

**EXAMINING THE RELATIONSHIP BETWEEN COMMUNITY
EDUCATIONAL ATTAINMENT AND THE DISCIPLINE IMPLEMENTATION
OF FOURTH AMENDMENT LEGAL PRINCIPLES IN PUBLIC SCHOOLS**

A Record of Study

by

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ABSTRACT

This research examined the relationship between community educational attainment and Fourth Amendment legal principles being implemented in public schools. Using education attainment data obtained from the U.S. Census, this study examined the influence of educational attainment on how searches of students were conducted and the relative legal and judicial outcomes. The results of this study offer insight on issues related to forms of discipline in public schools and contribute to knowledge bases in the fields of economics, law, social theory, and educational leadership and administration.

Current literature addresses administrative decisions, judgments, and practices resulting from the decisions made in the four primary United States Supreme Court cases regarding the Fourth Amendment, but the aspect of educational attainment has been primarily investigated largely within economics and academic achievement. For that reason, this study used literature from administrative leadership, social and human capital, educational utility, and educational attainment to frame the analysis.

Findings from the analysis suggest community educational attainment has little to no predictive influence on the four measures of student searches used in the study, which include the intrusiveness level of the search, the ruling of the court, whether or not criminal proceedings were initiated, and the number of searches. Based on results, policy makers and practitioners need to consider how educational attainment in a community can create civic action that may change practices in schools.

DEDICATION

This study is dedicated to the people in my life who have shown me the value of education, service, perseverance, and dedication to a calling greater than myself, and the ongoing importance of leaving a legacy of which I can be proud, including: my parents James and Sharon Burke, who instilled in me the value of public education and whose actions of humility and service guide me to this day; my brother, Dan Burke, who forged a path of success and expectation before me, and whose intelligence and humor has offered both a respite and an inspiration; and of course, my loving and patient wife, Kimberly, who has been with me every step of the way in this endeavor, and who has been nothing short of supportive and loving. Words cannot express my appreciation for all that you have taught me and all the ways in which you have supported me and encouraged me along the way. I am the man that I am because of your influence, and I love you all immeasurably.

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CHAPTER I

INTRODUCTION

This study examines the relationship between the disciplinary actions of school administrators and subsequent judicial outcomes of student searches in public schools and the educational attainment levels of the communities in which these searches occurred. This analysis explores the construct of community educational attainment derived from census data as a predictor of the manner in which searches of students are administered. Given the extreme and uncertain nature of searches and the increasing attention given to acts of extreme school violence, which demand a certain level of vigilance by school administrators to ensure school safety, students are faced with the possibility of having their Fourth Amendment rights violated on any given day and in a manner of different circumstances. Prior research by Torres and Stefkovich (2003) suggest that “a student, not suspected of any violations whatsoever, might be required to: have his/her possessions searched by canines; be scanned by a metal detector...or be subjected to highly invasive strip searches if suspected of wrongdoing” (p. 260).

This is not to suggest that school administrators, charged with keeping schools and students safe, intend to violate the legal rights afforded to those in their stead. Rather, research by Stefkovich and O’Brien (2001) asserted that administrators and teachers may be deficient in their knowledge of the basic principles of the law and specifically facets of law related to search and seizure. Given the risk inherent in this deficiency, and the position in which students are placed when this deficiency exists, it is

important to analyze what independent factors affect the treatment of student rights in a school.

This study investigates whether community demographics, including educational attainment, heretofore a little-researched and unclear construct, play a significant role in the actions of administrators in implementing discipline and on the outcome of those disciplinary decisions in public schools and in the judicial arena. If student rights are to be protected, then it is imperative to understand the juxtaposition of community educational attainment, measured in this analysis by the percentage of bachelor's degrees and above in a given community, and student searches in schools in those communities.

This study further analyzes the concepts that provide a framework for the construct of educational attainment, including knowledge of the law and legal principles. Therefore, it is necessary to identify what legal principles inform both administrators in schools and the community in relation to student searches.

The legal principles that guide student searches stem from four United States Supreme Court rulings: *New Jersey v. T.L.O.* (1985), *Vernonia v. Acton* (1995), *Board of Education v. Earls* (2002), and *Safford Unified School District v. Redding* (2009). Although these cases will be described in greater detail in the review of literature, it is important to discuss the overarching guideline resulting from the decisions in these cases in relation to student searches in schools.

Many citizens may be familiar with the concept of “probable cause” as the guiding standard in determining the decision of a police officer to search an individual,

one's possessions, or premises. In United States criminal law, probable cause is the standard by which an officer or agent of the law has the grounds to make an arrest, to conduct a personal or property search, or to obtain a warrant for arrest, etc. when criminal charges are being considered. However, many may not be familiar with the concept of reasonableness, the standard by which school administrators operate in relation to searches. The aforementioned High Court cases involving student searches allow that reasonableness, an ambiguous concept in and of itself, guides administrative actions in schools.

Reasonableness can be defined as the state of rationality, or reason, as wisdom or sanity, or synonymous with moderate, plausible or valid. According to the United States Supreme Court, the reasonableness standard is defined as having two central parts in relation to searches: (a) the search must be justified at the beginning, or inception; and (b) the scope must be reasonably related to its objective (*New Jersey v. T.L.O.*, 1985). This standard still does not identify what reasonableness means or gives a clear definition of reason. *R v. Camplin*, A.C. 705 (1978, p. 11) in citing a reasonable man, "means an ordinary person of either sex, not exceptionally excitable or pugnacious, but possessed of such powers of self-control as everyone is entitled to expect that his fellow citizens will exercise in society as it is today".

Therefore, one may assume that reasonableness means an action that is logically oriented or, more simply put, what an "average" member of society would understand. Given this ambiguity, certain implications exist for communities in which public schools are located. If, as and Stefkovich and O'Brien (2001) suggested, school administrators'

knowledge of the law is deficient in the area of search and seizure, then what is the level of legal understanding of “average” community members? If a community’s level of legal knowledge, again partially measured in this analysis by the number of bachelor’s degrees and above that exist in that community, is low, then what are the implications for the abuse of administrator discretion on student rights?

This is a question that deserves to be researched simply for the inherent risk assumed by students in these situations. Therefore, the review of literature to follow will highlight the construct of educational attainment by examining legal information as a source of knowledge and cultural capital, as well as examine the research related to educational attainment from an economic and academic perspective.

Whereas previous studies have focused on administrative decisions and actions (Hanson, 2005; Mitchell, 1998), law enforcement involvement (Beger, 2002; Bough, 1999; Holland, 2006; Kagan, 2004; Pinnard, 2003; Rabinowitz, 2006; Rossow & Stefkovich, 1995; Torres & Stefkovich, 2007), student demographics (Eitle & Eitle, 2004; Mendez, Knoff, & Ferron, 2002; Skiba, Nardo, & Peterson, 2002), and ethical and legal considerations resulting from student searches in schools (Dolbeare, 1973; Sanchez, 1992; Shapiro & Stefkovich, 2010; Stefkovich & O’Brien, 1997; Torres, Brady, & Stefkovich, 2011; Wasby, 1973), this author proposes to focus on a narrow but potentially influential construct of community awareness and understanding as it relates to the application of the Fourth Amendment in schools: community educational attainment.

Given the demographic variables inherent in communities across this nation, such as socioeconomic status, minority makeup, geographic and economic factors, etc., it is important to discuss previous challenges faced by communities in past societal and legal areas, most notably the inability of African Americans to challenge segregation policies. In doing so, this study proposes to relate past challenges to present and future struggles for equity.

Even after the landmark *Brown vs. Board of Education of Topeka* (1954), in which the Supreme Court declared state laws establishing separate public schools for black and white students unconstitutional, African-Americans faced segregation challenges for years after. As Harper (2008) suggested, “Equitable access to social mobility and advancement through education were among the intended outcomes of the *Brown v. Board of Education* case and related legislation” (p. 1030). Harper further suggested that inequities still exist in education with respect to gender and race.

Bell (2004) noted that most African American students still attend racially homogenous public schools in economically distressed communities with limited educational resources, inequitable facilities, high dropout rates, and low levels of achievement on most educational benchmarks. If that is indeed true, then what level of educational awareness, knowledge of the law, and knowledge of student rights exists in those types of communities? The implication suggested here is community inequities, not just of an economic level, but also in a sense of the transference of ideals and educational knowledge, create a level of disparity in schools that may surface as a violation of student rights.

Harper (2008) further asserted, “Desegregation was intended to remedy the cyclical perpetuation of White supremacy and the racial disadvantages manufactured by educational exclusivity” (p. 18). Given the suggestion that *Brown* was intended to provide minorities with equitable access to social mobility through education, what occurs when that education is not realized, either through inadvertent segregation, lack of economic equity, or a lack of social mobility? Claussen and Osborne (2013) posited that the concepts of “habitus” and cultural capital theorized by Bourdieu provide a “unique perspective from which to analyze the function of education” (p. 59).

Suggesting that individuals acquire cultural capital by interacting with groups in their social contexts, what happens when individuals do not interact with others in different social groups or fail to acquire capital through other means, i.e., formal education? With Bourdieu’s suggestion that “those who enter the classroom with sufficient cultural capital of the appropriate, dominant type—capital that fits well with the discourse and value of schools—are well positioned to increase their cultural capital further” (as cited in Claussen & Osborne, 2013, p. 59), individuals who do not possess the cultural, or educational capital may not be able to recognize and thus prevent discretionary abuse of their rights. Thus, it is necessary to examine the concept of cultural capital and its effect on the attainment of education in a given community.

Further, it is essential to analyze the context in which educational attainment may impact the nature of searches in schools and the possible inequities which may exist. One such inequity may be the abuse of student rights in schools, stemming from a lack of educational attainment of the community in which a search may occur.

No study, to date, has investigated the relationship between the educational attainment of a community and the implementation and outcomes of student searches in public schools. Insight gained from such a study would be useful for school administration, law-enforcement entities and parents seeking to ensure that Fourth Amendment legal principles are consistently and equitably applied. Therefore, it is necessary to discuss the nature of student rights in schools, focusing on the protection afforded to students by the United States Constitution and judicial rulings on abuses of student freedom in schools. The first High Court case to address the issue of student constitutional protection was *Tinker v. Des Moines* (1969).

Tinker v. Des Moines (1969) involved three students who chose to wear black armbands to school to protest the Vietnam War and to support the Christmas Truce. The school district suspended the students and claimed that they were violating school policies. The Court held that the school administrators lacked “justification for imposing free speech limitations on the students” and clearly established that students do not lose their constitutional right to free speech [and other rights afforded to individuals under the United States Constitution] on the schoolhouse steps (*Tinker v. Des Moines*, 1969, p. 505). It is therefore logical to assume that students enjoy similar protection under other Constitutional amendments, including the Fourth Amendment. The Fourth Amendment of the United States Constitution guarantees “the right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures...shall not be violated” (U.S. Const., amend. IV, § 1).

The Fourteenth Amendment extends this protection and establishes applicability to the states. Torres et al. (2011) asserted that it is “important to emphasize that the logic outlined in the four U.S. Supreme Court opinions permits a degree of latitude to school officials in conducting searches of students while in school” (p. 60). It is important, therefore, to discuss the logic found in each of these cases relative to student searches.

These four cases have established the basis of the relationship between “the student and the school with respect to disciplinary consequences and students’ entitlement to be free from unreasonable searches (Torres et al., 2011). It is therefore prudent to determine what factors play significant roles in determining disciplinary outcomes resulting from student searches. In doing so, it is important to analyze what judicial rulings have informed administrator decisions and actions in relation to student searches. Therefore, a brief description of the aforementioned United States Supreme Court cases involving search and seizure in schools is needed.

Examining the four major U.S. Supreme Court cases with respect to limits and freedoms associated with students’ rights to privacy under the reasonableness standard illustrates the fact that challenges still exist when student rights and the discretion of school officials conflict. Analyzing these cases in detail and paying particular attention to the facts surrounding the case and the eventual judicial decision will provide a framework for this research. Because these cases present actions by school officials and decisions by the Court in relation to the latitude given to schools as well as setting a

precedent for future rulings, it is necessary to provide a brief synopsis of each case for introductory purposes.

Background

The case of *New Jersey v. T.L.O.* (1985) addressed the question of determining the proper and acceptable standard for searches by officials in schools. When administrators are charged with maintaining safe environments, what then are legitimate expectations for student privacy concerns? This particular case involved a student who was caught smoking in a restroom. The student was questioned by the assistant principal and denied the charge, upon which the administrator searched the student's bag for cigarettes. Instead of finding cigarettes, the administrator found marijuana paraphernalia and a list of students who owed money. When the school pressed for delinquency charges against the student, T.L.O. moved to suppress the evidence on grounds that the search violated the Fourth Amendment. The Supreme Court, in a majority opinion, ruled that the standard of "reasonableness" in the context of a school environment in which teachers and administrators are charged with maintaining safety and order does not require a warrant, nor does it require probable cause (*New Jersey v. T.L.O.*, 1985). As mentioned earlier in the introduction, the Court in *T.L.O.* established the two-pronged rule for searches. As long as the search is justified at its inception and the scope of the search was reasonable in its relation to "the circumstances which justified the interference in the first place" then the school has met the standard of reasonableness (*New Jersey v. T.L.O.*, 1985, p. 341). The outcome and subsequent applicability of the ruling in this case indicated that the standards established for reasonableness as it relates

to searches by school officials “neither burden the efforts of administrators in maintaining order nor authorize ...intrusions upon the privacy of schoolchildren” (*New Jersey v. T.L.O.*, 1985, p. 341). This standard of reasonableness would guide school administrators and frame subsequent search and seizure cases until *Vernonia v. Acton* in 1995.

In *Vernonia*, the constitutionality of random drug testing in public schools was upheld due to the nature of school officials’ necessity to maintain order in their schools. The respondent in this case brought action on grounds that his Fourth and Fourteenth Amendment rights were violated due to his refusal to sign a drug-testing consent form that would require him to submit to a random drug testing policy in order to participate in athletics. The school implemented this policy due to concern regarding student-athletes’ pervasive drug use on campus. As school officials, serving in the capacity of *in loco parentis*, are charged with temporary custody of schoolchildren, the Court found that in these cases, public school students have a lesser expectation of privacy than members of the general public.

Additionally, the Court contended that student-athletes in public schools have an even less expectation of privacy than regular students, thereby opening the expectations of intrusions upon normal rights and privileges, including privacy (Torres et al., 2011). Because the school’s interest in deterring drug use among students was deemed necessary due to the potential effect on the entire student body, the reasonableness of the random drug testing policy was upheld. This same protection would later be extended in *Board of Education v. Earls* in 2002.

Board of Education v. Earls (2002) reaffirmed the right of school districts to implement a random drug testing policy on students who participate in extracurricular activities. Whereas *Vernonia v. Acton* (1995) established the right of the school to implement said policy on students involved in athletics, *Earls* further extended this provision to include students who participate in band and other extracurricular areas.

Once again, the Court, holding that school districts have “a reasonable right to effectively address concerns about preventing drug use in schools when there is evidence of increased drug use” (*Board of Education v. Earls*, 2002). An additional tenet to this ruling was offered in the concurring opinion, in which Justice Boyer noted that the drug testing policy implemented in *Earls*, and including other such policies in schools, served to “combat peer pressure, considered to be the biggest factor leading to drug use” (*Board of Education v. Earls*, 2002). This outcome further provided school officials with the discretion to conduct searches, given that the searches were reasonably related to preventing safety concerns. The application of the reasonableness standard would come under further scrutiny in the most recent of the four landmark Supreme Court cases involving student searches, *Safford v. Redding* (2009).

Safford v. Redding (2009) involved the application of the reasonableness standard to searches that were distinct in the level of intrusiveness as well as the question of the immunity enjoyed by public school officials who did not use the proper standards for conducting those searches. Briefly, *Safford* involved a student who was believed to possess and possibly distribute prescription strength painkillers. After general searches of her locker and possessions revealed the presence of knives, other contraband, and

painkillers, the student, who claimed she knew nothing about the contraband, was taken to the nurse's office. She was told to remove her clothing and pull out and shake her undergarments. Nothing was found (*Safford v. Redding*, 2009).

The ruling in this case distinguished the severity of the search with other searches in prior cases and stated that “the nature of the indignity of a search that is intrusive to this extent is categorically distinct from other types of searches, thus there is an increased level of suspicion necessary to constitute reasonableness for the action (Torres et al., 2011). The Court did find that the school official enjoyed qualified immunity because “there is reason to question the clarity with which the right [to privacy] was established” (*Safford v. Redding*, 2009, p. 360).

Therefore, the Court once again upheld that school authorities, while being held to the reasonableness, justification, and responsibility to remain safety standards involving student searches, enjoy a certain degree of discretion and latitude when serving in their capacity. The outcome and subsequent opinions in *Safford v. Redding* (2009), however, do indicate that the Court is looking more closely at this discretionary power. Because of this, and because of prior research highlighting possible inequities involving student searches to be discussed later in this study, further examination of extraneous factors which may play a role in administrative decisions and discipline implementation of outcomes relating to search and seizure is prudent.

In each of the four U.S. Supreme Court cases involving student searches, the Court sided with school district in three, finding fault with Safford due to the inception standard. Therefore, it is reasonable to infer that school officials are granted latitude to

conduct student searches based on the justification and reasonableness of the search in question. Further, school officials enjoy a greater scope of power in conducting searches if the reason for the search is to keep the school and students safe from harm.

What must now be examined is what happens to students after searches have been conducted, and in what context that occurs. Because previous studies have focused on the effects of demographics (Torres & Stefkovich, 2009), police presence (Torres et al., 2011; Torres & Stefkovich, 2009), and the legal and ethical implications of student strip-searches on school leaders (Torres et al., 2011), it is now imperative to examine what other possible factors may affect the search and subsequent outcomes of those searches on public school students. The focus of this research will be to examine the role that the educational attainment of a community may play on these discipline and judicial outcomes.

Statement of the Problem

There have been an extensive number of court cases at the local, state, district and federal levels resulting from student searches in public schools. This study analyzed student search outcomes in a database comprised of 263 cases, beginning with the *New Jersey v. T.L.O.* ruling in 1985 and ending with the *State v. J.H.* decision in 2005. There are many factors that may affect both the validity of a student search as well as the outcomes resulting from those searches. These include administrative action, student safety and school violence concerns, the suspected presence of drugs, or other violations of school policy. A number of research studies have focused on the decision outcomes and subsequent effects resulting from four United States Supreme Court Cases: *New*

Jersey v. T.L.O (1985); *Vernonia v. Acton* (1995); *Board of Education v. Earls* (2002); and *Safford Unified School District v. Redding* (2009).

