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This dissertation, directed and approved by the candidate's committee, has been accepted by the College of Graduate and Professional Studies of Abilene Christian University in partial fulfillment of the requirements for the degree

## **Doctor of Education in Organizational Leadership**



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Dr. Joey Cope, Dean of the College  
of Graduate and Professional Studies

Date: November 19, 2019

Dissertation Committee:



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Abilene Christian University  
School of Educational Leadership

Relationships Between Education Track, Adverse Childhood Experience, and Recidivism  
Among Juveniles

A dissertation submitted in partial satisfaction  
of the requirements for the degree of  
Doctor of Education in Organizational Leadership

by  
Catherine Gammage  
January 2020

## Dedication

This dissertation is dedicated to my husband Willie Gammage, who encouraged me and would not allow me to give up when the journey became extremely difficult when family and friends did not understand my time commitments. Willie, your support and love inspired me to complete this research. Thank you for loving me and not giving up on us.

### Acknowledgements

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Last but not least, I thank Fred and Chiwine Harris, my parents, for their continued support. Each at different times has given me the strength and motivation to never give up when you are on a journey.

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## Abstract

A high recidivism level, despite attempts by regulatory agencies and various institutions to decrease it, is currently a disturbing problem of the juvenile justice system. Adjudicated youth released from residential treatment centers are often reincarcerated within 3 years after their release. Residential treatment centers provide mandated educational and treatment services for all incarcerated youth. The educational programs offered by residential treatment centers should include academic and career technology programs which support community reintegration. The opportunity for students to receive a high school diploma and industry certifications for career readiness is an important way to decrease recidivism for juveniles. This study sought to establish if there were obvious associations between recidivism, educational tracks, adverse childhood experiences, hometown, and a checklist criterion termed IVALIDATE for students enrolled in a Mid-Atlantic region residential treatment center. A total of 200 randomly sampled treatment center records were analyzed in the study. The research findings confirm that students in vocational education had lower recidivism compared to students in general academics, but only if their adverse childhood experiences scores were low. IVALIDATE completers also showed lower recidivism than noncompleters if their childhood experiences scores were low. If the score was high, students from Baltimore showed higher recidivism than students from other hometowns. These results warrant further study by policymakers and criminal specialists who must improve and execute programs to help juveniles develop into positive, independent contributors to the labor force and civilization.

*Keywords:* juveniles, adjudication, recidivism, residential treatment center, adverse childhood experiences

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## **Chapter 1: Introduction**

One of the key interests in juvenile residential treatment centers (RTCs) is the frequency of reoffending when a juvenile is discharged (James, 2015). According to James (2015), “Recidivism is an important measure of how well an RTC is able to reintegrate juveniles safely into the community” (p. 19). Many RTCs assist committed youth with their treatment goals while they are enrolled in a program. RTCs also provide aftercare assistance to support discharged youths when they return home to their communities (Cook, Kang, Braga, Ludwig, & O’Brien, 2015). However, committed youth are returned to jail and or juvenile facilities within 2 or 3 years of their release (Miller & Miller, 2015). In contrast, only 13% of institutions emphasize educational programming (U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention, 2014).

The growth in the recidivism rate is an alarming problem of the juvenile correctional system even though attempts are made by regulatory agencies and other institutions to reduce it (Cooper, Durose, & Snyder, 2014). There is an obligation to identify additional practices and support systems to reinforce the usefulness of community reintegration and RTC recovery plans that effectively reduce recidivism and improve vocational and academic programs while also offering counseling to deal with adverse childhood experiences (ACEs), substance abuse, and family issues (Polaschek, 2012). If an RTC program is aware of the juveniles’ greatest risks and the need for a more individualized approach, it will include resources that reinforce successful community reintegration. This may also result in program directors who are better prepared to develop instructional executives, case managers, and neighborhood liaisons who help juveniles with reintegration as upstanding community members (Cook et al., 2015).

Despite recent decreases in the juvenile population, recidivism is still a reoccurring event

within the juvenile correctional system after these offenders are discharged (James, 2014). The government's effort to reestablish offenders for reentry into their communities as upstanding residents has been undertaken, but high recidivism rates are still a challenge confronting juvenile correctional organizations (Cooper et al., 2014; Glaze & Kaeble, 2014; Miller & Miller, 2015). It has been demonstrated that a number of influences such as "entry to vocational and academic instruction, work, adverse childhood experiences, counseling, and treatment for substance and family abuse might influence recidivism among ex-offenders" (Mears & Mestre, 2012, p. 12). James (2015) indicated that, "Society's opinions of ex-juvenile offenders inhibit them from continuing or altering the directions of their lives in a positive direction" (p. 19). Ex-juvenile offenders' life navigation after commitment is affected by school and job opportunities as well as family and growth limitations they experience in their communities (Cook et al., 2015). Reentry and residential treatment center rehabilitation programs for juveniles seek to eliminate leading factors that result in reoffending behaviors by identifying appropriate tools and support that assist offenders during their transition back to their neighborhoods (Miller & Miller, 2015).

