journal, 46*(3), 642-652.

SRI International. (2012, August). *States' methods of funding higher education: Report for the Nevada legislature's committee to study the funding of higher education, revised.* Retrieved from https://www.sri.com/sites/default/files/brochures/revised-sri_report_states_methods_of_funding_higher_education.pdf

Stearns, E. & Glennie, E. J. (2010). Opportunities to participate: Extracurricular activities' distribution across and academic correlates in high schools. *Social Science Research, 39*(2), 296-309.

Stephens, N. M., Fryberg, S. A., Markus, H. R., Johnson, C. S., & Covarrubias, R. (2012). Unseen disadvantage: How American universities' focus on independence undermines the academic performance of first-generation college students. *Journal of Personality and Social Psychology, 102*(6), 1178-1197.

Stewart, T. L., Weeks, M., & Lupfer, M. B. (2003). Spontaneous stereotyping: A matter of prejudice? *Social Cognition, 21*(4), 263-298.

Stieha, V. (2010). Expectations and experiences: The voice of a first-generation first-year college student and the question of student persistence. *International Journal of Qualitative Studies in Education, 23*(2), 237-249.

Strumwasser, L. M. (2014). Phishing on Facebook: Do you ask job applicants for their social media passwords? *The Computer and Internet Lawyer, 31*(1), 6-11

Sulkoski, M. L. & Lazarus, P. J. (2011). Contemporary responses to violent attacks on college campuses. *Journal of School Violence, 10*(14), 338-354.

Sy, S. R., Fong, K., Carter, R., Boehme, J. & Alert, A. (2011). Parent support and stress among first generation and continuing generation female students during the transition to college. *Journal of College Student Retention: Research, Theory, & Practice, 13*(3), 383-398.

Tandeberg, D. A. & Hillman, N. W. (2013). State performance funding for higher education: Silver bullet or red herring? (WISCAPE Policy brief). Retrieved from https://wiscape.wisc.edu/docs/WebDispenser/wiscapedocuments/pb018.pdf?sfvrsn=4

Tas, A. & Ergin, E. A. (2012). Key factors for student recruitment: The issue of university branding. *International Business Research, 5*(10), 146-153.

Telefonica. (2013). *Global Millennial survey*. Retrieved from http://survey.telefonica.com/globalreports/

Thelwall, M. (2011). Privacy and gender on the social web. In S. Trepte & L. Reinecke (Eds.), *Privacy online: Perspectives on privacy and self-disclosure in the social web* (251-265). Berlin: Springer Berlin Heidelberg.

Thurlow, C. & Poff, M. (2013). Text messaging. In S. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (163-189). Berlin: De Gruyter Mouton.

Tillman, D. R., Dinsore, J. A., Chasek, C. L., & Hof, D. D. (2013, Winter). The use of social media in counselor education. *VISTAS, 2013.* Retrieved from https://counselingoutfitters.com/vistas/vistas13/Article_12.pdf

Todorov, A., Mandisodza, A. N., Goren, A., & Hall, C. C. (2005). Inferences of competence from faces predict election outcomes. *Science, 308*, 1623-1626.

Todorov, A. & Uleman, J. S. (2002). Spontaneous trait inferences are bound to actors' faces: Evidence from a false recognition paradigm. *Journal of Experimental Social Psychology, 83*, 1051-1065.

Todorov, A. & Uleman, J. S. (2004). The person reference process in spontaneous trait inferences. *Journal of Personality and Social Psychology, 87*(4), 482-493.

Turley, S. L. (2013). High (risk) society: Easing the anxiety for institutional clients using social media. *The Air Force Law Review, 70,* 43-72.

Turner, P. & Thompson, E. (2014). College retention initiative meeting the needs of Millennial Freshmen students. *College Student Journal, 1,* 94-104.