The decisions from these cases have, in large part, helped guide administrative implementation of student searches in schools. For example, in an article focusing on student strip searches as a result of *Safford v. Redding*, Torres et al. (2011) point to the legal and ethical implications of the ruling in this case juxtaposed against administrators' needs to maintain appropriate school discipline and bolster school safety. Particular attention is paid to the different legal protections afforded to students than to the general public. School children are not guaranteed the same legal protections from unreasonable searches as are adult citizens. This article, in large part, addresses the administrative role in conducting these strip searches, considered to be "the most intrusive form of personal searches" (p. 44).

Further, school officials, given the increasing concern nationally for improvements in school safety, are faced with a real dilemma: what is the ethical and legal course of action that should be applied to student searches? In another article by Torres and Stefkovich (2009), the role of law enforcement and demographics of students and community was addressed. Calling into question the possibility of criminalization of student offenses, Torres and Stefkovich point to the confusing effect law enforcement may have on administrative actions in student search situations. Because police are being increasingly relied upon for campus security, it is a natural and reasonable assumption that more law enforcement officials, held to the probable cause standard

rather than the reasonableness standard used by public school officials, are more likely to be involved in student searches.

Second, an examination of the potential relationship between a given community's knowledge of legal principles, measured in this analysis by the level of educational attainment of that community, and the subsequent implementation of Fourth Amendment legal principles in schools seems a logical next step to broadening our understanding of demographic influences.

Additionally, by reviewing extant literature supporting educational attainment (Coleman et al., 1966), economics (Becker, 1964), parents' socio-economic status relating to educational attainment (Bjorklund & Salvanes, 2011), intergenerational transmission of human capital (Antonovics & Goldberger, 2005), the causal effect of parents schooling on children's schooling (Holmlund, Lindahl, & Plug, 2008), cultural capital and pedagogic action (Bourdieu, 1986) and legal information as a source of social capital (Claussen & Osborne, 2012), this analysis could lend insight into the construct of educational attainment and its possible effect on search and seizure in schools.

In a recent General Social Survey data provided by the University of California-Berkeley, 55,087 participants were surveyed on a variety of different societal issues from 1972-2012. The author conducted a correlation analysis of 1,347 valid cases between the highest school year completed and whether or not a given situation would improve with strict discipline. Interestingly, as the results of the correlation revealed, participants seemed to believe that as more years in school were completed, strict

discipline was not necessary or effective in improving a behavior situation. Thus, there was a negative relationship at work.

Given these results, it is reasonable to contend that as the level of education in a community increases, the perceptions about a school administrator's authority and level of knowledge about discipline implementation, or that discipline is effective at all, may change. By examining the educational attainment of a community through research on human intellectual and social capital, educational attainment, legal knowledge, and previous research on the Fourth Amendment in Schools, this researcher will seek to extend understanding of extraneous influences on domains of educational administration.

Torres (2012) and Torres and Chen (2006) further support the conclusion that court's rulings fall short in articulating with precision to perhaps fulfill political ends (Torres, Stefkovich, & Brady, 2008; Torres & Callahan, 2008), and to promote a more coherent practical understanding of the Fourth Amendment in public schools (Stefkovich & Torres, 2003), thus rendering it applicable to different situations.

Problem Statement

This introduction illustrates the potential demographic, societal, legal and educational factors that may influence the implementation of Fourth Amendment rights in public schools. This analysis argues that these factors may indeed have an influence on the type of discipline enforced relative to student searches, the presence of student searches in the first place, and the behavior of school officials and judicial entities. Given that administrators have only to meet the reasonableness standard and therefore

enjoy more latitude and discretion than law-enforcement, it is important to examine what factors may influence that behavior. As previous studies have suggested that judicial rulings have influenced administrators' decisions (Torres et al., 2011), it stands to reason that other extraneous factors may influence those same decisions. The problem, then, is whether or not a community's level of education significantly influences the equitable implementation of discipline related to Fourth Amendment rights as well as judicial outcomes related to student searches.

Research Questions

The overarching question guiding this analysis is whether or not a relationship exists between the educational attainment of a community and the mitigating factors surrounding student searches in those communities. Specifically, this study provides further clarity in answering the following research questions:

1. Is there a relationship between the educational attainment of a community and the intrusiveness level of the search?
2. Is there a relationship between the educational attainment level of the community and whether or not the student won the case?
3. Is there a relationship between the educational attainment level of the community and whether or not criminal proceedings were initiated?
4. Is there a relationship between the educational attainment level of the community and the number of searches?

Need for the Study

Given that public education is seen by many as fundamental to a democratic society, it stands to reason that education itself is a driver of communities in this context. Public education in the United States emerged in part from the goals of democratic society: to prepare people to become responsible citizens; to improve social conditions; to promote cultural unity; to help people become economically self-sufficient; and to enhance individual happiness and enrich individual lives (Matthews, 1996).

In the spirit of such goals, public schools were widely established in the late 1800s. Although the quality and inclusiveness of such schools have varied since their creation, public schools originated as the necessary expression of democratic society (Goodman, 1996). Jesse Goodman, former chair of curriculum at the Indiana University School of Education, posits that individual freedom must be balanced with the broader responsibility to make the culture a worthwhile culture (Goodman, 1996). As discussed earlier, the Fourth Amendment guarantees the right of the people (the individual) to be free from unreasonable searches and seizures.

The Supreme Court clearly established in *Vernonia* and later in *Earls*, that, if danger exists for the majority, then the justification of encroachment on individual liberties may be seen as necessary to prevent further pervasive risk. Given this context, and the context of school safety concerns today, to what extent does a specific community's level of education and awareness of legal principles and public education issues, affect the intrusiveness of searches, as well as the subsequent outcomes of these searches?

Further, as Apple and Beane (1995) asserted, “School governance, structure, curriculum, and instruction must model democratic ideals if schools are to prepare children for democratic life.” What part, then, does the ideal of education, and the attainment of that education play in the tendencies or actions of school administrators’ in search and seizure outcomes? Interestingly, Darling-Hammond (1996) contended, “If we cannot build [equitable] schools at this moment in history, I believe that a deeply stratified society- one divided by access to knowledge and the opportunity to learn- could undo our chances for democratic life and government” (p. 74). How then, when examining the issue of inequity, does one define the concepts of “access” and “opportunity to learn” in the context of searches and seizures in specific communities?

One must analyze the means and methods by which education, in itself a construct of ideas, is attained and the implications of that educational attainment. For example, what *is* education in the context of a community? How does the community, and by consequence research, define the level of education? For the purposes of this analysis, the level of school completion, specifically the completion of a bachelor’s degree, will be one measure of educational attainment.

However, understanding and recognizing the presence of educational access, described in this study using the theory of social capital posited by Bourdieu (1977), is fundamental to the construct of educational attainment. The idea of cultural capital, and legal capital as an extension, both borne from the larger theoretical base of social capital, provides a theoretical framework from which to work for the purposes of understanding the broader construct of community educational attainment.

Additionally, the presence of search and seizure litigation, which will be explored later in this analysis, demands attention due to the implication of inherent inequity in the discipline implementation of searches and seizures in schools, and especially in communities where the levels of education may be lower. Because, as David Matthews (1996) suggested, public schools may mirror the broader social contexts in which they function and he further asserts, “there are many reasons to suggest that the well-being of schools is directly related to the state of public life” (p. 106).

If we are to understand and accept that schools do in fact mirror or resemble the communities in which they are found, as Matthews suggests, then what are the implications of inequitable practices in these schools? Do the residents of that community fully understand the nature of search and seizure and the legal system as a whole? Do those residents suffer the same sorts of intrusions and by that experience understand the need for equity?

Finally, how does the community gain or attain knowledge that will enable its residents to affect change in school practice? In fact, Torres et al. (2011) suggested that additional research is needed to investigate the effects of community involvement or engagement in minimizing the likelihood that student offenses will be criminalized. What place does the community hold in this regard? A central question to be examined in this analysis is how does a community’s level of education affect the nature of discipline implementation in its schools in search and seizure cases?

Before that question can be answered, it is necessary to provide a context in which these issues can be examined. Most importantly, research involving educational attainment, and specifically how it is constructed and measured, is discussed. Additionally, empirical research studies investigating the causal or predictive influence of educational attainment on various outcomes are analyzed to look for observable trends that may influence the current study. Last, a discussion on community demographics, social, cultural and legal capital, and judicial rulings on searches and seizures in public schools will be conducted. In addition, prior research reflecting the effects of judicial rulings on administrative decisions, as well as legal and ethical implications of those decisions, will be thoroughly examined.

CHAPTER II

REVIEW OF LITERATURE

The aims of this analysis require a review of four broad areas of research. The initial section reviews the theoretical literature related to the construct of community educational attainment, with particular attention paid to the concepts of educational attainment, both from a familial and educational perspective, social and cultural capital, and legal information as a form of social capital. The second section presents research involving the Fourth Amendment in the context of search and seizure practices in schools as well as a review of applicable state and federal court cases pertaining to search and seizure in public schools. The third section provides a review of demographic factors, including race and community context, that have been reviewed in literature relating to search and seizure in schools. Additionally, this section will provide insight on the juxtaposition of administrative action relative to the influence of these demographic factors. The final section investigates extant literature relative to administrative discretion, action, and implementation of fourth amendment legal principles in schools.

Because a primary goal of this investigation is to study the relationship between community educational attainment and the discipline implementation of Fourth Amendment legal principles in schools, the following review focuses on literature that provides insight and lends scope and focus to the interpretation of the analysis.

Educational Attainment Theory

Educational attainment, as addressed by James Coleman (1988) and in economics by Gary Becker (1964), is closely related to family background, including parents' education and parents' socio-economic status (Bjorklund & Salvanes, 2011). There is a wealth of extant research on maternal education levels and the "intergenerational transmission of human capital" (Antonovics & Goldberger, 2005) as well as the effect of family composition on children's outcomes (Black, Deveraux, & Salvanes, 2005).

Additionally, existing literature has examined the equality of educational opportunity, most notably by Coleman et al. (1966) as well as the causal effect of a parent's schooling on children's schooling (Holmlund et al., 2008). Lindhal (2010) compares family and neighborhood effects on grades, test scores, educational attainment, and income. Thus far, no research has focused on the effect that the educational attainment of a community may have on the discipline implementation and subsequent judicial outcomes of school searches.

The majority of extant literature focuses on the effects of educational attainment on learning itself, not the application of the law in a public school setting. Examining the juxtaposition of these two relationships may lend valuable insight into research focusing on human capital, social justice, legal policy and practice, police involvement, and leadership behavior at the school administration level. The significance of the research to be conducted on educational attainment and the implementation of Fourth Amendment legal principles, then, will present a new perspective and will benefit the

fields of legal, economic, and social theory and policy. It is important to examine specific empirical studies investigating educational attainment and various ways in which it is explained, constructed or measured. It is therefore necessary to examine the educational utility of parental social capital as a fundamental aspect of educational attainment.

Ream and Palardy (2008) examined how class-stratified social networks of parents perpetuate educational inequality among students in schools. The authors investigated parent social capital and the idea of collective efficacy of educational utility and the influence on school policies and practices. Of particular interest to this researcher is the idea that levels of education and social class may influence collective action regarding practices in schools, including the protection of civil liberties. Further, Ream and Palardy investigated “the educational implications of people networks as potentially useful resources, and how those relationship configurations contribute to educational stratification” (p. 239).

While Ream and Palardy’s (2008) research focused on the outcome of student achievement, the notion of collective efficacy based on social class and parental social capital as a result of common levels of educational attainment is especially relevant to the present study. Examining empirical research on the notion of collective efficacy based on educational attainment should lend insight into the goal of this study: to examine the possible predictive influence of community educational attainment on student search issues. Citing Coleman’s (1988) seminal work on the emphasis of educational utility in developing social capital, and the beneficial impact on school-

related outcomes, the authors “consider both the functional and the reproductive forms of parental social capital” (Ream & Palardy, 2008, p. 240). The study further considers the links between schools and parent networks and the conclusion that parents of upper or middle-class students are more influential in educationally benefiting their children and changing school practice. This conclusion suggests that there is a link between how parents, either through economic, social or educational capital affect the practice of schools in their communities. Again, the study by Ream and Palardy focused primarily on the effect of parental capital on academic achievement, but did provide a theoretical and empirical basis for examining the predictive influence of shared community norms. One such norm is community educational attainment.

Research by Owens (2010), investigating different neighborhood and school contexts for educational attainment, found that the absolute level of neighborhood resources positively predicts earning a bachelor’s degree, a measure of educational attainment used in the present study. Citing previous work by Hanushek (2003), Owens further asserted, “Another important social context for educational achievement is the student’s neighborhood. In general, past research has shown that students who live in more advantaged neighborhoods have higher educational outcomes” (p.288). Additionally, advantaged neighborhoods facilitate social networks that encourage educational attainment or collectively influence youth into attitudes that result in higher levels of educational attainment. This suggests that community educational attainment may serve as both a predictive measure of the creation of social norms and a simultaneous result of the social norms in action. This is important because the current

research investigates a potential predictive relationship between the educational attainment of a community and direct outcomes in student search cases. Very little research exists that examines this relationship, and especially the shared norms aspect of educational attainment as driver of school policy and practice change. Other measures of educational attainment, or ways by which education is attained, include peer influence and school composition.

While there are a number of studies that have examined school composition as a predictor of educational attainment (Mayer, 2002; Orfield & Eaton, 1996), very few have investigated the predictive nature of educational attainment on school practices, outside of academic achievement. The idea that social norms of neighborhoods or communities may affect the attainment of education or reinforce its importance is of particular relevance to this study. Understanding how educational attainment levels may translate into social norm development and then into action will greatly benefit educational policy and practice, including the legal protection afforded to students.

First, in a study by Robertson and Reynolds (2003), a cluster analysis on measures of human capital resources, family dynamics and demographics was used to identify profiles of families who exhibited higher levels of educational attainment, and to investigate those factors in an empirical analysis. Human capital resources and parenting practices towards children's schooling were indicators of higher educational attainment. Further, the researchers identify high school completion as being a "milestone of adolescence that serves as an entryway to post- secondary education and nearly all career paths. Graduation from high school has strong and direct impacts on

employment, lifetime earnings, health, and criminal justice involvement” (Robertson & Reynolds, 2008, p.1). The study also illuminates the effect that demographics and school district size may have on high school completion, a key measure of educational attainment in the study. Using a cluster analysis to identify “distinct family configurations for low-income minority children,” the study measured human capital resources, parenting practices and demographics to create the longitudinal study as well as to investigate if family profiles were different in regards to 8th grade reading scores, high school completion, and college attendance (Reynolds & Roberts, 2008, p. 4). The analysis identified additional educational attainment indicators such as years of schooling and college attendance by age 23, as measured by whether or not a study participant had been enrolled for one or more credits in a degree or certificate-bearing program at an accredited college. The findings of this study support the idea that family resources and human capital development have an effect on educational attainment and suggest that the measurements used to define educational attainment were valid.

An analysis by Branigan et al. (2013) focused on skin color, sex and educational attainment in the post-civil rights era. This study was especially important as it focused on demographics, skin color and community context in measuring educational attainment. For the purposes of the present study, the analysis by Branigan was used to examine how educational attainment was described and measured. The researchers identified respondents as having high educational attainment by indicators of high school and bachelor’s degree completion derived from degree status. In examining the potential relationship between educational attainment and skin color, the regression analysis

suggested that “there remains a significant relationship between skin color and educational attainment, with lighter-skinned black respondents having a high two-year average difference of educational attainment than dark-skinned black respondents” (Branigan et al., 2013, p. 17). Again, this study investigated educational attainment as the result of a causal factor of race, or an indication thereof. What is significant to the present analysis is the manner in which educational attainment was measured, a method employed here in using college degree completion as an indicator.

Additionally, Branigan et al. (2013) began to explore the concept of community context in influencing the outcome of educational attainment as well as the relationship between race, demographics, and school completion. As the study suggests that a causal link exists between race and educational attainment, it is important to investigate additional potential causal relationships involving educational attainment. This study aims to analyze the predictive influence of educational attainment on school-related outcomes, specifically student searches. Understanding also that the community context is influential in regards to social grouping, educational attainment, and civic action and awareness, an investigation into legal knowledge acquisition at the community level is essential.

Of particular interest to this study is previous research by Byun, Meece, and Irvin (2012) on rural-nonrural disparities in postsecondary educational attainment, and specifically the identification of community type by population. As school district type, measured by population, is a control variable used in the present study, this previous analysis is relevant in providing context in the measurement of school district type.

Further, the use of college degree completion as a measure of educational attainment further supports the construct used in the present research.

The study found that rural students lagged behind nonrural students in attaining a bachelor's degree largely due to their lower socioeconomic background. Given that previous studies on educational attainment and the rural, nonrural gap have focused on high school completion (Roscigno & Crowley, 2001) or college enrollment (Hu, 2003), this study examined the completion of a college degree as an indicator of educational attainment. The study further utilized data for the National Center for Educational Statistics and the American Community Survey to examine educational attainment as measured by the completion of a bachelor's degree or higher. These same databases were used in the present analysis to construct the measure of educational attainment. Byun et al. (2012) acknowledged that the identification of educational attainment as measured by completion of college degree is a relatively new foray into empirical research.

This prior research supports the aim of the current study in the use of college degree completion as a primary measure of educational attainment. Using univariate linear, logistic and monomial regression analyses, the researchers investigated the potential role of family background, academic preparation and community resources to explain rural and nonrural differences in post-secondary educational attainment. As prior literature (Turley, 2009) suggests, demographic and regional background are sources of differences in college degree attainment, thus lending credence to the use of school district type as a control variable in the present analysis. Interestingly, the result

of the descriptive analysis reported that the percentage of parents having a bachelor's degree was 20% among rural students and approximately 35% among urban students. Expectations of children to obtain a bachelor's degree were higher in urban areas as well, as were instances of children in urban settings receiving more help with academic work.

Conversely, rural students were more likely to be subject to a higher degree of community resources than urban students, suggesting that in rural communities, a more close-knit community may pool its resources to affect the outcomes of its students. Given that educational attainment has been measured by completion of college degrees in previous studies, a similar measurement in this study could lend insight potential influences on the treatment of students in schools. Of particular interest is the civic action component suggested by Byun et al. (2012), given that in certain settings, there may be a communal interest in various areas, including the legal protection afforded to students in schools.

