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STAKEHOLDER ATTITUDES TOWARD MANDATORY STUDENT DRUG TESTING

by

JOHN MADISON JORDAN JR

(Under the Direction of Teri Denlea Melton)

ABSTRACT

The purpose of this study was to identify the attitudes toward mandatory student drug testing from various school stakeholder groups in a Small Rural Southeast Georgia School District. This study employed a quantitative methodological research design along with descriptive analyses of two research questions for the sixth through twelfth grade population of students, parents, and school personnel. Survey data from the middle and high school stakeholder groups were received during the fall of 2019 and analyzed to determine the overall attitude toward the use of student drug testing as well as the differences that existed among various stakeholder groups.

This study focused on two overarching research questions with the first being: what are the overall attitudes of middle and high school faculty/staff, administrators, parents, and students regarding mandatory student drug testing for the school district; and the second question being: to what extent do stakeholder attitudes toward mandatory student drug testing vary according to gender, ethnicity, grade cluster, exposure to experiences related to mandatory drug testing and involvement in extracurricular activities?

The survey revealed the overall attitudes of grades 6-8 and grades 9-12 students, parents, and school personnel had high agreeability with the use of Mandatory Random Student Drug Testing (MRSDT). The scoring results of three main survey variables; *necessity of drug testing*, *negative perceptions of drug testing*, and *positive results from drug testing*, all suggests that this survey population agreed with the policy and indicated an interest in continuing MRSDT in grades 9-12 and expanding to grades 6-8. While there was high agreeability from all stakeholders toward MRSDT, two statistically significant differences existed in this study. Grades 6-8 indicated a greater need for drug testing than grades 9-12, and Persons of Color Subgroup had greater negative perceptions toward MSRDT than the White Subgroup.

This study impacts local educational leaders and stakeholders by vetting the current policy and the desires to have MRSDT as a part of the school's drug prevention program. Additionally, this study may be of interest to other educational leaders, particularly educational leaders from rural areas that are considering adding MRSDT as a part of their drug prevention program.

INDEX WORDS: Deterrence theory, Drug prevention, Mandatory, Random drug testing, Student drug testing (SDT)

STAKEHOLDER ATTITUDES TOWARD MANDATORY STUDENT DRUG TESTING

by

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B.S., Georgia Southern University, 1999

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A Dissertation Submitted to the Graduate Faculty of Georgia Southern University
in Partial Fulfillment of the Requirements for the Degree

DOCTOR OF EDUCATION

STATESBORO, GEORGIA

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STAKEHOLDER ATTITUDES TOWARD MANDATORY STUDENT DRUG TESTING

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DEDICATION

This dissertation is dedicated to the following people.

A sincere appreciation and thanks to the love of my life, my loving and supportive wife, Kellie Elaine Jordan, who has blessed me by her faithful, loving, sweet, and gracious dedication to me and our three sons....and many, many dogs. Thank you for your love, patience, and sacrifice for me and our family. I love you.

This dissertation is also dedicated to my three sons; Jarred, Matthew, and Joshua. Thank you all for being the sons and young men that you are. I am a very proud father and you all are a daily inspiration to me. I love each of you immensely.

Finally, this dissertation is dedicated to my late mother, Katherine (Kathy) Jordan. Her love of education and pursuit of knowledge has always challenged and motivated me to do my best. I love you and miss you.

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CHAPTER 1

INTRODUCTION

Illicit drug use and abuse among adolescents in the United States (US) is at an epidemic level. National epidemiologists estimate that most adolescents will use some form of illicit substance before high school graduation (Conway, Vullo, Nichter, Wang, Compton, Iannotti, & Simons-Morton, 2013). Additionally, an estimated 30% of students by grade eight, 40% by grade 10, and over 50% by grade 12 will have had tried illicit drugs (Conway et al., 2012). The effects of drug use and abuse can be devastating and lead to negative outcomes such as low academic achievement, delinquency, risky sexual behaviors, poor health, and even death, which are all potential side effects of adolescent drug use (James-Burdumy, Goesling, Deke, & Einsprunch, 2010). In response to the drug epidemic, many school systems have implemented Mandatory-Random Student Drug Testing (MRSDT) to deter student drug use. In addition to deterring student drug use, many schools have implemented MRSDT to identify students who need drug counseling and treatment options. Ringwalt, Vincus, Ennett, Hanley, Bowling, Yacoubian, and Rohrbach (2008) estimated that 14% of the US school districts report using MRSDT to deter adolescent drug use.

Although many school systems have implemented MRSDT, controversy and challenges exist surrounding its use. Controversial items of MRSDT include possible constitutional violations as well as infringement of student rights to privacy. Additionally, the effectiveness of MRSDT on deterrence of student drug use, and the potential for negative impact on extracurricular participation and stakeholder attitude exist. Dupont, Merlo, Arria, and Shea (2012) argued the policy of MRSDT promotes a negative stakeholder attitude, is ineffective in reducing student drug use, is financially costly for school systems, violates students privacy

rights, is used primarily in punitive measures, stifles effective substance use intervention measures, could negatively impact student's future educational and employment opportunities, and often produces faulty drug test results.

Background

In 2008, the Office of National Drug Control reported that the "United States has historically suffered from some of the highest rates of drug abuse in the world" (Nelson, Rose, & Lutz, 2011, p. 1). Substance abuse continues to destroy lives as well as have a significant impact on families, communities, and it has been noted that "illicit substance use among youth remains high and cause for concern" indicating that "47 percent of students report having used illicit drugs before leaving high school" (James-Burdumy, Goesling, Deke, & Einspruch, 2010, p. vii). In the 2011 Monitoring the Future Survey (MTF) study, findings highlighted that 51.8% of youth have tried illicit drugs by 12th grade (Conway et al., 2012). This is particularly alarming in that the potential for harm to the adolescent brain due to drug use is significantly increased compared to the adult brain, and one study indicated that the adolescent brain remains in a formative state thus placing the teen user at an increased risk of developing an addictive disorder as well as vulnerability to physiological brain damage (Steinberg & Carnell, 2011).

Many adverse consequences for substance use and abuse exist especially for youth. Drug use among students can potentially lead to "low academic achievement, delinquency, risky general behaviors, poor health, and even death" (James-Burdumy et al., 2010, p. vii). In one particular study, researchers found that the misuse of medication is associated with addiction sometimes leading to overdose and often death (Conway et al., 2012). Additionally, illicit substance users report many chronic symptoms such as stomach aches and headaches that could be and are often associated with depression (Conway et al., 2012). In the field of education,

substance abuse is recognized as a significant health issue due to the many adverse effects it has on adolescents. Multiple studies revealed that substance abuse leads to irreversible, physical, and long-lasting changes for an adolescent that promotes an increase in student dropout rates, truancy, misconduct, fighting, incarceration, and sometimes death (e.g., Nelson et al., 2011). The 12th Annual National Survey of American Attitudes on Substance Abuse brought many declarative statements from Chairman and President of Center on Addiction and Substance Abuse (CASA), Joseph A. Califano, Jr., concerning the impact of substance abuse on adolescents in the US.

The National Survey revealed an infestation of drugs in our nation's middle and high schools. Drug use can quickly turn to dependence and addiction, trapping users in a vicious cycle that ruins lives and destroys communities. Students who use drugs or alcohol are statistically more likely to drop out of school than their peers who do not.

Dropouts, in turn, are more likely to be unemployed, depend on the welfare system, and commit crimes. (Califano, as cited by Nelson et al., 2011, p. 1)

The comments made by Califano (as cited by Nelson et al., 2011) reflect the intensity and detrimental impact that drug use can have on the adolescents' minds, potential futures, and quality of adolescent life. As such, there is a realization by many school officials across this nation that there is a moral and professional obligation for school officials to enact policy and procedures that focus on student substance abuse interventions and drug use deterrence.

The Monitoring the Future Study (Johnston et al., 2002) indicated that drug abuse leads annually to about 20,000 deaths and \$160 billion in economic costs. However, Rudd, Seth, and Scholl (2016) reported that there are nearly 48,000 overdose deaths yearly. According to Conway et al. (2012), over half of the students will have tried an illicit drug by the twelfth grade.

Drug use and abuse by students have many adverse effects including poor health, poor academic performance, poor attendance, and potentially death (James-Burdumy et al., 2010). With the growth in drug use and the escalating number of deaths attributed to drug use, little doubt remains that illicit substance use and abuse are at an epidemic and alarming proportions.

School Response to the Drug Epidemic

In 2016 to deter substance abuse among its students, the Small Rural Southeast Georgia School District (a pseudonym) implemented a Mandatory Random Student Drug Testing (MRSDT) Policy for the high school students driving to school and participating in all extracurricular activities. For the purpose of this study, henceforth the Small Rural Southeast Georgia School District will be referred to as the SRSEG School District. According to James-Burdumy et al. (2010), MRSDT is randomly drug testing students as a "condition of participation in athletics and other school-sponsored competitive extracurricular activities" (p. vii). By implementing student drug testing, SRSEG School District joined the estimated 14% of the nation's school districts that use some form of student drug testing in an effort to deter student drug use (Ringwalt et al., 2008). School systems that use student drug testing do so under the premise and assumption of deterrence theory, which is defined as "weighing the costs and rewards of drug use" compared to the cost and rewards of drug testing outcomes (Terry-McElrath, O'Malley, & Johnston, 2013, p. 707). Terry-McElrath et al. (2013) determined several motives for student drug testing program implementation in school systems across the United States including but not limited to the following: "counseling/education/treatment for intervention opportunities; opportunities for cessation or non-initiation to avoid test consequences; and support for students to say no to peer pressure to use" (p. 707).

Although many schools have implemented drug prevention and drug counseling programs, statistically the war on drugs is being lost with adolescent drug use, adolescent incarceration rates increase, and adolescent drug-based deaths continuing to escalate. With student drug use on the rise, many schools have expanded, and many are considering initiating student drug testing as a deterrent to drug use; however, there remain many concerns relative to student drug testing. The following section of this study seeks to provide background information on MRSDT, specifically criticisms of MRSDT, the effectiveness student drug testing; student drug testing's impact on school climate, and the most recent US Supreme Court rulings on student drug testing.

Criticisms of MRSDT

The constitutionality of student drug testing programs has been questioned by many citing the Fourth Amendment prohibition to unreasonable searches and seizures. However, school-based drug testing has been deemed legal and Constitutional for more than 15 years. In 1995, the US Supreme Court established drug testing for student athletes (Vernonia School District, 1995). The most recent ruling in student drug testing came in 2002 with *Tecumseh School District v. Earls* (Levy & Schizer, 2015). In this case, the US Supreme Court upheld the school policy of randomly drug testing students who participate in athletics and allowed for the expansion of the school's scope of testing to include all competitive activities.

Delivering the Supreme Court's 5-4 majority opinion in *Tecumseh School District v. Earls*, Justice Thomas found student drug testing a reasonable and effective means of addressing the school district's legitimate student drug use concerns (Kim, 2003). Significant Supreme Court Rulings established in Vernonia and Earls determined that the expectation for privacy diminishes for students and that Student Drug Testing (SDT) was deemed reasonable under the Fourth

Amendment (Carpenter, 2012). However, the Supreme Court's 5-4 ruling denotes the court's division over SDT and the split decision symbolizes the sharp division of the National sentiment over the use of SDT. Justice Ginsberg, delivering the minority opinion of the Supreme Court in *Tecumseh School District v. Earls* (2002), argued that student searches should be based on reasonable suspicion. Students' rights to privacy and freedom from unreasonable search and seizures are concerns that opponents of SDT voice (Carpenter, 2012).

Additional concerns of SDT voiced by opponents are drug testing efficacy, financial costs, testing accuracy, student avoidance of extracurricular activities to avoid drug testing, student use of harmful drugs less likely to be detected, student's protection against unreasonable searches, and undermining of student trust and, thus, harming the student-school relationship (Terry-McElrath et al., 2013). In fact, one study found suggestive evidence for a decline in marijuana use based on the introduction of student drug testing, but the same study also indicated a possible increase in student use of illicit drugs other than marijuana (Terry-McElrath et al., 2013). Regardless, no controversial question is more significant than if student drug testing actually deters adolescents from using drugs.

The Effectiveness of Random Student Drug Testing

The research on the effectiveness of student drug testing is inconclusive. According to Dupont, Merlo, Arria, and Shea (2012), insufficient evidence exists to definitively support or refute the efficacy of Random Student Drug Testing in schools. Additionally, according to Sznitman (2012), student drug testing is an ineffective drug-prevention policy. Some research implies that drug testing is more harmful as indicated in the Stuart's (2010) study:

This evidence reveals that student drug testing does not change student drug usage in any way and may, instead, cause more harm than good to the educational function. Students

escape detection by changing their drug of choice or changing the time when they indulge. They find ways to mask or change the test results, sometimes dangerously so. As a last resort, students turn to alcohol, clearly not a result that schools would have hoped to happen or what they would have encouraged. Moreover, the results of even the advocates' personal studies show no long-term deterrence. (Stuart, 2010, p. 1075)

Some well-known national organizations are taking a stance against the use of SDT as well. According to Levy and Schizer (2015), the American Academy of Pediatrics (AAP) has withheld their position on the use of SDT indicating that caution is needed in its policy recommendation because there has continued to be insufficient evidence proving SDT deterrence of student drug use or if SDT promotes any other effective outcome.

Levy and Schizer (2015) found that "a decade and a half after the initial Supreme Court Ruling establishing school-based drug testing, there remains a lack of convincing scientific data demonstrating the efficacy of this test" (p. 6). With this finding, Levy and Schizer (2015) strongly stated that "given the modest effect size in reducing substance use, high costs, and significant potential for adverse outcomes, the AAP has concluded that research evidence does not support the initiation or expansion of school-based drug testing programs at this time" (p. 6).

However, others argued that student drug testing is useful in that it deters student drug use (Nelson, Rose, & Lutz, 2011). According to Nelson, Rose, & Lutz, 2011, students exposed to student drug testing reported a decrease in drug use from 35% to 20%. When the US Department of Education contracted with RMC Cooperation and Mathematica Policy Research to conduct an experimental evaluation random student drug testing, the critical finding was that "students subjected to Mandatory-Random Student Drug Testing reported less substance abuse than comparable student in high schools without MRSDT" (James-Burdumy et al., 2010, p. xi).

Although the study indicated higher uses of other drugs, this study found that "any random student drug testing was associated with significantly lower marijuana use and frequency" (Terry-McElrath et al., 2013, p. 709). This finding indicated that students' attitudes of substances being tested result in lower use of those particular substances.

Again, the research on the effectiveness of student drug testing varies. The US Department of Education (USDE) supports student drug testing while the American Academy of Pediatrics (AAP) does not. According to Nelson et al. (2011), "RSdT can deter drug use and intervene with students currently using. The interruption of instructional time is minimal, and the benefits are reported in the data as successful" (p. 7). However, due to many studies showing counter evidence of effectiveness, the AAP does not promote the use of student drug testing. With contradicting results of the effectiveness of drug use deterrence, student drug testing's impact on school climate is also of concern by those who oppose student drug testing.

Student Drug Testing Impact on School Climate

Research varies on the impact of MRSdT on school climate. Researchers Nelson, Rose, and Lutz Nelson (2011) noted the following:

A comprehensive drug prevention program which includes RSdT has proven to be an effective deterrent to drug use and has had a positive impact on the school environment and ultimately student learning. Just as parents and students expect schools to offer protection from violence, racism, and other forms of abuse, so they have the right to expect a learning environment free from the influences of illegal drugs. (p. 2)

Nelson, Rose, and Lutz (2011) noted a positive impact of student drug testing on school climate while Burdumy et al. (2010) noted there was no effect of SDT on student participation in extracurricular activities or student attitudes of school trust. Also, culminating a 13-year study,

Terry-McElrath et al. (2013) found that SDT showed “no significant relationship for extracurricular participation either on middle or high school students” (p. 712). However, Roche et al. (2009) suggested otherwise and found other negative impacts of SDT on school climate.

Roche et al. (2009) noted the following concerning student-athlete drug testing:

The remainder found it stressful, embarrassing, humiliating or upsetting. Some feared they might wrongly be identified and disqualified from competition from using cold or asthma medication or other over the counter medicines; others felt degraded and humiliated by the experience, or offended by implied suspicion. Drug testing in schools may foster a culture of resistance where students take pride in beating the system. (p. 529)

Furthermore, this particular study found that SDT made identification of students using drugs more difficult and strained the school-student relationship, thus making it more difficult for schools to handle (Roche et al., 2009). Research varies and is contradictory on the impact of student drug testing on school climate. School officials are faced with an exploding drug epidemic that destroys students, families, communities, and schools combined with studies that cannot support or refute the effectiveness and impact of student drug testing as a drug use deterrent.

School leaders across America are attempting to determine the best strategies to combat student drug use; however, limited recent research supports that drug use in rural areas is more prevalent than student drug use in urban areas. Rhew, Hawkins, and Oesterie (2011) found that "despite previous indications that drug use during adolescence was more prevalent among urban youth, the prevalence of drug use among rural-dwelling youth now equals or has surpassed that

of urban youth" (p. 2). In this study, Rhew et al. (2011) found the following concerning rural youth drug use:

High school students living on farms were significantly more likely than high school youth living in town to use alcohol, smokeless tobacco, inhalants, and other illicit drugs which included cocaine, stimulants, hallucinogens, ecstasy, and other drugs during the past 30 days, as well as to engage in binge drinking during the past two weeks. (p. 7)

This finding from Rhew et al. (2011) is particularly interesting and important to the current study in that, by definition, the studied school district is located in a rural geographical setting.

Context of the Study: An SRSEG School District's Response to the Drug Epidemic

The SRSEG School District is a rural agricultural area of the southeastern region of Georgia. In 2015, the population of the community was 10,886, and the SRSEG School District served a population of 2,200 students in grades kindergarten to twelfth grade. It was at this time that indicators such as adolescents' drug-based incarcerations and student school-based discipline from possession and distribution of drugs supported that a problem with adolescent drug use existed in this rural community (SRSEG Law Enforcement Data, 2015).

In response to a growing drug use problem with the SRSEG School District's youth, a 12-member High School's Governance Team drafted a Mandatory Random Student Drug Testing Policy (MRSDT) proposal for consideration by the local Board of Education. The Governance Team consisted of four elected parents, two elected community members, two elected students, two elected teachers, and two appointed school administrators. Each member on the School Governance Team was elected or appointed to represent their constituent perspective group. These members were not elected to serve on the Governance Team for the sole purpose of

drafting a student drug testing program but rather they were elected the prior year to discuss school improvement.

One school improvement initiative identified by the High School Governance Team was student drug use and thus the Governance Team drafted a mandatory student drug testing policy that was adopted from a neighboring school system's student drug testing policy and adapted to meet SRSEG School District needs. Once the Governance Team drafted the student drug testing policy and presented it to the local Board of Education, the Mandatory Random Student Drug Testing (MRSDT) will feel horribly will Policy for the SRSEG School District was passed with an implementation of 2016-2017 school year. The purpose, goals, procedures, and consequences are found in the Drug Screening Program (Appendix A). In 2016 to deter substance use and abuse among its students, the SRSEG School District implemented the MRSDT program for the grades 9-12 high school students driving to school and participating in all extracurricular activities

However, once the MRSDT was drafted, passed, and implemented, significant outcries from many stakeholders were voiced. The significant outcry from stakeholder groups regarding the use of MRSDT indicated a lack of agency. Representative members from the School Governance Team did not conduct a formal process for eliciting the overall constituent attitude of student drug use or the use of MRSDT. Although a representative stakeholder group comprised of parents, teachers, students, and community members were engaged in the creation of the MRSDT policy for SRSEG School District, implementation was met with significant resistance. School administrators and elected school board officials faced sharp criticism questioning the use of student drug testing, and the potential impact of MRSDT on student extracurricular participation. It became apparent to school leaders that a thorough study was

needed to determine stakeholder attitudes toward student drug use as a drug prevention program for the SRSEG School District.

Statement of the Problem

A significant issue facing secondary schools in the US is the significant increase in substance use and abuse among high school students, creating an epidemic of drug use. The drug use epidemic is particularly problematic for rural school districts. The SRSEG School District is located in rural southeastern Georgia and experiences the impact of the drug use epidemic. In response to the escalating drug use among teenage students, many school systems, such as the SRSED School District, have implemented student drug testing with goals of deterrence and detection. While much has been written about the effectiveness of drug testing with the U.S. Military and corporate America, the literature on student drug testing in schools remains limited, and results have been contradictory. In addition to concerns regarding effectiveness, studies report contradictory results on the effects of student drug testing on school climate. Without conducting thorough research and gaining significant stakeholder input, in 2016 the SRSEG School District passed and implemented MRSDT for all students in grades 9-12 who participate in extra and co-curricular activities as well as those who drive to school with goals of deterring and detecting student drug use. The use of student drug testing as a drug prevention strategy remains controversial in the SRSEG School District, and this study served as a thorough process to identify stakeholder attitudes toward student drug testing.