The participants in this study were enrolled in vocational and academic tracks based on age, grade-level equivalency, credit attainment, and graduation requirements. Students with fewer credits are typically placed on academic tracks to complete necessary core class requirements. Those who have completed these requirements are more likely to be assigned to vocational tracks. Students also have an opportunity to choose a vocation or play sports during the final period of the school day. Most students choose to participate in sports, but some opt to take a vocational class. In this research, the vocational group included any student who had exposure to a vocational education track.

Researchers are recognizing that detailed attributes of programs, such as vocational and

academic preparation and assignment, rigorous substance abuse treatment, adverse-childhood-experience mental health treatment, and reunification with families, have been effective in tackling the issues of recidivism (Bushway & Apel, 2012; Fontaine, Gilchrist-Scott, Roman, Taxy, & Roman, 2012; Glaze & Kaeble, 2014; Latessa, 2012). This investigation will examine data on both individual risk factors and the programs experienced during incarceration in relation to subsequent outcomes. It is expected that some programs may produce higher rates of success than others (Clark, 2014). Specifically, it is conjectured that vocational education has special value in reducing recidivism (Hall, 2015).

### **Statement of the Problem**

The leading results of crimes are intertwined with the spending of U.S. tax dollars. These crimes are influenced by events, such as the loss of property, judgement charges, and a range of lawful expenses (Cullen, Jonson, & Nagin, 2011). As of 2016, the U.S. Department of Justice, Office of Justice Programs (2018) reported that youth detention facilities and jails nationwide had more than 10.6 million inmates. More than one-half million juveniles are discharged from RTCs and jails yearly. These one-half million juveniles are added to the five million ex-offenders who are on supervised probation (James, 2015). Sponsored activities and programs are held by the government to prepare discharged juveniles to reestablish themselves as productive residents (James, 2015).

Despite the multitude of efforts to reintegrate ex-offenders back into their communities, the Bureau of Justice Statistics (BJS) has shown that “recidivism rates are still high, with approximately 67.8% of released prisoners facing arrests for new crimes within three years and 76.6% rearrested within five years” (Glaze & Kaeble, 2014, p. 9). Additionally, “more than 30% of all juveniles released are arrested within five years and return to RTCs or jails within the first

six months” (Durose, Cooper, & Snyder, 2014, p. 1). Subsequently, “juveniles’ reentry is one of the most significant challenges for the criminal justice system today” (Miller & Miller, 2015, p. 212).

It is estimated that 73% of citizens returning from commitments and jail to Baltimore reoffend within 3 years of release (Miller & Miller, 2015; Weaver, 2014). Juveniles and adults in Baltimore face specific and often significant needs when they are released from jail (Weaver, 2014). Surveys of people leaving RTCs and jail have documented needs of employment assistance, drug and alcohol abuse treatment, counseling for traumatic juvenile incidents, and psychological services (Weaver, 2014). The site of this research, an RTC in the Mid-Atlantic region, has a substantial number of Baltimore city students assigned to this juvenile residential facility.

Dadashazar (2017) reported that Prince and Butters, in their 2013 publication, maintained that, regardless of the extensive studies of recidivism, there remained a need to recognize the major risks and intermediate targets to assist in decreasing opportunities to reoffend. Further, research is needed on the efficacy of recovery and reentry services in RTCs, including the value of emotional stability and additional programs for decreasing reoffending (Cook et al., 2015). Dadashazar (2017) discussed the investigations of Anstiss, Polaschek, and Wilson (2011) and Barros-Bailey et al. (2009), which found that high risk factors, such as traumatic childhood experiences, affect recidivism, and that providing public programs and services, such as psychological therapy, advocacy therapy, and reentry gatherings, helped improve issues that either impeded or facilitated young people’s recovery and reentry as productive citizens.

In this research, a measure of ACEs will be examined as a predictor of recidivism. This measure is strongly motivated by general strain theory which is discussed in the literature review.

During review of previous studies of vocational education opportunities and risk factors identified by juveniles who are successful with a program, I was able to identify an important finding in the literature review—vocational education has been shown to result in lower recidivism than general academics (Davis & Michaels, 2015). Therefore, the problem that the study addressed was whether and to what extent there was differential success of juveniles in specific program tracks at one juvenile residential treatment center.