Uleman, J. S., Saribay, S. A., & Gonzalez, C. M. (2008). Spontaneous inferences, implicit impressions, and implicit theories. *Annual Review of Psychology, 59,* 329-360.

Ungerleider, N. (2013). College are using Big Data to predict which students will do well—before they accept them. *Huffington Post.* Retrieved January 26, 2016.

United States Department of Labor. (1938.). *Fair Labor Standards Act.* Retrieved November 8, 2015, from http://webapps.dol.gov/elaws/faq/esa/flsa/026.htm

Utz, S. (2010). Show me your friends and I will tell you what type of person you are: How one's profile, number of friends, and type of friends influence impression formation on social network sites. *Journal of Computer-Mediated Communication, 15*, 314-335.

Valkenburg, P. M., Sumter, S. R., & Peter, J. (2011). Gender differences in online and offline self-disclosure in pre-adolescence and adolescence. *British Journal of Developmental Psychology, 29*(2), 253-269.

Van Dijck, J. & Poell, T. (2013). Understanding Social Media Logic. *Media and Communication, 1*(1), 2-14.

Villegas, A. M., Strom, K., & Lucas, T. (2012). Closing the racial/ethnic gap between students of color and their teachers: An elusive goal. *Equity and Excellence in Education, 45*(2), 283-301.

Vitak, J., Ellison, N. B., & Steinfield, C. (2011, January). *The ties that bond: Re-examining the relationship between Facebook use and bonding social capital.* Paper presented at the Hawaii International Conference on System Sciences (HICSS), Kauai, HI.

Walker, R. K. (2012). The right to be forgotten. *Hastings Law Journal, 64*(1), 257-286.

Walther, J. B., van der Heide, B., Kim, S. Y., Westerman, D., & Tong, S. T. (2008). The role of friends' appearance and behavior on evaluations of individuals on Facebook: Are we known by the company we keep? *Human Communication Research, 34,* 28-49.

Wang, Q., Chen, W., & Liang, Y. (2011). The effects of social media on college students. *MBA Student Scholarship*. Paper 5.

Ward, L., Siegel, M. J., & Davenport, Z. (2012). *First-generation college students: Understanding and improving the experience from recruitment to commencement.* Hoboken, NJ: John Wiley and Sons.

Weiner, B. (2008). Reflections on the history of attribution theory and research: People, personalities, publications, problems. *Social Psychology, 39*(3), 151-156.

Weissgerber, T. L., Milic, N. M., Winham, S. J., & Garovic, V. D. (2015). Beyond bar and line graphs: Time for a new data presentation paradigm. *PLoS Biol 13*(4), 47-61.

Westrick, P. L., Le, H., Robbins, S. B., Radunzel, J., M., R., & Schmidt, F. L. (2015). College performance and retention: A meta-analysis of the predictive validities of ACT scores, high school grades, and SES. *Educational Assessment, 20*(1), 23-45.

Whiting, A. & Williams, D. (2013). Why people use social media: A uses and gratifications approach. *Qualitative Market Research: An International Journal, 16*(4), 362-369.

Wilson, C. D. (2013). Making connection: Higher Education meets social media. *Change: The Magazine of Higher Learning, 45*(4), 51-57.

Wohn, D. Y., Ellison, N. B., Khan, M. L., & Fewins-Bliss, R., & Gray, R. (2013). The role of social media in shaping first-generation high school students' college aspirations: A social capital lens. *Computers and Education, 63,* 424-436.

Worley, K. (2011). Educating college students of the net generation. *Adult Learning, 22*(3), 31-39.

Yao, M. Z. (2011). Self-protection of online privacy: A behavioral approach. In S. Trepte & L. Reinecke (Eds.), *Privacy online: Perspectives on privacy and self-disclosure in the social web* (111-125). Berlin: Springer Berlin Heidelberg

Yo-Lee, E. Y., Lee, T. H., Velez, L. (2013). Planning library spaces and services for Millennials: An evidence-based approach. *Library Management, 34*(6-7), 498-511.