Purpose Statement

The purpose of this study was to determine stakeholder attitudes toward the use of student drug testing as a drug prevention program in the SRSEG School District. Although student drug testing has been a practice utilized by many school systems for many years, the

practice remains controversial, literature is limited, effectiveness on program goals undefined, and stakeholder attitudes toward student drug testing are undetermined. The Stakeholder Attitudes Toward Student Drug Testing Study for the SRSEG School District sought to identify overall attitudes toward student drug testing for four stakeholder groups in the school district including grade 6-12 administrators, faculty/staff, parents, and students.

Research Questions

This study sought to identify overall attitudes toward student drug testing of four stakeholder groups of grades 6-12 faculty/staff, administrators, parents, and students in the SRSEG School District by using a survey. The following equally weighted questions guided this study:

1. What are the overall attitudes of middle and high school faculty/staff, administrators, parents, and students regarding MRSDT use for the SRSEG School District?
2. To what extent do stakeholder attitudes toward MRSDT vary according to gender, ethnicity, grade cluster, exposure to experiences related to drug testing programs including students exposed to drug testing required for school parking privileges, and involvement in extracurricular activities at school for the SRSEG School District?

Ultimately, overall stakeholder attitudes toward the use of student drug testing were identified for the SRSEG School District. Findings will be shared with all stakeholders by way of posting on the School Districts' Webpage and study findings presented to the local board of education for student drug testing policy revision considerations.

Significance of the Study

As the drug use epidemic in the US continues to grow, school administrators search for effective drug prevention strategies to deter teenage illicit drug use. Public schools have a social

contract with the community in which they serve. Public schools systems are morally and ethically obligated to educate America's youth, promote safety and security, and eradicate dangerous behaviors that are harmful to students and communities in order to protect life and the Nations' future. Illicit drug use, like other forms of social ills such as violence and racism, must be battled and prevented from impacting young minds and bodies. As a result, school systems must take action to deter student drug use.

As previously stated, limited research has been conducted to determine stakeholder attitude of the use of student drug testing as a drug use deterrent in rural areas; however, research supports that illicit drug use among rural area students is prevalent. Effective drug use deterrent programs are needed for all school leaders, and the need is more prevalent for rural area school leaders. The current study and future studies will strengthen the literature on the study of attitudes of stakeholders on the use of student drug testing as drug use deterrence. The results of this research may help school administrators better understand the stakeholder attitudes toward MRSDT and its impact on extracurricular student participation. Also, findings relevant to the beliefs and attitudes towards students' drug use and the use of student drug testing may aid in the identification of general attitudes and beliefs toward the use of MSRDT and potential ramification of using the drug deterrent policy. The findings of this study regarding the SRSEG School District's MRSDT policy will add to the literature and give school administrators, specifically rural area school administrators who are contemplating implementing student drug testing, additional information that will aid in their decision making.

Procedures

The SRSEG School District High School Governance Team drafted a student drug testing policy, the MRSDT, without gaining input from the constituents they represent. With that in

mind, this study sought to provide a platform for all impacted stakeholders to give input on the use of student drug testing in the SRSEG School District. Therefore, the purpose of this study was to identify the attitudes of middle school and high school administrators, faculty/staff, parents, and students toward the existent student drug testing policy and to determine the differences that may exist according to stakeholder group, gender, ethnicity, grade level, experiences with drug testing, knowledge of drug use, knowledge of alcohol use, and school extracurricular participation. To determine stakeholder attitudes and the differences of those attitudes by subgroups that existed towards student drug testing, the Stakeholder Attitudes Toward Student Drug Testing Survey (Drug Testing Survey) was administered to a population of over 3,000 stakeholders consisting of middle and high school administrators, faculty/staff, parents, and students. This particular instrument is an existing instrument used in a study that measured the attitudes of high school students toward student drug testing in a high school located in New Orleans, Louisiana. The current quantitative study used a replicated version of that instrument to identify stakeholder attitudes toward the local practice of student drug testing.

There are over 3,000 stakeholders who are impacted by the use of student drug testing in this educational environment, which includes 6 school administrators, 150 faculty/staff, 1,800 parents, and 1,161 students in grades 6-12 and each one was afforded anonymity by taking the survey on an online platform (Qualtrics) that required no identifiable log in information. The data collection period was a four-week period in which the purpose of the study was expressed on several communication venues including SRSEG School Districts' websites, Schools' Facebook pages, and district email accounts for faculty and staff.

This study used the Drug Testing Survey for four SRSEG School District stakeholder groups identified as school administrators, faculty/staff, parents, and students to ascertain

attitudes of various components of student drug testing as well as agreeability of the practice of student drug testing. By analyzing survey data for stakeholders who are associated with middle and high school students, the researcher sought to distinguish strengths and weaknesses in the student drug testing program as well as to identify overall stakeholder attitudes toward SDT. Although the literature offers contradictory evidence of student drug testing effectiveness, this study hypothesized that there are generally negative attitudes toward student drug testing among school administrators, faculty/staff, parents, students within the SRSEG School District.

Definitions of Key Terms

For this study, the following key terms are defined:

Extracurricular Activities - Extracurricular Activities refer to the activities that do not fall within the range of the regular curriculum. Traditionally, these activities are school-sanctioned student activities that promote engagement and extended learning opportunities usually carrying no academic credit. For this study, extracurricular activities specifically refer to activities involving athletics/sports and fine arts (e.g., band, chorus, and one-act).

Co-curricular Activities - Co-curricular Activities refers to activities that are outside of the regular curriculum, but usually aligns with and complements the regular curriculum. Traditional examples of co-curricular activities are activities that are associated with Career Technical Student Organization (CTSO's) such as Future Business Leaders of America (FBLA), Future Farmers of America (FFA), Family, Career and Community Leaders of America (FCCLA) to name a few.

Deterrence Theory -Deterrence theory focuses on reducing the probability of deviant behavior by introducing fear and punishment for the specified action (Keel, 2005). In this study, deterrence theory refers to student decision of substance use is weighed against the costs

and rewards of drug test outcomes. According to Terry-McElrath, O'Malley, and Johnston (2013), Student Drug Testing (SDT) is hypothesized to reduce and prevent drug use through "intervention opportunities; non-initiation to avoid test consequences, and support for students to say no to peer pressure" (p. 707).

Drug Prevention - Drug prevention refers to strategies, programs, or policies that are intent on preventing or hindering the use of illicit drugs (cite). In this study, the Mandatory-Random Student Drug Testing (MRSDT) policy purposed to be a drug prevention strategy. One of the focus items of this particular study is to determine the stakeholder attitudes toward MRSDT.

Faculty/Staff- Faculty/Staff for this study refers to the local board-approved adults who work directly or indirectly with students in grades six through twelve in the SRSEG School District. Faculty/Staff member examples include teachers, counselors, mentors, teacher assistants, registrar, facilitators, and office managers.

Mandatory - Mandatory refers to a requirement either by a rule or policy or by established law. Although there are school districts that have implemented a requirement for all students attending to be subjected to student drug testing, the majority refers to mandatory as a requirement for participation in an extracurricular or co-curricular activity. The (SRSEG) School District's process for determining mandatory participants mirrors the process described in *A Model for Random Student Drug Testing required*, in that the "district adopted a policy that required written consent from parents and students to participate in school-sponsored, competitive, extracurricular activities" (Nelson et al., 2011. p. 3).

Persons of Color Subgroup-Due to small numbers in ethnic groups other than "White", American Indian/Alaskan Native, Asian/Pacific Islander, Black, Hispanic, and other

subgroups were combined to create one subgroup referred to as “Persons of Color” subgroup.

Random Drug Testing - In this study, random drug testing refers to a process of selecting from an eligible pool of participants in which each student has an equal probability of being chosen to be drug tested. In *A Model for Random Student Drug Testing required*, Nelson et al. (2011) stated “eligibility requirement placed a student in a district wide RSDT pool of participants, and students were then chosen for testing by a computer-generated random selection process” (p. 3).

School Climate - According to The National School Climate Center (2014), school climate is defined as "the quality and character of school life" that is based on the "patterns of students', parents', and school personnel's experiences of school life" (gadoe.org). The College Career Readiness Performance Index (CCRPI), Georgia's accountability measures for public schools defines school climate through several indicators. One indicator is the Georgia Health Survey of students, parents, and school personnel. A second indicator that defines the school climate in Georgia is the student discipline data. A third category of CCRPI that rates school climate is the safe and substance-free learning environment is comprised of student drug-related incidents, and incidents of violence all indicated in the school discipline data and survey results. An additional indicator of school personnel and student attendance is the last indicator that Georgia uses to identify the climate of a school.

Student Drug Testing (SDT) - Student drug testing (SDT) is one procedure schools use to deter illicit use. SDT may be for-cause, typically suspicion, or maybe random based on the criteria of school selection such as eligibility to participate in competitive extracurricular

activities (Terry-McElrath et al., 2013). For this study, the SRSEG School District students are randomly drug tested as a requirement to participate in extracurricular and co-curricular competitive activities as well as a requirement to gain parking privileges on the school campus.

Chapter Summary

The increase of illicit drug use among adolescents in the US is staggering. The use of illicit drugs is harmful to all, but even more so to the adolescent mind due to its formative state making adolescents at higher risk of developing addiction as well as physical and mental harm. In an attempt to help protect students, many school districts have implemented student drug testing policies to deter and detect student illicit drugs use with a goal of deterrence. Since the Vernonia School District 47J v. Acton 1995 Supreme Court ruling which determined student drug testing to be reasonable, studies have been conducted that supported the use of student drug testing while other studies showed finding that the use of SDT was harmful. In 2016, for students in grades 9-12 participating in extracurricular activities, the SRSEG School District passed its version of mandatory student drug testing without conducting thorough research and without receiving appropriate input from all stakeholders.

Therefore, the purpose of this study was to identify stakeholder attitudes toward the use of student drug testing as a drug prevention program in the SRSEG School District. Although student drug testing has been a practice utilized by many school systems for many years, the practice remains controversial, literature is limited, effectiveness on program goals undefined and stakeholder attitudes toward student drug testing is undetermined. The Stakeholders Attitudes Toward Student Drug Testing Study for the SRSEG School District attempted to

identify overall attitudes of the MRSDT program for four stakeholder groups in the school district including grade six through twelve administrators, faculty/staff, parents, and students.

CHAPTER 2

REVIEW OF THE LITERATURE

Although many school systems have implemented student drug testing in an effort to deter drug use and to protect students from adverse drug use consequences, controversy and challenges remain with the deterrent practice (Dupont et al., 2012). With that same motive, in 2016 the Small Rural Southeast Georgia School District implemented a Mandatory-Random Student Drug Testing (MRSDT) program for the grades 9-12 high school students participating in extracurricular activities as well as for students driving to school. Since implementing MSRDT, SRSEG School District leaders have faced criticism from many stakeholders questioning the effectiveness and motives of the policy, while other stakeholders' have applauded the school system's proactive stance and efforts to deter student drug use. The purpose of this study was to determine the overall stakeholder attitudes toward the use of student drug testing as a drug prevention strategy in the SRSEG School District and to present study findings to the local board of education for MSRDT policy revision consideration, if appropriate. As a part of this study, a thorough review of the literature yielded results that served to inform the researcher of significant aspects for this study. The researcher intends for this chapter to reveal these relevant findings of the research as it pertains to student drug use, drug legislation, and student drug testing.

Literature Search and Organization of the Literature Review

The research for this literature review was found primarily by searching the Georgia Southern University library online system for electronic databases. Primarily GALILEO, as well as Google Scholar, provided the electronic platforms for relevant research on this topic. The university library provided access to the following databases: Full Education Text, and

Educational Research Information Clearinghouse (ERIC). Searches for Dissertations and Theses with Full Text conducted through ProQuest provided substantial background information for the Student Drug Testing study. All of these searches used keywords and phrases "Student Drug Testing," "Drugs," "Illicit Drugs," "Substance Abuse," "Drug Prevention Program," "Drug Laws," "Drug Testing Protocols," and "Drug Interventions".

Additionally, information gathered through collaboration with the Small Rural Southeast Georgia Community's Law Enforcement and Municipalities, as well as the Governor's Office of Student Accountability (GOSA) provided significant background information for SRSEG School District and Community. Specific information gathered included the county and school district's demographic data, including population, poverty rate, ethnic diverseness, and incarceration data for the 2015-2019 time periods. These searches provided many sources, most of which were published in peer-reviewed educational journals, books, government publications, and doctoral dissertations. The researcher then compared the references of two similar studies and found many overlapping sources, which were then researched and used as well.

The following sections will provide the foundation for the literature review for the study of Mandatory-Random Student Drug Testing. The review of the literature will begin with an examination of the prevalence of drug use, followed by a review of the history and background of drug and alcohol legislation, presidential action, and landmark Supreme Court rulings. Following the legal aspects of drug testing, the literature review section will focus on the question of the effectiveness of drug testing. The literature review will then conclude with a brief overview of a Small Rural Southeast Georgia community and its interaction with drug abuse. The researcher's conceptualization of the Literature review is depicted in figure 2.1.

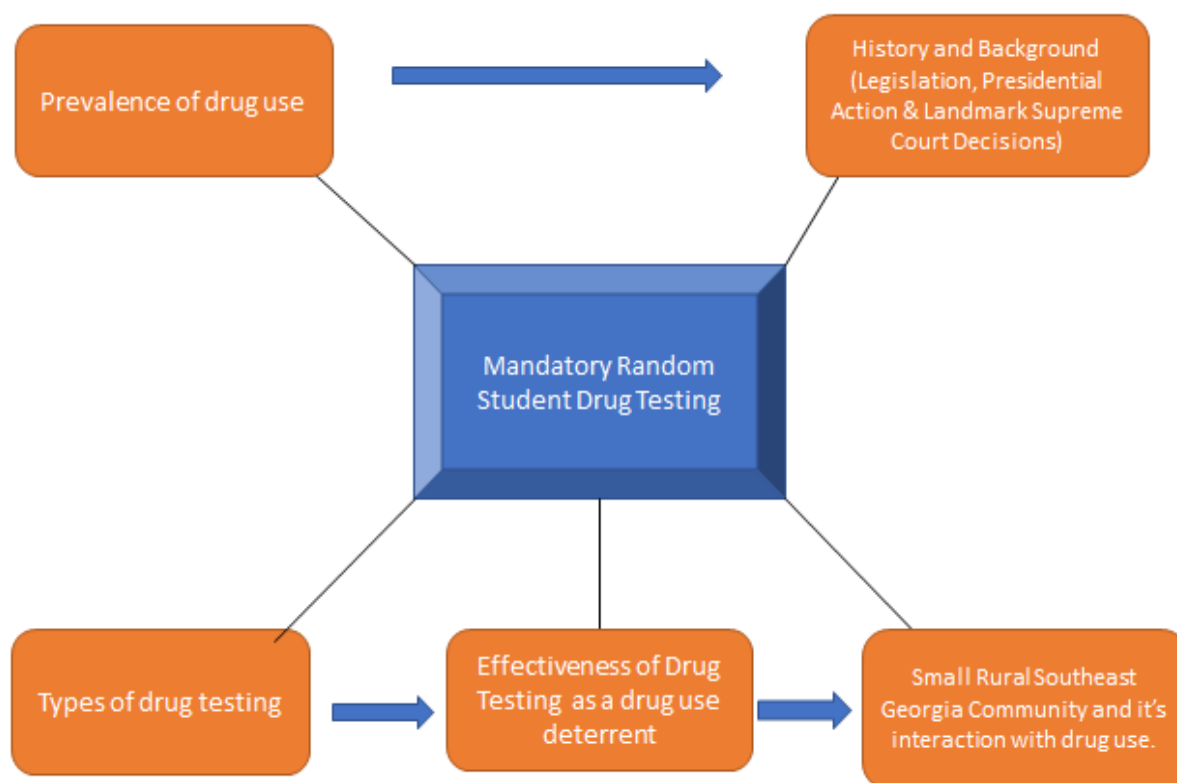
Figure 2.1: Conceptual Framework

Figure 2.1. The Conceptual Framework is a visual representation of the organization of the Review of Literature and related information of Mandatory Random Student Drug Testing.

Prevalence of Student Drug Use

According to Hussain, Khattak, Mahmood, Malik, Riaz, Raza, and Khan (2016), “illicit drugs” are non-medical-use chemicals that are structurally altered that possess “elevated ability for biological effects” (p. 1639). These drugs are considered “illicit” due to the nature of use and the means of production and circulation (Hussain et al., 2016) and are categorized in five primary groups of drugs, namely opiates, sedative-hypnotic, stimulants, hallucinogens, and cannabinoids (Daughton, 2011). In addition, Johnston, Miech, O’Malley, Bachman, Schulenberg, and Patrick, (2018) identified eleven classifications of drugs including marijuana, inhalants, hallucinogens, cocaine, heroin, natural and synthetic narcotics, amphetamines,

sedatives, tranquilizers, alcohol, and tobacco, each one of which belongs to one of the primary groups of drugs.

Additionally, the nonmedical use of prescription drugs is widespread, as evidenced by the 275,000 adolescent age Americans who reportedly used prescription drugs in a non-medical manner in 2015 (Brennan, 2016). Furthermore, 74% of high school students stated they could identify other students who faced severe and punitive consequences for drug use, and another 29% of students indicated knowledge of a student who died from drugs or alcohol in the previous year (Ringwalt et al., 2009). As illicit drug use among America's youth continues to escalate, researchers seek to identify motivating factors promoting use.

Bennett and Holloway (2017) found motives for illicit stimulant drug use among university students centered primarily on "academic pursuits and staying awake" followed by "experimental" and finally for "self-improvement" (pp. 18-19). These findings were for a specific sub-group of the American population: university students. While motivating factors to use illicit drugs may differ based on a myriad of factors such as geography, socioeconomic status, race, gender, and other factors, Bennett and Holloway (2017) implied there is a component of responsibility for education providers to educate students and alleviate certain factors that promote drug use. For example, in the Bennett and Holloway (2017) study, the authors contend that a primary motive for student illicit stimulant drug use is attributed to a coping mechanism to aid with academic stress.

Knowing determining motives and the impact of drug use on students as well as school environments, Bennett and Holloway (2017) concluded that the university system should consider offering "alternative stress-reducing interventions" (p. 20). Furthermore, there is a growing and pervasive belief that schools have a responsibility to respond to the drug use

epidemic. According to Ringwalt et al. (2009), when drugs infect a school, the learning process is crippled by creating danger in curricular and extracurricular activities. Ringwalt et al. (2009) also stated that "the physical and psychological effects of drug and alcohol use can cause lifelong and profound losses" (p. 1). Promoting the call and need for school response to adolescent drug use, Ringwalt et al. (2009) issued the following statement:

When drugs invade a school, threatening the safety of students and disturbing the learning environment, a school's interest in eliminating drugs from the environment outweighs any privacy interests of students. The school years are a critical passage in a young person's life. While in school, children face the challenges of learning in academic, social, physical, and emotional realms. (p. 1)

However, school systems across the United States and in other parts of the world contemplate and struggle to determine the most effective manner in which to respond to student drug use. To aid in their decision making, many education practitioners closely monitor the national trends of student drug use through current and relevant studies.

One study that may be analyzed to determine adolescent drug use is the Monitoring the Future Survey in which The University of Michigan's Institute for Social Research conducts annually (Johnston et al., 2018). According to Johnston et al. (2018), the Monitoring the Future (MTF) combines numerous survey designs to strengthen the annual findings by using "cross-sectional studies, repeated cross-sectional studies, and panel studies of individual cohorts and sets of cohorts" (p. 16). The annual cross-sectional study surveys drug behaviors and conditions for subpopulations of 8th graders, 10th graders, 12th graders, college students, young adults, and adults sub-grouped by age ranges such as 19–30, 35-year-olds, 40-year-olds, and 50-year olds (Johnston et al., 2017).

The MTF Survey began in 1975 and, according to Johnston et al. (2018), substance use by American young people frequently changes promoting the need for monitoring and testing. By analyzing drug use and behavioral trends in adolescents and adults annually, researchers, lawmakers, and educational practitioners can effectively conclude how specific policies and interventions impact adolescent drug use (Johnston et al., 2018).

The most recent MTF Survey (2018) reported a rapidly changing drug culture and stated that "substance use is a leading cause of preventable morbidity and mortality" (Johnston et al., p.1). Johnston et al. (2018) further stated that US residents have the "highest morbidity rate" of all the seventeen highest-income nations attributed to substance use and that the "inception of these behaviors begin in the adolescent phase of life all facts promoting the need for further studies and interventions" (p. 1). The 2011 MTF study found that 26.4% of students have tried an illicit drug by eighth grade, 40.8% by 10th grade, and 51.8% by 12th grade (Johnston et al., 2011). The MTF study does not indicate whether or not alcohol is considered an illicit drug for the purposes of this study. The study's findings concluded a strong correlation among 10th-grade students' substance use and high levels of depressive symptoms, promoting the need for mental health screening and referral (Johnston et al., 2011).