Caldwell (2008), in investigating the erosion of affirmative action in relation to the black-white educational gap, asserts "it is well-known that higher levels of educational attainment are correlated with greater earnings, lower employment, and greater levels of labor force attachment" (p. 813). An aim of this research is to examine the potential explanatory effect that educational attainment, already established as a causal agent in certain areas as Caldwell suggests, may have on the legal protection of students in schools.

Schumaker and Getter (1977) contended that the effects of what is called “community contexts” presents an area in which there has been little research in regards to minority educational attainment (p. 5). Using the Chicano populations of 34 counties in Kansas, the authors analyzed the effect of the role of community contexts on educational attainment in minorities. Further, the authors suggest that “substantial differences in the education achievement between whites and minorities indicate a substantial degree of inequality of educational opportunity exists along racial and ethnic lines in the United States” (Coleman et al., 1966; Schumaker & Getter, 1977, p. 5). It is important to consider what methods may be employed in attempting to reduce the gap in educational attainment between whites and minorities, given that this gap represents a larger social issue of disparity.

Investigating extant research on educational attainment in a broader social sense will lend insight into a more specific outcome of community education related to student search outcomes in schools. As discussed earlier, a majority of existing research on educational attainment has focused on its relation to academic achievement, or the effect of other causal factors on the development of educational attainment. No studies, to date, have investigated the causal effect of educational attainment on legal issues in school regarding the student search process. However, understanding how educational attainment is measured and analyzed across a variety of contexts of empirical research will inform the present study.

Further, Schumaker and Getter (1977) explored community characteristics rather than school district characteristics in regards to educational attainment, measured by

school years completed. Again, the aim of this study was to investigate a potential explanatory relationship between educational attainment and academic achievement.

The community-wide characteristics in the Schumaker and Getter study refer to the overall demographic and social structure of communities. These characteristics are hypothesized to have an important “direct” effect on Chicano educational attainment because they collectively indicate the relevant structure of opportunities and limitations, incentives and disincentives which constitute major agents of community socialization. (p. 11)

The implication here is that as the educational attainment level of the community increases, the more likely that community is to engage in social action. This is especially relevant in investigating the potential effect that community educational attainment may have on the disciplinary outcomes resulting from student searches in schools. If communities are more educated and thus have more knowledge in many areas, including a general understanding of the law, then it is reasonable to contend that they are more likely to engage in civic and social action. Closely tied to the theory of educational attainment is the concept of social, cultural, and to some extent, legal capital.

Bourdieu (1986) posited the concept of “cultural capital,” which he conceived as the behaviors, knowledge, or skills that are transferred to an individual through an attempt to educate another in any context, e.g., home, work, and schools. Bourdieu and Passeron (1977) characterized this transferal as pedagogic action, which in the context of this research, can be applied to a given community’s level of education to be directly proportional to its understanding of legal principles and the application of those

principles in the school setting. Bourdieu further contended that “formal education is important because it can be viewed as an academic market for the distribution of cultural capital” (as cited in Claussen & Osborne, 2012, p. 59).

Given that cultural capital may continue to be accumulated, and formal education presents one possible avenue through which it may be acquired, then it is reasonable to believe that communities that are comprised of individuals with more formal education should also be infused with more cultural capital. Thus, it is also reasonable to believe that knowledge of legal and educational principles, attained in part through formal education, will also be greater in communities with higher levels of education.

Therefore, it is reasonable to contend that those communities whose members possess higher levels of cultural and educational capital will understand, to a greater extent, the discipline implementation of legal principles in their schools. Bourdieu (1986) further asserted that as certain forms of cultural capital “become entrenched,” those who possess such capital either “implicitly or explicitly defend its value” (p. 46). Consequently, individuals who “possess cultural capital of a form that is incongruent with the culture of the school, or who lack it altogether, are at a distinct disadvantage” (Bourdieu, 1986, p.44). Therefore, it is reasonable to believe that communities who lack significant formal educational attainment will be at a disadvantage when dealing with the culture of public schools, comprised largely of formal educational principles and theory.

A central tenet to this research is the idea that legal information can be a form of social capital, and that communities whose members have more formal education are

imbued with a general knowledge of the law. Wise and Schauer (2007) contended that “it is in the very nature of law to be general” (p. 267). Understanding that laws are written to be applicable over time and to be applied to different situations and a “multiplicity of people” (Wise & Schauer, 2007, p. 267), it stands to reason to assume that the law should apply equitably to all citizens. This applicability should, and is intended, to include students in schools, especially those students who are at risk of having their right to privacy violated in the context of searches. This study aims to examine the awareness of the community, through the attainment of formal education, of this notion of applicability of the law. Specifically, does the level of education in a community have any effect on issues surrounding student searches, including the level of intrusiveness, how many searches to which students are subjected, and how the results of searches determine criminal and judicial outcomes? It is necessary then, to examine extant research on the concept of legal information as social capital.

The intention of law is to provide a level of equality to those who may not be treated equally, and it is a vehicle by which people and communities can begin to coalesce and forge an identity. Wise and Schauer (2007) believe that “the bonds that are created by shared legal status can be understood as a form of social capital, the mechanism of cooperation and coordination by which communities perform tasks that could not be performed...by unconnected individuals” (p. 268). If a shared understanding of the law can create communities and forge social capital through civic action, then it stand to reason that this extends to the treatment of children in community schools. Central to the idea of legal information as social capital is the notion of shared

information, which happens in communities virtually every day through civic and community organizations. Whether these common community issues such involve roads, public safety, or business development, these civic functions are created by shared purpose, resources, and information. Given that public schools are funded by the community with public taxes, issues in and surrounding the schools require community knowledge and input.

Therefore, this research contends that communities whose members possess more formal education, and by consequence more legal knowledge, may play a significant role in the treatment of student in disciplinary situations such as searches. As stated earlier, law can be a force that brings different people together in the pursuit of a common goal, thus creating the context for cooperation. Further, the specific contention that information about the law can create a platform for dialogue and understanding that “makes it clear to all those who are discussing and debating that they are involved in a common enterprise” (Wise & Schauer, 2007, p. 271).

Interestingly, a concept that has not been fully explored in research is how people specifically obtain information about the law, as well as how that information affects public school issues. This research is intended to examine that issue in some small measure. It is, however, important to note that a general understanding of the law has created community organization and movement and thus community capital; further, the general understanding of law should be applicable to public schools and the legality of searches. Formal education provides an avenue through which, at the very least, a general understanding of the law is achieved.

Additionally, the vast majority of core instructional content curricula in public schools in the United States require that all students enroll in a government course, which explores, among other subjects, the Bill of Rights to the United States Constitution. Included in the Bill of Rights is the Fourth Amendment, which guarantees that people have the right to be secure against unreasonable searches. Given that a high school education includes a general understanding of the law through this course, including a general understanding of rights involving searches, it is reasonable to assume that higher degrees of formal education only serve to enhance and build upon that general knowledge. Therefore, those communities with higher levels of formal education should possess a higher degree of understanding about the law and how the law is equitably applied.

Wise and Schauer (2007), in examining both the formulation of the constitution of the Republic of South Africa and Joseph Kalt's research on the Native American Constitution, hypothesize that "public awareness of general laws whose applicability and actual effect encompass otherwise diverse citizens can lead those citizens to become more engaged in cooperative discussions" (p. 272). Therefore, a community in which a greater number of members with formal education exist should be a community in which a general awareness of the law exists. By consequence, these communities, through civic processes, affect in more cooperative ways the life of the community. It is not unreasonable to believe that public schools would not escape this civic action, and that the applicability of law in those schools would be affected.

Conversely, it must be considered that general knowledge of the law does not always equate to specific action. Examining a measure of Educational Attainment, the accumulation of formal education, on specific outcomes related to student searches should inform the arenas of law and civic action, among others. Additionally, if more formal education equates to more understanding of the law, it stands to reason that less formal education would result in a lesser understanding. Therefore, it is necessary to differentiate between communities with high Educational Attainment and those with less. What must be further considered, and discussed, is the application of legal principles in public schools, and what schools and the courts themselves have discussed.

Fourth Amendment Review: Origin, Applicability in Schools, and Literature

The Fourth Amendment to the United States Constitution states that people have the right “to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures” (U.S. Const. amend. IV, § 1). The Fourteenth Amendment makes this amendment applicable to the states. As the Supreme Court ruled in *New Jersey v. T.L.O.* (1985), schools, and by proxy school administrators, require a lesser standard of reasonable suspicion for justifying the need to administer searches.

As stated in the introduction, subsequent judicial reviews of search and seizure cases in schools follow the aforementioned two-pronged test of reasonableness and justified at the inception. This two-pronged test was further expanded by the Supreme Court in the *Vernonia v. Acton* (1995) case, citing the need for schools to maintain safety amid pervasive drug use by student athletes, resulting in the validity of random drug testing. The subsequent three-pronged analysis, focusing on lesser expectations of

privacy for specific populations of schools, the relative unobtrusiveness of the search, and the severity of need, was established.

The Court further expanded the analysis in *Board of Education v. Earls* (2002), extending the random drug testing policy to all extracurricular activities. These rulings then, clearly establish the relative latitude given to schools in conducting searches, as long as those requirements are met. What must be considered, however, is what factors may influence the necessity of said searches and the resulting discipline implementation. Before these factors are examined in prior research, an in-depth review of the four landmark United States Supreme Court cases relating to the Fourth Amendment in schools must be conducted.

First, *New Jersey v. T.L.O.* (1985) examines what constitutes the proper standard for school officials who conduct searches. It is important to note that the logic used to determine the ruling in this case sets the parameters for all future searches in public schools. The facts of the case are as follows: A teacher discovered two high school girls, one of whom was respondent T.L.O, smoking in a school restroom, a clear violation of school rules. Upon arrival in the assistant principal's office, one of the girls admitted to smoking and violating the rule. T.L.O. denied any wrongdoing. Upon searching T.L.O's purse, the assistant principal found a pack of cigarettes and also found cigarette rolling papers, which in his experience as a school administrator, demonstrated the possible presence of marijuana. Therefore, the assistant principal searched the purse more thoroughly and found a small amount of marijuana along with additional drug paraphernalia. The assistant principal contacted T.L.O.'s parent as well as the police.

T.L.O. admitted to selling marijuana at the school. T.L.O. moved to suppress the evidence found in her purse, contending that the search of her purse violated the Fourth Amendment and moved to suppress her confession, contended that it was tainted by an illegal search.

Both the Juvenile and New Jersey Supreme Courts found that the Fourth Amendment applies to searches conducted by school officials and that a “warrantless search by a school official does not violate the Fourth Amendment so long as the official ‘has reasonable grounds to believe that a student possesses evidence of illegal activity or activity that would interfere with school discipline and order’ (*New Jersey v. T.L.O.* , 1985). The lower courts further ruled that the further search of the purse indicating the presence of marijuana was not justified.

The U.S. Supreme Court overturned the lower court ruling and in its majority ruling stated “that the Fourth Amendment’s standard of ‘reasonableness’ considering the constraints of accommodating students’ privacy interests in the context of a school environment in which teachers and administrators must maintain order does not require a warrant nor does it require ‘probable cause’ (*New Jersey v. T.L.O.*, 1985).

The most significant outcome of T.L.O. was that the standard of reasonableness in school was set, and is based on a twofold line of inquiry: (a) the justification of the search at its inception, and (b) if the scope of the search was reasonable related to “the circumstances which justified the interference in the first place” (*New Jersey v. T.L.O.*, 1985). Further, the majority observed,

We join the majority of courts that have examined this issue in concluding that the accommodation of the privacy interests of schoolchildren with the substantial need of teachers and administrators for freedom to maintain order in the schools does not require strict adherence to the requirement that searches be based on probable cause to believe that the subject of the search has violated or is violating the law. Rather, the legality of a search of a student should depend simply on the reasonableness, under all the circumstances, of the search. Determining the reasonableness of any search involves a two-fold inquiry: first, one must consider ‘whether the...action was justified at its inception,’ second, one must determine whether the search as actually conducted ‘was reasonably related in scope to the circumstances which justified the interference in the first place. (*New Jersey v. T.L.O.*, 1985, p. 343)

Therefore, when conducting student searches in schools, administrators need to demonstrate the reasonableness of the search and whether or not the search was justified at its inception. This standard is used in determining the justification of student searches. Further, the majority opinion concluded that the warrant requirement is particularly unsuited to the school environment in that teachers and school administrators may be unduly burdened in applying school rules, even in a search situation. However, this does not mean that student searches go unchallenged; rather, this standard sets strict parameters around said intrusions. The majority also found “the reasonableness standard should ensure that the interests of students will be invaded no more than is necessary to achieve the legitimate end of preserving the order in schools”

(*New Jersey v. T.L.O.*, 1985, p. 344). It is important to note that in the dissenting opinion, Justice Brennan and Justice Marshall argued that teachers should, as representatives of the state,

ensure that their conduct conforms to the Fourth Amendment's protection of personal privacy and personal security...and that today's decision sanctions school officials to conduct full-scale searches on a "reasonableness" standard whose only definite content is that is not the same as probable cause. (*New Jersey v. T.L.O.*, 1985, p. 348)

Given that students have a legitimate expectation of privacy in a school context and the fact that school officials have a responsibility to maintain an orderly environment and enforce discipline, it became important to determine what factors mitigated proper searches of students in schools. Yet to be researched are community factors, such as educational attainment and educational and legal capital, that may influence the treatment of students in and after searches at school. It is important to note that the *T.L.O.* case largely focused on the actual search of a student's person by a school official. Soon to follow were two landmark cases that involved drug testing of students in a school setting.

Vernonia v. Acton (1995) is significant in the context of student searches, because the constitutionality of random drug testing of students in public schools was upheld. In *Vernonia*, the Court considered whether the Fourth Amendment provides for guards against the intrusion upon students' legitimate expectation of privacy in school.

Student athletes were required to submit to the possibility of random drug testing before being allowed to participate in sports.

This policy was instituted due to an alarming increasing in the rate of drug use among students at Vernonia High School. Because the administrators had identified that the athletes were “leaders of the drug culture” at the school, the random drug testing policy was put into place to address safety concerns. The policy was straightforward as the students were required, if called upon for testing, to submit a urine sample. If the student tested positive, he was given the option of either undergoing counseling and submitting to six weekly drug tests, or sitting out the remainder of the current season as well as the entire next season (*Vernonia v. Acton*, 1995).

Respondent James Acton, who had refused to sign the testing consent forms, challenged the policy and brought action on grounds that both his Fourth and Fourteenth Amendment rights were violated. Further, Acton sought declaratory and injunctive relief from enforcement of the District’s drug testing policy. The Supreme Court has held that the Fourteenth Amendment has extended the constitutional right granted by the Fourth Amendment against unreasonable search and seizure to state officers, which schools and school officials are (*New Jersey v. T.L.O.*, 1985).

In *Vernonia v. Acton* (1995), the Court had to determine if the search constituted by the random drug testing policy “balanced the intrusion on Acton’s Fourth Amendment rights ‘against promotion of legitimate government interests’” (*Vernonia* citing *Delaware v. Prouse*, 1979, p. 653). Further, given that a search unsupported by probable cause can be constitutional “when special needs, beyond the normal need for

law enforcement, make the warrant and probable cause requirement impracticable and that these needs exist in the public school context to maintain order” (Torres et al., 2011, p. 79), public school students have a lesser expectation of privacy than members of the general public.

Because public school children have been committed to the temporary custody of the State as schoolmaster, schools and school officials serve in the capacity of *in loco parentis* (Torres et al., 2011). Additionally, the Court found that athletes in schools have an even less expectation of privacy than regular school children and have reason to expect intrusions on normal rights and privileges. Therefore, the schools’ interest in deterring drug use among students as well as maintaining school safety standards was significant due to the potential effect on the student body and protected against the increased risk of injury due to drug use on campus. The Court found that the drug testing policy was a reasonable search under the Fourth Amendment and upheld the *T.L.O.* ruling, and especially the lack of requirement on the part of school officials to obtain a warrant. In delivering the majority opinion, the Court, citing *Griffin v. Wisconsin* (1987), found the following:

A search unsupported by probable cause can be constitutional, “when special needs, beyond the need for normal law enforcement, make the warrant and probably cause requirement impracticable.” Further, we have found such “special needs” to exist in the public school context. Therefore, the warrant requirement would unduly interfere with the maintenance of swift and informal disciplinary procedures that are needed, and strict adherence to the requirement

that searches be based upon probable cause would undercut the substantial need of teachers and administrators for freedom to maintain order in the schools.

(Vernonia citing New Jersey v. T.L.O., 1987, p. 653)

The significance of this case lies in the additional enforcement of the reasonableness standard and the legitimacy of the school to serve *in loco parentis*, permitting school officials to serve in a parental capacity in the absence of parents and granting them additional authority to conduct searches. The Court found the following:

Traditionally at common law, and still today, unemancipated minors lack some of the most fundamental rights of self determination...including the right to come and go at will. When parents place minor children in private schools for their education, the teachers and administrators stand *in loco parentis* over the children entrusted to them. But, while denying that the State's power over schoolchildren is formally no more than the delegated power of their parents, *T.L.O.* did not deny, but indeed emphasized, that the nature of that power is custodial and tutelary, permitting a degree of supervision and control that could not be exercised over free adults. *(Vernonia v. Acton, 1995, p. 655)*

In regards to the proposed research on the effect of community educational attainment on the discipline outcomes of student searches, it is important to note that *Vernonia v. Acton* (1995) clearly extended the increasing latitude of school officials in conducting searches. With that latitude comes the expectation of equitable treatment and whether or not the community, the parents, or other factors play a role in the discipline implementation and judicial outcomes resulting from those searches.

Board of Education v. Earls (2001) again called into question the constitutionality of random drug testing of students. As in *Vernonia*, the students subjected to random drug testing were potential or current participants in extracurricular activities. In this case, the Tecumseh, Oklahoma School District, under the “Student Activities Drug Testing Policy” required all middle and high school students to consent to urinalysis testing for drugs in order to participate in any extracurricular activity. Respondent Earls brought suit against the school district, alleging that the policy violated the Fourth Amendment, with which the Court of Appeals, in reversing a decision by the District Court, agreed.