### **Purpose of the Study**

The main objective of this ex post facto prediction was to disclose whether the differential success rate, favoring vocational over general programming, could be replicated using data from an RTC offering both vocational education and academic education tracks. In addition, I examined relationships between recidivism and hometown and other demographic variables. This study provided a relatively controlled comparison. The results also provided formative program evaluation data for the RTC to guide future decisions about programming.

Records were available at the RTC for the years 2012 to 2018 that included data on student characteristics, ACEs, clinical and academic status and progress, program of study or training, and measures of success both within the school and after graduation. Data were extracted from these records to examine predictors of recidivism and measures of program progress, which I discuss in more detail in Chapter 3. The security and confidentiality of the data were ensured by both research precautions and institutional practices. Through this study I hoped to verify the efficacy of specific program or track assignments and subsequently bring awareness to the juvenile justice system of the need for professional development regarding the programming needed for working with juveniles currently enrolled in RTCs and ex-juvenile offenders discharged from RTCs.



## Research Questions

In alignment with the goal of this investigation, I investigated the following research questions:

**RQ1.** Is there a statistically significant relationship between tracks (vocational vs. academic) and recidivism (felony, misdemeanor, or no recidivism)? The predictor and criterion variables are categorical, so chi-square tests were used to examine this relationship for the whole sample and separately for high-ACE and low-ACE students. In each of these three cases, the null and alternative hypotheses corresponding to the statistical analysis are as follows:

**H<sup>0</sup>.** There is no statistically significant relationship between track and recidivism.

**H<sup>a</sup>.** There is a statistically significant relationship between track and recidivism.

**RQ2.** Is there a statistically significant relationship between IVALIDATE completion (Yes versus No) and recidivism? The predictor and criterion variables are categorical, so chi-square tests were used to examine this relationship for the whole sample and separately for high-ACE and low-ACE students. In each of these three cases, the null and alternative hypotheses corresponding to the statistical analysis are as follows:

**H<sup>0</sup>.** There is no statistically significant relationship between IVALIDATE completion and recidivism.

**H<sup>a</sup>.** There is a statistically significant relationship between IVALIDATE completion and recidivism.

**RQ3.** Is there is a statistically significant relationship between hometown (Baltimore vs other) and recidivism. The predictor and criterion variables are categorical, so chi-square tests were used to examine this relationship for the whole sample and separately for high-ACE and low-ACE students. In each of these three cases, the null and alternative hypotheses corresponding

to the statistical analysis are as follows:

**H<sub>0</sub>.** There is no statistically significant relationship between hometown and recidivism.

**H<sub>a</sub>.** There is a statistically significant relationship between hometown and recidivism.

### **Definition of Key Terms**

**ACE Score.** This score, derived from the ACE assessment, is an evaluation of a person's traumatic juvenile incidents. The instrument was established by the Centers for Disease Control and Prevention (Merrick et al., 2017).

**Adjudication.** This is a court procedure to determine if a youth has committed a delinquent act or violation of law (Kang, Braga, Ludwig, & O'Brien, 2015); however, judgement of delinquency is withheld, whereas the court may place the juvenile under community control or other similar community programs (Abrams & Snyder, 2013).

**Adverse childhood experiences (ACE).** According to Baglivio et al. (2014), "These are stressful or traumatic events, experienced in childhood that may include emotional abuse, physical abuse, sexual abuse, emotional neglect, physical neglect, violent treatment towards mother, household substance abuse, household mental illness, parental separation or divorce, and an incarcerated household member" (p. 1).

**Aftercare.** A selection of services and stages of care and custody succeeding a length of stay after a placement or incarceration to a residential facility. During aftercare, the adolescent is directed and managed by the juvenile magistrate and will have an appointed probation officer or aftercare worker (U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention, 2014).

**Childhood maltreatment.** Cruelty and negligence of a child under the age of 18 by a family member or another person in a supervisory role (e.g., clergy, coach, teacher) constitutes

childhood maltreatment. There are four common classifications of abuse: bodily harm, sexual, cognitive, and abandonment (Cicchetti, 2013).

**Commitment.** Commitment is a term designating assignment of a youth by the Department of Juvenile Justice after a crime has been committed. Commitment assignments extend from secured to hardware to high-risk criminal placement, which is comparable to transferring a sentenced offender to a correctional institution (Monahan, Vanderhei, Bechtold, & Cauffman, 2014).