Zansberg, S. D. & Fischer, J. K. (2011). Privacy expectations in online social media – an emerging generational divide? *Communications Lawyer, 28*(3) Retrieved from http ://go.galegroup.com.ezproxy.liberty.edu:2048/ps/i.do?action=interpret&id=GALE|A317310902&v=2.1&u=vic_liberty&it=r&p=LT&sw=w&authCount=1

APPENDICES

Appendix A – Institutional Review Board (IRB) Approval

November 2, 2018

Ashley Allison
IRB Exemption 3479.110218: Undergraduate Admissions Decisions of Selective Institutions: The Impact of Social Media Information

Dear Ashley Allison,

The Liberty University Institutional Review Board has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under exemption category 46.101(b)(2), which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:101(b):

> (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
> (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Please note that this exemption only applies to your current research application, and any changes to your protocol must be reported to the Liberty IRB for verification of continued exemption status. You may report these changes by submitting a change in protocol form or a new application to the IRB and referencing the above IRB Exemption number.

If you have any questions about this exemption or need assistance in determining whether possible changes to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,
G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
The Graduate School

LIBERTY
UNIVERSITY.

Appendix B – Recruitment Letter/Email

[Date]
[Title]
[Company]
[Address 1]
[Address 2]
[Address 3]

Dear [Admissions Director/VP/Dean, etc]:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctor of Education degree. The purpose of my research is to understand the impact of social media information on undergraduate admissions at selective institutions and I am writing to invite you to participate in my study.

If you are 18 years of age or older, are considered a director of admission or higher level executive, and are willing to participate, you will be asked to take a survey that asks you to review the social media information of hypothetical candidates to your institution and determine if you would extend an offer to them. It should take approximately 20-30 minutes for you to complete the survey in its entirety. Your participation will be completely anonymous, and no personal, identifying information will be collected.

To participate, please click the following link to complete the survey:

https://highlycompetitive.questionpro.com

A consent document is provided as the first page you will see after you click on the survey link. The consent document contains additional information about my research, please click on the survey link at the end of the consent information to indicate that you have read the consent information and would like to take part in the survey.

Sincerely,
Ashley Allison
Doctoral Candidate

Appendix C – Participant Informed Consent

The Liberty University Institutional Review Board has approved this document for use from 11/2/2018 to --
Protocol # 3479.110218

CONSENT FORM

Undergraduate Admissions Decisions of Selective Institutions:
The Impact of Social Media Information

Ashley Allison
Liberty University
School of Education

You are invited to be in a research study on the effects of social media information on undergraduate admissions decisions of selective undergraduate institutions. You were selected as a possible participant because of your administrative role in the admissions and enrollment management functions at your institution. Please read this form and ask any questions you may have before agreeing to be in the study.

Ashley Allison, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

Background Information: The purpose of this study is to determine if admissions decisions vary based on the inclusion of social media information.

Procedures: If you agree to be in this study, I would ask you to do the following things:

1. Review the social media posts of hypothetical applicants to your institution. This should take no more than 10 minutes.
2. Answer questions regarding the information presented in these posts and if this candidate would be appropriate for admission to your institution. This should take approximately 20 minutes to complete.

Risks: The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

Benefits: Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include increased understanding of the influence of social media in college admission that may create different standards for their inclusion in this process. Applicants may benefit by understanding possible consequences of their online behaviors. Admissions personnel may benefit with further insight into their own behavior and decision-making processes. Institutions may begin to address a policy for admissions

personnel to follow when including (or not) social media information in the evaluation of applicants.

Compensation: Participants will not be compensated for participating in this study.

Confidentiality: The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records. The survey will be removed from the online host server after completion of this research. The file will be erased in its entirety after three years per federal regulations. Any future research based on this data or presentation of these findings will only be reported in the aggregate. Participant responses to the survey will be anonymous.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

How to Withdraw from the Study: If you choose to withdraw from the study, please click the "Exit Survey" link in the top right corner of the page or close your internet browser. Your responses will not be recorded or included in the study.