The most recent MTF Study reports findings that support further need for prevention, intervention, and rehabilitation drug use research. Johnston et al. (2018) reported that about half of all 12th graders (49%) in 2017 reported illicit drug use at some time in their lives along with 34% of 10th graders and 18% of 8th graders. Additionally, there was a reported significant increase in the use of an illicit drug by 8th graders when inhalants were included in the survey (Johnston et al., 2018). The study also found that marijuana is by far the most widely used illicit drug with almost half of all 12th graders reporting some marijuana use in their lifetime compared

to the one-fifth of the high school seniors that reported trying an illicit drug other than marijuana (Johnston et al., 2018).

Johnston et al. (2018) reported a listing of drug use of students by ranking the prevalence of use as detailed below. For 8th graders, marijuana and inhalant use ranks highest in the lifetime prevalence rankings of illicit drugs:

Among tenth graders, the ranking for lifetime prevalence of use is marijuana (31%), and inhalants (6.1%) and Amphetamines at 5.7%. Among twelfth graders, lifetime use is highest for marijuana (45%), amphetamines (9.2%), tranquilizers (7.5%), narcotics other than heroin (6.8%), hallucinogens (6.7%), LSD (5.0%), inhalants and MDMA (aka, ecstasy, Molly) (both at 4.9%), hallucinogens other than LSD (4.8%), and then sedatives (barbiturates) (4.5%). (p. 32)

Johnston et al. (2018) not only reported a ranking of drug use but also indicated the increase and decrease of specific illicit drugs. Reported increase in use for 2017 was annual marijuana use, which rose by 1.3 percentage points to 23.9%, any illicit drug including inhalants rose significantly 2.0 percentage points to 28.3%, while the use of synthetic marijuana use fell by 2.8%, as well did Bath Salts (synthetic stimulants) falling 0.3% to 0.5%, and Vicodin (a narcotic analgesic) fell 1.0% to 2.0% (Johnston et al., 2018).

Johnston et al. (2018) also reported subgroup drug use and environmental factors potentially influencing drug use. Johnston et al. (2018) reported that males are more likely to use marijuana and other illicit drugs, and with some illicit drugs, such as LSD, males are twice as likely to use by grade 12. Additionally, males make up the majority of frequent and heavy users for many of these drugs (Johnston et al., 2018). Regionally, there were differences reported in drug use. Data suggested that high school seniors in the US Northeast were more likely to use

illicit drugs than compared to students in other regional areas of the US (Johnston et al., 2018). Furthermore, the annual survey reported minimal differences with a prevalence of drug use comparing subgroups of a population density variations or differences based on socioeconomic status indicating a pervasive drug use problem (Johnston et al., 2018).

Additional drug use studies reported similar findings. Conway, Vullo, Nichter, Wang, Compton, Iannotti, and Simons-Morton's (2012) results suggested that most adolescents will engage in some form of substance use by the time they graduate high school. The same study showed that "26.4% of students have tried an illicit drug by eighth grade, 40.8% by tenth grade, and 51.8% by twelfth grade" (Conway et al., 2012, p. 716). Additionally, James-Burdumy, Goesling, Deke, and Einsprunch (2010) reported that drug use and abuse could be devastating, citing that student drug use has a high correlation with low academic achievement, delinquency, risky genderual behaviors, poor health, and even death.

According to Conway et al. (2012), the NEXT Generation Health Study survey, which focused on obesity and obesity-related behaviors, substance use, dating violence, and driving, was administered to 3,796 10th graders randomly selected across 137 schools in spring 2010; 2,524 surveys were completed giving the study a completion rate of 69%; and, results had relevant and interesting findings regarding student substance use (Conway et al., 2012). Conway et al. (2012) found in this study of 10th-grade students a high rate of substance and polysubstance use among adolescents. Marijuana was most common among illicit drugs (26%), followed by misuse of medication (9%) and the use of other illicit drugs (8%) (Conway et al. 2012). Also, alcohol use was reported by more than one third (35%) of the participants for the preceding month, binge drinking by 27%, and cigarette smoking by 19% (Conway et al., 2012). Additionally, the Conway et al. (2012) study sought to examine the relationship between student

drug use and student demographic information such as gender, family structure, and geography identifications. Conway et al. (2012) found marijuana use was more prevalent among males than females, and that Hispanics and those in the "Other" race/ethnicity category were more likely to use other illicit drugs. Family structure findings indicated a significantly lower prevalence of drug use found among children living with biological parents as well as children who have parents with graduate degrees (Conway et al., 2012).

Although Johnston et al. (2018) found no significant difference in substance use based on population density, the Rhew et al. (2011) findings differed. The Rhew et al. (2011) substance use study sought to compare drug use and risk among youth in different rural environments consisting of 24 small to moderately sized towns in Washington, Oregon, Utah, Colorado, Illinois, Kansas, and Maine with human populations ranging from 1,500 to 40,000 that are categorized as rural areas. To conduct the Rhew et al. (2011) study, a cross-sectional survey was administered to 23,755 students in the 6th, 8th, 10th, and 12th grade in the spring of 2004 in the areas listed above with an 83% survey completion rate. Survey participants were asked to report use and answered questions that indicated risk and protective factors of alcohol and several illicit drugs either in their lifetime or in the past 30 days (Rhew et al., 2011). In this study, Rhew et al. (2011) found that youth from more rural residential settings were at a higher risk for drug use than their urban counterparts (Rhew et al., 2011). The study offers socio-economic decline and access to adequate treatment and drug education as potential causation of rural areas students' higher risk for illicit drug use (Rhew et al., 2011).

Regardless of found differences in substance use based on population density, the studies all indicated and reflected "how widespread drug use has diffused through the population" (Johnston et al., 2018, p. 48). Policy makers, employers, military, and educational sections of

Americans have and continue to battle drug use citing its devastating effects. One way in which policymakers continue to wage war against drug use is through the passage of policies grounded in deterrence theory.

Deterrence Theory: Historical Background

Deterrence theory focuses on reducing the probability of deviant behavior by introducing fear and punishment for the specified action (Keel, 2005). Lee (2017) suggested that traditional deterrence theory ascribes that the “fear of external sanctions is an important incentive in crime deterrence” and that deterrence theory is often associated with the idea of “severe, disproportionate punishment” (p. 1). Lee (2017) goes on to argue that the judicial system often uses these external sanctions as punishment relying on the premise of deterrence theory, but often yield minimal deterrence to criminalized behavior. Lee (2017) has offered several reasons as to why deterrence theory has a minimal effect on deterring negative behavior including peoples’ ability to have rational thought and a lack of fear of punishment. The merits of deterrence -based theories have been debated for many years; however, the ability to completely deter all criminalized behavior is nonexistent.

Drug testing used as a deterrent is not a new concept in the United States. A history of legislation, executive orders, and Supreme Court rulings purposed to prevent and deter drug use provides evidence as to the US Government's fight against illegal drug use. For this literature review, there will not be an exhaustive list of all legal action purposed to deter drug use; instead, there will be many legal actions cited and explained that have propagated the use of drug testing in the U.S. Military, workplaces, and schools.

Legislation

One of the U.S. Governments first anti-drug legislation was the Harrison Narcotic Act of 1914. The Harrison Narcotic Act of 1914 required licenses for sellers to handle opiates and

cocaine as a "tax measure, designed and intended to bring the domestic traffic in narcotics into the open under a licensing system, so that the sloppy dispensing practices of the day could be checked (King, 1952, p. 753). According to King (1952), the Narcotics Division through the Harrison Act of 1914 succeeded "in creating a very large criminal class for itself to police (i.e., the whole doctor-patient-addict-peddler community)" as well as laid the foundation for "enforcement-oriented propaganda that the addict is a criminal with criminal tendencies and addicts can only be dealt with by being tracked down and isolated from society in total confinement" (p. 755). King (1952) also asserted that the Narcotics Divisions "cure-all is more arrests, and stiffer criminal penalties for all narcotics offenders and anyone who raises a dissenting voice is most likely a bungling do-gooder or one who wants to undermine the foundations of our society" thus criminalizing drug addiction and crushing dissenting voices (p. 755).

One key legislative action enacted in an attempt to deter substance use was the passage of The Eighteenth Amendment to the U.S. Constitution which established Prohibition by making the production, transport, and sale of alcohol illegal in the United States (Schaeffer, 2010). After thirteen years, Prohibition or the "noble experiment" as it was known, failed with the passage of the 21st Amendment on December 5, 1933 (Schaeffer, 2010). However, Schaeffer (2010) concluded the following regarding Prohibition:

In short, I bring light to the reality that it was a group of 4,500 white, Protestant legislators, wrongly believing they had the support of most Americans that declared America "dry." The result was a moralistic Amendment both unfamiliar to the increasingly diverse population of America and unenforceable in the eyes of local authorities. Fourteen years later, the experiment had officially failed, leaving a bloody

trail of violence, a symphony of civil rights abuses, an unseemly legacy of corruption, and a lasting distrust of government action. (p. 386)

Schaeffer's (2010) commentary on the Federal Government's role in Prohibition relates to governmental actions combating drugs and alcohol. Schaeffer (2010) suggested legislators are out of touch with and are not representative of a changing and diverse America and that the citizenry is distrusting of perceived governmental abuse. Additionally, Schaeffer (2010) promoted "fundamentally altering how the federal government relates to individual citizens, and placing new responsibilities—budgetary, moralistic, or otherwise—on state and local governments, may lead to new and more vexing problems" (pp. 423-424).

Although Prohibition aimed to deter behavior deemed dangerous, drinking alcohol, the aftermath and toll of Prohibition took its toll on American culture and left in its wake a divided nation (Schaeffer, 2010). Prohibition gave rise to organized crime, overcrowded prisons, an overtaxed court system, underfunded law enforcement, political corruption, and a general distrust in government (Schaeffer, 2010). Despite the repeal of Prohibition, the American culture continues to endure many of the issues instituted by the passage and enforcement of the Eighteenth Amendment of the U.S Constitution. However, the use, misuse, and abuse of substances that spurred the passage of the Harrison Act of 1914 and the passage of the Eighteenth Amendment in 1920 continued to plague American lives encouraging further action by Presidents and The United States Supreme Court.

Presidential Action

According to President Richard M. Nixon (as cited in Epstein, 1971), "drug traffic is public enemy number one domestically in the United States today and we must wage a total offensive, worldwide, nationwide, government-wide, and, if I might say so, media-wide," thus

effectively becoming the first to coin the phrase “war on drugs” (p. X). The Nixon administration created the Controlled Substances Act (CSA) of 1970, which is the abbreviated name of the Comprehensive Drug Abuse Prevention and Control Act of 1970 that provides the basis for the regulation of drugs of abuse (Balster & Walsh, 2010). Under the Controlled Substance Act of 1970, Balster and Walsh (2010) stated the following:

Drugs are assigned to one of five Schedules (I to V) based on their abuse liability.

Restrictions on possession, sale, and distribution of drugs differ among the schedules, with the most severe penalties given for violations involving drugs in Schedule I.

In addition to the creation of the tiered levels of drug classification known as the *Schedule*, the Controlled Substance Act advanced responsibility for enforcement of the legislation through the Drug Enforcement Administration (Balster & Walsh, 2010).

According to Rachal (1982), in order to combat ineffectiveness and departmental infighting, President Nixon created the Drug Enforcement Administration from 700 narcotics agents and supporting personnel of the Department of Justice and Customs Service; however, what was created was not a more efficient Department, but a department that was "inept in management" and had "little or no change in the behavior of the field staff who engaged in narcotics enforcement" (p. 138).

The drug war continued under the Nixon Administration. President Nixon enacted a policy targeting U.S. Servicemen returning from the Vietnam War. On June 11, 1971, President Nixon, in response to escalating use of marijuana and heroin from the US Military, issued a directive for military drug urinalysis program to identify and aid military personnel returning from the Vietnam War (Office of Undersecretary for Personnel and Readiness, 2018).

Under President Nixon's (as cited in Cannon, 1975) charge, the Domestic Council Task Force was created to "assess the effectiveness of current drug programs and policies" as well as "determine if the Federal strategy, priorities, and organizational structures are appropriate to meet current need" (p. xi). The White Paper on Drug Abuse report offered a comprehensive overview of domestic drug use and drug programs suggested drug use was significantly worse than initially believed, and gains in the war on drugs were "temporary and regional" (Cannon, 1975, p.10). This realization led to several policy recommendations for improvement for the war on drugs, but one policy recommendation of significance included the prioritization of the enforcement of certain drugs (Cannon, 1975, p. X).

The Domestic Council Task Force asserted, "not all drug use is equally destructive, and we should give priority in our treatment and enforcement efforts to those drugs which pose the greater risk, as well as to compulsive users of drugs of any kind" (Cannon, 1975, p. 10). Marijuana, the most widely used illicit drug in all studies, was at the center of controversy and, according to Cannon (1975), enforcement efforts have been "deemphasized due to widespread recreational use and the relatively low social cost" (p. 39). The de-emphasis of marijuana from the White Paper on Drug Abuse and being named a "low priority drug" coupled with being classified as a Schedule I narcotic along with heroin, created confusion for law enforcement, judicial systems, legislators and most populations of Americans.

In the 1980s, the "crack epidemic," as First Lady Nancy Reagan described the escalation use of crack cocaine, began to take its toll on human life, and President Reagan proposed the Drug-Free America Act of 1986 resulting in the passage of Anti-Drug Abuse Act (Fabens-Lassen, 2014). The Anti-Drug Abuse Act, along with the revisions of mandatory sentencing for drug convictions, increased the incarceration of nonviolent

drug law offenses from 50,000 in 1980 to over 400,000 by 1997 (Fabens-Lassen, 2014).

According to Fabens-Lassen (2014), the Anti-Drug Abuse Act of 1986 created a disparity between cocaine base and cocaine powder drug convictions targeting a disproportionate incarceration rate of African-Americans (Fabens-Lassen, 2014).

In addition to the escalation of crack cocaine use, a major naval incident stemming from drug use costs lives and millions of dollars in damage, which resulted in intensified legislative efforts on the war on drugs. On May 26, 1981, an aircraft accident aboard the USS Nimitz killed 14 and injured 48 sailors, and resulted in over \$150 million in damages with seven planes destroyed and another 11 damaged. The autopsies revealed six of the nine men responsible for the incident tested positive for marijuana (Office of the Undersecretary for Personnel and Readiness, 2018). Following the USS Nimitz incident, Memorandum # 62884 was issued by Deputy Secretary of Defense Carlucci in December 1981 that "authorized the initiation of punitive actions including courts-martial for drug use" which included testing for "marijuana, cocaine, heroin (opiates), amphetamines, barbiturates, methaqualone and PCP" (Office of the Undersecretary For Personnel and Readiness, 2018).

In addition to the Anti-Drug Abuse Act of 1986, President Reagan signed Executive Order 12435 in 1983, better known as the President's Commission on Organized Crime purposed to curb illegal organized crime activity and Executive Order 12564 that established Federal Drug Testing (Masters, 1988). According to Masters (1988):

President Reagan formally made drug testing a government-wide policy in Executive Order 12564, issued on September 15, 1986. Finding that Federal employees who use illegal drugs, on or off duty, tend to be less productive, Presidential E. O. 12564 ordered that Federal employees are required to refrain from the use of illicit drugs. In addition to

authorizing the testing of employees where there is reasonable suspicion of drug abuse or where accidents or unsafe practices occur, the order required the establishment of a process for drug testing for employees. (p. 313)

As directed by President Reagan, The Office of Personnel Management and Department of Health and Human Services issued procedural governmental testing guidelines that required a random and comprehensive testing program to test for the use of illegal drugs by employees that served in what was considered sensitive positions (Masters, 1988).

President Nixon set a precedent for using drug testing as a drug use deterrent by testing Vietnam Veterans in the 1970s, and President Reagan followed suit using drug testing as a deterrent for all federal employees in the 1980's. Following the rationale provided by legislators and the Executive Branch, educators began to implement drug testing policies to deter student drug use; however, several landmark Supreme Court rulings impacted the evolution of student drug testing in the United States.

Landmark Supreme Court Rulings Regarding Student Drug Testing

The Supreme Court in *New Jersey v. T.L.O.*, 469 U.S. 325 (1985) ruled that school officials acting as state agents did not have to obtain a warrant or have probable cause to search students but only to apply "reasonableness" of suspicion when determining the "balance between "privacy" and the "obligation of school officials" to maintain a safe school environment (Czubaj, 1995, p. 549). The searches included personal effects and school property while at school and on school grounds, and the court stated that "an easing of privacy restrictions while students are under school authority is warranted" (Czubaj, 1995, p. 549). The next landmark case to impact drug testing was the 1989 Supreme Court ruling of *Skinner v. Railway Labor Executives*. In *Skinner v. Railway Labor Executives*, the Supreme Court upheld the suspicionless drug-testing

of railroad employees and ruled that drug testing did not violate the Fourth Amendment prohibition against unlawful searches and seizures (Mallory, 1989). Justice Kennedy provided the majority opinion focused on the governmental interest in protecting the safety of American Railways along with an employee's diminishing expectations of privacy was reasonable (Mallory, 1989).

In *Vernonia School District v. Acton*, 515 U.S. 646 (1995), the US Supreme Court ruled a school district could conduct random and suspicionless drug testing on high school athletes (Shutler, 1995). The court held that drug testing did not violate students' Fourth Amendment rights and that there was a diminished expectation of privacy by participating in extracurricular activities as well as the perceived safety concern with potential drug-related athletic injuries (Shutler, 1995). In *Board of Education v. Earls*, 122 S.Ct. 2559 (2002), the Supreme Court ruled in favor of one Oklahoma school district's policy requiring all high school students who participate in any extracurricular activities to submit to suspicionless and random drug testing (Kim, 2003).

The Supreme Court rulings on *New Jersey v T.L.O* (1985), *Skinner v. Railway* (1989), *Vernonia v. Acton* (1995), and *Board of Education v. Earls* (2002) on drug testing has been met with challenge and controversy. Stuart's (2010) study is a review of the U.S. Supreme Court decision determining school-based drug testing of students reasonable and allowable under the Fourth Amendment of the US Constitution. Stuart's (2010) study attempted to determine if the reasonableness standard set by *Vernonia* (1995) was in error with the Court's willingness to permit intrusive invasions to students privacy to conduct the War on Drugs (Stuart, 2010). According to Stuart (2010), the original student drug testing case used to determine the standard for suspicion was the 1985 *New Jersey v T.L.O* court case that found drug testing of students

was reasonable and Constitutional. However, Stuart (2010) contended the Court's direction changed dramatically when the Supreme Court ruled that random or "suspicionless" drug testing was reasonable as well in the Vernonia (1995) ruling and upheld and expanded in the (2002) Earls verdict (Stuart, 2010).

Stuart (2010) held that the Supreme Court had no factual findings to support that drug testing prevents drug use when rendering the New Jersey T.L.O, Vernonia, or Earls decisions, thus making those decisions unjustified. The study also indicated that the Bush Administration and drug testing industry continued to promote drug testing as a drug deterrent well past the time that the evidence proved otherwise (Stuart, 2010). Stuart (2010) concluded that the rulings in New Jersey T.L.O, Vernonia, or Earls were justified and that evidence supports the claim that there is more harm than good in the educational setting when student drug testing is used as a drug use prevention strategy. This study indicated student drug testing leads to many students opting for more dangerous drugs that are less likely to be detected, mask test results in dangerous manners, and promoted alcohol use instead of drugs. Stuart (2010) argued the Supreme Court was erroneous and student drug testing is ineffective and sometimes more harmful.

Drug Testing

Drug testing typically involves a two-step process in detecting trace amounts of drugs in a urine sample (Levy et al., 2010). The first step in the two-step process is the "immunoassay to detect a predetermined set of drugs of abuse or drug metabolites (Levy et al., 2010, p. 2). According to Levy et al. (2010), the use of immunoassay is useful as a screener but does not specify particular traces of drugs; thereby creating the need for a second step in the process. The second step in the drug testing process is a confirmation test that utilizes "chromatography and mass spectrometry for high-specificity analysis that reduces the incidents of false-positives" (p.

2). Also, various drugs have differing detection windows; for example, cocaine has a shorter detection window of one to two days while for marijuana the detection window can range from a few days to several weeks (Levy et al., 2010).

Although Stuart (2010) argued that drug testing is ineffective in deterring drug use, Olbina, Hinze, and Arduengo (2011) argued that drug testing is adequate and improves job safety and performance. Olbina et al. (2011) sought to analyze drug testing programs as well as the effectiveness of drug testing in the US construction industry. Seven drug testing practices were found to be the most prevalent in the industry, and they included the pre-employment, post-accident, random, reasonable cause, blanket, and follow up testing (Olbina et al., 2011). Sweat, hair, and blood drug tests were used to determine drug use; however, urinalysis continued to be the most widely used (Olbina et al., 2011). Olbina et al. (2011) also found the following: that marijuana was the most common drug identified by positive drug tests; the majority of states denied workman's compensation to workers who were hurt "on the job and tested positive for drugs"; and in "all cases the employee's employment is terminated once a positive drug test is confirmed" (p. 1053). With 63 respondents to the survey, Olbina et al. (2011) reported that the vast majority of construction companies owners believed, "drug testing and strict policies when dealing with drug users have shown positive relationships with safety performance" (p. 1055). As with the construction company owners, many beliefs concerning drug testing are similar in that there is a belief that drug tests are valid, but the validity of that assumption has yet to be confirmed.