**Community corrections.** This consists of an advanced method for youth custody that proposes a comprehensive range of treatments and plans, including adjudication places, group homes, drug and alcohol treatment centers, compensation for crimes committed, and highly structured nonresidential day programs (Crime and Justice Institute at Community Resources for Justice, 2009).

**Continuum of care.** A continuum of care consists of an inclusive range of youth treatments and plans extending from the least invasive, helping adolescents in jeopardy of criminal behavior, to the greatest offense, helping juveniles deemed a high risk to the community in secure residential settings (Crime and Justice Institute at Community Resources for Justice, 2009).

**Delinquency prevention programs.** These are prevention efforts and plans intended to redirect adolescents in danger of incarceration (Crime and Justice Institute at Community Resources for Justice, 2009).

**Department of Juvenile Justice.** This federal department includes several counseling and probation programs, jails, alternative schools, and prisons that serve students who have been arrested. The Department of Juvenile Justice has become a reservoir for youth of color who are

unfortunate targets of inadequate care from society, the community, family, and other organizations charged with this responsibility (U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention, 2014).

**Detention.** Detention consists of youth incarceration by the local or state government agencies to a locked institution. The youth may also be on house arrest while awaiting a judgement, sentencing, or postdeposition detention (U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention, 2014).

**Detention center.** A detention center is a public or private residential facility that restricts the activities of juveniles who are imprisoned. A center is used for the transitory assignment for adolescent suspected of breaking the law (Foley, 2001).

**DOB.** This is the abbreviation for the date of birth.

**Duration.** The length of stay or duration at the RTC is expressed in months.

**Group home.** According to the U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention (2008),

A group home is an unrestricted community-based facility in which juveniles are allowed general contact with the community, such as attending school or holding a job....Group homes are considered less restrictive than juvenile detention centers but more restrictive than family foster care placements.

**Home.** Home, in this study, denotes a juvenile's hometown. In this research most of the records are from Baltimore and the District of Columbia with smaller numbers from Philadelphia, PA, and Prince George's County, MD, and other localities.

**INVALIDATE.** INVALIDATE is an acronym coined by Rite of Passage's academic model inclusive of a strength-based approach for skill development and opportunities for students to

succeed. *I* represents the individual; *V* represents vocation; *A* represents activities; *L* represents life skills; *I* represents individual strengths; *D* represents demonstrated behavior change; *A* represents aftercare; *T* represents treatment; and *E* represents education (Rite of Passage, 2015). As a marker of youth progress, the term IVALIDATE signifies the completion or noncompletion of the RTC's program standard. This variable is coded pass/fail although it consists of several components.

**Juvenile delinquency.** Behavior exhibited by a youth marked by a violation of law, constant malice, antisocial behavior, disobedience, or difficulty as to prevent correction by parents and to create a matter for action by the juvenile courts is considered juvenile delinquency (U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention, 2014).

**Low socioeconomic.** This term indicates a lower financial and community assessment of an individual's employment skill level and of a person's financial and public situation relative to community members, established on salary, knowledge, and profession (Rekker et al., 2015).

**Protective factors.** These are types of influences and positive factors that decrease the effect of threatening influences in a young person's life, such as positive character traits, strong social relationships, positive self-esteem, and conflict resolution skills (Kilpatrick, Acierno, Saunders, Resnick, & Best, 2000).

**Recidivism.** This variable is measured by committing unlawful activities that prompt an individual to return to jail or prison during a 3-year period after an offender's release (Bureau of Justice Statistics, 2016).

**Residential treatment programs.** An assigned juvenile facility, or RTC, is where adjudicated students live on campus to receive therapy for drug addiction, psychological disability, or other social issues (Crime and Justice Institute at Community Resources for Justice,

2009).

**Risk.** This term is a verbal assessment of students' risk to reoffend as estimated by the clinicians at the RTC.

**Risk factors.** Risk factors are high-risk influential actions or conditions in a youth's lifetime that place the youth in jeopardy for committing adolescent crimes. These circumstances or actions include residing in low socioeconomic areas where schools have a low property tax base, crime is high, and health conditions are deplorable. These negative influences are labeled into four domains: community, family, school, and individual/peer (Kilpatrick et al., 2000).

**Status offenses.** Non-criminal offenses that include excessive absenteeism from school, leaving home without permission, drinking underage, smoking cigarettes underage, and defying parents' rules on what time to come home (U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention, 2014).

**Students with disabilities.** These are students with cognitive learning or emotional disabilities (Koo, 2015).

**Track.** A track is the chosen educational path, which is either vocational or academic. Each student in the population can be classified as either vocational or academic. Vocational tracks include project-based learning activities in a practicum setting with opportunities for internships and apprenticeships. Academic tracks include classroom instruction through lectures, discussions, and written assessments.