The United States Supreme Court, in a 5-4 decision, reversed the decision of the Court of Appeals, holding that “the policy reasonably serves the School District’s important interest in detecting and preventing drug use among students and is therefore constitutional” (*Board of Education v. Earls*, 2001, p. 827). Further, the Court reasoned that due to the “general regulation of extracurricular activity” by the School District, students’ legitimate expectations of privacy were diminished, and that the confidential methods of both obtaining urine and maintenance of drug test results were “minimally intrusive” (*Board of Education v. Earls*, 2001, p. 829). The Court found that Tecumseh’s policy was a reasonable means of furthering the School District’s interest in preventing and deterring drug use among its students. Further, the Court found that as in *Vernonia*, students have a limited expectation of privacy and that it did not matter if respondents in *Earls* were non-athletes. The Court, in citing *Vernonia*, determined that the distinction between athletics and extracurricular activities was not essential, and that

the decision rested in the school's custodial responsibility and authority. Justice Thomas in delivering the majority opinion, stated, "The probable cause standard, however, is peculiarly related to criminal investigations and may be unsuited in determining the reasonableness of administrative searches where the 'Government' seeks to prevent the development of hazardous conditions" (*Board of Education v Earls*, 2001, p. 829).

Another excerpt from the majority opinion, discussing the "evils" drug use, reads:

As in *Vernonia*, the necessity for the State to act is magnified by the fact that this evil is being visited not just upon individuals at large, but upon children for whom it has undertaken a special responsibility of care and direction. The health and safety risks identified in *Vernonia* apply with equal force to Tecumseh's children. Indeed, the nationwide drug epidemic makes the war against drugs a pressing concern in every school. (*Board of Education v. Earls*, 2001, p. 834)

Therefore, the constitutionality of random drug testing was upheld, again ruling in favor of the school district. Additionally, this majority opinion points to the changing context of school violence and drug use as risks that may allow greater discretion on the part of school administrators to conduct student searches.

Safford Unified School District v. Redding (2008) dealt with the strip-search of a female middle school student, Savana Redding, based on a tip from another student claiming that Ms. Redding had ibuprofen on her person, a violation of school policy. Redding sued the school district *as well as the school official who conducted the search*. What is important to note in this case is the legitimacy of a strip search and the potential personal liability of school officials in a search case. The United States Supreme Court

held that, citing the search standards established in *New Jersey v. T.L.O.* (1985), that the search was not justified at its inception.

Further, the Court reasoned that, based on a reasonable suspicion, search measures used by school officials to find contraband “must be reasonably related to the objectives of the search and not excessively intrusive in light of the age and sex of the student and the nature of the infraction” (*Safford v. Redding*, 2008, p. 4). In a 7-2 vote, the Court found that the search of Savannah Redding was unconstitutional because school officials did not have sufficient suspicion to extend the search to the student’s underwear, but that school administrators enjoyed immunity from personal liability because “clearly established law did not show that the search violated the Fourth Amendment” (*Safford v. Redding*, 2008, p. 11).

A key point in the judgment was that Justice Ginsberg, dissenting from the majority of the court with respect to the immunity of the school officials in this case, argued that “the judiciary should not meddle with decisions school administrators make that are in the interest of keeping their schools safe” (*Safford v. Redding*, 2008, p. 22). In each of the four U.S. Supreme Court cases involving student searches, the Court sided with school district in three, finding fault with Safford due to the inception standard. For this study, the intrusiveness level of the search was examined in conjunction with community educational attainment to investigate whether or not a relationship existed. The decision in *Safford v. Redding* (2008) is particularly important because the Court clearly established that there are limits to administrator discretion in conducting

searches, especially those searches that violate the reasonableness standard as well as student's right to privacy.

Therefore, it is reasonable to infer that school officials are granted latitude to conduct student searches based on the justification and reasonableness of the search in question. However, it is important to analyze what factors may influence the outcomes of student searches as there are clearly parameters surrounding how far an administrator or school official may go. Further, as school officials enjoy a greater scope of power in conducting searches if the reason for the search is to keep the school and students safe from harm, it becomes increasingly important to investigate what influences the behavior of administrators and the decisions of judges. What must now be examined is what happens to students after searches have been conducted, and in what context that occurs.

Because previous studies have focused on the effects of demographics (Torres & Stefkovich, 2009), police presence (Torres et al., 2011; Torres & Stefkovich, 2009), and the legal and ethical implications of student strip-searches on school leaders (Torres et al., 2011), it is now imperative to examine what research exists that provide insight to the relationship of demographic factors on search and seizure in schools.

Demographics

Numerous studies have suggested that minority students appear to be disproportionately handed more severe disciplinary consequences (Torres & Callahan, 2008). Several factors, including race and socioeconomic levels, play a role in discipline outcomes relating to search and seizure (Ruck & Wortley, 2002). Skiba et al. (2002)

analyzed the influence of race on office referrals and suspension rates from all middle schools in a large urban district and found that black students were more likely to be referred to the office and to be suspended (Torres & Callahan, 2008).

In addition, and most distressing, black students were more apt to be “subjectively referred” based on the notions that they were “disrespectful, noisy and threatening”. In the same article, Torres and Callahan (2008) asserted that school diversity has proven to be a critical factor in evaluating disciplinary discretion. Given the earlier contention that schools may “mirror” the community in which they are found, examining community diversity, and by extension educational attainment, may yield similar findings in terms of disciplinary discretion. Torres and Callahan also suggested that further research is needed to examine to what extent environmental factors cause deviation from the spirit of the law and to what extent administrator value commitment (to community for instance) influences discretionary behavior (p. 401).

Torres and Stefkovich (2009) explored the relationship between demographics and police involvement in public schools. The analysis “probed the level of police involvement in schools and also considers the demographic makeup of the school and community in terms of urbanicity, minority composition of the school, and percentage of students who were classified as socioeconomically disadvantaged” (p. 452).

In a previous analysis examining the effect of demographic on student searches, student rights, and administrator practices, Torres and Stefkovich (2003) identified six factors related to school and/or community demographics and incidence of strip searching court cases from 1985 through 1999. These six factors were the school district

type, percentage of minority enrollment, free lunch eligibility of the student, median income, per-pupil expenditure, and the state in which the incident occurred. The researchers found that strip searches do occur in all types of school districts, from urban and suburban down to rural areas.

A large portion of the states in which these cases occurred are located in the south and the midwest. Several states have passed laws forbidding school officials from strip-searching students in public schools. Although there appeared to be no relationship between numbers of minority students in the school and strip searching incidents (Torres & Stefkovich, 2003), the researchers noted that the results should be examined with caution, as the race of a student is generally not reported in a court decision unless an equal protection claim based on race is also present.

The research did reveal a relationship between the level of poverty and the incidences of strip searches in schools, with incidents that make it to court occurring more frequently in poorer communities, regardless of the racial make-up of the school (Torres & Stefkovich, 2003). This prior research does question the relative ease with which the standards for searches are met. Is this a function of the standards themselves, that the administrators are applying them correctly, or that the courts grant administrative discretion more easily?

If administrators are given discretion in searches, a legal issue, and studies support that many administrators are deficient themselves in legal knowledge and even school law (Ogletree & Lewis, 1985; Steele, 1992), then what implications exist for communities who may or may not have broad legal knowledge? These questions

demand a closer examination of the potential relationship that may exist between the levels of education in each community and the discipline implementation of search and seizures in schools.

Review of Administrative Discretion and Decision Making

Given the clearly established charge given to school administrators to maintain school safety and order due to drug use (*Board of Education v. Earls*, 2005; *Vernonia v. Acton*, 1995) as well as the recent spate of violent incidents in schools (Columbine, 1999; Newtown, 2012), the need to conduct searches on students in order to prevent further incidences appears to be great.

An examination by Torres and Chen (2006) on the impact of Columbine on students' Fourth Amendment rights as well as implications for administrative discretion and decision-making suggested that "civil liberties are far from absolute and could be altered by environmental influences at any time" (p. 203). Beger (2002) suggests that violent episodes have prompted schools to institute a variety of searches as part of the daily routine and states to pass laws aimed at minimizing crime.

Further, because these incidents heighten public awareness and often spur societal awareness and action (Million-Mom March following Columbine) and attempted legislation (recent gun-control rhetoric at the federal level), searching students has become more than a preventative measure (Torres & Chen, 2006). Dupre (1996) argues that there is little agreement determining what specific factors identify appropriate or inappropriate action on the part of administrators when implementing searches. If the heightened awareness that naturally follows a violent event could have a

potential impact on administrative discretion and decision-making, what other factors may also exist that influence administrator behavior relative to student searches?

No study to date has examined the potential relationship of educational attainment on administrative discretion and decision-making. Such a study could lend contextual insight into the level of education of a community and the effect on student rights. Further, once a search has been conducted, there are potential legal and judicial outcomes that may result. These results may be in the form of Criminal Proceedings against the student, due to the object of the search, or due to a violation of student rights, most closely related to the Intrusiveness Level of the Search. Because searches may reveal the presence of a felonious object, such as a gun, the outcomes of these types of searches may be judicial in nature. Conversely, if a student or parent feels that the search was not justified, or that privacy rights were violated, the student may sue, thereby leading to the involvement of the courts.

In either instance, it is important to review judicial outcomes involving the Fourth Amendment, as well as the context in which these outcomes occur. Additionally, research involving factors that may influence judicial outcomes, such as race, will be discussed.

Judicial Outcomes

Because student searches sometimes end in the requirement of further action on the part of the school, including the pursuit of criminal charges resulting from the object of the search, it is important to examine if the context of the schools, and by consequence, the communities in which those school are located, have any effect on

judicial outcome. Thus far, no research has specifically examined if the educational attainment of the community affects judicial outcomes. What has been examined, in research by Torres and Callahan (2008) is the result of judicial outcomes in minority settings. Examining this extant research will lend insight into factors that may affect the decisions and basis for judges in cases involving student searches. Examining what discrepancies may exist in regards to contrasting minority settings provides a theoretical basis for examining contrasting educational settings. It stands to reason that if the judicial system is influenced by race and socio-economic status, the same may hold true of the education level of the community.

Torres and Callahan (2008) examined how courts ruled on privacy rights of students within contrasting settings according to five characteristics of the search. Germane to this study are previous factors included in that research: the intrusiveness level of the search, how the case was tried, the number of searches that were conducted, and the seriousness of the crime or object of the search that prompted the search. Because these factors may have affected the ruling of the court in relation to contrasting minority settings, it is important to examine if and how these same factors may affect the ruling of the court in different communities according to education levels.

Research by Lovrich and Sheldon (1983) in assessing judicial elections, suggests that judges must frequently make decisions that affect much of the citizenry and that must be made on the process of due process and fairness. In addition, judges serve as “major governmental actors and perform two distinct functions- that of resolving disputes between litigants and establishing directions for public policy” (p. 276).

Therefore, judges and their respective rulings play an important part, needless to say, in the equitable and fair treatment of students' civil rights.

Given that judges are elected, they are subject to public accountability for decisions that stand to affect the public, yet must balance those decisions independent of public pressures. Another aim of this study is to investigate the potential predictive influence of community educational attainment on judicial outcomes, or the ruling of the court. In the process of becoming elected, judges assume office with certain expectations. Conversely, the public has their own expectations of judges whom they elected. This represents a "tradeoff between judicial independence and public accountability" (Lovrich & Sheldon, 1983, p. 277). A question that must be considered is at what point do the expectations of the community conflict with the beliefs of the judges delivering a ruling?

Further, what role does the community's general knowledge of the law play in influencing judicial outcomes, if any? Judges who are elected by communities with a high level of articulation, which is defined by a diversity in perspective of the electorate or recruitment actors, often "face contradictory demands of popular accountability and judicial independence" (Sheldon & Lovrich, 1982; Wasby, 1978).

Given that various factors may intercede at any level of the student search process, it was necessary to examine these factors individually. By examining the construct of Educational Attainment and the ideas of social, cultural, and community capital achieved through various ways, as well as the history of administrative, judicial, constitutional and demographic effects on student searches, this study is intended to

provide further insight into the student search process. As the literature suggests, communities can be formed and grow through the acquisition of knowledge, including knowledge of the law. Research has shown that administrative decision-making and discretion is affected by outside influences, such as school violence and community concerns regarding safety. Judicial outcomes in minority settings serve to provide a basis for continued research and exploration, given the intention of the law to provide equitable and fair treatment.

Examining these factors, and each factor's influence, is necessary to ensure that students are treated fairly and that the expectation of privacy that students retain in public schools is not compromised without justification. Because it is important that students are treated with equity, and that communities have a direct investment and justification for ensuring that public schools treat students with equity, the relationship between communities and schools must be examined. Specifically examining the educational attainment of each community in which a search and seizure case occurred should inform future research, legislation, policy and application regarding Fourth Amendment rights in schools.

CHAPTER III

METHODOLOGY

As the review of the literature reveals, the effect of socioeconomic and organizational factors on the search and seizure process involving students has been thoroughly investigated (Torres & Callahan, 2008; Torres & Chen, 2006; Torres & Stefkovich, 2009). These investigated factors include judicial outcomes across contrasting minority settings (Torres & Callahan, 2008); demographics and police involvement in schools (Torres & Stefkovich, 2009); moral, legal and ethical implications on administrators resulting from student strip searches (Torres et al., 2011); and administrative practices leading to or resulting from the student search process (Stefkovich & Torres, 2003). Additionally, the construct of educational attainment has been analyzed in conjunction with academic achievement (Bjorklund & Galvanes, 2010), legal information as social capital (Wise & Schauer, 2007), and the role of public education in a democracy (ASCD, 1996). However, no study has investigated the potential effect of educational attainment on decisions at the school and court level resulting from student searches.

The purpose of the present research was to investigate the effect of the construct of Educational Attainment, defined in this study as the percentage of bachelor's degrees and higher in a given community, on the Number of student Searches conducted in that community, the Level of Intrusiveness of the Search, the Ruling of the respective Court, and whether or not the evidence resulting from student searches was used for criminal

prosecution. A secondary purpose was to measure any potential explanatory or descriptive impact of the type of school district (rural or urban) and the seriousness of the crime. Therefore, the following hypotheses were examined using descriptive, correlation, and logistic regression analyses.

Research Hypotheses

The research hypotheses of this study were:

- Ho₁: There will be no relationship between the educational attainment of a community in which the search occurred and the intrusiveness level of the search.
- Ho₂: There will be no relationship between the demographic context of the school and community and the intrusiveness level of the search.
- Ho₃: There will be no relationship between the seriousness of the crime and the intrusiveness level of the search.
- Ho₄: There will be no relationship between the educational attainment level of the community in which the search occurred and whether the student won a case.
- Ho₅: There will be no relationship between the demographic context of the school and the community in which the search occurred and whether the student won a case.
- Ho₆: There will be no relationship between the seriousness of the crime in which the search occurred and whether the student won a case.

Ho₇: There will be no relationship between the educational attainment level of the community in which the search occurred and whether evidence was turned over for criminal proceedings.

Ho₈: There will be no relationship between the demographic context of the school and community and whether evidence was turned over for criminal proceedings.

Ho₉: There will be no relationship between the seriousness of the crime and whether evidence was turned over for criminal proceedings.

Ho₁₀: There will be no relationship between the educational attainment level of the community in which the search occurred and the number of searches conducted.

Ho₁₁: There will be no relationship between the demographic context of the school and the community in which the search occurred and the number of searches conducted.

Ho₁₂: There will be no relationship between the seriousness of the crime in which the search occurred and the number of searches conducted.

Sources of Data

Stefkovich and Torres Fourth Amendment Database

The researcher utilized the Stefkovich and Torres Fourth Amendment database, a nonprobability sample comprised of 263 cases, for search and case data information.

The database includes cases beginning with the *New Jersey v. T.L.O.* ruling on January 15, 1985, and ending with *State v. J.H.* in 2005. The database identified the school

district in which the search occurred, the date of the search, and other variables used in this study. Specifically, the database contained information concerning the identification and treatment of the following variables: intrusiveness of the search, case outcome, criminal proceedings against the student, and the number of searches involved in each case. Additionally, the database was used to identify the specific school district in which each case occurred, important to the present research for community identification purposes. Additionally, this database was used to identify the object of the search leading to the case, reported in this study as seriousness of the crime. According to Gall, Gall, and Borg (2007), “In nonprobability sampling, or convenience sampling, individuals are not selected by chance, but by some other means” (pp. 174-175). Although it is more difficult to make inferences from a nonprobability sample, this is a widely used method in research. This study employed variables and information already collected and identified in previous research. Therefore, inferences drawn from the results of this study will be most applicable to the population already identified: school districts.

Data reliability concerning the database was established in the following manner. According to Torres (2003):

The coding sheet and process came about through nine years of work on this topic by Dr. Jacqueline Stefkovich during her tenure at Temple University. The coding sheet underwent several separate revision processes through the use of inter-rater reliability tests employed prior to the start of the data collection. In an

effort to maximize coding sheet reliability, five law students were assigned to code the same five cases. (p. 100)

Similar processes were used throughout the coding procedure to ensure reliability.

Further details regarding the formation of the Stefkovich and Torres database, including the use of purposive sampling identified by Huck and Cormier (1996) and Kerlinger (1986), as well as information specific to judicial information, can be found in previous research by Torres (2004).

United States Census and American Community Survey

Data from the 1990 and 2000 United States Census and the 2005-2010 American Community Survey was used to determine the educational attainment level of each community in 114 school districts. The school district in which each search occurred, information taken from the Stefkovich and Torres database, was used to identify the community in which the district was located. In both the United States Census and American Community Survey databases, the level of educational attainment was identified by which level of school all members of the community had completed. These levels ranged from no high school completed to doctorate level. For this study, the level of educational attainment was identified as the percentage of the community who held a bachelor's degree or higher. This data also represents a nonprobability sample as the data already exists. However, because the data concerning the educational attainment was not available for each specific year in which a search occurred, discrete data techniques were employed, such as interpolation. Additionally, Torres (1996) noted some variables "required transformation to maximize representativeness" (p. 95).

Therefore, it is necessary to discuss the treatment of data used in this research, including missing data, the use of interpolation, and the coding and recoding process.

Treatment of Data

Missing Data

According to Carpenter and Kenward (2012), “Collecting, analyzing and drawing inferences from data are central to research in the medical and social sciences” (p. 3). A common problem for researchers is the inability to collect all intended data, and this study encountered similar data collection issues. Specifically, data for variables collected from the Public Elementary/Secondary School Universe data set via the National Center for Education Statistics were not available prior to the 1987-1988 school term; additionally, some court cases were unspecific as to the year in which the search occurred, or were missing critical data regarding the community or school district in which the case occurred. Some cases were not specific in identifying the year in which the search occurred. Additionally, some communities identified in the 1990 United States Census no longer existed or were not identified in the 2000 United States Census or the 2005-2010 American Community Survey. Missing data were prevalent in 149 of the 263 cases used in the study, resulting in a limitation on the researcher to identify or measure the effect of some variables, including educational attainment. This missing data affected the interpolation process, resulting in several cases being discarded. In total, 114 cases contained adequate data to conduct the analysis. The treatment of the missing data and the need for interpolation is further explained below.