Several studies conducted compare types of drug tests along with validity. In an Australian study, 1,500 urine and oral fluid paired tests were collected for comparison (Casolin, 2016). After following national protocol and guidelines for the collection and testing of fluid

samples along with having a Medical Review Officer (MRO) analyze test results, it was found that "urine drug testing is more likely to detect overall use of substances compared to oral fluid testing" (Casolin, 2016, p. 482). The study also concluded that urine drug testing was significantly more likely to detect illicit substances and more likely to identify worker drug-induced impairment than oral drug testing (Casolin, 2016). Due to its reliability, urine drug testing is the recommended drug testing format for random drug testing (Casolin, 2016). However, oral drug testing was increasing in popularity and used primarily due to the relative ease of collection (Kelley-Baker, Moore, Lacey, & Yao, 2014).

Although urinalysis is the most widely used and recognized drug test, blood and hair drug tests are used by many. A US study with 3,236 paired blood and oral samples from nighttime drivers produced findings regarding the comparison of blood and oral drug tests (Kelley-Baker et al., 2014). Citing length of time and uncomfortableness, participants were twice as likely to give consent for an oral drug test as they were for the blood drug test (Kelley-Baker et al., 2014). Additionally, Kelley-Baker et al. (2014) reported that analysis from paired blood and saliva samples were similar and, with some drugs such as cocaine, "oral fluid was a better indicator" (p. 116). However in a 3,643 participant study in the United Kingdom with a 1991 birth to present cohort assessing hair samples for measuring drug substances, Taylor, Sullivan, Ring, Macleod, and Hickman (2017) found that hair samples were unreliable in determining past drug use.

Other practices can render any one of the types of drug tests unreliable. According to Bush (2008), there are over 400 products identified by the Substance Abuse and Mental Health Services Administration that are proposed to deceive drug tests, including cleaning and dilution products. According to a Taiwanese study conducted by Lin, Lee, Lee, and Chen (2018), dilution was the most common method of drug test tampering. Besides, Oblina et al. (2011) reported that

over 85% of respondent employers believed that cheating on drug tests was common in an attempt to avoid detection by tricking drug tests. Although many employers indicated implementing countermeasures of drug test deceptions, such as "measuring specimen temperature," there remain some products that can alter drug test outcomes (Oblina et al., 2011, p. 1052). These agents that alter drug test results threaten the validity and the use of drug testing as a deterrence to drug use.

Student Drug Testing Effectiveness and Outcomes

Many concerns exist regarding the use of student drug testing; however, two of the most critical questions are the following:

1. Does drug testing produce reliable test results?
2. Does drug testing deter student drug use?

As referenced, drug test results are sometimes unreliable, and drug adulterants are cost prohibitive and easily detectable (National Institute on Drug Abuse, 2017). According to the Mandatory Guidelines for Federal Workplace Drug Testing Programs, an adulterated urine sample is identified when there is a "pH less than 4 or greater than 11", or when the concentration of nitrate, chromium, halogen, glutaraldehyde, pyridine, or surfactant measures over various specific levels (Substance Abuse and Mental Health Services Administration, 2017, pp. 7941-7942). However, some studies attempt to address the effectiveness and impact of Random Drug testing in U.S. public schools.

With national attention to student drug testing, Ringwalt, Vincus, Ennett, Hanley, Bowling, Yacoubian, and Rohrbach (2008) sought to determine the percent of school districts in the United States that use random drug testing as a deterrent for adolescent drug use. In addition, the study focused on the different methods of implementation of the drug screening policy. The multi-tiered and multi-year sampling of school districts across the United States represented by

various school density, population, and poverty concluded that 14% of school districts in the United States had at least one high school that used random drug testing procedure (Ringwalt et al., 2008). The study also found that almost all high schools in the sampling that utilized random drug testing tested students participating in athletics, while two-thirds of the schools tested students participating in athletics and non-athletic extracurricular activities, and 25% of schools in this study drug tested all students regardless of extracurricular participation (Ringwalt et al., 2008).

Although a large percentage of U.S. schools utilize drug testing to deter student drug use, some studies concluded that there is no relationship with drug testing and decreased student drug use. Yamaguchi, Johnston, and O'Malley (2003) found no relationship in random drug testing and student drug use for the overall population of 8th, 10th, and 12th grades. Interestingly, in a drug test perception study of 1,263 students in rural north Florida, Evans, Reader, Liss, Weins, and Roy (2006) found students believed that drug testing would deter student drug use but expressed significant concerns regarding the accuracy of drug tests and also fairness in applying consequences of failed drug tests.

Terry-McElrath, O'Malley, and Johnston (2013), in a fourteen-year study of nationally representative samples of middle and high school students in the United States, sought to examine associations between student drug testing, substance use, and participation in extracurricular activities. The study included 103,000 8th graders in 887 schools, 90,000 10th graders in 731 schools, and 83,000 12th graders in 745 schools spanning 14 years and with an 82% survey completion rate (Terry-McElrath et al., 2013). In this study, students were explicitly asked about frequency of various illicit substance use during the past 30 days including LSD, cocaine, heroin, amphetamines, tranquilizers, sedatives/barbiturates, marijuana, and narcotics

other than heroin, and school administrators were asked if school-based drug testing was used (Terry-McElrath et al., 2013). The study found no significant correlation with student drug use and drug testing but did find that suggestive data for a decline in marijuana use but an increase in other illicit drugs (Terry-McElrath et al., 2013). Consequently, Terry-McElrath et al. (2013) identified that there was no association between student drug testing and extracurricular participation rates for middle or high school students.

In a study identifying the relationship of school climate, student drug use, and drug testing programs, Sznitman, Dunlop, Nalkur, Khurana, and Romer (2012) found strongest correlations between school climate and student drug use. In this study, student substance use was lower in schools with positive climate scores; inversely, student substance use was higher in schools with negative climate scores (Sznitman et al., 2012). Levy, Schizer, and the Committee on Substance Abuse (2015) identified many challenges associated with student drug testing.

Levy et al. (2015) identified the following difficulties regarding student drug testing:

- limited drug testing frequency;
- flawed sample collection procedures;
- limited drug testing panel size;
- a violation of FERPA laws with student medical confidentiality;
- drug test reliability;
- reliability of the interpretation of the drug test results;
- appropriate notification of test results;
- potential adverse consequences associated with tests results including false positives;
- economic costs of drug testing; and,

- students using other drugs that are not typically tested for and are inherently more dangerous.

According to Levy et al. (2015), the American Academy of Pediatrics does not support school-based student drug testing based on the adverse outcomes of school climate associated with school-based drug testing. Negative impacts on school climate include creation of student and school mistrust, possible student and school relationship stemming from detrimental consequences of false-positives tests results, the delaying of identification and treatment of students with substance abuse problems, and the potential for a breach of medical confidentiality regarding the private health of students (Levy et al., 2015). Additionally, Sztiman et al. (2015) argued that "school drug testing, in and of itself, does not deter substance use" (p. 153), and the study indicated interventions targeted to improve school climate could be more effective in deterring student drug use.

In a review of random student drug testing programs as a school-based drug prevention strategy, Dupont, Merlo, Arria, and Shea (2012) concluded there is insufficient evidence to determine the effectiveness of drug testing as a deterrent to student drug use. Additionally, Dupont et al. (2012) identified eight criticisms of Random Student Drug Testing, which included the following:

Drug testing programs:

- are not accepted and promote an adverse school climate;
- do not reduce drug use;
- are cost prohibitive for schools;
- are an unnecessary and illegal intrusion on students' rights to privacy;

- only identify students who have experimented with drugs and do not require intervention/treatment;
- result in the expulsion of students who test positive;
- if results are positive, the drug tests may hinder a student from educational and employment opportunities; and,
- the test produces many false positives.

In an Australian study examining student drug testing efficacy and accuracy, Roche, Bywood, Pidd, Freeman, and Steenson (2009) found there were challenges with the accuracy of drug testing citing drugs tests are often unreliable, and the process is labor intensive. Consequently, Roche et al. (2009) identified some adverse outcomes associated with school drug testing including the bolstering of defiant drug culture, the dangerous masking of drug use, driving the problem underground making it more difficult for support, and the breakdown of the student/school relationship. Roche's et al. (2009) overall findings indicated the efficacy and accuracy of student drug testing were limited, and there were many negative consequences to the school culture that should give caution to administrators considering the implementation of drug testing. In a two-year controlled cohort study assessing drug testings' impact on student drug use, Goldberg, Elliot, MacKinnon, Moe, Kerry, Kuehl, Yoon, Taylor, and Williams (2007) found that although drug use was lower in two of the four follow-up sessions for prior year drug use, there was no difference in student drug use measuring previous month drug use. According to Goldberg et al. (2007), drug testing did not impact sports participation; however, "students believed less in the benefits of drug testing and believed authorities were less opposed to drug use" at the end of the study than the beginning (p. 426).

Although critics of student drug testing decry ineffectiveness and adverse consequences, proponents have suggested that a well-developed and well-communicated drug testing policy that includes student drug testing deters student drug use. According to Levy et al. (2010), proponents of drug testing identified that the benefits of the process include early detection of drug use for early intervention. In a case study to examining the impact of random student drug testing in one school, Nelson, Rose, and Lutz (2011) sought to determine stakeholder perception of student drug use and drug testing, as well as the impact of drug testing on student drug and alcohol use. Nelson et al. (2011) found that the implementation of student drug testing resulted in a decrease in student drug use. According to Nelson et al. (2011), students reported a decline in drug use, and stakeholder groups generally believed that a student drug use issue existed and also found that drug testing helped deter drug use. Nelson's et al. (2011) study utilized one large school district in the southwestern United States school over three years using a variety of data collection including student drug testing results, focus groups responses, student self-report on drug use, and survey results of parents, school personnel, and community members.

Another study that suggests positive correlations with drug testing and student drug use was a quantitative study that sought to assess the effectiveness of school-based random drug testing programs. A partnership among The United States Department of Education, RMC Research Corporation, and Mathematica Policy Research allowed for an experimental research design study to evaluate the effects of MRSDT (James-Burdumy, Goesling, Deke, & Einspruch, 2010). The 2006 experimental study consisted of 4,723 ninth through twelfth graders, where half attended schools that implemented a drug testing policy and the others attended non-drug testing policy schools (James-Burdumy et al., 2010). Also, the study consisted of collecting baseline data, conducting student surveys, reviewing official school records, and conducting structured

interviews of stakeholders concerning drug testing and non-drug testing policy school students for similar measures (James-Burdumy et al., 2010). James-Burdumy et al. (2010) found that students cited less substance abuse, did not feel any more negative toward their school than non-treated school peers, and had no impact on extracurricular participation levels. However, research has also shown that drug testing should not be the sole drug prevention strategy but be an inclusive component of a more extensive drug prevention program (Snitzman, 2011).

Several studies sought to identify the relationship with policy enforcement, student drug use, and school consequences for failed drug tests. The cases that sought to determine the effectiveness of the drug testing policy correlated strongly with policy enforcement. According to Evans-Whip et al. (2015), both school administrators and students felt an inverse relationship with policy enforcement, and marijuana use existed. Additionally, Evans-Whip et al. (2015) found that administrators believed an increase in enforcement of drug policies predicted a decrease in marijuana use and students reported "strong negative messages about illicit drug use" especially strong drug use abstinence messages from school authorities promoted a decrease in marijuana use (Evans-Whip et al., 2015, p. 998).

However, the ability of schools to create and enforce clear substance abuse policies can be cumbersome (Levy & Schizer, 2015). Schools face challenges in drug testing policy and practice concerning patient confidentiality regulations and the determination of appropriate consequences for failed tests as well as to avert detrimental student consequences (Levy & Schizer, 2015). Small, Jones, Barrios, Crossett, Dahlberg, and Albuquerque (2001) indicated that drug policy violations resulted primarily in suspension, counselor and drug treatment referrals, and notification to legal authorities.

While the stated intent of the majority of school-based drug testing programs is early student drug use identification for early intervention and treatment, students often receive school suspension, with adverse academic consequences and without drug treatment referrals (Levy & Schizer, 2015). School suspensions result in a loss of instructional time and, frequently, increase the potential for drug-related problems (Evans-Whip et al., 2015). Additionally, according to McCarter (2017), while there are millions of US students who receive a suspension as a punishment for school violation, suspensions have adverse effects, such as grade failure, not graduating, and becoming entangled with law enforcement.

Context: A Small Rural Southeast Georgia Community

The Small Rural Southeast Georgia (SRSEG) Community is located in southeast Georgia and made up of one original county seat and several small unincorporated areas (U.S. Census Bureau, 2017). One of the smallest of Georgia counties, this community encompasses 243.04 square miles and, the 2010 United States Census identified 10,998 people, 4,041 households, and 2,793 families residing in SRSEG Community (US Census Bureau, 2017). According to the US Census Bureau (2017), compared to the whole state, this community is less diverse with the racial makeup of the county being 65.9% White, 24.4% Black or African, Hispanic or Latino 11.2%, 0.5% Asian, 0.1% American Indian, and 8.0% from other races (U.S. Census Bureau, 2017). Of the 4,041 households, 35.2% were married couples with children under 18 living with the couple. The county's median income for a household in the county was \$35,828 (US Census Bureau, 2017). Economically depressed compared to most areas of Georgia, this community is impoverished with over 25% of the population living in poverty compared to the 16% of the population living in poverty for the State, with agriculture and education employing the most massive percent of people in the county (U.S. Census Bureau, 2017).

According to Dunn (2012), the southern region of the United States represents the most populous of all regions accounting for "37.1% of the nation's population" while accounting for "41.5% of the violent crimes" (p.12). Violent crimes include murder, forcible rape, robbery, and aggravated assault (Dunn, 2012,). According to French, McCollister, Alexandre, Chitwood, and McCoy (2004), there is a strong correlation between criminal behavior and drug use. The strong criminal behavior and drug use correlation is evident in the SRSEG and manifests itself in local crime data.

According to local law enforcement data sources, from June 2014 to March 2018 there were over 300 incarcerations directly related to drug or drug use. The SRSEG data sources from local law enforcement agencies indicated that drug crimes in this community include illegal possession, possession with intent to distribute, manufacturing, conspiracy to manufacture, and trafficking of dangerous drugs and controlled substances such as cocaine, heroin, marijuana, ecstasy, and methamphetamines. The SRSEG Community has a long history with drug-related crimes and a high poverty rate, which impacts adolescent behavior, including drug use.

SRSEG School District

The SRSEG School District enrolls 2,200 students in grades Pre-k-12th served on one main campus with two educational structures. One building complex serves the Pre-K through 8th grade while the high school complex serves grades 9th-12th. The demographic data of the student population mirrors that of the SRSEG community in terms of gender, race, ethnicity, and poverty. The FY 18 SRSEG School District specific demographic data includes 52% Male, 48 % Female; 47% White, 29% Black, and 20% Hispanic; with 90% living in poverty as identified by free/reduced lunch eligibility (Governor's Office of Student Accountability, 2019). Additionally, an estimated 15% of the student population receives special education services.

Several data sources suggest a drug use and drug use escalation for the high school aged student population in the years prior to the implementation of MRSDDT. One source to note is the Georgia Student Health Survey Fiscal Year (FY) Comparisons for FY 11 through FY14 where students in grades 9-12 answered several questions but pertinent to this study the students were asked to answer Marijuana use and Other Drug Use within the last 30 days. The Georgia Student Health Survey is conducted annually as mandated by the Georgia Department of Education and it is anonymous; the following chart (see Table 2.2) indicates student self-identification of drug use escalation prior to MRSDDT implementation.

Table 2.1

Georgia Student Health Survey Comparisons (SRSEG School District)

<u>Grade</u>	<u>Fiscal Year</u>			
	FY 11	FY 12	FY 13	FY 14
Grade 9				
Marijuana Use (Last 30 Days)	2.25	4.71	5.26	9.45
Other Drug Use (Last 30 Days)	2.25	3.53	4.21	7.09
Grade 10				
Marijuana Use (Last 30 Days)	1.16	6.52	3.85	5.93
Other Drug Use (Last 30 Days)	1.16	2.17	3.85	3.39
Grade 11				
Marijuana Use (Last 30 Days)	9.68	4.76	8.33	9.60
Other Drug Use (Last 30 Days)	3.27	4.76	5.0	8.8
Grade 12				
Marijuana Use (Last 30 Days)	12.36	5.41	11.94	16.67
Other Drug Use (Last 30 Days)	5.62	8.11	5.97	8.82

Note. N's represents the % of student self-reporting drug use within the previous 30 days for the SRSEG School Districts Grades 9-12 for FY 11-FY 14 on the annual Georgia Student Health Survey

With the exception of Grade 10 Marijuana Use in the last 30 days, all grades indicated a sharp increase in the percent of students self-identifying Marijuana Use and Other Drug Use in the last 30 days from FY 11 to FY 14. In addition to the Georgia Student Health Survey, the

2016 Georgia College and Career Readiness Performance Index (CCRPI) climate rating for the SRSEG High School listed a score of 97.4 out of 100 for Drug-Related Incidents (data) while the Drug Related Incidents (survey) listed an achievement score of 71.58 out of 100 as the schools lowest climate rating indicator. The ratings indicate that students perceive or are aware of student drug use significantly more than students receiving consequences or identified for drug use. Student self-reporting drug use, with perception data and school based discipline consequences resulting from drug use or drug related incidents, all suggest that student drug use is and continues to be a serious issue in the SRSEG School District.

Mandatory Random Student Drug Testing Policy

In 2016, the SRSEG School District implemented a Mandatory-Random Student Drug Testing (MRSDT) Program for students in grades 9-12. The MRSDT Program in the SRSEG School District required students who wished to participate in extracurricular activities and the legal guardians of said students to sign a waiver granting permission for the school to conduct random drug testing of students. The SRSEG High School Governance Team, an elected representative group of parents, teachers, and administrators, developed the MRSDT Policy by emulating a student drug testing policy from a school system that is geographically close in proximity. The group presented the policy to the local board of education and the policy passed with an implementation of the FY 17 School Year. While the SRSEG School Districts' MRSDT Policy is clear in that the policy lists the rationale, goals, testing procedures, progressive consequences, and clarifications with explanations (Appendix B), the representative group drafted the policy without any input from groups that each represented. Stakeholders' impacted by the implementation of MSRDT were not afforded an opportunity to provide feedback in the

creation or implementation of the student drug testing policy. As a result, implementation was met with significant resistance and effectiveness of MSRDT in doubt.

Chapter Summary

From the review of literature, it can reasonably be ascertained that adolescents, particularly adolescents in rural areas, are using drugs at significantly high levels and experiencing adverse consequence from this use. Consequently, many school systems across the US have added student drug testing to their drug prevention program. Likewise, the SRSEG School District added MRSDDT to the local drug prevention program in 2016; however, the policy has been met with adverse and mixed reaction from stakeholders. Through this study, the researcher sought to vet the student drug testing policy and determine specific positive and negative perceptions of MRSDDT as identified by SRSEG School District stakeholders.

CHAPTER 3

METHODOLOGY

According to Conway et al. (2012), before high school completion the majority of America's youth will use some form of an illicit drug. Due to the formative nature of the adolescent mind, the use of illicit drugs creates a higher risk for adolescents for developing addictions, thus potentially producing physical and mental harm. The effects of drug use for adolescents can have devastating consequences ranging from poor health and addiction to incarceration and death (James-Burdumy et al., 2010). In response to growing student drug use, an estimated 14% of U.S School Districts have implemented student drug testing to deter student illicit drug use (Ringwalt et al., 2008).

Following the national trend, in 2016 the SRSEG School District implemented a Mandatory-Random Student Drug Testing (MRSDT) Program for students in grades 9-12. The MRSDT Program in the SRSEG School District required students who wished to participate in extracurricular activities and/or those students who wished to drive to school as well as the legal guardians of said students to sign a waiver granting permission for the school to conduct random drug testing of students. The SRSEG School District implemented the MRSDT Program without conducting scholarly research to determine student drug testing's effectiveness, potential unintended consequences, or stakeholder attitudes toward its use. A representative stakeholder group helped create the student drug testing program, but no formal process was used to elicit stakeholder overall attitudes toward student drug testing, nor was a formal process used to implement change. As a result, implementation was met with resistance and created significant doubt of the program's effectiveness or school intent.

The 12-member group that drafted the MRSDT Policy was the grades 9-12's School Governance Team, which consisted of four elected parents, two elected community members, two elected students, two elected teachers, and two appointed school administrators. Each member on the School Governance Team was to represent their constituent perspective group. Additionally, these members were not elected for the sole purpose of drafting a student drug testing program but rather were elected or appointed the prior year to discuss school improvement initiatives. However, once the MRSDT was written, passed, and implemented, significant outcries from many stakeholders were voiced. The significant outcry from stakeholder groups regarding the use of MRSDT indicated a lack of agency. Representative members from the School Governance Team did not conduct a formal process for eliciting the overall constituent perception of student drug or gain input from stakeholders regarding student drug testing.