Contacts and Questions: The researcher conducting this study is Ashley Allison. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at 214-802-1101 and/or ashleyallison1@gmail.com. You may also contact the researcher's faculty chair, Veronica Sims, at vsims3@liberty.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information for your records.

Statement of Consent: I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

Appendix D – List of US Institutions from *Barron's* (2018) Classifications

Barrons	Institution	State
HC	Allegheny College	PA
HC	Augustana College	IL
HC	Austin College	TX
HC	Babson College	MA
HC	Bard College	NY
HC	Baylor University	TX
HC	Beloit College	WI
HC	Barea College	KY
HC	Berry College	GA
HC	Brandeis University	MA
HC	Brigham Young University	UT
HC	California Polytechnic State University	CA
HC	Christian Brothers University	TN
HC	Clarkson University	NY
HC	Clemson University	SC
HC	College of New Jersey	NJ
HC	Colorado School of Mines	CO
HC	Cornell College	IA
HC	Drexel University	PA
HC	Elon University	NC
HC	Emerson College	MA
HC	Florida State University	FL
HC	Fordham University	NY
HC	Furman University	SC
HC	Gettysburg College	PA
HC	Gonzaga University	WA
HC	Grinnell College	IA
HC	Grove City College	PA
HC	Gustavus Adolphus College	MN
HC	Indiana University of Bloomington	IN
HC	Ithaca College	NY
HC	Kettering University	MI
HC	Lawrence University	WI
HC	Miami University	OH
HC	Mills College	CA
HC	Muhlenberg College	PA
HC	New Mexico Institute of Mining and Technology	NM
HC	North Carolina State University	NC
HC	Providence College	RI
HC	Purdue University/West Lafayette	IN

HC	Rollins College	FL
HC	Sarah Lawrence College	NY
HC	Skidmore College	NY
HC	St Johns College, Annapolis	MD
HC	St Lawrence University	NY
HC	St Mary's College of Maryland	MD
HC	State University of New York/College of Environmental Science of Forestry	NY
HC	Stevens Institute of Technology	NJ
HC	Stony Brook University, State University of New York	NY
HC	Syracuse University	NY
HC	Texas Christian University	TX
HC	Truman State University	MO
HC	United States Coast Guard Academy	CT
HC	University of California at Davis	CA
HC	University of California at Santa Barbara	CA
HC	University of Connecticut	CT
HC	University of Illinois at Urbana-Champaign	IL
HC	University of Maryland	MD
HC	University of Minnesota, Twin Cities	MN
HC	University of Texas at Austin	TX
HC	University of Texas at Dallas	TX
HC	University of Wisconsin, Madison	WI
HC	Virginia Polytechnic Institute and State University	VA
HC	Westmont College	CA
HC+	American University	DC
HC+	Bard College at Simon's Rock	MA
HC+	Bennington College	VT
HC+	Bentley University	MA
HC+	Binghampton University/The State University of New York	NY
HC+	Boston University	MA
HC+	Centre College	KY
HC+	Clark University	MA
HC+	College of the Atlantic	ME
HC+	CUNY City College	NY
HC+	Denison University	OH
HC+	Dickinson College	PA
HC+	Hendrix College	AR
HC+	Hillsdale College	MI
HC+	Illinois Institute of Technology	IL
HC+	Kalamazoo College	MI
HC+	Layfayette College	PA
HC+	Mount Holyoke College	MA