**Trauma.** A trauma consists of a very difficult or unpleasant experience that causes a juvenile to have mental or emotional problems that normally set in after a stressful aggressive incident. Juveniles may acquire alarming apprehension or severe stress anxiety (Glantz, Harrison, & Cable, 2017).

**Vocational education.** This is a skills-based type of education aimed at creating skills and capabilities to obtain a job or to increase skills and which result in receiving the relevant skills certification (Hall, 2015).

**Youth apprenticeship.** A youth apprenticeship trains students in their preferred high interest areas with specific skills and knowledge relating to their career choice after or during high school. The apprenticeship may be paid or unpaid and provides exponential experiences and value (Vernick & Reardon, 2001).

**Work experience.** An experience that affords a person a chance to acquire the talents and skills needed to work in an occupation, including soft skills and task-specific skills needed to accomplish the vision of an organization (Vernick & Reardon, 2001).

## Chapter 2: Literature Review

In this chapter, I provide a comprehensive framework of the investigative issue discussed in Chapter 1. This chapter begins with an introduction to Agnew's (1992) general strain theory and its implications for delinquency, and then it gives information on juvenile RTC programs and, specifically, the education services juveniles receive while committed. Next, I provide an overview of the ACEs, a contributing cause of delinquency according to general strain theory. The problem of recidivism and factors that affect it is reviewed. General strain theory seems to imply that re-exposure to strain may be a contributing cause of recidivism. If this is true, then the programs that prepare an offender to successfully cope with strain would be the factors likely to reduce recidivism. The next part of the review focuses on the influence of vocational and education services provided by RTC programs and proposes that vocational programs offer individuals a stronger set of coping skills for handling post-release strains.

The literature review includes the use of numerous electronic resources and investigative portals, including peer-reviewed articles, executive editorials, periodicals, and dissertations from various interdisciplinary records and scholarly directories, such as Google Scholar, Academic Search Complete, ProQuest Digital Dissertations & Theses Global, ProQuest Nursing and Allied Health Source, and the Psychology and Behavioral Sciences Collection. Related and leading words searched in this investigation included the following: *recidivism, inspiring influences, residential treatment center, vocational education, delinquency contextualized learning, offender reentry, adverse childhood experiences, disabilities, childhood trauma, juvenile treatment centers, detention centers, group homes, risk levels, protective factors, and mental counseling*. Approximately 85% of the investigative resources used were from 2012–2016; the rest were important resources and other previous resources that consisted of material appropriate to this



investigation including those that endorsed the theoretical framework (Dadashazar, 2017).

### **Theoretical Framework**

The theoretical framework supporting this investigation is the general strain theory (Agnew, 2001). This theory highlights that delinquency occurs when people are unable to accomplish their purposes in life through legal and reasonable channels (Agnew, 2001). It proposes that “strains or stressors increase the likelihood of negative emotions like anger and frustration” (Agnew, 1992, p. 319). People with lower educational achievement, poverty, and poor health have issues that prevent them from accomplishing success and prosperity through hard work, determination, and initiative. This is because of decreased educational success, higher dropout rates, and gaps in learning. The disappointment and dissatisfaction that transpires from not being able to achieve this success strengthens the probability of criminal behavior.

Juveniles and adults will attempt to get monetary success through activities that reduce strain immediately, such as stealing and selling drugs, striking out at others in their anger, or concentrating on goals that promote crime (Agnew, 2001). Agnew indicated that “for some people, the strain builds up to the point where the person will commit a criminal offense to get rid of the strain” (2001, p. 322). For example, a juvenile may solve the pressure of a monetary situation by committing a robbery or alleviating adverse feelings by drinking or smoking. The strain that leads to crime and substance abuse is also a potential threat to academic progress and success.

According to Agnew (2001), there are three main types of strain. Agnew indicated, “The first type pertains to the failure to achieve positively valued goals” (p. 320). This could develop when opportunities and goals are not aligned. Agnew maintained, “The second type relates to the elimination of positively valued stimuli from the individual” (p. 320). Illustrations of this include

the death of a friend, loss of employment, or a breakup. The third type pertains to strain resulting from negative stimuli, for example, ACEs (Agnew, 2001). Any of these types of strain may contribute to criminal behavior, as suggested by Broidy (2001).