The 1995 Vernonia School District 47J v Acton Supreme Court decision ruled random student drug testing was not a 4th Amendment Constitutional violation and thus, was a legal practice for school systems. However, since the 1995 Vernonia School District 47J v Acton Supreme Court decision, several student drug testing studies contradict one another concerning impact and effectiveness. The effects of MRSDT on the SRSEG School District have yet to be determined; however, perceptions of its use are varied. Anecdotal evidence of stakeholder perceptions of MRSDT by way of complaints and student resistance exists alongside praise and support for the drug use deterrence program. However, until this study, there has been no formal assessment to determine the overall attitude and beliefs of MRSDT from impacted stakeholders. Therefore, this study sought to determine stakeholder attitudes toward MRSDT and, ultimately, give agency to stakeholders directly impacted by student drug testing.

Therefore, the purpose of this study was to explore the overall attitudes of the use of MRSDT as a drug prevention strategy for multiple stakeholder groups within the SRSEG School District. To measure attitudes regarding the use of MRSDT from grades 6-8 and grades 9-12 faculty/staff, school administrators, parents, and students stakeholder groups of the SRSEG School District, the researcher used an anonymous single survey instrument entitled the Student Drug Testing Survey. Three sections comprise the Student Drug Testing Survey. Section one of the instrument consists of 16 items that utilize a four-point Likert scale to measure agreeability with certain variables of student drug testing; section two has 11 questions that inquire mainly on demographic background information for survey participants, and section three had two open-ended response items that allowed survey participants the freedom to offer suggestions and input regarding student drug testing. Ultimately, overall stakeholder attitudes toward the use of student drug testing were identified for the SRSEG School District and findings will be presented to the local board of education for consideration of revision to the MRSDT policy based on findings of this study.

This study may add to the literature and support school administrators who are contemplating implementing student drug testing with additional information that may aid in their decision making. This chapter will present the research questions that guided the research and provide insight into the research design, including specific detail on the stakeholder population. As a portion of the research design, this chapter offered information on the response rate needed to gain reliable findings, instrumentation information, as well as validation procedures. Additionally, data collection processes and data analysis techniques are discussed within the chapter concluding with data reporting procedures and a summary of the study plan.

Research Questions

Seeking to determine stakeholder attitudes toward student drug testing, the current study intended to identify overall attitudes of four stakeholder groups of grades 6-12 faculty/staff, administrators, parents, and students in the SRSEG School District by using an anonymous survey. The following equally weighted questions guided this study:

1. What are the overall attitudes of middle and high school faculty/staff, administrators, parents, and students regarding MRSMT use for the SRSEG School District?
2. To what extent do stakeholder attitudes toward MRSMT vary according to gender, ethnicity, grade cluster, exposure to experiences related to drug testing programs including students exposed to drug testing required for school parking privileges, and involvement in extracurricular activities at school for the SRSEG School District?

The identification of stakeholder perceptions toward MRSMT gave the researcher a greater understanding of strengths and weaknesses of the drug prevention practice. By identifying positive and negative perceptions of MRSMT along with recommendations for policy changes, this study gave local stakeholders an opportunity to voice an opinion about a policy as well as gave impacted stakeholders an opportunity to participate in policy revisions.

Research Design

The overall design of this study was a quantitative. According to Creswell (2014), quantitative survey research “provides a numerical description of trends, attitudes, or opinions of a population” (p. 13). The researcher of this study determined the specific research design as a direct response to the initial design flaw of the creation of the local MRSMT Policy.

While consideration given for in-depth qualitative study design, the researcher determined a quantitative survey research design would elicit the highest number of responses from

faculty/staff, administrators, parents, and students regarding the use of MRSDDT. By using an anonymous survey, the researcher gained insight into the attitudes toward student drug testing from the largest number possible of SRSEG School District stakeholders. Survey research is often utilized to learn about people's attitudes and beliefs toward a given topic (McMillian & Schmacher, 2001). This study sought to explore the attitudes of stakeholders toward the MRSDDT Program, thus making survey research an appropriate form of research for this study.

Population, Sample, and Sampling

The population is defined as all members of a group (Urdan, 2011). All members of this study are members of the (SRSEG) School District who are associated with grades sixth through twelve that additionally are identified with one of four stakeholder groups. The four stakeholder groups are school administrators, faculty/staff, parents, and students. Additionally, the participants in this study were four primary stakeholder groups that were also delineated by two main grade clusters, which included grades 6-8 and grades 9-12 clusters. Survey participants were grades 6-8 school and system administrators, faculty/staff, parents, and students as well as grades 9-12 school and system administrators, faculty/staff, parents, and students. The students' groups were further delineated by specific grade levels of 6th, 7th, 8th, 9th, 10th, 11th, and 12th. Population sizes for each stakeholder group are as follows.

Table 3.1

Stakeholder Survey Population Participation Sub-Group Information

Stakeholder Group	Grades 6-8 n	Grades 9-12 n	Subtotal n
Administration	7	7	14
Faculty/Staff	75	75	150
Parents	900	900	1800

Students	530	631	1161
Subtotal	1508	1609	3125

Notes. n's represents the number of participants for each stakeholder group along with each grade cluster

Due to its relatively small population size and direct impact, the researcher determined to survey each member of the population group. The researcher sought to provide an opportunity for each stakeholder to provide input regarding MRSDDT in hopes of identifying attitudes toward the drug prevention strategy as well as program improvement recommendations. Due to the controversial nature and the direct impact of MRSDDT, stakeholders were most likely to be intrinsically motivated to complete the Stakeholder Attitudes Toward Student Drug Testing Survey. These survey results and findings were used as the basis and justification for potential MSRDT program revisions for the SRSEG School District.

Instrumentation

The instrument used for this study was the Stakeholder Attitudes Toward Student Drug Testing Survey, a replication of the Mason (2003) Attitudes Toward Student Drug Testing (ATSDDT) study whereby several variables of student drug testing were measured to determine high school students' attitudes toward student drug testing in a small high school in New Orleans, Louisiana. Independent variables of the ATSDDT study included high school student's grade, gender, and ethnicity information while the dependent variables included student attitudes toward legal issues, testing process, the school drug testing integrity, deterrence to drug use, prevalence of drug use, effects of the intervention, and general characteristics of the drug-testing program (Mason, 2003). Furthermore, demographic information, along with students' interaction with drug use, drug testing experience, and extracurricular participation were measured in the ATSDDT study (Mason, 2003). Similarly, the variables for the SRSEG School District

Stakeholder Attitudes toward Student Drug Testing survey remained the same as the ATSDT study; however, the stakeholder groups were extended beyond students to include faculty, school administrators, and parents of middle and high school age students.

The Drug Testing Survey had three sections. Section I of the survey, stakeholders attitudes toward drug testing prevention programs were measured by participants indicating the level of agreement with 16 items regarding drug testing on a four-point Likert scale. The seven variables measured in Section I of the survey include legal issues, testing process, the school drug testing integrity, deterrence to drug use, prevalence of drug use, effects of the intervention, and characteristics of the drug-testing program (Mason, 2003). Of the (16) items, eleven were written in a positive direction. Directionally positive items included items 1, 3, 4, 5, 6, 7, 9, 10, 13, 14, and 16, while items 2, 8, 11, 12, and 15 were written directionally negative and required reverse scoring to compute agreeability accurately. The levels of agreeability are measured from (1) "strongly disagree" to (4) "strongly agree. A composite score of 2.49 or less suggested an overall negative attitude toward student drug testing while an overall score of 2.5 or higher suggested an overall positive attitude toward student drug testing. Table 3.2, listed below, identifies the agreement level chart that was used during data analysis to infer stakeholder survey participant agreeability with student drug testing in the SRSEG School District

Table 3.2

Stakeholder Attitudes Toward Student Drug Testing Score Interpretation

Score	Agreement Level
1.00-1.74	Strong Disagreement
1.75-2.49	Somewhat Disagree
2.50-3.25	Somewhat Agree
3.26-4.00	Strong Agreement

Note. Agreement Level indicates the level of agreement for student drug testing determined. The higher number on the scale indicates a high level of agreeable with student drug testing and conversely a low score indicates low agreeability.

Section II of the survey utilized 11 questions that ascertained and measured independent variables of gender, grade, ethnicity, drug testing exposure, knowledge of illegal drug use, knowledge of alcohol use, and participation of extracurricular activities at school. Several studies guide as to the variables which may have demographic relevance in this study (Johnston, O'Malley, & Bachman, 2002; National Institute on Drug Abuse, 2001). Responses to each item involved choosing the appropriate box next to each item that best described how the survey participant best self identifies.

Section III of the survey was comprised of two open response questions that allowed participants to provide additional thoughts about MRSDT as well as provided the researcher with MRSDT Program improvement suggestions. The Stakeholders Attitudes Toward Student Drug Testing Survey was constructed by replicating the ATSDT Survey Instrument (Mason, 2003) with minor alterations and collaborating with the researcher's methodologist. Appendix C summarizes the survey questions along with variable identification for the current study.

Pilot Study or Validation

Existing instrumentation exists for Stakeholder attitudes toward Student Drug Testing Study. In 2003, Mason studied the attitudes toward student drug testing of students in a New Orleans High School. In her study, the instrument Attitudes toward Student Drug Testing (ATSDT) was deemed valid through a four-phase instrumentation development process (Mason, 2003). The four-phase instrument validation process included the development of the initial scale, expert review, a pilot test, and revisions (Mason, 2003). In Phase I, the original scale identified the seven variables of student drug testing through a review of literature while Phase 2 sought the feedback and revisions of the original instrument from experts who worked with adolescents who struggle with drug addictions (Mason, 2003). In Phase 3, the pilot test, along with factor analysis using a Principal Component Analysis with Varimax Rotation, was used to determine to construct validity (Mason, 2003).

Additionally, instrument reliability was determined to be sufficient by using Cronbach alpha calculation of .92 for Internal Consistency (Mason, 2003). The fourth and final phase of instrument validation consisted of revisions (Mason, 2003). Based on the results of her pilot test and the feedback from the expert panel, one item was dropped and another reworded (Mason, 2003). The four-phase process yielded an instrument that was deemed reliable and valid for the New Orleans High School Student Attitude Toward Student Drug Testing study.

The Stakeholder attitudes Toward Student Drug Testing Survey instrument was slightly modified to include not only the stakeholder group of students, but also administrators, faculty/staff, and parents. The modification was limited to rewording of the questions “stems” to be appropriate for each stakeholder group. In this study, an Exploratory Factor Analysis (EFA) was conducted to ensure the instrument maintains its relatively and validity.

Data Collection

The following steps were taken by the researcher to gain consent, to administer, and to report findings of the MRSDTT Study. To initiate approval, a letter to the SRSEG School District's Superintendent was sent by the researcher that explained the purpose of the study, research design, research procedures, reporting protocols, and explicitly requested permission to conduct the study. Once written permission by the SRSEG School District's Superintendent was granted by a secured and signed Letter of Cooperation, the researcher met with school-level administrators to discuss study intentionality, research design, research procedures as well as established specified timelines and stakeholder communication procedures.

The study utilized the single Stakeholder Attitudes Toward Student Drug Testing Survey (See Appendix A) for all grades six through twelve stakeholders, including administrators, faculty/staff, parents, and students. Data collection period included a two week window of time from August 2019 to September 2019. There was an additional two-week window for data collection in September 2019 if needed to secure appropriate response rate for validation; however, the two week window sufficed. As part of the letter of cooperation, the researcher requested access the SRSEG School District generated email accounts for the stakeholder groups of Administrators, Faculty/Staff, and Students, while parent emails were collected through the submission of informed consent in which this contact information was requested. The researcher sent an email to each of these stakeholder groups with a link to the survey that was secured through *Qualtrics*. The survey was accessed through the emailed link and was available throughout the survey participation window of time. Interested stakeholders were able to access the survey and complete it at their leisure during the survey window as to create a survey environment that was free from pressure or undue influence for any of the survey participants.

Before the survey, informed consent and child assent letters that described study purpose, process, and procedures along with institutional approval were sent home to parents. All survey participants were able to access the emailed anonymous survey link through the use their own electronic devices. Information for survey access purposes were added to the letter for parents and sent home prior to the survey window. The SRSEG School District student body is represented by 20% Hispanic, many of which whose parents are non- or limited English speakers. To ensure access and availability for all survey participants, all written communications with parents and students were conducted in English and Spanish. Additionally, parents were invited to both the Middle School and High School Open House programs and afforded an opportunity to complete the Student Drug Testing Survey while in attendance.

Data Analysis

The researcher began analyzing Stakeholder attitudes Toward Student Drug Testing Survey results following the four-week survey administration window Stakeholder attitudes toward Student Drug Testing Survey results were downloaded from *Qualtrics* and uploaded into the statistical software program of SPSS for data analysis. Descriptive and inferential statistical analysis were identified, described, and explained by performing appropriate procedures through the SPSS program. Descriptions of these procedures to accurately analyze stakeholder attitudes toward student drug testing are detailed in this section.

A descriptive analysis was applied to demographics and presented in a frequency distribution chart for participants based on gender, grade, stakeholder subgroup, and ethnicity. Additional descriptive statistics were reported by frequency distribution on responses to items of exposure to experiences related to a drug testing program, knowledge of illegal drug and alcohol use, and involvement in extracurricular activities participation. Inferential analyses involved

performing a series of independent sample *t-tests* provided the data needed to determine the overall attitude toward MRSDT for each stakeholder group as well as the differences that existed among them.

Reporting the Data

Completed data analyses are presented in Chapter 4. A description of the participants based on demographics collected is presented, along with findings to align with the two primary questions this study sought to answer for the stakeholder groups of administrators, faculty/staff, parents, and students.

Limitations, Delimitations, and Assumptions

The potential limitation, delimitation, and assumptions for the study are identified in the following section of the study. Limitations of this study included the limited number of survey participants, transferability of findings, and time constraints, while delimitation factors included locale specific study, and collaboration with SRSEG School District stakeholders. Additionally, the limitation of honesty due to the controversial and sensitive nature of the topic was of mild concern. Although there were over 3,000 study participants, these participants were all from the SRSEG School District. Findings were specific for only this group and generalities may only be suggested. The findings for this study may not hold for all middle and high school age students based on geography, economics, and many other differences that may exist, however the intent of this study was to determine the attitudes of administrators, faculty/staff, parents, and students toward MRSDT that are a part of the SRSEG School District and not to generalize findings.

Another limitation was time. A four-week window is a limited window of time to gather survey data; however, through collaboration with the SRSEG school system administrators and the local board of education, the researcher planned to increase survey completion rates by

sharing the purpose of the study with the impacted stakeholders, hopefully generating interest for the survey topic. The researcher decided to survey administrators, faculty/staff, parents and students in grades 6-12 in the SRSEG School District to allow for the greatest possible number of survey participants and also to give agency to impacted student drug testing stakeholders.

The researcher determined the use of an anonymous survey to conceal identity of participants as well to promote truthful perspective insights was the most appropriate means of data collection. There are many assumptions in this study. The first assumption is that the survey participants will honestly answer the questions. There is also an assumption that the survey participants are knowledgeable of the MRSDT policy, and able to give a knowledgeable response. Lastly, there is an assumption that all participants view student drug use negatively and believe deterring student drug use would benefit the student, the school, and the community.

Ethical Considerations

The researcher had a legal, moral and ethical obligation to protect the anonymity of all participants, especially students. As one of the Assistant Superintendent for the SRSEG School District, student drug testing was a topic that elicited much response from stakeholders and it was essential that procedural safeguards were established to protect anonymity. Anonymity was vital for several reasons including gaining honest feedback, for survey participants to feel safe from retribution, coercion, and free from any undue influence to provide anything but the individual own honest response on each survey question. To that end, survey participant anonymity was established by building in procedural safeguards in the structure of the way the survey is administered, and with the actual survey itself.

The survey administration structure included the survey being taken online through a link that was shared with administrators, faculty/staff, and students through the Districts'

email account. Parents accessed the survey link through an email that contained the embedded survey link. Additionally, in the initial set up of the survey, the *Qualtrics* function that prevented IP addresses from being collected was activated; thus, making it impossible to connect the completed surveys with individual IP addresses for survey participants. The link to the survey was active for a four week period and accessible at any time during that time period, allowing all survey participants to take the survey in the environment that he or she is most comfortable, without time constraints, or undue influence and pressure that can occur from a structured and organized survey arrangement.

The survey itself contained safeguards to protect survey participant anonymity. For the adult stakeholder survey participants, completing the survey served as passive consent as the participation agreement; however, for minors taking this survey, a direct and written parental consent for survey participation was required. The student survey participation agreement letter that expressly gives consent by parents for their child to participate in the survey was required prior to the student being allowed to participate. Parental Consent and Child Assent was required prior to student participation with the documents submitted to the appropriate school administrative assistant for verification; administrative assistants had the responsibility of sending the email links to all students who had furnished signed consent and assent forms. Thus the researcher had no access to identity student study participants. In addition, administrative assistants for each school were responsible sending the survey email link to administrators and faculty/staff and parents.

Chapter Summary

The purpose of this study was to explore the attitudes' of middle school and high school administrators, faculty/staff, parents, and students toward mandatory student drug testing and to

determine the differences in attitudes that may exist according to stakeholder group, gender, ethnicity, grade level, experiences with drug testing, knowledge of drug use, knowledge of alcohol use, and school extracurricular participation. To determine stakeholder attitudes' and the differences of those attitudes of subgroups that may exist towards students drug testing, the Stakeholders 'Attitudes Toward Student Drug Testing Survey was made available to a population of over 3,000 stakeholders consisting of grade 6-12 students, parents, and school personnel.

CHAPTER 4

REPORT OF DATA AND DATA ANALYSIS

Introduction

The purpose of this study was to determine stakeholder attitudes toward the use of mandatory student drug testing (MSRDT) in the SRSEG School District. Stakeholders in this study were identified as grades 6-12 students, parents, faculty/staff members, and school administrators. This study sought to determine the overall attitudes toward MSRDT of the stakeholder group, and also to determine whether those attitudes varied among stakeholders according to gender, ethnicity, grade, exposure to experiences related to a drug testing program, exposure to illegal drug use or alcohol use, and involvement in extracurricular activities at school.

To determine stakeholder attitudes and any differences of those attitudes across subgroups, the Stakeholder Attitudes Toward Student Drug Testing Survey was made available to a population of over 3,000 SRSEG school district stakeholders consisting of middle and high school administrators, faculty/staff, parents, and students. In this chapter the results of the survey data collected are presented along with key findings of the study.

Research Questions

In 2016, due to the adverse consequences stemming from student drug use, the local school system, as a drug use deterrent, drafted and implemented mandatory student drug testing for students in grades 9-12 who participate in extra-curricular activities and for those who drive to school. The implementation of this policy was met with mixed reactions from stakeholders; therefore, the researcher sought to ascertain overall and subgroup stakeholder attitudes toward the use of mandatory student drug testing. In this study, the researcher used the Stakeholder

Attitudes Toward Student Drug Testing Survey, a replication of the Mason (2003) Attitudes Toward Student Drug Testing (ATSDT) study whereby several variables of student drug testing were measured to determine high school students attitudes toward student drug testing in a small high school in New Orleans, Louisiana. However, in this current study the researcher sought to ascertain not only students' attitudes toward mandatory student drug testing, but the attitudes of parents and school personnel as well. An anonymous survey and the following equally weighted research questions guided this study:

1. What are the overall attitudes of middle and high school faculty/staff, administrators, parents, and students regarding MRSDT use for the SRSEG School District?
2. To what extent do stakeholder attitudes toward MRSDT vary according to gender, ethnicity, grade cluster, exposure to experiences related to drug testing programs including students exposed to drug testing required for school parking privileges, and involvement in extracurricular activities at school for the SRSEG School District?

Research Design

The overall design of this study was a quantitative study. While consideration was given for a qualitative study design, the researcher determined a quantitative survey research design would elicit the highest number of responses from stakeholders impacted by student drug testing SRSEG School District. Descriptive statistics were used to answer the first overarching research question, while statistical analysis involving sample *t-tests* was used to answer the second overarching research question. In addition, constant comparative analysis was used to examine the two open-ended questions added to the survey. While these two survey questions were not part of the original survey, they were added in order to give stakeholders the opportunity to share information and/or concerns related to the SRSEG School Districts' MRSDT Policy.

Findings

Study participants were comprised of grades 6-12 students, parents, and school personnel in the SRSEG School District during August and September of 2019. The mandatory student drug testing (MRSDT) policy had been in effect for the past three years for grades 9-12 students only. However, due to close facility proximity of the middle and high schools along with familiarity of student drug testing, grades 6-8 stakeholders were included in this study. With the exception of one less grade level, grades 6-8 and grades 9-12 stakeholder populations were of similar size, gender, and ethnic backgrounds. Of the 3,125 stakeholder population, 644 stakeholders received emails containing the email link to the anonymous Stakeholders Attitudes toward Student Drug Testing Survey found in *Qualtrics*. A recruitment email with the survey link was sent to grades 6-12 school personnel through the school systems' email database. In addition, grades 6-12 students and parents who expressed interest in taking the survey by returning the Parental Consent and Child Assent forms as well as their personal emails were sent the recruitment email with the link to the secured and anonymous survey. All communication and collection regarding Parental Consent and Child Assent forms was collected by two school administrative assistants for the SRSEG School District purposed to safeguard participant anonymity. Of the 644 emails sent that contained the survey link, 340 surveys were started with 285 surveys completed.