HC+	New College of Florida	FL
HC+	Pepperdine University	CA
HC+	Polytechnic Institute of New York University	NY
HC+	Rhodes College	TN
HC+	Sewanee: The University of the South	TN
HC+	St Johns College, Santa Fe	NM
HC+	St Olaf College	MN
HC+	SUNY College at Geneseo	NY
HC+	Thomas Aquinas College	CA
HC+	Trinity College	CT
HC+	Trinity University	TX
HC+	United States Merchant Marine Academy	NY
HC+	University of Florida	FL
HC+	University of Michigan, Ann Arbor	MI
HC+	University of Pittsburgh at Pittsburgh	PA
HC+	University of Puget Sound	WA
HC+	University of San Diego	CA
HC+	University of Tulsa	OK
HC+	Wheaton College	IL
HC+	Wheaton College	MA
HC+	Worcester Polytechnic Institute	MA
MC	Amherst College	MA
MC	Bates College	ME
MC	Boston College	MA
MC	Bowdoin College	ME
MC	Brown University	RI
MC	Bryn Mawr College	PA
MC	Bucknell University	PA
MC	California Institute of Technology	CA
MC	Carleton College	MN
MC	Carnegie Mellon University	PA
MC	Case Western Reserve University	OH
MC	Claremont McKenna College	CA
MC	Colby College	ME
MC	Colgate University	NY
MC	College of Mount Saint Vincent	NY
MC	College of the Holy Cross	MA
MC	College of William & Mary	VA
MC	Colorado College	CO
MC	Columbia University in the City of New York	NY
MC	Columbia University/Barnard College	NY
MC	Columbia University/School of General Studies	NY
MC	Connecticut College	CT

MC	Cooper Union for the Advancement of Science and Art	NY
MC	Cornell University	NY
MC	Dartmouth College	NH
MC	Davidson College	NC
MC	Duke University	NC
MC	Emory University	GA
MC	Franklin and Marshall College	PA
MC	George Washington University	DC
MC	Georgetown University	DC
MC	Georgia Institute of Technology	GA
MC	Hamilton College	NY
MC	Hampshire College	MA
MC	Harvard University/Harvard College	MA
MC	Harvey Mudd College	CA
MC	Haverford College	PA
MC	Johns Hopkins University	MD
MC	Kenyon College	OH
MC	Lehigh University	PA
MC	Macalester College	MN
MC	Massachusetts Institute of Technology	MA
MC	Middlebury College	VT
MC	New York University	NY
MC	Northeastern University	MA
MC	Northwestern University	IL
MC	Oberlin College	OH
MC	Occidental College	CA
MC	The Ohio State University	OH
MC	Pitzer College	CA
MC	Pamona College	CA
MC	Princeton University	NJ
MC	Reed College	OR
MC	Rensselaer Polytechnic Institute	NY
MC	Rice University	TX
MC	Rose-Hulman Institute of Technology	IN
MC	Santa Clara University	CA
MC	Scripps College	CA
MC	Smith College	MA
MC	Southern Methodist University	TX
MC	Stanford University	CA
MC	Swarthmore College	PA
MC	Tufts University	MA
MC	Tulane University	LA
MC	Union College	NY

MC	United States Air Force Academy	CO
MC	United States Military Academy	NY
MC	United States Naval Academy	MD
MC	University of California at Berkley	CA
MC	University of California at Los Angeles	CA
MC	University of Chicago	IL
MC	University of Miami	FL
MC	University of Missouri/Columbia	MO
MC	University of North Carolina/Chapel Hill	NC
MC	University of Notre Dame	IN
MC	University of Pennsylvania	PA
MC	University of Richmond	VA
MC	University of Rochester	NY
MC	University of Southern California	CA
MC	University of Virginia	VA
MC	Vanderbilt University	TN
MC	Vassar College	NY
MC	Villanova University	PA
MC	Wake Forest University	NC
MC	Washington University in St Louis	MO
MC	Washington and Lee University	VA
MC	Webb Institute	NY
MC	Wellesley College	MA
MC	Wesleyan University	CT
MC	Whitman College	WA
MC	Williams College	MA
MC	Yale University	CT
VC	Abilene Christian University	TX
VC	Adelphi University	NY
VC	Alaska Pacific University	AK
VC	Albion College	MI
VC	Alfred University	NY
VC	Alma College	MI
VC	Appalachian State University	NC
VC	Asbury University	KY
VC	Assumption College	MA
VC	Augustana College	SD
VC	Baldwin Wallace University	OH
VC	Benedictine College	KS
VC	Bethel University	MN
VC	Biola University	CA
VC	Bradley University	IL
VC	Brigham Young University, Hawaii	HI