Interpolation

Missing data in these instances made the analysis unbalanced and required further computation measures, such as interpolation. Gall et al. (2007) asserted that one method of handling missing data is to eliminate incomplete cases, a process used when court cases had incomplete or missing data. When data was missing due to human error, computational error, or in such instances where databases may be incomplete, imputation or interpolation was utilized to make data assumptions in a comprehensive and statistically acceptable way. Interpolation required making insertions of estimated values into the analysis, and in this case, because of the limitations of the United States Census data, values for educational attainment variables required interpolation to assign value.

For every court case occurring between 1991 and 1999, the percentage of educational attainment of the community was estimated using interpolation as the census data reflected data only for 1990 and 2000. This was done in increments of deciles, or groups of 10.

Therefore, if one community reflected an educational attainment level of 20% in 1990, and a level of 40% in 2000, each year occurring between 1990 and 2000 was assigned a percentage of educational attainment based on interpolation. Community data assigned in this case, for example, in 1994, would reflect a percentage increase of 8%. Additionally, Gall et al. (2007) offered that “one way to handle missing data is to use a form of regression analysis to estimate more precisely the missing values” (p. 158).

Given that the sample has limitations, including but not limited to missing school district census data prior to 1990 or the lack of community identification, the informative potential may be limited. Consequently, inferences on populations were drawn based on available data. Further, the variables used in the study consisted of both categorical and binary levels of measurement. In order to apply the logistic regression analysis, several variables needed recoding into binary form. Thus, it is necessary to define how each variable was coded.

Coding Procedure

In order to apply the logistic regression analysis, it was necessary to code or recode variables, some of which were interval-ratio, into binary variables. When a variable is comprised of only two values it is referred to as a binary or dichotomous variable. The specific coding levels of each variable employed in this study are further detailed in the following section.

Independent Variables

The independent variables employed in this study included the construct of Educational Attainment, the School District Type and the Seriousness of the Crime, or object of the search. Educational attainment was measured as the percentage of the population with a bachelor's degree or higher. The Educational Attainment level was constructed by examining each community in which the school district involved in the search was located. A percentage of the population holding a bachelor's degree or higher was identified. In order to create equal numbers based on educational attainment, two groups were formed based on a median of 25% bachelor's degree or higher.

Communities in which the percentage of bachelor's degrees were identified as 25% or higher were coded as 1, indicating a high degree of educational attainment. Conversely, those communities in which 24% of the population or less held a bachelor's degree or higher were coded as 0, indicating a low degree of educational attainment. This measurement was used to code the variable of Educational Attainment. Thus, Educational Attainment is coded in binary form as percentage above bachelor's degree and percentage below bachelor's degree.

The School District Type was coded as either rural or urban. This was measured by examining the population of surrounding metropolitan area. According to Torres (1996), "All schools situated in a 'large central city' or 'urban fringe of large city' were classified as urban schools" (p. 98). The population of the urban areas was at least 250,000. If a community fell below that threshold, then they were identified in the study as rural.

The Seriousness of the Crime, or object of the search, was also recoded into binary form as there were many objects that led to a search in the original case database. Searches that were conducted because of the presence of illegal drugs or weapons, constituting a felony offense, were coded as more serious. All other offenses of a lesser nature were coded as less serious. The specific coding of the independent variables employed in this study is reflected in Table 1.

Table 1

Independent Variables

Variable	Level of Measurement
Educational Attainment	Nominal: Binary Variable 1: 25 Bachelor's Degree and above, 0: 24% Below
School District Type	Nominal: Binary Variable 1: Urban, 0: Rural
Seriousness of the Crime	Nominal: Binary Variable 1: More serious, 0: Less serious

Dependent Variables

The dependent variables employed in the study are the Intrusiveness Level of the Search, whether or not the Student Won the Case resulting from the search, whether or not Criminal Proceedings were initiated, and the Number of Searches employed. Some of the dependent variables required manipulation to be recoded into binary form. The Intrusiveness Level of the Search presented a wide range of degrees of intrusiveness. More than 25 different types of searches were recorded in the Stefkovich and Torres database, and degrees of intrusiveness were identified by Gluckman (1984) and O'Hara (1984). For example, Gluckman (1984) identified more intrusive searches as more individual in nature, while O'Hara (1984) treated the level of intrusive searches with degrees of danger or the goal of criminal prosecution (Torres, 2002). For this study, the Intrusiveness Level of the Search was coded as less intrusive or more intrusive. Further identification of the Intrusiveness Level was employed using the number of separate

searches occurring during the search process. As more searches were conducted, the Intrusiveness Level of the Search rose and was coded as more intrusive (1).

Consequently, if only one search was conducted, it was coded as less intrusive (0).

The variable Student Wins or Loses the Case was identified as whether the student was the recipient of a favorable outcome in the judicial proceeding resulting from the search. If a student won the case, it was coded as yes (1). Consequently, if the student lost the case, it was coded as no (0).

The variable Criminal Proceedings referred to whether or not criminal proceedings were initiated against the student as a result of the search. If criminal prosecution was sought and criminal proceedings were initiated, the variable was coded as yes (1). If not criminal proceedings were initiated, it was coded no (0).

The variable, Number of Searches also fell across a wide continuum in regards to how many searches were conducted. For the purposes of this analysis, the number of searches was measured by the following process: if the number of searches numbered two or more, it was coded as (1); and, if the number of searches were one or less, it was coded as (0). Table 2 illustrates the dependent variables employed in this study.

Table 2

Dependent Variables

Variable	Level of Measurement
Intrusiveness Level of the Search	Nominal: Binary Variable 1: more, 0: less
Ruling of the Court	Nominal: Binary Variable 1: Yes, 0: No
Criminal Proceedings	Nominal: Binary Variable 1: Yes, 0: No
Number of Searches	Nominal: Binary Variable 1: 2+, 0: 1

Further details on the recoding and coding process employed in the creation of the court case database, and especially treatment of the variables Seriousness of the Crime and School District Type included in this analysis, are found by examining Torres and Stefkovich's (2003) previous work. Table 3 illustrates the variables of interest included in the original research undertaken by Torres and Stefkovich (2003), also employed in this study.

Table 3

Variables of Interest

Focus Area	Variable
Community Characteristics	Educational Attainment Level
School Characteristics	Type of School District
Search Information	Number of Searches, Intrusiveness Level, Object of the Search
Court Information	Criminal Proceedings, Ruling of the Court

Data Techniques and Procedure of Analysis

For the purposes of this study, descriptive statistics, correlation statistics and logistic regression were employed to study the effects of community and school factors on disciplinary and judicial outcomes. All data was analyzed using SPSS Version 22. The primary purpose of the study was to test the effect of a previously untested variable, Educational Attainment on the dependent variables used in the study. As prior research had tested the effect of School District Type and Seriousness of the Crime on the dependent variables, these were included in the present study as control variables. To accurately test the effects of all variables employed in the study, multiple forms of statistical analyses were used. These include: descriptive statistics to organize and summarize the numerical data of each variable used in the study; a correlation analysis to measure the relationship between variables; and multiple logistic regression, employed to better predict explanatory effects of one variable on another. The different levels of discrete statistical analyses are identified below. First, it is important to discuss the purpose and importance of using descriptive statistics in a quantitative analysis.

Descriptive Statistics

According to Gall et al. (2007), “Descriptive statistics are techniques used for observing and summarizing a set of numerical data” (p. 132). Descriptive statistics in this study employed data techniques to inform the researcher about the data being used and to describe scores of single variables on different measurements, such as measure of central tendency, mean, median, mode, variability and standard deviation. Further, descriptive statistics were used to identify how many observations were recorded and

how frequently each score or category of observations occurred in the data. These calculations informed the researcher of trends in the data and were the first step in analyzing the research hypotheses, leading to the use of inferential statistics. First, it is important to identify which descriptive statistics were used in the study.

The three main measures of central tendency are the mean, median and mode, while the purpose is to identify the location of the center of various distributions. The mode represents the most frequently occurring score in a distribution, the mean is calculated by dividing the sum of all scores by the number of scores, and the median is the middle point in a distribution of scores (Gall et al., 2007). The mean is generally considered to be the best measure of central tendency due to its stability and the means of various variables are likely to be in closer agreement than the modes. Another advantage of the mean is that it can be used for both continuous and discrete data; however, it is more easily influenced by outliers and skewed distributions, or when the mean is always in the direction of extreme scores. Calculating measure of central tendency informed the researcher about observable trends in the data used in the study.

Variability, according to Gall et al. (2007), “is the amount of dispersion of scores about the mean or other measure of central tendency, and the desire to understand variability and individual differences motivates much of educational research” (p. 135). In this study, it was important to measure the variability of the differences in the variables because it was necessary to determine the spread of scores in the study. To determine variability, the researcher computed the range of scores and estimated the variance in the sample used. Following this, standard deviation was computed to

determine the extent to which scores in the distribution deviated from the mean. Standard deviation was employed to compute variability because it is the most stable measure, meaning that samples drawn from the same population are likely to have similar standard deviations. Most importantly, the standard deviation forms the basis for computing *t*- scores and other types of standard scores used in research.

Again, because this research employed multiple variables, it was necessary to measure the effect of the relationship between each of the variables. In order to more accurately describe these relationships, a correlation analysis was employed.

Correlation Analysis

In this analysis, the researcher predicted a statistical relationship between the independent and dependent variables. Gall et al. (2007) defined a correlational relationship as such: “the measurements of one variable tend to consistently fluctuate with the measurements of another, making one variable a good predictor of the other” (p. 369). Therefore, one design method employed was correlational analysis. Correlational analysis involves measuring the relationship between two variables and how scores on one variable tend to change consistently with scores on the other. For example, if the variable “educational attainment” changed in value, the correlational frame suggests that a dependent variable, such as “number of searches,” also changed as well.

Because the researcher measured the effect of one variable on another in a correlational analysis, the study was quantitative in nature. Correlational statistics determine the bivariate correlation coefficient used to describe the strength of the relationship between two variables. This study further employed the use of multivariate

correlation methods, used to determine the strength of the relationship between three or more variables at a time. In this study, the use of multivariate correlation was important because the variables employed are usually not affected by a single factor. It was important to determine which factors had significant effects on variables. These methods allowed the researcher to study how these factors affected the outcome variables employed. It is important to explain how internal validity was defined in the correlation analysis.

Shuttleworth (2009) asserted that internal validity is a crucial measure in quantitative studies, where it ensures that a researcher's experiment closely follows the principle of cause and effect. Applying the "Max-min-con" principle discussed earlier, once the researcher has eliminated almost all of the potential confounding or extraneous factors, and set up strong controls to isolate other factors, it is much easier to attain internal validity.

Conversely, if the researcher is unable to confirm that one variable has an effect on another, then internal validity decreases. If the researcher shows evidence to suggest that one variable has an effect on another, then the internal validity of the study increases. This was done by the use of statistical significance tests such as *t*-tests or *z*-test to determine the size of the correlation between two variables. Also, sample size is important in increasing the statistical power of the study; as sample size increases, the smaller the difference needed to reject the null hypothesis, thereby demonstrating that there is indeed a relationship (Gall et al., 2007).

The level of significance can be demonstrated using a correlation coefficient (r) and a p -value at which the null hypothesis can be rejected. The lower and more stringent the p -value, the more soundly the null hypothesis can be rejected. The commonly accepted p -value for research is .05. The researcher should be careful at setting the p -value too highly because it does increase the risk of a Type I error: rejecting the hypothesis when it is unwarranted. For example, with a .10 p -value, there is a 10 in 100 chance that the hypothesis may be rejected without statistical justification. A third way to increase the internal validity of the study is to affirm the directionality of the hypotheses predicted early in the study.

This could be accomplished by conducting a one-tailed t -test; however, because the field of knowledge is continually expanding and due to the subsequent growth of “meta-analyses” in education and other social sciences, most researchers advocate using two-tailed t -tests to account for directionality (Gall et al., 2007). A fourth way to determine internal validity is with effect size. A researcher is more likely to obtain a large effect size in a sample when there is a large effect size in the population (Gall et al., 2007).

According to Gall et al. (2007), “internal validity can be established by accounting for error and using the appropriate statistical techniques, whether that is correlation, analysis of variance, multiple or linear regression, or HLM. Assuring internal validity, then, means demonstrating that the analysis used predicts what it is supposed to predict and how well the researcher controls the extraneous variables” (p. 383).

Campbell and Stanley (1963) asserted that there are eight extraneous variables that can affect the internal validity of the results of experiments; Cook and Campbell (1979) added four more. History of the experiment can disrupt internal validity if the study takes a long period of time. Maturation of the participants may affect the outcome, as can experience with the testing of the participants. The instrument used to measure results may evolve or change over the course of the study, resulting in the researcher giving more favorable ratings the second or third time a test is given. Statistical regression may occur, which result when research participant's scores fall at either extreme on a measure when variables are measured again. Differential selection may occur if the researcher is not choosing random samples.

Whatever the case, the researcher must be well versed in the pitfalls of not controlling extraneous variables. Using Kerlinger's (1986) "Max-min-con" principle, the researcher was more likely to attain high internal validity. In addition, there are certainly factors that affected the external validity of the research design. External validity, according to Gall et al. (2007), is "the extent to which the finding of an experiment can be applied to individuals and settings beyond those that were studied" (p. 388). Because the sample used in this study was a nonprobability sample, the researcher was unable to fully generalize the results, resulting in a limitation of the study.

Further, the researcher employed logistic regression analysis to improve the best estimates of the relationship between the dependent and independent variables employed in the study, given the existence of multiple variables. The logistic regression analysis is discussed below.

Logistic Regression Analysis

The goal of regression is to understand the relationship between the explanatory and independent variables. It must be noted that in least-squares regression, the Y -variable is modeled as a linear function of the X -variables plus a random error that is assumed to have a normal distribution. If least-squares regression is used when a binary dependent variable (Y) is present, the least-squares regression requirement that the regression errors have a normal distribution is violated, thus requiring multiple linear regression analysis. When this assumption is violated, one can no longer rely on the statistical inference or predictions made based on the least-squares regression model (Agresti, 1996a).

Thus, it was necessary to note that the database included variables that were not originally binary or s variables, requiring recoding to employ the logistic regression model. For example, one Y -variable used in the study was “number of searches” ranging from one to many. It was necessary to recode this variable into binary form. Thus, any search consisting of one search was coded as less intrusive ($=0$) and any search numbering two or more was coded as more intrusive ($=1$).

Agresti (1996a) identified categorical variables “as having a measurement scale consisting of a set of categories...that measure attitudes, opinions, or stages” (p. 2). Agresti further contended that most analyses provide distinction between “response and explanatory variables, and that regression models describe how the distribution of a continuous response variable change according to levels of explanatory variables” (p. 3).

In this case, the response variables included information related to school and judicial outcomes, and the regression analysis in this research measured the differing levels of independent variables and each one's effect on the dependent variables.

Therefore, the researcher "must be intentional about the methods used for analysis and that an understanding of categorical variables is paramount" (p. 5).

Regression is a common statistical technique used to fit a model to observed data for the purposes of quantifying the relationship between two groups of variables. When this technique is employed, the relationship between these two groups can be simply described or to predict new values.

Because this research describes or predicts the relationships between multiple independent and dependent variables, it is necessary to employ regression as the analysis model in order to determine which variables may have a significant effect (Mooi & Sarstedt, 2011).

For the most straightforward interpretation, logistic regression employing binary variables was used. Logistic regression was further employed to ensure that the dependent variable is a logit, which centers on the natural logarithm of the odds (Agresti, 1996a). According to Newsom (2012), "Using logistic regression to predict class probabilities is a modeling choice, because it makes stronger, more detailed predictions" (p. 322). Further, the logit transforms probabilities into odds. This link-function transformation is described as $\text{Logit}(p) = \alpha + \beta x$, where α = intercept; βx = slope; change in units in logit at every unit change of x .

Because this study used quantitative methods, and an empirical data analysis was used, it is important to determine the effects of the variables. In doing so, it is imperative that variance in the variables be controlled. Therefore, the main technical function of an appropriate research design is to control variance in the dependent variable (Kerlinger, 1986). Using Kerlinger's Max-Min-Con principle, the researcher designed the research while being aware of the implications of variance. The decisions made in the design of the study had a direct impact on the statistical outcome. These procedures were used to examine the predictive effects of three independent variables on the likelihood of effects or changes in four dependent variables.

The analysis in problem I was conducted in block format. All independent and dependent variables were classified into three separate blocks according to Hull and Nie (1981). Agresti (1996b) described the use of backward stepwise logistic regression in running the full model analysis and removing each explanatory variable in succession to locate the most explanatory variable at the $p < .05$ level. Further, goodness-of-fit models, including the Hosmer and Lemeshow test were employed to determine how well the models used fit the data. Table 4 identifies the variables employed in the study and the statistical analyses used.

Table 4

Variables and Analysis Used

	Dependent	Independent	Type of Analysis
Step 1	Intrusiveness Level of the Search	Educational Attainment; School District Type; Seriousness of the Crime	Binary Logistic Regression
Step 2	Ruling of the Court	Educational Attainment; School District Type; Seriousness of the Crime	Binary Logistic Regression
Step 3	Criminal Proceedings	Educational Attainment; School District Type; Seriousness of the Crime	Binary Logistic Regression
Step 4	Number of Searches	Educational Attainment; School District Type; Seriousness of the Crime	Binary Logistic Regression

Problem Research Questions

I.a. Is there a relationship between the educational attainment of a community in which the search occurred and the intrusiveness level of the search?

In other words, is there a connection between the differing levels of the community and the intrusiveness level of the search when the objects of the search are similar?

$$\text{Logit (p)} = \alpha + \beta_1x_1 + \beta_2x_2 + \beta_3x_3, \dots + \beta_kx_k$$

$$\text{Logit (likelihood that the search will be intrusive)} = \text{Logit (p)} = \alpha + \beta_1x_1 + \beta_2x_2 + \beta_3x_3, \dots + \beta_kx_k$$

I.b. Is there a relationship between the educational attainment level of the community in which the search occurred and whether the student won the case?

$$\text{Logit (likelihood that the student won the case)} = \text{Logit (p)} = \alpha + \beta_1x_1 + \beta_2x_2 + \beta_3x_3, \dots + \beta_kx_k$$

I.c. Is there a relationship between the educational attainment level of the community in which the search occurred and whether evidence was turned over for criminal proceedings?