These behaviors may result in incarceration. In our society incarceration does not always succeed because many released offenders reoffend and return to detention, jail, or prison facilities. It is very possible that, upon release, former offenders encounter the same strains that led to their first incarceration. How can the time spent in detention, lockup, or confinement be used to better equip the person to deal with strain? An implication of general strain theory is that an educational program should be chosen for its ability to reduce strain.

Recidivism in the country remains a significant problem (James, 2014). Researchers agree that recidivism is a problem that transcends the judicial and prison systems as well as humanity as a whole (Glaze & Kaeble, 2014; Miller & Miller, 2015). There are many reasons for recidivism. They include adverse early childhood experiences, and inadequate education, employment opportunities, and health services, especially for addiction (Lockwood, Nally, Ho, & Knutson, 2012; Mears & Mestre, 2012). Miller and Miller (2015) indicated, “Rehabilitation programs for juveniles aim to address these factors by providing recipients with the required support, education, and supervision” (p. 215). Latessa (2012) found that desirable programs provided support and supervision, connected with reintegration, and included vocational education and work assignment, “continued drug and alcohol dependence therapy, counseling treatment, and opportunity to safe home environment assistance; these are considered essential components to successful reentry” (p. 89). For instance, the advancement of community workforce partnerships and mentoring strategies may help juvenile ex-offenders surmount barriers they face as they return to their communities, while providing partnerships and treatment to decrease the known

risk issues that hamper the success of former juvenile offenders.

### **Juvenile Rehabilitation Treatment Programs**

Rehabilitation requires an unrelentingly supportive and positive approach from the time of entrance all the way to discharge from a program. In program planning, it is necessary for programs to strive to reintegrate offenders early. This reduces the chances the offender will be institutionalized. The goal of rehabilitation programs is “to promote the juvenile’s successful return to their communities” (James, 2015, p. 17). Therefore, it is essential that, during commitment, juveniles have opportunities for treatment and positive experiences, which support the reliable and secure treatment center’s culture (Freudenberg & Heller, 2016).

In a 2014 investigation, Duwe & Clark recognized the importance of education for incarcerated individuals. They found that low educational levels were correlated with antisocial behavior. The investigators confirmed that demographics and vocational training were related to an ex-offender’s employment (Duwe & Clark, 2014). Indeed, studies have established the influence of career technical education and reoffense levels of ex-offenders. Duwe & Clark, 2014) stated, “However, it is essential to confirm that the career technical education training matches the industry needs in the neighborhoods to which ex-offenders return” (p. 475). Vernick and Reardon (2001) declared that, “existing career technical education and academic programs lack the essential training elements of employability skills preparation and career leadership” (p. 274). Vernick and Reardon (2001) maintained that outdated rehabilitation programs have, “failed to train the thousands of committed juveniles and adults who are discharged each year to productively re- enter communities” (p. 274). According to Koo (2015), ongoing training and re-training of employees is necessary if workers are to remain employed. She stated, “Imprisoned people must, therefore, be given progressive educational opportunities if they are expected to

work in organizations that require more than basic vocational skills” (2015, p. 236). She contends that “there is a strong link between education and recidivism especially when adult males with disabilities are studied” (2015, p. 236). Unfortunately, many of the 1.5 million incarcerated persons remain undereducated (Koo, 2015). If an RTC provides the necessary educational skills that were absent when an individual was arrested, reoffense rates decrease (Cullen et al., 2011). The goal is to have an inmate who is more skilled for work when he is discharged from his commitment or sentence prior to his arrest which could “certainly turn into a modified routine that does not include criminal behavior” (Koo, 2015, p. 242).

Conlon, Harris, Nagel, Hillman, and Hanson (2008) summarized the work of numerous investigators who confirmed that juveniles and adults must be provided additional opportunities to follow vocations beyond what presently occurs. One investigation discovered that “there was a sustained emphasis on alcohol, drug abuse, anger management, and other basic programs; less than 25% of U.S. jails had educational programs, and career-related education was of low priority in the correctional system” (Vernick & Reardon, 2001, p. 268).

In 2001, providing offenders with career technical education was not the main emphasis of the judicial organization. Rather it was preparing them to work in construction, cleaning, and other low-level jobs (Vernick & Reardon, 2001). The investigation performed by Vernick and Reardon (2001) stressed “programs, such as the Life After Lock Up group, that afforded soon-to-be ex-offenders with career technical services intended to reduce recidivism after their discharge” (Vernick & Reardon, 2001, p. 274).