VC	Bryant University	RI
VC	Canisius College	NY
VC	Capital University	OH
VC	The Catholic University of America	DC
VC	Central College	IA
VC	Central Methodist University	MO
VC	Champlain College	VT
VC	Chatham University	PA
VC	Christendom College	VA
VC	Christopher Newport University	VA
VC	City University New York, Baruch College	NY
VC	Clarkson College	NE
VC	Coe College	IA
VC	The College at Brckport, State University of New York	NY
VC	College of Charleston	SC
VC	The College of Idaho	ID
VC	The College of New Rochelle	NY
VC	College of New Rochelle-College of New Resources	NY
VC	College of St Benedict	MN
VC	College of the Ozarks	MO
VC	College of Wooster	OH
VC	Colorado Christian University	CO
VC	Colorado State University, Fort Collins	CO
VC	Concordia College New York	NY
VC	Concordia University, Irvine	CA
VC	Concordia University, Nebraska	NE
VC	Concordia University, Ann Arbor	MI
VC	Coppin State University	MD
VC	DePaul University	IL
VC	Dillard University	LA
VC	Doane College	NE
VC	Dordt College	IA
VC	Drew University, College of Liberal Arts	NJ
VC	Drury University	IA
VC	Duquesne University	PA
VC	Eastern Mennonite University	VA
VC	Exkerd College	FL
VC	Elizabethtown College	PA
VC	Elizabethtown College School of Continuing and Professional Studies	PA
VC	Elms College	MA
VC	Embry-Riddle Aeronautical University, Prescott	AZ
VC	Emmanuel College	MA

VC	Eugene Land College, The New School for Liberal Arts	NY
VC	Fairfield University	CT
VC	Flagler College	FL
VC	Florida Institute of Technology	FL
VC	Florida International University	FL
VC	Florida Southern College	FL
VC	For Valley State University	GA
VC	Franciscan University of Steubenville	OH
VC	Freed-Hardeman University	TN
VC	George Mason University	VA
VC	Georgia College and State University	GA
VC	Georgia State University	GA
VC	Goddard College	VT
VC	Goshen College	IN
VC	Grand Canyon University	CO
VC	Grand Valley State University	MI
VC	Hamline University	MN
VC	Hanover College	IN
VC	Hellenic College, Holy Cross Greek Orthodox School of Theology	,MA
VC	Hiram College	OH
VC	Hobart and William Smith Colleges	NY
VC	Hollins University	VA
VC	Houghton College	NY
VC	Hunter College, The City University of New York	NY
VC	Illinois College	IL
VC	Illinois State University	IL
VC	Indiana Wesleyan University	IN
VC	James Madison University	VA
VC	Juniatia College	PA
VC	Kansas State University	KS
VC	Kennesaw State University	GA
VC	Knox College	IL
VC	La Sierra University	CA
VC	Lake Forest College	IL
VC	Lawrence Technological University	MI
VC	Le Moyne College	NY
VC	Lewis and Clark College	OR
VC	Lindsey Wilson College	KY
VC	Lipscomb University	TN
VC	Loras College	IA
VC	Loyola University, Maryland	MD
VC	Loyola University, New Orleans	LA
VC	Lyon College	AR