Logit (likelihood that evidence was turned over for criminal proceedings)

$$\text{Logit}(p) = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3, \dots + \beta_k X_k$$

I.d. Is there a relationship between the educational attainment level of the community and the number of searches conducted?

Logit (likelihood that the number of searches would increase)

$$\text{Logit}(p) = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3, \dots + \beta_k X_k$$

Data Assumptions

Following are the data assumptions for this study:

- Data for several school level variables, including the community and school district type collected from the National Center for Education Statistic and the American Community Survey may not have been available for several years prior and subsequent to 1990 and 2000. For instance, the name of the school district may have changed or the community name may have changed. Therefore, it was difficult or impossible to match the community or school district type to the year in which the search was conducted in some cases. In these cases, data was approximated as closely to the year that the search took place as possible.
- Because data was gathered using the United States Census, yearly data could not be gathered. To approximate yearly changes, data was interpolated,

resulting in an assumption on the part of the researcher that changes were equally incremental or gradual per year within the ten-year period.

- Because the sample used was a nonprobability sample, it is likely that errors in dispersion, or the measurement including the average deviation, variance, and then standard deviation, existed. Because of this, descriptive statistical techniques including standard deviation and variance were employed to control for dispersion. Further, the correlation analysis was employed to control for multicollinearity in the variables.

Limitations

Because the Stefkovich and Torres database represented a nonprobability sample, the data collected may not be generalizable to the population. Additionally, due to missing data, including missing years and inaccurate or missing school district and community names, an average of 136 cases had to be removed from the study.

CHAPTER IV

RESULTS

The following chapter reports the findings of the descriptive, correlational, and logistic regression analyses utilized to test the effect of community Educational Attainment, the School District Type, and the Seriousness of the Crime on disciplinary actions and judicial outcomes regarding student searches. Outcomes of the following statistical techniques are reported: descriptive statistics for all variables used in the analyses; correlations among variables; and the results of the logistic regression conducted to test the relationship between Educational Attainment and disciplinary actions and judicial outcomes, controlling for School District Type and Seriousness of the Crime.

Descriptive Analysis

In this section, each variable in the study, including: Number of Searches, Criminal Proceedings, the Intrusiveness Level of the Search, the Ruling of the Court, , and Educational Attainment will be described and systematic information provided. This requires careful selection of the units studied and careful measurement of each variable, as well as provides statistics describing the overall group comprised in this study. A descriptive analysis was conducted to accomplish several goals: (a) to assess data normality; (b) identify potentially influential relationships; (c) identify errors in the data entry process; and (d) identify trends revealed by the data.

As discussed in the methodology, Educational Attainment was measured by the percentage of community members who held a bachelor's degree or higher. High Educational Attainment was indicated by 25% or higher of the community holding a bachelor's degree or higher; conversely, Low Educational Attainment was identified by 24% or less of the community holding a bachelor's degree or higher. As Table 5 indicates, the mean for Educational Attainment was .2539, indicating that of the sample size analyzed ($n = 166$), the average educational attainment level of the communities was 25%. Table 6 identifies that in the 263 cases analyzed, roughly half (52.6%) of the cases were in mid-sized towns and less (rural) and 47.4% of the cases were in cities (urban). Therefore, the descriptive analysis suggests that there is little difference in this sample size in terms of searches that occurred in urban or rural areas, indicating that the context of the school district setting makes little difference in terms of student searches.

Tables 7 through 10 describe the results of the descriptive analysis for the dependent variables employed in the study: Intrusiveness Level, Ruling of the Court, Criminal Proceedings, and Number of Searches, and provide information indicating the frequency and percentages of cases by each variable. Interestingly, for Ruling of the Court, over 75% (76.1) of the cases resulted in the court ruling against the student, indicating that in most cases the courts upheld the search methods of the school district. Criminal Proceedings were initiated against the student 62% of the time, indicating that the majority of cases analyzed from the database were serious enough that students were charged with crimes as a result of the object found in the search. The Intrusiveness Level of the search indicated that a slight majority (54%) of the searches conducted in

the cases analyzed were less intrusive, while the Number of Searches conducted showed little to no difference in whether or not only one search was conducted (50.5% of the time) or two or more searches were conducted (49.5%).

Table 5 indicates the results of the descriptive statistics analysis in relation to Educational Attainment, Table 6 describes the School District Type in which the searches occurred. These tables are followed by Tables 7-10, which provide information related to the four dependent variables.

Table 5

Descriptive Statistics for Educational Attainment

	Mean	SD	Min.	Max.	<i>n</i>
Educational Attainment	0.2539	0.1774	0	1.459	166

Table 6

School District Type

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	mid-sized town and less	103	39.2	52.6	52.6
	central or fringe of large city	93	35.4	47.4	100
	Total	196	74.5	100	
Missing	System	67	25.5		
Total		263	100		

Table 7

Intrusiveness Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	least intrusive	107	40.7	54	54
	most intrusive	91	34.6	46	100
	Total	198	75.3	100	
Missing	9	14	5.3		
	System	51	19.4		
	Total	65	24.7		
Total		263	100		

Table 8

Ruling of the Court

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	140	53.2	76.1	76.1
	1	44	16.7	23.9	100
	Total	184	70	100	
Missing	System	79	30		
Total		263	100		

Table 9

Criminal Proceedings

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	65	24.7	37.4	37.4
	yes	109	41.4	62.6	100
	Total	174	66.2	100	
Missing	System	89	33.8		
Total		263	100		

Table 10

Number of Searches

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	one search	94	35.7	50.5	
	two or more searches	92	35	49.5	50.5
	Total	186	70.7	100	100
Missing	System	77	29.3		
Total		263	100		

Correlation Analysis

In this section, the researcher reports, using a correlational analysis, the strength of the relationships between each variable used in the study. As stated earlier, the correlation between variables is identified such that systematic changes in the value of one variable are accompanied by systematic changes in the other. Correlation coefficients can range from -1.00 to +1.00, with the value of -1.00 representing a perfect negative correlation and the value of +1.00 representing a perfect positive correlation.

Correlation coefficients representing the value of the relationship between variables in the analysis are represented using positive (+) and negative (-) direction. Additionally, for this study, a Pearson product- moment correlation analysis was used, meaning that the correlation coefficient is a measure of the linear correlation between two variables X and Y, giving a value between +1 and -1 inclusive. Table 11 illustrates the relationships that exist among the independent variables used in the study.

Table 11

Correlations Among Independent Variables

	Edu Att	School District Type	Ser Crime
Edu Attainment	1	.129	.072
School District Type	.129	1	.080
Seriousness Crime	.072	.080	1

The correlation matrix in Table 6 reveals that no extreme multi-collinearity exists among predictor variables included in the logistic regression model. The highest correlation between independent variables exists among School District Type and Educational Attainment ($r = .129$). Table 12 illustrates the relationships that exist between the dependent variables in the study.

Table 12

Correlations Among Dependent Variables

	Intrusiveness Level	Ruling of the Court	Criminal Proceedings	Number of Searches
Intrusiveness Level	1	.145*	-.126	.011
Ruling of the Court	.145*	1	-.237**	.398
Criminal Proceedings	-.126	0	1	.583
Number of Searches	.011	.64	.043	1

A negative statistically significant correlation ($r = -.237$; $p < .01$) exists between the Ruling of the Court and Criminal Proceedings. In addition, a positive correlation (r

= .145) exists between the Ruling of the Court and the Intrusiveness Level of the Search. The highest correlation exists between the Seriousness of the Crime and the Intrusiveness Level of the Search ($r = .540$), suggesting that as the Seriousness of the Crime increased, so did the level of Intrusiveness of the Search. Table 13 reveals the strength of relationships between all variables in the study.

Table 13

Correlations Among All Variables

	EA	SDT	SOC	ILS	ROC	CP	NOS
Educational Attainment	1	.129	.072	.068	-.084	.116	.057
School District Type	.129	1	.08	-.014	-.177*	.190*	-.001
Seriousness of the Crime	.072	.080	1	.540**	.048	-.082	-.138
Intrusiveness Level of the Search	.068	-.014	.540**	1	.145	-.126	.011
Ruling of the Court	.084	.177*	.048	.145*	1	-.237**	-.064
Criminal Proceedings	.116	.190*	-.082	-.126	-.237*	1	.043
Number of Searches	.057	-.001	-.138	.011	-.064	.043	1

*Significant at the .05 level (2-tailed).

**Significant at the 0.01 level.

By conducting a correlation analysis, the researcher was able to examine the strength and direction of relationships among all variables.

The highest correlation exists between the Seriousness of the Crime and the Intrusiveness Level of the Search ($r = .540$), suggesting that as the Seriousness of the Crime changed, so did the level of Intrusiveness of the Search.

The School District Type exhibited a negative statistically significant correlation ($r = -.177$) with Ruling of the Court, suggesting that rulings in rural areas tended to go

against the student. Additionally, the School District Type demonstrated a positive statistically significant relationship with Criminal Proceedings, indicating that in rural school districts, criminal proceedings were more likely to be initiated against the student than in urban areas. No statistically significant relationships existed between community Educational Attainment and other variables in the correlation analysis.

Logistic Regression Analysis

Intrusiveness of the Search (N = 121/263)

A binary logistic regression analysis was performed to predict the Intrusiveness Level of student Searches by Educational Attainment of the Community, the School District Type in which the search was conducted, and the Seriousness of the Crime predicating the search. The outcome variable Intrusiveness Level of the Search was coded 0 = least intrusive and 1 = most intrusive.

Three predictor variables were included in the model: (a) Educational Attainment of the Community; (b) School District Type; and (c) the Seriousness of the Crime. In the SPSS data file, Educational Attainment was coded 0 = below 25% and 1 = above 25% (with respect to the percentage of bachelor's degrees and above held by the community). The School District Type was coded 0 = rural and 1 = urban, and the Seriousness of the Crime was coded 0 = less serious and 1 = more serious. The binary logistic regression procedure in SPSS was used to perform the analysis. Data from 121 cases were included.

In Block 0 (null block) analysis, the Intrusiveness Level of the Search could be predicted with no explanatory variables present 52.9 % of the time. As the three

predictor variables were added, the percentage level of predicting the Intrusiveness Level of the Search increased to 61.2%. A test of the full model, including the three predictor variables of Educational Attainment, School District Type, and Seriousness of the Crime compared with a constant-only or null model revealed that of the three predictor variables, only one, Seriousness of the Crime, was statistically significant when predicting the Intrusiveness Level of the Search (Wald's $\chi^2 = 6.083$, $df = 1$, $p = .014$).

The strength of the association between Seriousness of the Crime and the Intrusiveness Level of the Search was measured by a Cox and Snell's $R^2 = .053$ and Nagelkerke's $R^2 = .071$. This coefficient suggested that as Seriousness of the Crime increased, the Intrusiveness Level of the Search decreased, meaning searches were more likely to be less intrusive as the crime calling for the search was more serious. There was no indication that the variables School District Type or Educational Attainment had any statistical significance on the Intrusiveness Level of the Search.

For the variable Educational Attainment, no statistically significant effect was measured, resulting from a non-significant Wald's $\chi^2 = .048$, $df = 1$, $p = .827$, while the effect of the variable School District Type yielded no significant results (Wald's $\chi^2 = .163$, $df = 1$, $p = .686$). Table 14 illustrates the results of the binary logistic regression model for Intrusiveness Level of the Search.

Table 14

Binary Logistic Regression Analysis: Intrusiveness Level of the Search

	β	Wald	df	Sig	Exp(β)
Educational Attainment	-0.222	0.048	1	0.827	0.801
School District Type	0.154	0.163	1	0.686	1.167
Seriousness of the Crime	-1.173	6.083	1	0.014	0.31

*Significant at the .05 level (2-tailed).

** Significant at the 0.01 level.

The Student Wins or Loses the Case/The Ruling of the Court (N = 120/263)

A binary logistic regression analysis was performed to predict the Ruling of the Court (whether or not the student won the case as a result of the search) in regards to student searches by Educational Attainment of the Community, the School District Type in which the search was conducted, and the Seriousness of the Crime predicating the search. The outcome variable Ruling of the Court was coded 0 = no and 1 = yes, in regards to outcome in student's favor.

Three predictor variables were included in the model: (a) Educational Attainment of the Community; (b) School District Type; and (c) the Seriousness of the Crime. In the SPSS data file, Educational Attainment was coded 0 = below 25% and 1 = above 25% (with respect to the percentage of bachelor's degrees and above held by the community). The School District Type was coded 0 = rural and 1 = urban, and the Seriousness of the Crime was coded 0 = less serious and 1 = more serious. The binary logistic regression procedure in SPSS was used to perform the analysis and data from 120 cases were included.

In Block 0 (null block) analysis, the Ruling of the Court could be predicted with no explanatory variables present 77.5 % of the time. A test of the full model, including the three predictor variables of Educational Attainment, School District Type, and Seriousness of the Crime compared with a constant-only or null model revealed that none of the three predictor variables were statistically significant when predicting the Ruling of the Court. The strength of the association between Seriousness of the Crime and Ruling of the Court was measured by a Cox and Snell's $R^2 = .056$ and Nagelkerke's $R^2 = .085$. The strength of the relationship between School District Type and the Ruling of the Court was measured by a Cox and Snell's $R^2 = .068$ and Nagelkerke's $R^2 = .104$. The strength of the relationship between Educational Attainment and the Ruling of the Court was measured by a Cox and Snell's $R^2 = .075$ and Nagelkerke's $R^2 = .114$.

The three independent variables showed no predictive influence as they were added to the model. The overall percentage of predictability remained constant at 77.5%, regardless of the influence of the predictor variables. In examining Step 3 (see Table 15), Educational Attainment (Wald's $\chi^2 = 2.70$, $df = 1$, $p = .100$) had no statistically significant relationship when predicting the Ruling of the Court.

There was no indication that the variables School District Type or Seriousness of the Crime had any statistical significance on the Ruling of the Court. For the variable Seriousness of the Crime, no statistically significant effect was measured, resulting in a significance of (Wald's $\chi^2 = .825$, $df = 1$, $p = .364$), while the effect of School District Type yielded no significant results (Wald's $\chi^2 = 1.74$, $df = 1$, $p = .187$).

Table 15 illustrates the results of the binary logistic regression model for Ruling of the Court.

Table 15

Binary Logistic Regression Analysis: The Ruling of the Court

	β	Wald	df	Sig	Exp(β)
Educational Attainment	-4.25	2.7	1	0.1	0.014
School District Type	-0.638	1	1	0.744	0.187
Seriousness of the Crime	-0.48	0.825	1	0.364	0.619

Criminal Proceedings Initiated Against the Student (N = 112/263)

A binary logistic regression analysis was performed to predict whether or not Criminal Proceedings were initiated against the student in regards to student searches by Educational Attainment of the Community, the School District Type in which the search was conducted, and the Seriousness of the Crime predicating the search. The outcome variable Criminal Proceedings was code 0 = no and 1 = yes, in regards to proceedings being initiated.

Three predictor variables were included in the model: (a) Educational Attainment; (b) School District Type; and (c) Seriousness of the Crime. In the SPSS data file, Educational Attainment was coded 0 = below 25% and 1 = above 25% (with respect to the percentage of bachelor's degrees and above held by the community). The School District Type was coded 0 = rural and 1 = urban, and the Seriousness of the Crime was coded 0 = less serious and 1 = more serious.

The binary logistic regression procedure in SPSS was used to perform the analysis. Data from 112 cases were included in the analysis. In Block 0 (null block) analysis, the ruling of the court could be predicted with no explanatory variables present 65.2 % of the time. A test of the full model, including the three variables of Educational Attainment, School District Type, and Seriousness of the Crime compared with a constant-only or null model revealed that none of the three predictor variables were statistically significant when predicting initiation of Criminal Proceedings against the student.

The strength of the association between Seriousness of the Crime and Criminal Proceedings was unable to be measured by a Cox and Snell's *or* Nagelkerke's score because parameter estimates changed by less than 1%, yielding no observable difference. The strength of the relationship between School District Type and Criminal Proceedings was measured by a Cox and Snell's $R^2 = .059$ and Nagelkerke's $R^2 = .081$. The strength of the relationship between Educational Attainment and the Criminal Proceedings was measured by an identical Cox and Snell's $R^2 = .059$ and Nagelkerke's $R^2 = .081$.

The three variables showed little predictive influence as they were added to the model, increasing the predictability of Criminal Proceedings from 65.2% to 67.0%. In examining Step 3 (see Table 10), Educational Attainment (Wald's $\chi^2 = .026$, $df = 1$, $p = .871$) had no statistically significant relationship when predicting the possibility of Criminal Proceedings. There was no indication that the variables School District Type or Seriousness of the Crime had any statistical significance on the initiation of Criminal

Proceedings from the outcome of the search. For the variable Seriousness of the Crime, no statistically significant effect was measured, resulting in a significance of (Wald's $\chi^2 = 3.019$, $df = 1$, $p = .082$), while the effect of School District Type yielded no significant results (Wald's $\chi^2 = 3.219$, $df = 1$, $p = .087$). Table 16 illustrates the results of the binary logistic regression model for Criminal Proceedings.

Table 16

Binary Logistic Regression Analysis: Criminal Proceedings

	β	Wald	df	Sig	Exp(β)
Educational Attainment	0.181	0.026	1	0.871	1.199
School District Type	0.81	3.019	1	0.082	2.249
Seriousness of the Crime	0.747	3.219	1	0.073	2.111

Number of Searches (N = 123/263)

A binary logistic regression analysis was performed to predict the Number of Searches likely to occur by Educational Attainment of the Community, the School District Type in which the search was conducted, and the Seriousness of the Crime predicating the search. The outcome variable Number of Searches was coded 0 = 1 or less and 1 = 2 or more, in regards to Number of Searches.

Three predictor variables were included in the model: (a) Educational Attainment of the Community; (b) School District Type; and (c) the Seriousness of the Crime. In the SPSS data file, Educational Attainment was coded 0 = below 25% and 1 =

above 25% (with respect to the percentage of bachelor's degrees and above held by the community). The School District Type was coded 0 = rural and 1 = urban, and the Seriousness of the Crime was coded 0 = less serious and 1 = more serious.

The binary logistic regression procedure in SPSS was used to perform the analysis and data from 123 cases were included. In Block 0 (null block) analysis, the Number of Searches could be predicted with no explanatory variables present 51.2 % of the time.