Demographic Profile of the Respondents

Survey participants were asked to respond to items based on self-identification. These items included stakeholder representation, gender, grade level representation, ethnicity, drug testing experience, knowledge of student drug use during the previous month, knowledge of student alcohol consumption during the previous month, and extracurricular participation.

Survey participants were also asked to respond to questions inquiring if student drug testing should continue in grades 9-12, if drug testing should be expanded to include grades 6-8 students, and if they believe drug testing deterred student drug use. Descriptive data for the participants' responses to each item are presented in this chapter.

Participants' stakeholder representation. Participants were asked to report their stakeholder representation. Descriptive data for the participants' responses are presented in Table 4.1.

Table 4.1

Participants' Stakeholder Representation

	Subgroup	Frequency	Percent
Student	Grades 6-8	122	42.8
	Grades 9-12	53	18.5
	Total	<i>n</i> = 175	61.4
Parent	Grades 6-8	21	7.3
	Grades 9-12	30	10.5
	Grades 6-12	10	3.5
	Total	<i>n</i> = 61	21.4
Faculty	Grades 6-8	15	5.3
	Grades 9-12	30	10.5
	Total	<i>n</i> = 45	15.8
Administration	Grades 6-8	1	.04
	Grades 9-12	3	1.1
	Total	<i>n</i> = 4	1.14
Grade Level	Grades 6-8	159	55.8
	Grades 9-12	116	40.7
	Grades 6-12	10	3.5
	Total	<i>n</i> = 285	99.9

Students accounted for 61.4% of the participants who completed the survey (Table 4.1), while parents represented 21.4%, and 16.74% of the surveyed population represented school

personnel. Grades 6-8 students, by far the largest of the stakeholder subgroups to complete surveys, accounted for 42.8 % of the total surveyed population. Parents represented the second largest group in this survey with 21.4% (Table 4.1). However, grades 9-12 parents represented 10.5% of the surveyed population while grades 6-8 parents represented 7.3%. Grades 9-12 School Personnel had greater representation in this study than grades 6-8 school personnel with 11.5% and 5.24% respectively.

Participants' gender. Participants were asked to report their gender. Descriptive data for the participants' responses are presented in Table 4.2. These results indicate that 67.4% of the participants were female, while 32.6% of the participants were male.

Participants' grade representation. Grades 6-8 subgroup accounts for 55.7% of the total survey group while grades 9-12 accounts for 40.7% (Table 4.1). While grades 9-12 subgroups had an estimated 1600 member population and grades 6-8 subgroup had an estimated 1500 member population (Table 3.1), the survey results have greater representativeness from grades 6-8 members. The researcher does not know why grades 6-8 subgroup members completed the survey more so than the grades 9-12 subgroup when the current MSRDT Policy includes drug testing for grades 9-12 but not grades 6-8.

Participants' ethnicity. Participants were asked to indicate their ethnicity. Descriptive data for the participants' responses are presented in Table 4.2. These results indicate that 65.3% of the survey participants were White, while 18.6% of the participants were Black and 10.2 % of the participants were Hispanic. Almost five percent of the participants (5%) were either American Indian/Alaskan Native or Other.

Table 4.2

Participant Demographics

	Demographic	Frequency	Percent
Gender	Male	93	32.60
	Female	192	67.40
	Total	<i>n</i> = 285	100.00
Grade Representation	6 th	54	18.94
	7 th	51	17.89
	8 th	37	12.98
	9 th	29	10.17
	10 th	24	8.42
	11 th	16	5.61
	12 th	24	8.42
	No response	50	17.54
Total	<i>n</i> = 285	100.00	
Participant Ethnicity	American Indian/Alaskan Native	2	0.7
	Asian/Pacific Islander	4	1.4
	Black (not of Hispanic origin)	53	18.6
	Hispanic	29	10.2
	White (not of Hispanic origin)	186	65.3
	Other	11	3.9
	Total	<i>n</i> = 285	100.1

Note: Due to small numbers in ethnic groups other than “White”, American Indian/Alaskan Native, Asian/Pacific Islander, Black, Hispanic, and other are combined and shall henceforth be referred to as “Persons of Color” subgroup.

Participants’ responses to student drug testing items. Survey participants were asked to respond to seven “yes” or “no” items that were directly or indirectly related to MRSDT. These items included survey participant’s experiences with MRSDT, knowledge of student drug use or alcohol consumption during the previous month, and extra-curricular participation. Additionally, of the seven items, there were three items that questioned the survey participant’s attitude toward MRSDT by asking if MRSDT should continue in grades 9-12, be expanded to

grades 6-8, and if MRSDT deterred student drug use. Descriptive data for the participants' responses are presented in Table 4.3.

These results indicate that six of ten participants (60%) did not know any student who had been exposed to student drug testing, that eight out of ten survey participants (80%) had no knowledge of student drug use or alcohol consumption, and that over half the survey participants were involved and participate in extracurricular activities. As to the three items that questioned survey participants' attitude toward MRSDT, nine of ten participants (90%) responded that student drug testing should continue in grades 9-12, seven of ten participants (70%) responded that student drug testing should be expanded to include grades 6-8, and eight of ten participants (80%) responded that student drug testing helps deter student drug use.

Table 4.3

Participant Responses to Drug Testing Items

	Response (Y/N)	Frequency	Percent
MSRDT Experience	Yes	112	39.30
	No	173	60.70
	Total	<i>n</i> = 285	100.00
Student Drug Use Knowledge (previous month)	Yes	57	20.00
	No	225	78.95
	NR	3	1.05
	Total	<i>n</i> = 285	100.00
Student Alcohol Consumption Knowledge (previous month)	Yes	74	25.96
	No	206	72.28
	NR	5	1.76
	Total	<i>n</i> = 285	100.00
Extracurricular Activity Participation	Yes	131	45.96
	No	109	38.25
	NR	45	15.79
	Total	<i>n</i> =285	100.00
Grades 9-12 MRSDT Continuance	Yes	252	88.40
	No	33	11.60

	Total	<i>n</i> = 285	100.00
Grades 6-8 MRSDT Expansion	Yes	212	74.40
	No	73	25.60
	Total	<i>n</i> = 285	100.00
Drug Tests Deterrence of Student Drug Use	Yes	230	80.70
	No	55	19.30
	Total	<i>n</i> = 285	100.00

Note. NR indicates no response from participants

Summary of respondents' characteristics. In summary, the majority of survey respondents of students, parents, and school personnel for grades 6-12 SRSEG School District stakeholders were mostly students, female, and White. While there was good representation for grades 9-12, the majority of the respondents represented grades 6-8. Although the majority of the respondents indicated a limited knowledge of student drug testing experience, student drug use, or student alcohol consumption, the respondents did in fact indicate that the majority participated in extracurricular activities. Respondents also indicated that student drug testing should continue in grades 9-12 and that student drug testing should be expanded to grades 6-8. Overall, eight of ten respondents indicated a belief in that student drug testing deters student drug use.

Stakeholder Attitudes Toward Student Drug Testing Score

The survey respondents completed the Stakeholders Attitudes toward Student Drug Testing Survey. With slight alterations, this survey was a replication of the Mason (2002) Attitudes Toward High School Drug Testing Survey. In an attempt to reduce neutrality, alterations from the (ATSDT) survey included a change from a 5-point to a 4-point Likert scale for this study's survey. The Stakeholders Attitudes toward Student Drug Testing Survey consists of 16 Likert Scale items using a response scale measuring agreeability on scale of "1" (Strongly Disagree), "2" (Disagree), "3" (Agree), and "4" (Strongly Agree). Additionally, this study

expanded the survey population to include parents and school personnel in grades 9-12 as well as grades 6-8 for the SRSEG School District.

The validity and reliability for the (ATSDT) survey instrument was originally established for that study's population; however, an EFA was conducted to verify the factor structure of the instrument for this particular sample of respondents. Only 13 of the original 16 items loaded on the three factors of the solution. Three items, "drug tests are accurate", "drug testing program creates favorable impression of the school", and "results of drug tests should be kept confidential" failed to load on any of the three factors for this population, indicating that these items do not correlate with the other 13 items in the instrument. Thus, to avoid interpretative challenges and to increase the validity of the inferences and conclusions drawn from the data, these three items were omitted from any subsequent analyses. Appendix E presents the PAF with Oblimin with Kaiser Normalization for this survey population. However, the remaining 13 items produced internal consistency reliability by loading on to the three hypothesized factors. The PAF with direct Oblimin solution with the remaining 13 items explained approximately 40% of the variance in the items. The three interpretable factors were labeled as 1 = "Necessity of Drug Testing;" 2 = "Negative Perceptions of Drug Testing;" and 3 = "Positive Outcomes of Drug Testing". Factor correlations were as follows: 1,2 - $r = -.43$; 1,3 - $r = -.55$; and 2,3 - $r = .29$. The EFA described the variability among the observed, correlated variables and yielded three variables that include, "necessity of drug testing," "negative perceptions of drug testing," and "positive outcomes of drug testing". Table 4.4 presents Descriptive Statistics and Internal Consistency Reliability Coefficients of Variables.

Table 4.4

Descriptive Statistics and Internal Consistency Reliability Coefficients of Variables (Necessity of Drug Testing, Negative Perceptions of Drug Testing, and Positive Outcomes of Drug Testing)

Variables	<i>M</i>	<i>SD</i>	α
1. Necessity of Drug Testing	3.1214	.54082	.730
2. Negative Perceptions of Drug Testing	1.8848	.56137	.764
3. Positive Outcomes of Drug Testing	2.9195	.57672	.655

n = 285

These results indicate good internal consistency reliability in that the 13 items measured what was intended for this population. These results indicate a greater level of agreeability for the necessity of drug testing variable than the level of agreeability of the positive outcomes of drug testing variable. However, these results indicate general agreeability with all three variables for this population. The Zero-Order Correlation (Table 4.5) indicates the correlation of the three variables. These results reveal there was a statistical significant and negative correlation with variables (necessity of drug testing) and (negative perceptions of drug testing) while a statistical significant and positive correlation exists with variables (necessity of drug testing) and (positive outcomes of drug testing). These results also indicate a statistical significant and negative correlation with variables (negative perceptions of drug testing) and (positive outcomes of drug testing).

Table 4.5

Zero-Order Correlation Matrix of the Necessity of Drug Testing, Negative Perceptions of Drug Testing, and Positive Outcomes of Drug Testing Scales

Variable	1	2	3
1. Necessity of Drug Testing	-	-.52*	.48*

2. Negative Perceptions of Drug Testing

- .32*

3. Positive Outcomes of Drug Testing

-

* $p < .01$ (one-tailed) $N = 285$

Stakeholder Attitudes Toward MRSDT

The first overarching research question this study sought to examine was the overall attitudes of middle and high school faculty/staff, administrators, parents, and students regarding MRSDT use for the SRSEG School District. While there were mixed stakeholder responses toward MRSDT the first two years of policy implementation, the results of this study suggest general agreeability toward the policy use. Descriptive statistics for stakeholder groups and variables is found on Table 4.6.

Table 4.6

Descriptive Statistics for Stakeholder Groups and Variables (Necessity of Drug Testing, Negative Perceptions of Drug Testing, and Positive Outcomes of Drug Testing)

<i>Stakeholder Group</i>	<i>Variable 1</i>		<i>Variable 2</i>		<i>Variable 3</i>	
	<i>Necessity</i>		<i>Negative Perceptions</i>		<i>Positive Outcomes</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Students						
Grades 6-8	3.2852	.47892	1.9475	.54473	2.9781	.55171
Grades 9-12	3.0415	.59272	1.8792	.57424	2.8365	.62574
Parents						
Grades 6-8	2.9333	.59777	1.8381	.49242	2.8889	.67769
Grades 9-12	3.0267	.48347	1.8267	.54262	2.9556	.49312
School Personnel						
Grades 6-8	3.0000	.51270	1.9200	.52807	2.9111	.61032
Grades 9-12	2.9733	.56503	1.7133	.61853	2.8888	.69112
Administration						
Grades 6-8	2.8000	.00000	2.0000	.00000	3.0000	.00000
Grades 9-12	3.2000	.60000	1.5333	.30551	3.0000	.00000

Gender						
Male	3.1935	.63070	1.9075	.66631	2.9892	.59273
Female	3.0844	.49093	1.8708	.50669	2.8837	.57362
Grade Level						
Grades 6-8	3.2211	.52550	1.9197	.53953	2.9695	.58737
Grades 9-12	3.0409	.58052	1.8882	.63483	2.8746	.59571
Ethnicity						
White	3.0957	.54751	1.8215	.56718	2.9265	.59425
Persons of Color	3.1673	.52813	1.9981	.53499	2.9071	.54655
Extra-Curricular Participation						
Yes	3.1313	.57527	1.8534	.59837	2.9364	.57157
No	3.1376	.55956	1.9761	.53936	2.9144	.60757

Note. M represents mean and SD represents Standard Deviation

These results indicate that while slight differences exist among subgroups for this survey population, there was overall general agreeability with necessity of drug testing, positive outcomes of drug testing, and negative perceptions of student testing.

Differences in Attitudes Among Stakeholder Sub-Groups

The second overarching research question of this study sought to identify differences in attitudes toward mandatory student drug testing that may exist according to gender, ethnicity, grade cluster, extra-curricular participation, and exposure to experiences related to drug testing programs including students exposed to drug testing. Data were submitted to independent sample *t-tests* to ascertain differences of attitudes toward student drug testing that may exist in subgroups of survey participants based on gender, ethnicity, grade cluster, and exposure to experiences related to drug testing.

While all stakeholder subgroups generally held high levels of agreeability (see Table 4.6), grades 6-8 students held higher levels of agreeability with student drug testing than grades 9-12 students. Conversely, grades 6-8 parents held slightly less agreeability with student drug testing than the grades 9-12 parents (Table 4.6). With the exception of grades 9-12 Administrators,

grades 6-8 school personnel had slightly higher levels of agreeability with student drug testing than grades 9-12 school personnel (see Table 4.6 for means and standard deviations).

There were no statistically significant findings that existed among subgroups of Gender; however, it was interesting that males had slightly higher levels of agreeability with two variables: *necessity of drug testing* and *positive outcomes of drug testing*. Females accounted for two-thirds of the participants who completed the survey (Table 4.2). Although no statistical significant difference exists for male and females attitudes toward student drug testing for this surveyed population, males had slightly higher levels of agreeability with variables; necessity of drug tests, and positive outcomes of drug testing (Table 4.6). Males also perceived drug testing as slightly more negative more than females. In this study, males agreed that there was a need for student drug testing and found there were positive outcomes from testing, however still viewed drug testing more negatively than females.

However the results of the analysis demonstrated that there were statistically significant differences with grade clusters and ethnicity. While general agreeability exists for grades 6-8 and grades 9-12 with the variables *negative perceptions of drug testing* and *positive outcomes of drug testing*, a statistically significant finding exists for the variable *necessity of drug testing*, $t(10)=2.466, p<.010$, Cohens's $d=0.325$, suggesting that grades 6-8 had greater agreeability the variable *necessity of drug testing*. Grades 6-8 ratings of the variable *necessity of drug testing* compared grades 9-12 ratings of the same variable indicates that grades 9-12 saw less of a need to student drug test than their grades 6-8 counterparts (see Table 4.6 for means and standard deviations).

The independent t - test yielded a statistically significant difference among groups based on ethnicity. While general agreeability exists for White and Person of Color subgroups with the variables *necessity of drug testing* and *positive outcomes of drug testing*, a statistical significant

finding exists for variable *negative perception of drug testing*, $t(10) = -2.594$ 2.466 , $p < .010$, Cohens's $d = -0.320$, suggesting Persons of Color had more agreeability with negative perceptions of drug testing, or rather viewed drug testing more negatively than the White subgroup. White subgroup participants rated the variable *negative perceptions of drug testing* with a mean and a standard deviation of ($M = 1.8215$; $SD = .56718$), while the Persons of Color subgroup rated the variable with a mean and standard deviation of ($M = 1.9981$; $SD = .53499$), suggesting that Persons of Color subgroup survey participants felt there were more negative perceptions of related to drug testing than the White subgroup survey participants (see Table 4.6 for means and standard deviations).

Almost 55% of survey participants indicated participation in extra-curricular activities, while 45% of the survey participants indicated no involvement with extra-curricular activities. Agreeability with each of the three variables: *necessity of drug testing*, *negative perceptions of drug testing*, and *positive outcomes of drug testing* seemed to be stable regardless of extra-curricular activity participation with this survey population (see Table 4.6 for means and standard deviations). This finding suggests that extra-curricular activity participation did not influence agreeability of MRSDT from SRSEG School District survey participants.

Summary

With a stakeholder population estimated at over 3,000, there were 285 completed surveys by stakeholders who self-identified as students, parents, and school personnel. The majority of survey participants that represented stakeholders for the Small Rural South East Georgia School District generally agreed with student drug testing. Through a process of Exploratory Factor Analysis (EFA), the results indicated good internal consistency and reliability with three variables including *necessity of drug testing*, *negative perceptions for drug testing*, and *positive outcomes of drug testing*. While results revealed high levels of agreeability with all three

variables among survey participants, results also yielded statistical and significant differences did exist among grade levels with regard to the need for drug testing and among ethnic groups with regard to negative perceptions of drug testing. Overall, eight of ten respondents (80%) indicated a belief that student drug testing deters student drug use, that drug testing should continue in grades 9-12, and student drug testing should be expanded to include grades 6-8.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

Summary

The purpose of this study was to identify attitudes toward student drug testing from various school stakeholder groups in a Small Rural Southeast Georgia (SRSEG) School District. This study employed a quantitative research design along with descriptive analyses of two research questions for the sixth through twelfth grade population of students, parents, and school personnel. The findings of this study were to provide information describing the stakeholder attitudes toward MRSDT to the local board of education and school district administrators for the purpose of policy improvement.

This study focused on two overarching research questions with the first being: What are the overall attitudes of middle and high school faculty/staff, administrators, parents, and students regarding student drug testing for the school district? and the second question being: To what extent do stakeholder attitudes toward student drug testing vary according to gender, ethnicity, grade cluster, exposure to experiences related to drug testing and involvement in extracurricular activities? Survey data from the middle and high school stakeholder groups were received during the fall of 2019 and analyzed to determine the overall attitude toward the use of student drug testing as well as the differences that existed among stakeholder groups.

Discussion of Research Findings

Stakeholder Attitudes Toward MRSDT

The first important finding in this study addresses stakeholder attitudes toward MSRDT. Dupont, Merio, Arria, and Shea (2012) argued that MRSDT promotes a negative stakeholder attitude; however, responses from survey participants in this study suggested otherwise.

Regardless of gender, grade level, ethnicity, or extra-curricular participation status, survey participants comprised of grade 6-12 students, parents, faculty/staff, and administrators all responded with high agreeability with MSRDT (refer to Table 4.6). In fact, 88.4% indicated a continuance of MRSRT in grades 9-12, 74.4% responded to expand MRSRT to grades 6-8, and 80.7% of all survey participants indicated a belief that drug testing deters student drug use. This particular finding is in contrast with Yamaguchi's et al. (2003) study that found there was no relationship with random student drug testing and student drug use. Eight out of ten (80%) survey participants in this current study believed that there is a positive relationship with MSRDT and student drug use, meaning that student drug use is decreased due to MRSRT (Table 4.6).

The Nelson et al. (2011) study found that stakeholder groups believed that a student drug use problem existed, and that student drug testing deterred student drug use. The findings from the current study are consistent with the findings from the Nelson et al., (2011) study in that participants indicated high agreeability with the need for drug testing for grades 9-12 and grades 6-8, indicating a belief that a student drug use problem exists (refer to Table 4.6). Additionally, survey participants responded overwhelmingly that there was a belief that student drug testing deters student drug use (refer to Table 4.3). These survey participants indicated high levels of overall agreeability of MRSRT, want to continue MRSRT in grades 9-12 and expand to grades 6-8, and also believe that MRSRT deters student drug use. The results of this study suggest that MRSRT does not promote a negative perception for these survey participants.

Significant Findings

Grade level. While high levels of MRSRT agreeability exist among all stakeholders, there were two statistically significant findings of agreeability levels from particular stakeholder

groups. The first statistically significant difference was found among grade bands for the variable, *necessity of drug testing*. A statistical significant finding exists for this variable that suggests grades 6-8 had greater agreeability for this variable which also indicated that grades 6-8 subgroup felt that a greater need existed for student drug testing (see Table 4.6 for means and standard deviations). However, this seems to coincide with Johnson's et al. (2011) and Conway's et al. (2012) studies in that they found that almost 30% of students by grade eight, 40% by grade 10, and over half by grade 12 will have tried an illicit drug. One possible explanation that grades 6-8 survey participants saw a greater need for MRSDT is that grades 9-12 students have already an established MRSDT policy and grades 6-8 students do not. One other possible explanation for the response is that grades 9-12 students simply placed misleading information; thus, aligning to the correlation of student drug use and grade level, meaning that student drug use becomes more prevalent the closer to graduating from high school (Conway et al., 2012).