VC	Madonna University	MI
VC	Maharishi University of Management	IA
VC	Manhattan College	NY
VC	Marietta College	OH
VC	Marlboro College	VT
VC	Marquette University	WI
VC	Marymount Manhattan College	NY
VC	Maryville College	TN
VC	Maryville University of St Louis	MO
VC	McDaniel College	MD
VC	Xavier University	OH
VC	Wofford College	SC
VC	Wittenberg University	OH
VC	Wisconsin Lutheran College	WI
VC	Winthrop University	SC
VC	Westminster College	UT
VC	Westminster College	MO
VC	Western Washington University	WA
VC	Wells College	NY
VC	Washington College	MD
VC	Washington and Jefferson College	PA
VC	Medaille College	NY
VC	Messiah College	PA
VC	Metropolitan College of New York	NY
VC	Michigan State University	MI
VC	Michigan Technological University	MI
VC	Mississippi College	MS
VC	Missouri State University	MO
VC	Montana State University	MT
VC	Montana Tech of the University of Montana	MT
VC	Montreat College	NC
VC	Moravian College	PA
VC	Morgan State University	MD
VC	Nazareth College of Rochester	NY
VC	New Jersey Institute of Technology	NJ
VC	New York Institute of Technology	NY
VC	North Central College	IL
VC	Northeastern State University	OK
VC	Northern Michigan University	MI
VC	Notre Dame College	OH
VC	Nova Southeastern University	FL
VC	Oakland University	MI
VC	Oglethorpe University	GA

VC	Ohio Northern University	OH
VC	Ohio University	OH
VC	Oklahoma Baptist University	OK
VC	Oklahoma Christian University	OK
VC	Oklahoma City University	OK
VC	Oklahoma State University	OK
VC	Oswego/State University of New York	NY
VC	Ottawa University	KS
VC	Ouachita Baptist University	AR
VC	Pace University	NY
VC	Pacific Lutheran University	WA
VC	Pacific Union College	CA
VC	Penn State University/University Park	PA
VC	Point Loma Nazarene University	CA
VC	Presbyterian College	SC
VC	Queens College/the City University of New York	NY
VC	Queens University of Charlotte	NC
VC	Quinnipiac University	CT
VC	Randolph College	VA
VC	Richard Stockton College of New Jersey	NJ
VC	Rivier College	NH
VC	Roosevelt University	IL
VC	Rowan University	NJ
VC	Rutgers, The State University of New Jersey/New Brunswick	NJ
VC	Sacred Heart University	CT
VC	St Anselm College	NH
VC	St Joseph's University	PA
VC	St Louis University	MO
VC	St Mary's College	IN
VC	St Michael's College	VT
VC	Salem College	NC
VC	Salisbury University	MD
VC	Salve Regina University	RI
VC	San Diego State University	CA
VC	Shimer College	IL
VC	Siena College	NY
VC	Sierra Nevada College	NV
VC	Simmons College	MA
VC	Simpson College	IA
VC	South Dakota School of Mines and Technology	SD
VC	Southern Polytechnical State University	GA
VC	Southwestern University	TX
VC	Spelman College	GA

VC	Spring Hill College	AL
VC	St Edwards University	TX
VC	St Joseph's College, New York/Suffolk Campus	NY
VC	St Norbett College	WI
VC	The State University of New York College of Agriculture and Tech at Cobleskill	NY
VC	Stephens College	MO
VC	SUNY Fredonia/The State University of New York at Fredonia	NY
VC	SUNY Oneonta/State University of New York	NY
VC	SUNY Plattsburgh/State University of New York	NY
VC	Temple University	PA
VC	Texas State University	TX
VC	Touro College	NY
VC	Towson University	MD
VC	Trine University	IN
VC	Union College	NE
VC	Union University	TN
VC	University at Albany/ SUNY	NY
VC	University at Buffalo/ The State University of New York	NY
VC	University of Alabama at Huntsville	AL
VC	University of Arkansas at Fayetteville	AR
VC	University of California at Irvine	CA
VC	University of California at San Diego	CA
VC	University of California at Santa Cruz	CA
VC	University of Central Arkansas	AR
VC	University of Cincinnati	OH
VC	University of Colorado at Colorado Springs	CO
VC	University of Dayton	OH
VC	University of Delaware	DE
VC	University of Georgia	GA
VC	University of Hawaii at Manoa	HI
VC	University of Houston	TX
VC	University of Illinois at Chicago	IL
VC	University of Iowa	IA
VC	University of La Verne	CA
VC	University of Louisville	KY
VC	University of Mary Washington	VA
VC	University of Maryland/Baltimore County	MD
VC	University of Michigan/Dearborn	MI
VC	University of Minnesota, Morris	MN
VC	University of Mississippi	MS
VC	University of Missouri-St Louis	MO
VC	University of Mobile	AL