More recently, programs have attempted to provide training that facilitates the successful transition of former inmates. To validate the result of programs on work and recidivism, Valentine and Redcross (2015) studied the Center for Employment Opportunities (CEO) and the

Transitional Jobs Reentry Demonstration (TJRD) (Valentine & Redcross, 2015). Regarding the problem of individuals formerly in prison they noted, “The human capital shortfall of a formerly committed individual includes a poor position in the labor market” (Valentine & Redcross, 2015, p. 2) which is “caused by previous arrests, attributes they had prior to confinement, interaction with the justice system, and low levels of education” (Valentine & Redcross, 2015, p. 8). The investigation found, however, that both programs (CEO and TJRD) resulted in significant increases in hiring (Valentine & Redcross, 2015). However, the researchers found that the employment consisted of transitional employment opportunities. Despite CEO’s evidence of a reduction in the recidivism rate, the TJRD programs were less effective and unsuccessful in non-program employment opportunities (Valentine & Redcross, 2015).

To pledge that reformatory instruction is valuable to discharged inmates, it is imperative for prisons to apply courses that permit ex-inmates to be sought after and considered for jobs. Investigations conducted by Hall (2015) and Lockwood et al. (2012) specified that there was a strong relationship “between education and lower recidivism rates” (Hall, 2015, p. 19). An investigation of education and recidivism in three states by Matsuyama and Prell (2010) reported a recidivism decrease of 23% for those attending school. The argument for continued funding of education for incarcerated youth and adults is that it improves ex-offender’s employability and reduces recidivism (Matsuyama & Prell, 2010).

As Davis and Michaels (2015) stated, “An important issue that the criminal justice system faces is determining which programs are the most valuable or beneficial to implement that will serve the offender and the neighborhoods they return to” (p. 147). They described their concerns about the disagreement regarding the significance of higher education programs and maintained that “whether deliberate or unintended, higher educational programs in prison can validate the

philosophy that education is an automatic vehicle for social success” (Davis & Michaels, 2015, p. 147). However, they caution that it is an illusion to believe that if inmates can just change their situation, social progress will be within reach (Davis & Michaels, 2015).

General strain theory indicates that “diminishing societal control can lead to increased pressure to engage in delinquent activities” (Agnew, 1992, p. 148). The goal to decrease reoffending and the emphasis on education as one facilitator of successful reintegration could be a national proposal. Belgium and other countries have instituted ways to address the issues the United States deals with regarding increasing assimilation into society and reducing recidivism (Delaere, Caluwé, & Clarebout, 2013). For example, Dalaere et al. (2013) indicated that “prisoners keep their right to citizenship and education” (p. 3). The investigators suggest that these rights facilitate social assimilation.

Organizations are afraid of the responsibilities related to hiring ex-offenders who have low educational levels, which present a major obstacle for former inmates because these lower levels appear to be correlated with greater rates of recidivism (Nally, Lockwood, Ho, & Knutson, 2014). Lower levels of education influence the former inmate’s capacity to get work, which trickles down to unemployment, personal dissatisfaction, and future opportunities to reoffend. The downturn in the financial system has intensified the issues confronted by former inmates, and the difficulty of achieving work after discharge has been anticipated to grow (Nally et al., 2014).

Investigations reveal that after inmates are discharged, “unemployment continues to be one of the most gripping factors adding to recidivism among ex-offenders” (Nally et al., 2014, p. 19). Securing employment with a previous criminal record is difficult. In addition, “ex-offenders often do not have the skills needed by the workforce, which adds to the strain that tends toward recidivism” (Nally et al., 2014, p. 24).

## **Adverse Childhood Experiences Scale**

The Adverse Childhood Experiences (ACE) scale was used to explore the relationships among juvenile maltreatment and aging health outcomes performed by the Centers for Disease Control (CDC) and Kaiser Permanente HMO. An early investigation, conducted from 1995 to 1997, examined data about juvenile involvement of abuse, negligence, and abnormality in their families and their physical health status (CDC, 2015). The study included over 17,000 persons.

The ACE scale is a questionnaire used to assess juvenile exploitation, negligence, and experience to other alarming pressures. Participants in the 2015 CDC investigation completed surveys about childhood treatment, health behaviors, and health status. The CDC study used the ACE scale result (the total number of reported ACEs) to determine the level of participants' exposure to traumatic stressors. The result is used to evaluate anxiety during childhood, and it has been confirmed that, as the score increases, the risk for health complications also rises. Health problems associated with the score were chronic obstructive pulmonary disease (COPD), hopelessness, alcoholism, stillbirths, liver ailment, sexually transmitted diseases, and suicide attempts (CDC, 2015). This information was correlated with physical examination data that was analyzed by the researchers. Findings noted that close to two-thirds of the human subjects described at least one adversative juvenile occurrence with one in every five reporting three or more events (CDC, 2015, Anda et al., 2006).