Student drug use. Eighty percent (80%) of survey participants of mostly students indicated that they have no knowledge of student drug use for the previous month (see Table 4.6), but they also indicated a need for MRSDT in grades 9-12 and grades 6-8 (Table 4.6). Additionally there was high agreeability with the necessity of drug testing variable from both grades 6-8 subgroup and grades 9-12 subgroup. This data seems to be contradictory in that these two grade band survey participants have high agreeability with MSRDT and agree with the need for drug testing; however, the survey participants also indicated little knowledge of student drug use. However, the fact that 80% of the survey population said they have no knowledge of any student drug use during the previous month seems to contradict research. As noted, the prevalence of student drug use found in the Johnson et al. (2011) and Conway et al. (2012)

studies along with the Ringwalt et al. (2009) finding that 74% of high school students could identify students who faced punitive consequences from student drug use during the past year all suggest that it is not likely that 80% of the survey population does not know any student that has used drugs during the previous month.

Ethnicity. One other statistically significant finding was discovered between the White subgroup and the Persons of Color subgroup. While general agreeability with student drug testing existed for White and Persons of Color subgroups, there were some slight differences. The Persons of Color subgroup was slightly more agreeable with the variables *necessity of drug testing*, and *positive outcomes of drug testing* (Table 4.6) than the White subgroup. However, a statistically significant difference among groups in that the Persons of Color subgroup agreed more with the variable *negative perceptions of drug testing* than the White subgroup. This suggests that the Persons of Color subgroup viewed drug testing more negatively than the White subgroup (see Table 4.6 for means and standard deviations).

Discriminatory practices or the accusations of discriminatory practices surrounding drug laws and drug law enforcement are well documented. These discriminatory practices and the accusations of discriminatory practices promote racially-based negative perceptions. In fact, Fabens-Lassen (2014) law review commentary, references disproportionate and escalated incarceration rates of African-Americans due to the passage of the Anti-Drug Abuse Act of 1986, which altered drug sentencing of drug convictions for users of cocaine in its' base form and in its' powder form. According to Fabens-Lasses (2014), the escalation from 50,000 drug incarcerations in 1980 to over 400,000 by 1997, disproportionately representing minorities, fueled the perception of racism in the US drug enforcement legal system.

While this study, Persons of Color subgroup and White subgroup, had overall high agreeability with MSRDT, the Persons of Color subgroup significantly viewed MRSRT more negatively than the White subgroup, thus aligning with Fabens-Lassen, (2014) supposition of perceived racism and negative feelings of Minorities toward drug laws and drug enforcement in the US. This study found that while general agreeability toward MRSRT exists, Persons of Color subgroup viewed student drug testing more negatively than the White subgroup.

Other Findings

Extracurricular activity participation. The findings of this study support current research in that MRSRT does not impact student participation of extra-curricular activities. Terry-McElrath et al. (2013) found that there was no relationship between student drug testing and student participation in extra-curricular activities. Additionally, Burdumy et al. (2013) found no association between student extra-curricular participation rates and student drug testing. In the current study, the levels of agreeability with all MRSRT variables were stable for both the extracurricular participation subgroup and the non-extracurricular articulation subgroup, suggesting that regardless of participation in extracurricular activities, there were high levels of agreeability with MRSRT. This study found no attitude difference toward MRSRT based on extra-curricular activity participation.

Drug testing types. Ringwalt, Vincus, Ennett, Hanley, Bowling, Yacoubian, and Rohrbach (2008) estimated that 14% of the US school districts report using MRSRT to deter adolescent drug use. Ringwalt et al. (2008) also found almost all high schools in the sampling utilized random drug testing for students participating in athletics, while two-thirds of the schools tested students who participate in athletics and non-athletic extracurricular activities. Additionally, Ringwalt et al. (2008) found 25% of schools in this study drug tested all students

regardless of extracurricular participation. The current study found that SRSEG MRSDDT policy (Appendix B) aligns with Ringwalt's et al. (2008) findings in that the school districts' MRSDDT policy allows for students participating in athletics and non-athletic extracurricular activities to be subjected to random student drug testing.

Theoretical Framework

The premise of MRSDDT is based in Deterrence Theory, which according to Keel (2005) focuses on reducing the probability of deviant behavior by introducing fear and punishment for the specified action. Additionally, Lee (2017) suggested that traditional deterrence theory ascribes that the "fear of external sanctions is an important incentive in crime deterrence" (p. 1). Terry-McElrath, O'Malley, and Johnston (2013) defined deterrence theory as "weighing the costs and rewards of drug use" compared to the "cost and rewards of drug testing outcomes"(p. 707). The survey participants in this study overwhelmingly agreed the current MRSDDT policy provided sanctions which instills fear and promotes student consideration for opportunity costs of using drugs. As shown on Table 4.6, survey participants believe that the sanctions and consequences resulting from failed MRSDDT provides enough fear to deter students from using drugs.

Conclusions

As a school leader it is good to know that MRSDDT is well-received by the school stakeholders. Prior to the MRSDDT policy enactment, the grades 9-12 School Governance Team discussed the need for MRSDDT and also drafted a version for the Board of Education's review. After experiencing several years of student tragedies resulting from student drug and alcohol use, the school governance team's purpose sought to establish policy and practice that would deter student drug use and, as a result of doing so, save lives and protect the future of students. The

School Governance Team attempted to find a solution to a devastating problem that had plagued this community for many years--student drug use.

The SRSEG school administration believed that MRSDDT had been vetted by providing ownership and empowerment to stakeholders by empowering the governance team in this change process; however, once MRSDDT was implemented, mixed reactions were received from many parents, students, and school personnel, thus given the perception that MRSDDT had not been properly vetted by stakeholders. Many stakeholders voiced their feelings of being disgruntled with the MRSDDT policy, while others voiced elation from its passage and enactment. However, it was certain that this policy had not been properly vetted or communicated with the stakeholder group at large through either SRSEG School leadership or the School Governance Team members.

This empirical study gave MRSDDT impacted stakeholders input, buy in, and empowerment as well as validated the groups' beliefs in a need for MRSDDT and that it deters student drug use. By identifying the attitudes toward MRSDDT and soliciting stakeholder feedback regarding the MRSDDT policy; stakeholders participated in the vetting process for MRSDDT for the SRSEG School District. This empowerment strengthens not only the MRSDDT policy, but also the trust between the Board of Education and the school stakeholders.

Not only are the results of this study valuable to the district community, but the process of the study is as well, in that it formally vets the MRSDDT policy and empowers school and district leaders in addressing student drug use. Additionally, these results indicate an overwhelming support from stakeholders toward MRSDDT as well as the fight against student drug use. While a small percent of the stakeholder population disagrees with MRSDDT, they have been the most vocal, giving the perception that a large portion of the population is unsupportive

of the policy. This empirical study provides evidence, i.e. overall general agreeability toward MRSRT from all stakeholder groups, which suggests that the majority of the stakeholder population does in deed support the policy and the school system in its endeavors toward preventing student drug use.

Implications

The findings from this empirical study have several implications. First, regardless of gender, ethnicity, grade level, or stakeholder group, MRSRT is supported in this rural school district. The fact that there are high levels of agreeability and support for MRSRT strengthens the efforts of local school administrators and school district leaders in their ability to effectively implement and improve upon the drug prevention strategy.

Secondly, the methodology used in this study to identify overall stakeholder attitudes toward MRSRT may aid other educational leaders in their process of vetting controversial practice and/or policies. Identifying the attitudes of stakeholders toward a controversial policy provides educational leaders actionable information that can be used for educational policy decision making. Stakeholder ownership and empowerment created by allowing stakeholder input fosters a climate of trust and success, which maximizes the opportunity for success.

This study may be of particular interest to rural area school educational leaders that are considering the addition of MRSRT to their own drug prevention program. Rhew et al. (2011) found that youth from rural areas were of a higher risk for drug use than youth from urban areas. Rhew et al. (2011) also found that there was limited access to adequate treatment and drug education for rural area students. While the current study did not provide for comparisons of rural and urban student drug use, it did find that all stakeholders had high agreeability with the need for student drug testing and also found overwhelming favor for continuing grades 9-12

MRSDT and its' expansion to grades 6-8. This may indicate that concern regarding student drug use for this rural school district may be high.

With limited access to adequate treatment and drug education for rural areas, it is critical for rural areas educational leaders to increase student drug use prevention efforts. This particular finding for this study has far reaching implications in that the disparity between urban and rural areas found in the research for this study may also exist in many other educational realms. As rural educational leaders, it is imperative that ingenuity and creativity are maximized to provide rural area students equal access to a quality education and to ensure that educational opportunities for students are not minimized due to locale.

Although there was equal access to the survey instrument, the Hispanic, Black, and male subgroups were all underrepresented proportionally compared to actual demographic percentages. The reason(s) as to why there was underrepresentation of certain groups on this survey are uncertain; however, the implications are again far reaching. Current attitudes in US politics and culture in the US, specifically toward public schools, can be characterized somewhat as polarized and mistrusting. This climate of mistrust can be an obstacle for educational leaders in building and sustaining viable educational programming for students; therefore, as educational leaders, there must be a concerted effort to ensure that all stakeholders have an opportunity to engage in the educational process in order to build stakeholder trust and collaboration.

The findings of this study regarding the SRSEG School District's MRSDT policy will add to the literature and give school administrators, specifically rural area school administrators who are considering student drug testing, additional information that may aid in their decision making.

Impact Statement

Educational institutions often enact policy that directly impacts students, school personnel, and parents, but seldom seek stakeholder input in the vetting process. This empirical study differed in that the policymakers originally believed a proper vetting process had taken place by creating the MRSDT policy with the school's governance team comprised of parents, students, and school personnel. Safety and the well-being were the main tenets of the schools governance team when creating the MRSDT policy; and, while the policy was properly vetted within the governance team, proper communication and vetting did not take place with the majority of stakeholders. Not properly vetting MRSDT allowed for a misrepresentation of the overall attitude of stakeholders toward MRSDT. However, the findings from this study provided evidence of support for MRSDT.

This empirical study not only properly vetted MRSDT, but by finding overwhelming support and high agreeability towards MRSDT, it strengthened the commitment and resolve of school and district educational leaders toward student drug use prevention. The findings from this study may help educational leaders identify processes that allow for agency, empowerment, and input while properly vetting controversial educational practice and policies. Finally, as student drug use continues to plague our communities, the findings of this study may contribute to the growing body of literature on student drug testing and student drug use prevention that may be of use to educational practitioners.

Recommendations

This study, while statistically sound, found that 285 completed surveys from a potential survey population of over 3,000. Future studies of a similar nature may want to explore research study methods to increase response rates and increase survey participation. Additionally, this study found that several subgroups were underrepresented in its survey completion. Future

studies of a similar nature may also want to research strategies to increase survey participation that mirror or accurately portray demographic representation.

The purpose of this study was to identify stakeholder attitudes toward MRSDT in the SRSEG School District. Research was found that supported this study; however, while researching literature for MRSDT, there were several related topics of interest that may be of consideration for future studies. Future research topics of consideration include the following:

- 1 Research types of student drug test programs in Georgia, including suspicion and suspicion-less drug testing, mandatory drug testing, voluntary drug testing, and testing groups (athletes, non-athletes, all student groups).
- 2 Research effectiveness of student drug testing.
- 3 Research examining the attitude of all stakeholders, including community members, toward student drug testing.
- 4 Research drug testing drug prevention programs with other drug use prevention programs.
- 5 Research athletic coaches' attitudes toward student drug testing in Georgia.
- 6 Research Georgia school superintendents' and other school leaders' attitudes toward student drug testing.
- 7 Research student drug testing policies (procedures, consequences, and communication).

Dissemination

Internal Dissemination

The major findings and recommendations of this study may be of interest to several groups. Initially, the findings from this study will be of most interest to the SRSEG School District Board of Education and grades 6-8 and grades 9-12 school leaders. The finding from this

study may have an impact on the current MRSDT Policy in that changes may be discussed and considered for future policy revisions. The findings will be presented to the SRSEG School District Board of Education members along with the grades 6-8 and grades 9-12 school administrators in the December 2019 Board Workshop. Additionally, the implications and recommendations that pertain to the SRSEG School District will be discussed in the spring of 2020 as each school prepares to recommend policy and school handbook changes for the upcoming school year.

Other groups that will be interested in the findings of this study are the SRSEG School District grades 6-8 and grades 9-12 stakeholder groups of students, parents, and school personnel. The findings of this study will be posted on the SRSEG School District's webpage for accessibility for stakeholders. In addition, during the spring of 2020, in preparation for policy and handbook revisions, these findings will be shared and discussed in the grades 6-8 and grades 9-12 school governance teams meetings. Each School Governance Team will discuss the current MRSDT policy and the findings from this study, and then make recommendations to school administrators regarding MRSDT for the 2020-2021 school year.

External Dissemination

Educational leaders in other school systems may be interested in the findings from this study as well in supporting their drug prevention program. The findings from this study may aid them in their decisions making regarding the use of MRSDT. These educational leaders will be able to access the results of this study by accessing the *Stakeholder Attitudes Toward Mandatory Student Drug Testing* (Jordan, 2019) dissertation found in the Electronic Thesis and Dissertation (ETD) for Georgia Southern University.

Concluding Thoughts

Like many, the researcher has experienced the personal and professional impact of student drug use. Loss, tragedy, and pain have plagued many school communities stemming from escalating student drug use. Educational leaders have a moral and ethical obligation not only to ensure academic success of students, but also to ensure the social success of students inclusive of being healthy and drug free. MRSDT, while controversial, is a part of many school systems drug prevention program. The growing body of literature on MRSDT remains mixed on its effectiveness of deterring student drug use, but research is aligned in that there is a significant student drug use problem that has no easy answer.

As an educational leader in 21st Century rural Georgia where resources are somewhat limited, the adverse effects of student drug use are easily noticeable, but treatment and support is not. This study revealed that regardless of the nobleness of practice, it is incumbent to educational leaders to foster stakeholder relationship, trust, and support of all stakeholders all for the purpose to provide high quality educational opportunities for students in a safe and drug free environment.

REFERENCES

- Balster, R. L., & Walsh, S. (2010). Controlled Substances Act. In I. P. Stolerman (Ed.) *Encyclopedia of Psychopharmacology*. Berlin, GR: Springer.
DOI: https://doi.org/10.1007/978-3-540-68706-1_939.
- Bennett, T., & Holloway, K. (2017). Motives for illicit prescription drug use among university students: a systematic review and meta-analysis. *International Journal of Drug Policy*, *44*, 12-22.
- Board of Ed. of Independent School Dist. No. 92 of Pottawatomie Cty. v. Earls*, 536 U.S. 822, 122 S. Ct. 2559, 153 L. Ed. 2d 735 (2002).
- Brennan, H., Kapczynski, A., Monahan, C. H., & Rizvi, Z. (2016). A prescription for excessive drug pricing: leveraging government patent use for health. *Yale JL & Tech.*, *18*, 275.
- Bush, D. M. (2008). The US mandatory guidelines for federal workplace drug testing programs: current status and future considerations. *Forensic Science International*, *174*(2-3), 111-119.
- Cannon, J. (1975). Domestic Council Drug Abuse Report Gerald Ford Presidential Library: Washington, DC: National Archives.
- Carpenter, D. H. (2012). Constitutional analysis of suspicionless drug testing requirements for the receipt of governmental benefits. *Congressional Research Service*, *9*.
- Casolin, A. (2016). Comparison of urine and oral fluid for workplace drug testing. *Journal of Analytical Toxicology*, *40*(7), 479-485.
- Conway, K. P., Vullo, G. C., Nichter, B., Wang, J., Compton, W. M., Iannotti, R. J., & Simons-Morton, B. (2013). Prevalence and patterns of polysubstance use in a nationally representative sample of 10th graders in the United States. *Journal of Adolescent Health*, *52*(6), 716-723.
- Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE publications.
- Czubaj, C. A. (1995). A legal analysis of school searches. *Education*, *115*(4), 548-553.
- Daughton, C. G. (2011). Illicit drugs: contaminants in the environment and utility in forensic epidemiology. In *Reviews of Environmental Contamination and Toxicology Volume 210* (pp. 59-110). Springer, New York, NY.
- Dunn, G. W. (2012). *Crime in the United States 2012*. Lanham, MD: Bernan Press.
- DuPont, R. L., Merlo, L. J., Arria, A. M., & Shea, C. L. (2012). Random student drug testing as a school-based drug prevention strategy. *Addiction*, *108*(5), 839-845.

- Epstein, E. J. Drug traffic is public enemy number one domestically in the United States today and we must wage a total offensive, worldwide, nationwide, government-wide, and, if I might say so, media-wide.-PRESIDENT NIXON, in remarks before media executives at the Flagship Hotel, Rochester, N. Y., June 18, 1971.
- Evans, G. D., Reader, S., Liss, H. J., Wiens, B. A., & Roy, A. (2006). Implementation of an Aggressive Random Drug-Testing Policy in a Rural School District: Student Attitudes Regarding Program Fairness and Effectiveness. *Journal of School Health, 76*(9), 452-458.
- Evans-Whipp, T. J., Plenty, S. M., Catalano, R. F., Herrenkohl, T. I., & Toumbourou, J. W. (2015). Longitudinal effects of school drug policies on student marijuana use in Washington State and Victoria, Australia. *American Journal Of Public Health, 105*(5), 994-1000.
- Fabens-Lassen, B. (2014). A cracked remedy: The Anti-Drug Abuse Act of 1986 and retroactive application of the Fair Sentencing Act of 2010. *Temp. L. Rev., 87*, 645.
- French, M. T., McCollister, K. E., Alexandre, P. K., Chitwood, D. D., & McCoy, C. B. (2004). Revolving roles in drug-related crime: The cost of chronic drug users as victims and perpetrators. *Journal of Quantitative Criminology, 20*(3), 217-241.
- Goldberg, L., Elliot, D. L., MacKinnon, D. P., Moe, E. L., Kuehl, K. S., Yoon, M., ... & Williams, J. (2007). Outcomes of a prospective trial of student-athlete drug testing: the Student Athlete Testing Using Random Notification (SATURN) study. *Journal of Adolescent Health, 41*(5), 421-429.
- Governor's Office of Student Accountability (2019, June 12). Report Card. Retrieved from <https://gaawards.gosa.ga.gov/analytics/K12ReportCard>
- Hussain, S., Khattak, Z., Mahmood, S., Malik, F., Riaz, H., Raza, S. A., & Khan, S. (2016). Microbial and chemical analysis of illicit drugs samples confiscated from different areas of Pakistan. *Pakistan Journal of Pharmaceutical Sciences, 29*(5).
- James-Burdumy, S., Goesling, B., Deke, J., & Einspruch, E. (2010). The effectiveness of Mandatory-Random Student Drug Testing. NCEE 2010-4025. *National Center for Education Evaluation and Regional Assistance*.
- Johnston, L., O'Malley, P. M., & Bachman, J. G. (2002). *Monitoring the future: national results on adolescent drug use: overview of key findings, 2001* (No. 2). National Institute on Drug Abuse, US Department of Health and Human Services, Public Health Service, National Institutes of Health.

- Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2011). Monitoring the Future national survey results on drug use, 1975-2010. Volume I: Secondary school students.
- Johnston, L. D., Miech, R. A., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2018). Monitoring the Future National Survey Results on Drug Use, 1975-2016: Overview, Key Findings on Adolescent Drug Use. *Institute for social research*.
- Kaliyadan, F., & Kulkarni, V. (2019). Types of variables, descriptive statistics, and sample size. *Indian Dermatology Online Journal*, 10(1), 82.
- Keel, R. (2005). Rational choice and deterrence theory: Sociology of deviant behavior. *Sociology*.
- Kelley-Baker, T., Moore, C., Lacey, J. H., & Yao, J. (2014). Comparing drug detection in oral fluid and blood: Data from a national sample of nighttime drivers. *Traffic Injury Prevention*, 15(2), 111-118.
- Kim, B. (2003, Summer). Marijuana or football (or the Future Farmers of America): Board Of Education V. Earls. *Harvard Journal of Law & Public Policy*, 26(3), 973-980.
- King, R. G. (1952). The Narcotics Bureau and the Harrison Act: Jailing the healers and the sick. *Yale LJ*, 62, 736.
- Lee, H. W. (2017). Taking deterrence seriously: The wide-scope deterrence theory of punishment. *Criminal justice ethics*, 36(1), 2-24.
- Levy, S., Schizer, M., & Committee on Substance Abuse. (2015). Adolescent drug testing policies in schools. *Pediatrics*, 135(4), e1107-e1112.
- Lin, S. Y., Lee, H. H., Lee, J. F., & Chen, B. H. (2018). Urine specimen validity test for drug abuse testing in workplace and court settings. *Journal of Food And Drug Analysis*, 26(1), 380-384.
- Mallory, H. P. (1989). Fourth Amendment--The Reasonableness of Suspicionless Drug Testing of Railroad Employees. *J. Crim. L. & Criminology*, 80, 1052
- Masters, M. F. (1988). Drug testing in the federal sector: The negotiability controversy. *Labor Law Journal*, 39(5), 312.
- Mason, K. (2003). Drug testing in schools: Attitudes of high school students. University of New Orleans Theses and Dissertations.23. <https://scholarworks.uno.edu/td/23>
- McCarter, S. (2017). The school-to-prison pipeline: A primer for social workers. *Social work*, 62(1), 53-61

- McMillian, J.H., & Schumacher, S. (2001). *Research in education: A conceptual introduction* (5th ed.). Boston, MA: Addison Wesley Longman, Inc.
- National Institute on Drug Abuse, (2017). Retrieved from: <https://www.drugabuse.gov/related-topics/drug-testing/faq-drug-testing-in-schools>
- Nelson, J. A., Rose, N. L., & Lutz, D. (2011). A model for random student drug testing. *Journal of At-Risk Issues*, 16(1), 1-8.
- Office of Undersecretary for Personnel and Readiness (2018). *Military drug program historical timeline*. Retrieved from <http://www.prhome.defense.gov/ForceResiliency/DDRP/timeline/>
- Olbina, S., Hinze, J., & Arduengo, C. (2011). Drug testing practices in the US construction industry in 2008. *Construction Management and Economics*, 29(10), 1043-1057.
- Rachal, P. (1982). *Federal narcotics enforcement: Reorganization and reform*. Auburn House
- Rhew, I. C., Hawkins, J. D., & Oesterle, S. (2011). Drug use and risk among youth in different rural contexts. *Health & Place*, 17(3), 775-783.
- Ringwalt, C., Vincus, A. A., Ennett, S. T., Hanley, S., Bowling, J. M., Yacoubian Jr, G. S., & Rohrbach, L. A. (2008). Random drug testing in US public school districts. *American Journal of Public Health*, 98(5), 826-828.
- Roche, A. M., Bywood, P., Pidd, K., Freeman, T., & Steenson, T. (2009). Drug testing in Australian schools: Policy implications and considerations of punitive, deterrence and/or prevention measures. *International Journal of Drug Policy*, 20(6), 521-528
- Rudd, R. A., Seth, P., David, F., & Scholl, L. *Increases in Drug and Opioid-Involved Overdose Deaths—United States, 2010–2015*. MMWR Morb Mortal Wkly Rep 65(5051):1445–52. 2016.
- Schaeffer, S. (2010). The legislative rise and populist fall of the Eighteenth Amendment: Chicago and the failure of prohibition. *JL & Pol.*, 26, 385.
- Shutler, S. E. (1995). Random, suspicionless drug testing of high school athletes. *J. Crim. L. & Criminology*, 86, 1265.
- Small, M. L., Jones, S. E., Barrios, L. C., Crossett, L. S., Dahlberg, L. L., Albuquerque, M. S., ... & Schmidt, E. R. (2001). School policy and environment: Results from the School Health Policies and Programs Study 2000. *Journal of School Health*, 71(7), 325-334.
- Steinberg, L., & Carnell, L. (2011). *Adolescent substance abuse: America's #1 public health problem*. National Center on Addiction and Substance Abuse at Columbia University, June 2011, 2-13.

- Stuart, S. P. (2010). *When the cure is worse than the disease: Student random drug testing & its empirical failure*. Valparaiso University Law Review. Valparaiso, IN: Valparaiso University Law School, 44(4), 1075.
- Substance Abuse and Mental Health Services Administration. (2017). Mandatory guidelines for federal workplace drug testing programs. *Federal Register*, 82, 7920-7970.
- Sznitman, S. R., Dunlop, S. M., Nalkur, P., Khurana, A., & Romer, D. (2012). Student drug testing in the context of positive and negative school climates: Results from a national survey. *Journal of Youth and Adolescence*, 41(2), 146-155
- Taylor, M., Sullivan, J., Ring, S. M., Macleod, J., & Hickman, M. (2017). Assessment of rates of recanting and hair testing as a biological measure of drug use in a general population sample of young people. *Addiction*, 112(3), 477-485.
- Terry-McElrath, Y. M., O'Malley, P. M., & Johnston, L. D. (2013). Middle and high school drug testing and student illicit drug use: A national study 1998–2011. *Journal of Adolescent Health*, 52(6), 707-715.
- Urdan, T. C. (2011). *Statistics in plain English*. London, UK: Routledge.
- Yamaguchi, R., Johnston, L. D., & O'Malley, P. M. (2003). Relationship between student illicit drug use and school drug-testing policies. *Journal of School Health*, 73.

APPENDIX A

SRSEG School District Stakeholder Attitudes Toward MRSDT

The current survey has been adapted from the Attitudes Toward Student Drug Testing (Mason, 2003) study that surveyed students in a small high school in New Orleans, Louisiana. However, the current study intends to survey all grades 6-12 students in the SRSEG School District and in addition to expand the survey to include 6-12 Administrators, Faculty/Staff, and Parents.

For ethical considerations, the researcher will ensure survey participant anonymity by building in procedural safeguards. Procedural safeguards are especially important for the student stakeholder group as to illicit honest feedback and to protect from undue influence for survey response. This Survey will be taken by participants in *Qualtrics* online survey system. For the adult stakeholder survey participants, continuing the survey will serve as passive consent as the participation agreement; however for minors taking this survey, parental consent and child assent will be will be required

Grades 6-12 SRSEG Stakeholders

This questionnaire consists of three sections. Section one requests survey participants' stakeholder representative identification along with a scale scoring attitudes toward drug testing programs. Section two is a series of items focusing on general personal information, and section three is two open ended questions. Please read each of the items in each section carefully and respond appropriately. There are no identification marks on this survey. Your responses are anonymous so please answer each and every item truthfully

Section I:

Which stakeholder group best represents you?

- Student 6-8
- Student 9-12
- Parent Grades 6-8
- Parent Grades 9-12
- Parent grades 6-12
- Faculty/Staff Grades 6-8
- Faculty/Staff Grades 9-12
- School Administrator Grades 6-8
- School Administrator Grades 9-12

Directions for Questions 1-16. You are asked to respond to each of the following sixteen (16) statements by indicating the extent to which you agree or disagree. To respond, click on the level of agreement or disagreement that you most agree with.

Please use the following scale to indicate your response:

	1 Strongly Disagree (SD)	2 Disagree (D)	3 Agree (A)	4 Strongly Agree (SA)		
			SD	D	A	SA
1. Drug use is a significant problem for students			1	2	3	4
2. There is no real need for drug testing in schools.			1	2	3	4
3. Drug tests accurately differentiate drug users from non-users.			1	2	3	4
4. Drug Testing should test for all drugs, including alcohol.			1	2	3	4
5. Drug testing gives students a legitimate reason to resist using illegal drugs.			1	2	3	4
6. Drug testing decreases illegal drug use among students.			1	2	3	4
7. Drug testing is helpful.			1	2	3	4
8. Schools do not have the right to drug test students.			1	2	3	4
9. Drug tests are accurate.			1	2	3	4
10. Drug testing contributes to a safe school.			1	2	3	4
11. Drug testing is <u>not</u> fair.			1	2	3	4
12. Drug testing creates student to school mistrust.			1	2	3	4
13. Every middle or high school student should be drug tested.			1	2	3	4
14. A drug testing program creates a favorable impression of the school.			1	2	3	4
15. Drug testing is humiliating.			1	2	3	4
16. The results of a drug test should be kept			1	2	3	4

confidential.

Section II

Directions for Section II. This section consists of ten (10) questions that focus on personal information. Please respond to each question by checking the response that most accurately reflects your background or characteristics.

1. What is your gender (sex)?
 - Male
 - Female

2. What is your (or your child's) current grade level? (Parents and Students Only)
 - Grade 6
 - Grade 7
 - Grade 8
 - Grade 9
 - Grade 10
 - Grade 11
 - Grade 12

3. What is your ethnic background?
 - American Indian/Alaskan Native
 - Asian/Pacific Islander
 - Black (not of Hispanic Origin)
 - Hispanic
 - White (not of Hispanic Origin)
 - Other

4. Do you know anyone who has ever been tested for drugs at school?
 - Yes
 - No

5. To the best of your knowledge, do you know if any student(s) has used illegal drugs in the past month?
 - Yes
 - No

6. To the best of your knowledge, do you know if any student(s) has consumed alcohol in the past month?
 - Yes
 - No

7. Are you (or your child) involved in any extracurricular activity at school? (Parents and Students Only)
 - Yes
 - No

8. Should student drug testing continue in grades 9-12?
 - Yes
 - No

9. Should student drug testing be expanded to include grades 6-8?
 - Yes
 - No

10. Does student drug testing help deter student drug use?
 - Yes
 - No

Section III (Open Response Items)

1. What additional thoughts on student drug testing program would you like to provide?
2. What recommendation for program improvement do you have for student drug testing?

APPENDIX B

**SRSEG SCHOOL DISTRICT'S MANDATORY RANDOM
STUDENT DRUG TESTING POLICY**

The Board of Education believes that the use and abuse of drugs and alcohol are detrimental to the physical, emotional, and mental health of the school system's students. Also, the use and abuse of drugs and alcohol seriously interferes with the academic and extra-curricular performances of students as well as students' ability to drive which can pose a danger to the student as well as others. Because of these concerns, the Board has adopted the following goals and procedures for students participating in extra-curricular activities and parking permit holders (beginning with the 2016-17 school year). Goals of the MRSDT Screening Program:

- 100% of SRSEG School District Students to abstain from Drugs and Alcohol.
- Give students another reason to stay away from drugs and anyone who uses drugs.
- Produce students who serve as positive role models, influencing their peers to make healthy and responsible choices.
- Seek to encourage students to remain substance-free and establish appropriate habits at an early age.
- Deter the use of illegal drugs in our community.
- Develop a positive, working relationship with parents and guardians to make them aware that their child may be using drugs, and identify the drugs, as well as provide referrals for counseling and treatment.

Testing Procedures

1. At the beginning of the school year, students who are interested in participating in extracurricular activities (sports, clubs, etc.) at any time during the year or would like to purchase a parking permit must sign a consent form which authorizes the school to administer drug testing and allows the results of the test to be released to parents/guardians, administrative officials, and the head coach/club sponsor of the extracurricular team(s) with which the student participates. Specific test result information will be released to the student and the parent/guardian. Only the positive or negative test reading will be shared with the head coach/club sponsor. The school will not release testing results to anyone other than previously mentioned. *Note:* A signed consent form (for participation in the drug screening program), signed by student and parent/guardian, is a requirement for participation in all SRSEG High School activities that are considered extracurricular. Extracurricular activities are identified as athletics, clubs, and any other and all groups that are deemed outside of the normal mandatory four classes a day.
2. The procedures for testing parking permit holders are the same as for students participating in extracurricular activities. To park on campus, a student must complete a parking permit application. As a part of the application, students must sign that they agree to the following statement: *I understand that as a parking permit holder at SRSEG High School, I am subject to random drug screening as administered by the school. I also understand that parking on campus is a privilege and that it may be suspended or*

withheld from me if I do not meet the requirements set forth in the SRSEG School District's drug screening policy.

3. Random testing will take place monthly throughout the school year at the school's expense with students chosen through lottery/random selection.
4. Each month, the laboratory used by the school will select numbers anonymously from those in the pool and notify SRSEG administration of students to be tested. The substances that will be tested include: amphetamines, barbiturates, marijuana, cocaine, opiates, propoxyphene, ppx, pcp, bar, and mtd.
5. Testing consists of providing a urine sample to the laboratory. A school nurse or designee will supervise students, but will not administer the test. The school will not release confidential student testing information to any individual that is not specifically entitled to receive the testing results pursuant to the provisions of this protocol. Specimens will be processed for identity and secured to ensure against tampering.
6. Test results will be reported to the school through the proper chain of command. Attempts will be made to notify all parents or guardians of students tested within a 24 hour period. In case of a positive result, the parent or guardian will be notified and a conference scheduled.
7. Students who take medication must complete and submit a form delineating any medication that she/he is currently taking immediately prior to testing.
8. There will be one pool of student numbers from which the student numbers will be selected. The pool will consist of parking permit holders and all students involved in any and all extracurricular school activities.
9. A student's refusal to test will be considered a positive test result.

What Happens If Someone Tests Positive?

1. If a positive reading is returned for a student, the parents or guardians, the student and the head coach will be notified. The student will be suspended for 10% of the team's regular season contests or performances beginning with the next scheduled game (this could be a playoff game(s) or a game in the following season; it does not include practice scrimmages).
2. If a positive reading is returned for a student that is participating in clubs, the parents or guardians and the student and the club sponsor will be notified. The student will be suspended for 10% of the clubs contests, performances or activities beginning with the next scheduled event.
3. Students participating in extracurricular activities may remain a part of the team and will be expected to participate in team practices.
4. Students with parking permits will be suspended from driving to school for 18 consecutive school days (10% of the year) beginning with the next school day.
5. The student and parents must provide evidence of evaluation /enrollment in drug counseling as approved by the Principal.
6. The student will be drug tested again within reasonable period of time that would allow for the tested drug to be out of the system and at the family's expense.

Second Positive

1. If a student has a second positive screen, the parents or guardians and the student will be notified. The student will be suspended from the extracurricular organization for four (4)

weeks and/or driving privileges at the time of notification. A meeting will be scheduled with the parents or guardians, the student, the Principal, the head coach and/or club sponsor, and the athletic director (as applicable) to arrange the following:

- A. Agree to participation in a drug treatment and counseling program on a regular basis for a minimum of four weeks. Parents or guardians are expected to participate in the program as well.
- B. Sign an agreement that releases SRSEG School District from any liability for injury or illness resulting from drugs and /or treatment.
- C. May apply for reinstatement to the team/club and/or for driving privileges after a minimum of four (4) weeks if the following provisions are met:
 - a. test negative on follow-up drug screen;
 - b. agree to continue with drug counseling if deemed necessary;
 - c. agree to be subjected to future testing on demand at the student's expense; and,
 - d. understand that the application for reinstatement may be denied. The Principal, head coach, athletic director, or club sponsor will decide on reinstatement.

Third Positive

1. A third positive screen will result in suspension from all extra-curricular activities for one (1) calendar year from date of result. Parents or guardians and students will be notified immediately. Continued counseling and treatment during the year of suspension is expected with periodic testing at family's expense. Reinstatement procedures will remain constant, meaning they will have to go through the re-instatement process outlined in the Second Positive.
2. A student who is an athlete, a parking permit holder and or club member will lose all privileges during any time of suspension.

Clarifications and Explanations

1. In the event the student believes this policy has not been applied to him/her in a manner consistent with the intent, the parents or guardians may appeal the decision to the Principal of their school within 72 hours of a positive test result, and the Principal's decision in this matter shall be final.
2. This procedure is intended to supplement the existing policies of the SRSEG School District and the Georgia High School Association regarding the governance of interscholastic athletics. Administrators will not use test results obtained pursuant to this policy for disciplinary or other purposes, other than as set forth above.
3. Parents (guardians) of a student testing positive may request to have their student tested at their expense.
4. This policy is not a part of the disciplinary code but is relative to student possessing a parking permit and/or participating in extracurricular activities.
5. There is not an appeal process as this policy affects participation and not discipline; therefore, the decision of the high school Principal is final in all matters regarding this policy.

6. If all suspension requirements are not fulfilled by the end of the season, then the student in question will complete his or her suspension in the next extracurricular activity in which he/she participates.

APPENDIX C

SRSEG SCHOOL DISTRICTS SURVEY QUESTIONS & VARIABLES CORRELATION

Table C.1

Stakeholders Attitudes Toward Student Drug Testing Survey Questions, and Variables

<u>Item #</u>	<u>Question</u>	<u>Variable</u>
1.	Drug use is a significant problem for students	Drug Experiences
2.	There is no real need for drug testing in schools.	Drug Experiences
3.	Drug tests accurately differentiate drug users from non-users	Drug Experiences
4.	Drug testing should test for all drugs, including alcohol.	Testing Process
5.	Drug testing gives students a legitimate reason to resist using illegal drugs.	Drug Use Deterrent
6.	Drug testing decreases illegal drug use among students.	Drug Use Deterrent
7.	Drug testing is helpful.	Drug Use Deterrent
8.	Schools do <u>not</u> have the right to drug test students.	Legality
9.	Drug tests are accurate.	Testing Process
10.	Drug testing contributes to a safe school environment.	School Integrity
11.	Drug testing is <u>not</u> fair	Testing Characteristics
12.	Drug testing creates mistrust among students	Adverse Effect
13.	Every Middle or high school student should be drug tested.	Testing Characteristics
14.	A drug testing program creates a favorable impression of the School	School Integrity
15.	Drug testing is humiliating	Adverse Effect
16.	The results of a drug test should be kept confidential	Testing Process

Note: Section I: Survey participants identify the level of agreeability on the 4 point Likert Scale for the following statements by identifying either “strongly disagree”, “disagree”, “agree”, or “strongly agree”

Table C. 2

Stakeholder attitudes Toward Student Drug Testing Survey Questions, and Variables

<u>Item #</u>	<u>Question</u>	<u>Variable</u>
1.	What is your gender?	Demographics
2.	What is your current grade (students only)?	Demographics
3.	Ethnic Background	Demographics
4.	Do you know anyone who has ever been tested for drugs at school?	Drug Experiences
5.	To the best of your knowledge, do you know if any students used any illegal drugs in the past month?	Drug Experiences
6.	To the best of your knowledge do you know if any student consumed alcohol in the past month?	Drug Experiences
7.	Are you involved in any extracurricular activity at school?	Extracurricular Participation
8.	Should student drug testing continue in grades 9-12?	Testing Characteristics
9.	Should student drug testing be implemented in grades 6-8?	Testing Characteristics
10.	Drug Testing helps me not to use drugs?	Drug Use Deterrent
11.	Which stakeholder group best represents you?	Demographics

Note: Section II consists of eleven (11) questions that focus on some personal information

Table C. 3

Stakeholder Attitudes Toward Student Drug Testing Survey Questions, and Variables

<u>Item #</u>	<u>Question</u>
1.	What additional thoughts on student drug testing program would you like to provide?
2.	What recommendations for program improvement do you have for student drug testing?

Note: Section III consists of 2 Open Response for survey participants

APPENDIX D

Georgia Southern University Institutional Review Board Letter of Approval

Georgia Southern University Office of Research Services & Sponsored Programs Institutional Review Board (IRB)		
Phone: 912-478-5465		Veazey Hall 3000 PO Box 8005 Statesboro, GA 30460
Fax: 912-478-0719	IRB@GeorgiaSouthern.edu	

To: Jordan, John

From: Office of Research Services and Sponsored Programs

Initial Approval Date: 8/7/2019

Expiration Date: 7/31/2020

Subject: Status of Application for Approval to Utilize Human Subjects in Research –
Expedited Review

After a review of your proposed research project numbered H20016, and titled “Stakeholder Attitudes Toward Student Drug Testing,” it appears that (1) the research subjects are at minimal risk, (2) appropriate safeguards are planned, and (3) the research activities involve only procedures which are allowable. You are authorized to enroll up to a maximum of 3125 subjects.

Therefore, as authorized in the Federal Policy for the Protection of Human Subjects, I am pleased to notify you that the Institutional Review Board has approved your proposed research.

Description: The purpose of this study is to broadly examine the role of the law in companies' international strategies.

If at the end of this approval period there have been no changes to the research protocol; you may request an extension of the approval period. In the interim, please provide the IRB with any information concerning any significant adverse event, **whether or not it is believed to be related to the study**, within five working days of the event. In addition, if a change or modification of the approved methodology becomes necessary, you must notify the IRB Coordinator **prior** to initiating any such changes or modifications. At that time, an amended application for IRB approval may be submitted. Upon completion of your data collection, you are required to complete a *Research Study Termination* form to notify the IRB Coordinator, so your file may be closed.

Sincerely,



Eleanor Haynes
Compliance Officer

APPENDIX E

EXPLORATORY FACTOR ANALYSIS

Pattern Matrix^a

	Factor		
	1	2	3
Drug use is a significant problem for students	.312		
There is no real need for drug testing in schools.		.347	
Drug tests accurately differentiate drug users from non-users			-.463
Drug testing should test for all drugs, including alcohol.	.570		
Drug testing gives students a legitimate reason to resist using illegal drugs.			-.648
Drug testing decreases illegal drug use			-.701
Drug testing is helpful	.536		
Schools do NOT have the right to drug test students.		.549	
Drug testing contributes to a safe school.	.399		
Drug testing is not fair.		.614	
Drug testing creates student to school mistrust.		.700	
Every middle or high school student should be drug tested.	.751		
Drug testing is humiliating.		.584	

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 9 iterations.