A test of the full model, including three predictor variables of Educational Attainment, School District Type, and Seriousness of the Crime compared with a constant-only or null model, revealed that none of the predictor variables was statistically significant when predicting the Number of Searches. The strength of the association between Seriousness of the Crime and the Number of Searches was measured by a Cox and Snell's $R^2 = .013$ and Nagelkerke's $R^2 = .017$. The Strength of the Relationship between School District Type and the Number of Searches was measured by a Cox and Snell's $R^2 = .013$ and Nagelkerke's $R^2 = .017$. The strength of the relationship between Educational Attainment and the Number of Searches was measured by a Cox and Snell's $R^2 = .011$ and Nagelkerke's $R^2 = .015$.

The three independent variables showed little predictive influence as they were added to the model. The overall percentage of predictability increased slightly to 56.1%, when measuring the influence of all three predictor variables. In examining Step 3 (see Table 16), Educational Attainment (Wald's $\chi^2 = .181$, $df = 1$, $p = .670$) had no statistically significant relationship when predicting the Number of Searches.

Additionally, there was no indication that the variables School District Type or Seriousness of the Crime had any statistical significance on the Number of Searches. For the variable Seriousness of the Crime, no statistically significant effect was measured, resulting in a significance level of (Wald's $\chi^2 = .027$, $df = 1$, $p = .869$), while the effect of School District Type yielded no significant results (Wald's $\chi^2 = 1.184$, $df = 1$, $p = .276$). Table 17 illustrates the results of the binary logistic regression model for Number of Searches.

Table 17

Binary Logistic Regression Analysis: Number of Searches

	β	Wald	df	Sig	Exp(β)
Educational Attainment	0.431	0.181	1	0.67	1.539
School District Type	0.402	1.184	1	0.276	1.495
Seriousness of the Crime	0.073	0.027	1	0.869	0.93

Summary

The results of the descriptive, correlation, and logistic regression analyses conducted in this chapter reveal that there are many factors that affect the discipline implementation and judicial outcomes resulting from student searches. While the results do not indicate that the construct of Educational Attainment serves as a predictor of the Intrusiveness Level, Ruling of the Court, Criminal Proceedings, or the Number of Searches, it is important to discuss the implication these results may have on future

research, policy and practice. As discussed, these results will serve to lend insight into educational, legal, administrative, and judiciary issues and outcomes. It is important to discuss what these results may mean in these different contexts, and the implications revealed here may serve to inform disciplinary practice in schools in regards to student safety and right to privacy.

Further, the implications on community Educational Attainment in the context of public schools, knowledge of the law, and potential for civic action regarding Fourth Amendment rights in schools are significant. The following chapter provides a summary discussion of the statistical analysis conducted in this study, beginning with a review of Educational Attainment as a potential predictive measure of issues surrounding student searches. Each research question and subsequent hypothesis are discussed, followed by implications for future research.

CHAPTER V

DISCUSSION

The current chapter discusses the implications revealed by the results of the logistic regression analysis that tested the relationship between Educational Attainment and the Intrusiveness Level of the Search, the Ruling of the Court, Criminal Proceedings, and the Number of Searches. Additional discussion will focus on the relationship between the aforementioned dependent variables and the School District Type and the Seriousness of the Crime. The discussion begins with a summary of major results from chapter four. This summary will include a brief discussion of the construct of Educational Attainment and the results of the multi-level and logistic regression analysis. The chapter concludes with a discussion regarding the implications for theory, practice, and future research.

Educational Attainment Construct Discussion

In order for the author to conduct a multi-level study examining the effects of Educational Attainment on student searches and judicial outcomes, a valid and reliable measure of Educational Attainment had to be constructed. Such a measure was constructed by reviewing prior studies by Ream and Palardy (2008) in researching parental social capital, as well as Bjorklund and Salvanes's (2011) work on educational achievement. Additionally, fundamental to this study was research on legal information as social capital (Wise & Schauer, 2007) and social capital itself (Bourdieu, 1986). As previous research focused on educational attainment in relation to academic achievement

and social capital and progress, this study investigated the relationship of educational attainment and student rights in the search and seizure process.

In previous studies, researchers constructed a measure of Educational Attainment by combining measures of parental education, parent choices in regards to educational settings, governmental policies in education, degree completion and level of schooling. Specifically, Bjorklund and Salvanes (2011) investigated whether governmental policies that changed parents' resources and restrictions have causal effects on their children and thus influence levels of educational attainment. In addition, he explored what types of parental resources or inputs "are important for children's development" (p. 202). Regardless, parental education was found to have the strongest predictive influence on the educational attainment of children. What his research failed to examine, conversely, is if and how parents with similar levels of education form social networks through which action may be taken. Bjorklund and Salvanes also suggested that family background represents "an incorporation of both the family and the neighborhood" (p. 203). This suggests that neighborhoods, and consequently, communities, may be a key factor in measuring levels of educational attainment.

Given that there are various factors that account for the acquisition of education, it became imperative that an understandable and previously researched measure of educational attainment be used in this study. Therefore, the use of school completion evidenced by the attainment of an advanced schooling degree, specifically a bachelor's degree or higher, was the primary measure of educational attainment. This measure was used in previous studies cited in the review of literature (Branigan et al., 2013; Byun et

al., 2012; Mayer, 1991; Orfield & Eaton, 1997; Owens, 2010; Reynolds & Roberts, 2009; Turley, 2009).

Additionally, the ideal of the “horizontal collective initiative of social capital” (Wise & Schauer, 2007, p. 267) provided a basis that a mechanism of shared knowledge may be factor in producing social capital. Specifically, the idea of shared knowledge of a community, especially knowledge about the operations of governmental institutions like public schools, was central to this study. This mechanism was also used, in part, to construct the measure of Educational Attainment. Additionally, the idea that educational knowledge includes legal knowledge was central to this research. As Educational Attainment was used to study both administrative and judicial actions related to student searches, the idea that legal information can serve as a base for collective effort is especially relevant.

Further, given the suggestion that formal education includes a general knowledge of the law and by consequence laws governing student rights in schools, the idea that law can be the vehicle to create social capital is especially important. One such way to examine the juxtaposition of social capital and knowledge of the law was to measure the effect of Educational Attainment on administrative and judicial actions relative to student searches.

Therefore, examining the effect of Educational Attainment in conjunction with previously established measures of School District Type and the Seriousness of the Crime could lend insight into future research regarding community knowledge of student rights in schools.

Given that school district context, measured in previous studies by Torres and Stefkovich (2003) by population and the Seriousness of the Crime, or the object of the search, have been previously tested in conjunction with judicial outcomes and administrative decision-making, it was necessary to include them as predictor variables in this study.

Research Questions

Research question 1: Was there a relationship between community Educational Attainment and the Intrusiveness Level of the Search?

The results of the binary logistic regression used to test this research question revealed that there was no statistically significant relationship between the levels of community Educational Attainment and the Intrusiveness Level of the Search employed in the student searches. There was no evidence that the level of degree completion was influential in predicting how intrusive a search may have been. As discussed in the review of literature, the acquisition of legal knowledge through social capital development was foundational in providing a basis for educational attainment as a predictor variable on legal issues in public schools (Wise & Schauer, 2007). However, the results of the analysis suggest that this level of knowledge does not have a significant influential effect on how students are treated in the search process, at least regarding the intrusiveness level. This finding proposes that students are being treated equitably during school searches, and that the level of intrusiveness of the search does not fluctuate significantly depending on the educational attainment of the community. As a school administrator, I find these results comforting and reassuring, because it appears

that administrators are conducting searches fairly and responsibly, no matter the education level of the parents or communities in which these searches occur.

Additionally, as the public has a vested interest in ensuring that students' Fourth Amendment rights are not being unduly compromised, these results are indicative of equitable treatment of our school children in this aspect of the search process.

Due to the lack of extant literature regarding educational attainment and specific legal practices in schools, this study presented a new and exploratory effort to uncover this interaction. Because educational attainment research has focused largely on the effect of parent's schooling on the schooling of their children (Holmlund et al., 2008), educational attainment as a measure of economic success (Becker, 1964), the socio-economic status of parents and family background (Bjorklund & Salvanes, 2011), maternal education levels (Black et al., 2005), and race as a predictor of educational attainment (Branigan et al., 2013; Caldwell, 2008; Turley, 2009), a theoretical basis for the potential effect of educational attainment on the dependent variables had to be established. Therefore, the examination of research on educational opportunity as a means of creating social capital (Coleman et al., 1966) was necessary to suggest that as educational attainment levels increased, the likelihood of social capital accrument rose as well. Research by Ream and Palardy (2008) discussed in the review of literature, support this idea, as they examined the class-stratified social networks of parents and how those networks affect school practices and policies.

Additionally, their research into collective efficacy based on social class and parental social capital, a product of educational attainment, was seminal in providing

insight into this study. Ream and Palardy's work was essential in examining the possible predictive influence of community educational attainment on school practices, which could include student searches. As the literature on educational attainment and legal practices in schools is either non-existent or lacking at best, a logical link had to be established. Therefore, research on social capital was necessary to support the notion that educational utility and community awareness of school practices, and the community's desire and ability to change school practices, was related to educational attainment.

Further, Becker and Tomes (1986) discussed the main mechanisms of intergenerational transmission, a key measure of educational attainment. Specifically, they assert that intergenerational transmission occurs through parental education choices, genetic cognitive abilities, family cultural backgrounds, and public resources and other community factors or investments in the educational process. Understanding that educational attainment can be transferred or enhanced through intergenerational transmission is key to looking at the community as a whole and the effect of educational attainment on other outcomes. While a link between educational attainment of the community and student outcomes other than academic achievement has yet to be established, the present research should lend insight into its effect, or lack thereof, on specific student outcomes such as the Intrusiveness Level of a search. In continuing the effort to establish a link between community educational attainment and its influence on school outcomes, the concept of social capital development required exploration and discussion.

Bourdieu (1986) contends that the possession of a greater degree of social or cultural capital will lead to a greater understanding of the culture of public schools and legal issues therein. As Wise and Schauer (2007) assert, formal education is a mechanism by which more general knowledge is attained, including knowledge of the law and legal issues. It would be reasonable to assume that if a community has a higher level of education, then members of the community would be more likely to coordinate efforts around shared areas of concern. However, the results of the study do not indicate that there is a statistically significant relationship between community educational attainment and the intrusiveness level. These results do not necessarily contradict research regarding educational attainment and knowledge of the law; rather, the results reveal a potential gap in research and again, suggest that regardless of the level of educational attainment, students' rights to privacy are not being unduly compromised with searches that are too highly intrusive. Investigating shared community norms and subsequent community action regarding issues in schools other than academic achievement would be a logical next step.

Interestingly, the predictor variable Seriousness of the Crime did have a negative statistically significant relationship in regards to the Intrusiveness Level of the Search. The results indicated that as the object of the search increased in severity, the severity of the crime rose as well. In cases where the object of the search was more likely to result in felony charges, then the intrusiveness level of the search decreased. This relationship could be attributed to the level of awareness of administrators or school personnel on the importance of conducting searches correctly and equitably, or due to the presence of the

police, who have a stricter standard to meet. As discussed in the review of the literature, police are required to use probable cause as the standard for searches, while school personnel employ the standard of reasonableness, meaning that they can exercise more latitude. A possible implication here is that as the seriousness of the crime is elevated, administrators may feel more pressure to involve police, requiring a stricter search standard, or at the very least, an understanding by school officials that searches need to be conducted thoughtfully and carefully, no matter the level of education of the community.

Further, a stricter search standard may have a potential effect on not only how searches are conducted, but also on what is searched and by whom. Gluckman (1997) pointed to the individuality of searches as a measure of intrusiveness, including strip searches or a more thorough examination of belongings. O'Hara (1997) posited that the threat of criminal prosecution or degrees of danger indicated by the object of the search were measures of intrusiveness. Given that recent events involving school violence have increased, and as a consequence the level of awareness by administrators, it stands to reason that these and other factors may influence the level of intrusiveness of the search. Most importantly, the negative relationship between the seriousness of the crime and the intrusiveness level of the search indicates that further research may be needed in determining factors that influence search intrusiveness.

In either case, these results do suggest that administrators do display a level of awareness in regards to potential violations of student privacy, or search processes that may compromise the intention of the search in the first place. Again, these results

indicate that, largely, school administrators are not conducting searches that consistently violate student privacy by being too intrusive, nor are searches being conducted recklessly or without reason. As a school administrator, I am again reassured by these results, which appear to support the efforts of school districts and legal entities to provide training and awareness regarding student searches. Additionally, these results do not suggest that school officials are taking more latitude than they should in regards to searches in communities with lower levels of educational attainment.

Research question 1 hypotheses:

Ho₁: No relationship exists between the Educational Attainment of a community in which the search occurred and the Intrusiveness Level of the Search.

The logistic regression analysis resulted in a failure to reject the null hypothesis there was no relationship between the Educational Attainment level of the community and the Intrusiveness Level of the Search. Using a backwards stepwise analysis, a significance level of .048 at the $p = .827$ was observed in predicting the strength of the relationship between Educational Attainment and the Intrusiveness Level of the Search. Thus, the Educational Attainment level of a community was not a statistically significant predictor of the Intrusiveness Level of the Search. Potential implications for this relationship may be that a stronger indicator of the level of legal knowledge related to educational attainment requires further research. Additionally, measures of community trust in educational authorities may have a potential impact on this relationship.

Ho₂: There will be no relationship between the School District Type and the Intrusiveness Level of the Search.

The results of the analysis confirmed the null hypothesis that there would be no relationship between the School District Type and the Intrusiveness Level of the Search. The backwards stepwise analysis revealed a significance level of .163 at a p -level of .686, thus indicating that the demographic context of the school was not a valid predictor of the intrusiveness level of the search in this study. The School District Type in this study was identified as being rural or urban, measured by population only. No other demographic factors were used to characterize School District Type. This result could imply that administrators in schools, regardless of the setting of the school in which they serve, are applying the reasonableness standard in searches equitably.

These results, in part, support quantitative findings by Chang and Sue that found no significant differences between perceptions of school officials of the “severity, referability and typicality” of student behavior and disciplinary treatment in regards to race (Stefkovich & Torres, 2003). They further indicate a link between socioeconomic status of communities, specifically those that fall below \$25,000 in median household income, and occurrence of strip searches. Specifically, the study suggested that cases involving strip searches “seemed to occur more frequently in these communities” (Torres & Callahan, 2008, p. 383). This would indicate that the demographic context may in fact have an effect on intrusiveness, if intrusiveness is measured by privacy or the violation thereof, or if socioeconomic status or minority status is used to identify the school district type.

Ho₃: There will be no relationship between the Seriousness of the Crime and the Intrusiveness Level of the Search.

The analysis revealed that a negative statistically significant relationship exists between the Seriousness of the Crime and the Intrusiveness Level of the Search, resulting in a rejection of the null hypothesis. The backwards stepwise analysis revealed a significance level of 6.138 at a p -level of $<.013$. The analysis suggests that for every unit increase of the Seriousness of the Crime, a decrease of 1.173 in the level of intrusiveness is predicted. Thus, a negative relationship exists. The correlation analysis revealed a statistically significant correlation (r) of .540 at a p -level $<.001$. As discussed earlier in this section, there may be many factors related to the potential serious nature of a search and the level of search intrusiveness. As discussed in the review of literature, searches involving drugs (*Board of Education v. Earls*, 2005; *Vernonia v. Action*, 1995) or potential threats as indicated by recent school violence (Columbine, 1999; Newtown, 2012) may have a potential influence on administrative discretion and behavior. The negative relationship observed here support previous research by Torres and Chen (2006) that “civil liberties are far from absolute and could be altered by environmental influences at any time” (p. 203). If environmental influences such as school violence or drugs have an effect on the level of intrusiveness, then other environmental factors such as judicial rulings, a potential lessening of school violence or threat of litigation may have an effect as well. Therefore, implications for school administrators, police, policy makers and the judicial system also exist.

In reviewing extant literature on judicial outcomes related to community educational attainment, the effect of high articulation on judicial elections and community expectations was investigated (Lovrich & Sheldon, 1985). The authors

discovered that there was a distinct relationship between communities with high levels of articulation, loosely defined as collective knowledge of the law and legal procedures and representative of a diversity of ideas and experiences, and judicial responsibility and community expectations. Given this evidence, it was reasonable and necessary to investigate the effect of community educational attainment on the ruling of the court. Although the present study indicated no relationship between educational attainment and the ruling of the court with respect to student search outcomes, further research is suggested due to the availability of different measures of educational attainment. Additional research on community knowledge of the law itself, as well as what communities may do with that knowledge, is necessary. The idea of community expectations of the judicial system, especially in a community where the levels of education and thus expectation is higher, presents a compelling research issue.

Research question 2: Was there a relationship between community Educational Attainment and the Ruling of the Court?

The analyses revealed that no relationship exists between the level of community educational attainment and whether or not the student won the case resulting from the search. Research by Torres and Callahan (2008) suggests that students in communities that are characterized as “high-minority” won 6% more cases, regardless of the number of searches; consequently, if the case involved only one search, students in “high-minority” environments lost 87% of the time compared to 60% of students in “low-minority” environments. While these results do not specifically correlate “high-minority” environments to communities with low educational attainment, the idea of

legal information as social capital has been established (Wise & Schauer, 2007). Given that social capital can be viewed as a sort of generational currency with which one can obtain status and knowledge, it stands to reason that the idea of educational knowledge being accumulated in communities is valid. Additional research on the socioeconomic status of communities and respective levels of educational attainment is merited. Torres and Callahan (2008) further discovered that “a considerable majority of criminal cases in the sample came from searches that occurred in high-minority schools” (p. 392), suggesting that students in these communities were more likely to be criminalized. For the purposes of this analysis, no statistically significant relationship was suggested by any of the predictor variables on the subsequent Ruling of the Court.

Further, none of the predictor variables used in this study demonstrated any influence on the Ruling of the Court. The overall percentage of predictability was 77.5% and remained constant, regardless of the presence of the predictor variables.

Research question 2 hypotheses:

Ho₄: There will be no relationship between the Educational Attainment level of the community in which the search occurred and the Ruling of the Court.

Specifically, the model illustrated that the relationship between Educational Attainment and the Ruling of the Court exhibited a significance level of 2.70 at the $p = .100$ level. Therefore, there is no statistically significant relationship at work and the null hypotheses could not be rejected.