VC	University of Nebraska-Lincoln	NE
VC	University of New Hampshire	NH
VC	University of New Orleans	LA
VC	University of North Florida	FL
VC	University of Oregon	OR
VC	University of Portland	OR
VC	University of Redlands	CA
VC	University of St Thomas	MN
VC	University of San Francisco	CA
VC	University of Science and Arts of Oklahoma	OK
VC	University of Scranton	PA
VC	University of South Carolina at Columbia	SC
VC	University of South Florida/St Petersburg	FL
VC	University of St Thomas-Houston	TX
VC	University of Tampa	FL
VC	University of Tennessee at Knoxville	TN
VC	University of the Pacific	CA
VC	University of Utah	UT
VC	University of Washington	WA
VC	University of Wisconsin/Eau Claire	WI
VC	University of Wisconsin/La Crosse	WI
VC	Vanguard University of Southern California	CA
VC	Wabash College	NY
VC	Wagner College	NY
VC	Warren Wilson College	NC
VC	Wartburg College	IA
VC+	Agnes Scott College	GA
VC+	Auburn University	AL
VC+	Belmont University	TN
VC+	Birmingham-Southern College	AL
VC+	Brescia University	KY
VC+	Butler University	IN
VC+	Calvin College	MI
VC+	Cedarville University	OH
VC+	Chapman University	CA
VC+	Covenant College	GA
VC+	Creighton University	NE
VC+	DePauw University	IN
VC+	Drake University	IA
VC+	Earlham College	IN
VC+	Gordon College	MA
VC+	Goucher College	MD
VC+	Hofstra University	NY

VC+	Hope College	MI
VC+	Illinois Wesleyan University	IL
VC+	John Brown University	AR
VC+	Kentucky Wesleyan College	KY
VC+	Louisiana State University	LA
VC+	Loyola Marymount University	CA
VC+	Loyola University, Chicago	IL
VC+	Luther College	IA
VC+	Yeshiva University	NY
VC+	William Jewell College	MO
VC+	Williamette University	OR
VC+	Whitworth University	WA
VC+	Mercer University	GA
VC+	Millsaps College	MS
VC+	Milwaukee School of Engineering	WI
VC+	Missouri University of Science and Technology	MO
VC+	Mount St Mary's College/Chalon Campus	CA
VC+	Rochester Institute of Technology	NY
VC+	Samford University	AL
VC+	Seattle Pacific University	WA
VC+	Seattle University	WA
VC+	Stetson University	FL
VC+	Stonehill College	MA
VC+	Taylor University	IN
VC+	Texas A&M University	TX
VC+	Transylvania University	KY
VC+	University of Central Florida	FL
VC+	University of Colorado Boulder	CO
VC+	University of Dallas	TX
VC+	University of Denver	CO
VC+	University of Evansville	IN
VC+	University of Massachusetts Amherst	MA
VC+	University of North Carolina at Asheville	NC
VC+	University of North Carolina at Wilmington	NC
VC+	University of Oklahoma	OK
VC+	University of the Sciences	PA
VC+	University of Vermont	VT
VC+	Ursinus College	PA
VC+	Valparaiso University	IN