Ho₅: There will be no relationship between the School District Type and the Ruling of the Court.

In examining the relationship between the School District Type and the Ruling of the Court, no statistically significant relationship existed within the logistic regression analysis. However, the correlational analysis revealed that a negative statistically significant relationship existed. A correlation (r) of $-.177$ at the $p < .005$ level was present. This suggests that the Ruling of the Court tended to go against the student in rural areas. Therefore, the null hypothesis could not be confirmed.

H_{06} : There will be no relationship between the Seriousness of the Crime in which the search occurred and the Ruling of the Court.

Again, because none of the predictor variables, including Seriousness of The Crime, accounted for any noticeable variance in predicting Ruling of the Court, the null hypotheses could not be rejected. In fact, Seriousness of the Crime did not approach significance, with a Wald's significance at $.825$ at the p -level = $.364$. This suggests that the object of the search, regardless of what it is, is not a significant predictor of how the court ruled.

Research question 3: Was there a relationship between community Educational Attainment and the initiation of Criminal Proceedings resulting from the search?

The analysis revealed that no relationship existed between the Educational Attainment level of the community and whether or not criminal proceedings were initiated. Research from Torres and Stefkovich (2009) indicates that the possibility exists for a juxtaposition of police in schools and administrative officials in regards to conducting searches to gather evidence for criminal prosecution. Given that criminal proceedings will almost certainly involve police, the nature of police presence in schools

should be examined. Specifically, how administrators and police in schools conduct searches and how the results from those searches are forwarded for criminal prosecution is especially important. In fact, Torres and Stefkovich suggest the existence of “collusion that ignores the probable cause standard required of police in criminal investigations of ordinary citizens” if administrative officials assist the police in gathering evidence (p. 456).

Feld (2010) suggested that in the *New Jersey v. T.L.O.* (1985) ruling, the Court avoided answering the question which it had originally agreed to hear as the basis for the case: “whether the exclusionary rule should operate to bar consideration in juvenile delinquency proceedings of evidence unlawfully seized by a school official without the enforcement of law enforcement officers” (p. 848). Again, given the increasing concern amongst schools and communities of increasing threats to student safety, as well as the threat of drugs and alcohol, there exists a danger to students to have their rights unnecessarily violated. The question becomes, as discussed in the review of research, to what extent the community, based on their levels of educational attainment, will allow school officials to go in student searches (Owens, 2010; Ream & Palardy, 2008).

Given the disparity that exists between minority children and non-minority children in regards to criminal charges resulting from disciplinary actions (including student searches), as well as the lower educational attainment for low-income minority students, measuring the effect of educational attainment on the initiation of criminal proceedings was necessary. An analysis by Branigan et al. (2013) supports the notion that minority children are less likely to attain higher levels of education than children

with lighter skin color. As the study further suggests a causal link between race and educational attainment, it was necessary to examine the outcome of criminal proceedings based on the educational attainment level of the community. Central to this examination remains the community context in which these searches occur, and the collective efficacy ability of the community to raise awareness to potential violations of student rights.

Again, the aim of this research was to examine the relationship that community Educational Attainment may have on disciplinary and judicial actions resulting from searches. Therefore, the gathering of evidence and the community's collective knowledge of what constitutes legal searches and the standards guiding those searches was examined. Specifically, does the level of Educational Attainment have a predictive relationship on whether or not criminal proceedings were initiated?

Research question 3 hypotheses:

Ho₇: There will be no relationship between the Educational Attainment level of the community in which the search occurred and whether evidence was turned over for Criminal Proceedings.

The analysis revealed that no statistical relationship exists between the Educational Attainment level of the community and Criminal Proceedings. Therefore, the null hypothesis could not be rejected. With a significance level of .026 and p -level = .872 level, there was no predictive influence with Educational Attainment on the initiation of Criminal Proceedings. These results suggest that the level of educational attainment of the community does not significantly affect the initiation of criminal

proceedings against students, again an indication that school officials are acting equitably in the search process. Further, these results support that school officials are aware of the serious nature of pursuing criminal charges against students as a result of what is found in the search process, and that they are conducting them carefully and reasonably. If the results were to suggest that community educational attainment did indeed affect the initiation of criminal proceedings, it could be suggested that school officials allow the community education level to affect search outcomes and their subsequent actions.

It would seem that some communities with high education levels would, having a broader knowledge of the law, want their children to understand the severity of violating the law, or that they would want to protect their children unreasonably, and in doing so, put pressure on school officials to act according to community desires. However, the results suggest that the educational attainment levels of the community do not affect the practice of school officials in regards to this aspect of the search process, again supporting the idea that school officials are not exercising their power with undue latitude.

H₀₈: There will be no relationship between the School District Type and whether evidence was turned over for Criminal Proceedings.

The analysis revealed that regardless of the population of the School District Type, there was no indication of a predictive relationship on Criminal Proceedings. Therefore, the null hypothesis could not be rejected. One area of future research, given that police presence may have an effect on Criminal Proceedings, would be to examine

the nature of police presence respective of urban and rural settings. Given that “courts assume that, if police are involved, at least some aspect of the search might involve criminal evidence,” the simple presence of police may have an explanatory effect on the nature of Criminal Proceedings (Torres & Stefkovich, 2009, p. 456). It is reasonable to suggest that schools in urban settings may have greater access to police resources than those in rural settings. This possibility presents an opportunity for further research.

Ho₉: There will be no relationship between the seriousness of the crime and whether evidence was turned over for criminal proceedings.

The logistic regression analysis revealed that no statistically significant relationship existed between the Seriousness of the Crime and Criminal Proceedings, resulting in a failure to reject the null hypothesis. The results indicate a significance of 3.019 at a p -level = .082. This relationship is approaching statistical significance, indicating that this coefficient suggested, at least slightly, that as the object of the search was more serious, the results of the searches were more likely to be turned over for criminal proceedings.

Research question 4: Was there a relationship between community Educational Attainment and the Number of Searches?

The analysis revealed that no relationships of statistical significance were observed between Educational Attainment and the Number of Searches conducted. As prior judicial precedence was established in *New Jersey v. T.L.O.* (1985), no specific guidelines exist for administrators to use in determining how many searches are allowed (Torres & Callahan, 2008). In fact, their research focused on judicial outcomes related

to the minority setting of the school and the number of searches conducted. This research served to inform the present study and provided a basis for the use of Number of Searches as a variable.

While previous research has focused on socio-economic status or minority makeup in regards to the number of student searches, examining the potential effect that the education of the community may have on the number of searches provided a new avenue of analysis. As Torres and Callahan (2008) found, search cases that only involved one search occurred in high-minority environments 81% of the time. As research has shown, the acquisition of education and college degrees has proven to be an indicator of higher socio-economic status. Therefore, examining the acquisition of knowledge in communities in which searches occurred was necessary to continue to inform practitioners, lawmakers, and policy writers on the privacy rights of students.

As discussed in the review of literature, several empirical studies have examined the effect of educational attainment on academic achievement and the collective efficacy effect of educational utility on school policies and practices (Coleman, 1988; Owens, 2010; Ream & Palardy, 2008). Given that these studies did suggest a causal link between educational attainment and a change in school policies, primarily academic in nature, it was necessary to investigate the potential influence of educational attainment on other school policies, including the search process. Coleman (1988) emphasized the beneficial impact that educational utility, a result of social capital and a possible by-product of educational attainment, had on school-related outcomes. These studies seem to support the idea that educational attainment can and does have a predictive influence

on certain school outcomes; research has thus far shown that these outcomes have been academically related. Although the present study does not support the predictive nature of the measurement of educational attainment used on student search practices, it is possible that a different measure, other than degree achievement, may have an influential effect. Research is therefore necessary to investigate what other measures of educational attainment may exist and what predictive influence they may have.

If certain school practices can be influenced by collective community educational utility, it is reasonable to contend that the number of searches to which a student is subjected may be one of those practices. In addition, Hanushek (2003) asserts that the student's neighborhood is another important context for educational achievement, again pointing to the importance of measuring community-based criteria, including collective educational attainment. Given the results of the research by Torres and Callahan (2008) which revealed that high-minority student searches only involved one search 81% of the time, it could be contended that school officials are not conducting search processes thoroughly in regards to minority students, a troubling thought to be sure. This could be an indication that school officials understand that their search knowledge and process is less likely to be challenged by high-minority students and parents, and that they feel empowered to act quickly and less thoughtfully. If that were true, it would seem likely that high-minority students were in danger of having their privacy rights violated more often than their low-minority counterparts. Further, given the link between high-minority and low socio-economic status, as well as the link between low socio-economic status

and low educational attainment, it was important to analyze if the education attainment level of the community had any effect on the number of searches conducted.

The results of this study do not support that suggestion. Conversely, these results found no significant predictive influence on the educational attainment level of the community and how many searches were conducted, again providing some measure of relief that school officials are acting reasonably and equitably in the search process. It is reassuring that school officials are not exhibiting a change in the number of searches they are conducting based on the educational attainment level of the communities in which they serve.

Research question 4 hypotheses:

Ho₁₀: There will be no relationship between the Educational Attainment level of the community in which the search occurred and the Number of Searches conducted.

The analysis revealed that no relationships of statistical significance were observed between Educational Attainment and the Number of Searches conducted. Therefore, the null hypothesis could not be rejected. The relationship between Educational Attainment and the Number of Searches was observed with a significance level of .181 at a p -level = .67. Therefore, the relationship was not statistically significant.

Ho₁₁: There will be no relationship between the School District Type of the community in which the search occurred and the Number of Searches conducted.

In regards to the relationship between the School District Type and the Number of Searches conducted, no statistic significance was observed, resulting in a failure to

reject the null hypothesis. The relationship exhibited a significance level of 1.184 at a p -level = .276. Interestingly, the setting of the School District, whether it was rural or urban, had no predictive influence on the Number of Searches.

H_{012} : There will be no relationship between the Seriousness of the Crime and the Number of Searches conducted.

Finally, the analysis revealed that the object of the search, a measure of Seriousness of the Crime, was not statistically significant in predicting the Number of Searches, resulting in a failure to reject the null hypothesis. The data analysis revealed that a significance level of .027 with a p -level = .869 existed between Seriousness of the Crime and the Number of Searches.

Practical Implications

Within school organizations, the rights of students, including privacy and freedom from unreasonable search and seizure, should be protected. Further, the equitable treatment of all students, regardless of the level of education of the community in which they live, their race, or socioeconomic status, should be at the forefront of the minds of school officials and the judicial system. The results of this study confirm that, at least in regards to the descriptive measures used, school officials are conducting student searches reasonably and equitably with respect to the level of educational attainment of the communities in which their school operate. As previous research has indicated, there are a variety of factors that may intercede and thus affect the search and seizure process and outcomes in public schools, including administrative discretion, concern for school safety, police involvement, and demographics. The aim of this study

was to research the potential predictive influence of the construct of Educational Attainment on student searches in schools, as well as factors leading to judicial outcomes resulting from those searches.

While the results of this study do not reveal that Educational Attainment is a predictor of certain disciplinary and judicial outcomes related to the intrusiveness level or the number of student searches conducted, or to court decisions and whether criminal proceedings are initiated, implications for school administrators, police, communities and the judicial system exist.

First, on any given day, a student's right to privacy could be potentially violated by the search and seizure process. As discussed in the review of literature, threats to student safety continue to be a factor in the discretion of administrators to conduct searches, as well as potentially allow for a violation of individual rights to protect the greater population (Torres & Chen, 2006). Furlong, Kingery, and Bates (2001) suggested that school shootings such as Columbine have initiated action on the part of public agencies and private institutions to combat the "perceived crisis in schools" (p. 221). Given these greater concerns, the potential exists for school officials to act, even with a thought to the protection of students, in a manner that threatens individual liberties. Further, the community outcry for stronger and more stringent measures to school violence could exacerbate the potential for student rights violations. Perhaps communities with greater levels of education understand the role of the school in protecting their children to a greater degree than communities who are less educated, and thus less attuned to how these threats are understood and assessed. This awareness could

results in greater police presence, more stringent searches, and the potential for school officials to violate the reasonableness cause because they are faced with increasing pressure from their communities.

Law enforcement has continued to play a greater role in public schools due to the threat of violence, presenting a real issue in the context of student searches, as police are held to the stricter standard of probable cause and not reasonableness. As Torres and Stefkovich (2009) asserted, “Little attention has been given to the effect of [law enforcement officers] presence on students’ privacy protections and on the disciplinary actions of school officials” (p. 451). The suggestion implied here is that the presence of law enforcement may allow for a greater sense of empowerment among school officials to conduct searches without valid reason. However, given the potential threat of school violence, drugs and other dangers to students, Torres and Stefkovich also asserted that “while some are quick to condemn the actions of the police, the reality is such that many parents and communities want safe environments for their children and oftentimes are willing to support bold initiatives” (p. 451).

Therefore, a possible implication of this research is that no matter the educational attainment level of a specific community, the possible threat of school violence and the common desire for student safety may outweigh the potential violation of student civil liberties. Further, as extant research supports that minority students may be subject to disproportionate discipline (Skiba et al., 2002), examining in greater detail the potential causal link between minority makeup and educational attainment levels is important in this context. Given the possibility that communities and subsequent civil engagement

would focus on the common goal of school safety, implications exist for school administrators, in both an ethical and legal sense, to conduct searches with equity and to ensure that the reasonableness standard is upheld. In fact, as school administrators are trusted to be the experts in many areas, it behooves educational institutions, including schools and legislative bodies charged with setting policy to provide administrators with training and legal expertise to mitigate the violation of student rights. Implications exist for increased communication between administrators and community members and parents, relevant and meaningful training for administrators in the search and seizure process, and the presence of law enforcement in schools. It must be noted, however, that the results of this study indicate that school officials and judicial entities are not being unduly influenced, at least in regards to the variables used here, by the educational level of the communities they serve.

Obviously, implications exist for the courts, as judges are charged with interpreting both the U.S. Constitution and specifically the Fourth Amendment, as well as previous rulings regarding student searches. Research by Torres and Callahan (2008) investigated the impact of less exact rulings by the courts on how the search practice is applied in schools. Given that “Supreme Court rulings often leave issues unresolved, resulting in a distortion of the ruling’s intent” (Goldman & Jahnige, 1985; Torres & Callahan, 2008, p. 383), it is imperative that further research be conducted on how the ruling of the court affects actual practice in schools.

Recommendations for Future Research

As discussed, this analysis investigated the potential predictive influence of community Educational Attainment on four key outcomes related to student searches: (a) Intrusiveness Level; (b) Ruling of the Court; (c) Criminal Proceedings; and (d) the Number of Searches. As no predictive influence of educational attainment on these variables was established, several recommendations for future research emerge.

First, the notion of community Educational Attainment has thus far focused on its relation to academic achievement, and most studies have more narrowly focused on individual educational attainment as measured by parent's schooling. Future research on the construct of the educational attainment of the community as a whole would be beneficial in informing many areas, including academic achievement and student civil liberties. Additionally, the idea of advanced schooling as an indicator of educational attainment was central to this study and in constructing the measure that was used. Possibilities exist for future research in constructing other measures of educational attainment, not just the possession of college degrees.

Further, more investigation is needed in the area of legal information as a result of educational attainment. Understanding more fully the nature of the acquisition of legal knowledge and the subsequent application of that knowledge to student rights in schools would inform school administrators and policy makers. Therefore, a need for research exists to examine high school curricula, college and university programs, and other avenues through which knowledge is gained to determine the efficacy of instruction related to the law.

Future research is needed on the notion of civic action in relation to the level of community educational attainment in the context of public schools. It would behoove researchers to investigate the factors that spur community action and concern in regards to public school issues beyond school violence. Investigating the awareness of the community as a whole on the issues surrounding students in schools, beyond discipline and grades, is needed. This research might include examining the various organizations in a community that interact with its schools and the manner in which they influence each other. As a school administrator, I can truthfully say that there are few, if any, collaborative relationships between schools and the community on legal issues. Most school-community partnerships focus on resources for students in the form of programs, basic necessities, and mentorships, not on constitutional issues or the broader legal protection afforded to students. An investigation into what organizations currently exist in communities that provide information and protection regarding student liberties would support the goal of this research as well.

Again, the construct of Educational Attainment used in this study is potentially very narrow. Expanding the ways in which educational attainment is measured and analyzed could be beneficial and informative to future research. Additionally, ensuring that there is a consistent and continual expectation of school administrators to know the law, and especially the law related to student civil liberties in schools, remains a focus. Research on the processes by which school officials are trained and the subsequent actions they take in regards to the search and seizure process is necessary, as is continued research on police presence in schools. Further, future studies are

recommended on the effect of community educational attainment on judicial outcomes, as well as broadening the areas that may be affected by educational attainment.

Conclusion

In conclusion, the construct of Educational Attainment used in this study did not reveal a predictive relationship with the Level of Intrusiveness, the Ruling of the Court, Criminal Proceedings, and the Number of Searches conducted. As stated previously, this does provide reassurance to parents, communities, school administrators, and other entities concerned with the protection of student civil liberties that the actions of school administrators and judges, at least in regards to the measures studied here, are not being unduly influenced by community educational attainment. Further, it appears that school officials are aware of their responsibilities in upholding the reasonableness standard established by the Supreme Court and are conducting searches in an equitable manner, regardless of the level of education of students' parents and community as a whole.

However, the analysis did reveal areas of recommended research to continue to ensure that students' civil liberties are not being violated. It remains a goal of public school officials, the courts, individual families and communities, law enforcement, legislatures and policy makers to ensure that our students are safe in schools. Safety does not just mean protection from drugs, violence, or the epidemic of bullying currently engulfing this nation. Student safety also means being free from unreasonable violations of privacy in the form of student searches and that school officials possess the training and judgment to ensure that student rights are protected.

Given the number of issues surrounding public schools in this country, continued research focused on the juxtaposition of the law and school practice remains imperative. Not only is future research needed on how the law affects and protects our students, but also on how legal knowledge is obtained. How does legal knowledge inform and potentially spur action? These are questions whose answers may further inform lawmakers and those who are sworn to uphold the law, and whose institutions rely on the generality of law to provide equity and common treatment to different people at different times.

Finally, the results of this study, while unsuccessful at supplying causal information regarding educational attainment and disciplinary and judicial outcomes related to student searches, do provide reassurance that school officials and judges are acting responsibly and equitably in these cases. As the safety of students, including their protection against unreasonable search and seizure and potential violations of their civil liberties has been and continues to be a central focus of school officials, communities, and other institutions, research that serves to provide that protection will continue to be necessary.

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