In addition to health outcomes, ACEs have been shown to be a predictor of legal outcomes including recidivism (Altintas & Bilici, 2018; Glantz et al., 2017; Kim, Park, & Kim, 2016; Levenson & Grady, 2016). However, additional exploration is required in this matter.

Conclusions from the previous investigations exposed a high frequency of substantial links of ACEs in a group of imprisoned men and women (Altintas & Bilici, 2018). The findings also

indicated a possible relationship between juvenile trauma and delinquency in times of recidivism but no significant relationship to succeeding crime (Altintas & Bilici, 2018). The investigations are obvious and persuasive that ACEs, particularly when they are deep-rooted, provide a complex network of neurobiological, social, emotional, cognitive, and relational impacts across a lifetime, and increase the probability for criminal behavior (Kim et al., 2016).

### **Traumatic Stress Among Students**

Alarming pressure or stress among elementary and secondary students is “often overlooked, misinterpreted, or mistaken for other disabilities” (Halpern & Tramontin, 2007, p. 138). Until Lenore Terr’s revolutionary examination in 1976 of kidnapped school children in Chowchilla, CA, minor facts were documented about the signs of trauma in children (Terr, 1992). Traumatic events can notably influence the biological, psychological, and emotional changes in children; but recognition of these distresses in adolescents can be more problematic because adolescents express themselves differently than adults (Halpern & Tramontin, 2007). In a school environment, traumatic stress is often revealed as a student’s failure to successfully identify, understand, manage, and communicate essential feelings (Levine & Kline, 2007).

**Etiology of traumatic stress for adolescents.** For adolescents and grownups, a distressing incident is observed as damaging, unexpected, and unmanageable (Carlson & Smith, 1997). An adolescent’s age can have a significant influence on these features in their hormonal stage and can impact judgements of incidents and emotions of power. Adolescents and adults with protected relationships and survivor strategies may be more resilient to trauma strain attributed to increased skill to apply influence on the environment. Carlson and Smith (1997) maintained that, “Indications of traumatic pressure and their manifestations can differ by age and developmental level of the child” (p. 233). Re-experiencing a traumatic event may occur in a situation associated



with that trauma. Adolescents may display increased stimulation through night fears or bedwetting. Evasion and disorientation may be obvious in adolescents in the deficit of earlier attained age-related abilities or during certain activities. At school, signs can be more obvious. For example, a student struggling to focus or unable to manage academic information may be symptoms of traumatic stress (Levine & Kline, 2007).

Traumatic events can demolish juveniles' abilities to establish safe relationships with family members, peers, and others; traumatic events can also affect their self-esteem causing them to be vulnerable to further trauma (Levine & Kline, 2007). The ecological responses felt by adolescents during trauma can impact their ability to create historical remembrances and make sense of the traumatic event (Carlson & Smith, 1997). For juveniles, the deficiency to produce clear memories of trauma can end in misinterpretations of the trauma episodes, including self-blame (Terr, 1992). According to Levine and Kline (2007), "Without appropriate interventions, adolescents who experience trauma often have difficulty responding to daily stressors and may exhibit hypervigilant behaviors, increased startle response, and dissociation" (p. 68).

**The impact of traumatic stress.** The influence of alarming pressure has been investigated for a range of traumatic experiences in adolescents. Numerous researchers have presented a review of the results for adolescents who face traumatic stress. Villalba and Lewis (2007) studied investigations of the prior years that observed the outcomes of human maltreatment and cognitive exploitation and negligence for adolescents. Investigations reviewed by these investigators indicated that physical maltreatment revealed "interactive difficulties, cognitive/academic impairment, violence, and suicidal behavior and risk-taking" (p. 31). In addition, Villalba and Lewis (2007) compared the adolescents with non-physically maltreated children and found that those in their study "had higher rates of psychiatric diagnoses than non-physically maltreated

children, including depression, anxiety, conduct disorders, attention deficit hyperactivity disorder (ADHD), and substance abuse” (Villalba & Lewis, 2007, p. 33). While psychological negligence has received less attention, the writers affirmed that “previous investigations have found it can result in externalizing behaviors, social impairment, psychiatric disorders, low self-esteem, and suicidal behavior” (Villalba & Lewis, 2007, p. 34). In examining previous investigations on adolescents of molestation, Yasik, Saigh, Oberfield, and Halamandaris, (2007) described the existence of internal behaviors, such as depression and anxiety, as well as external behaviors, such as aggression and conduct problems. Stuber, Resnick, and Galea, (2006) explored experimental investigations of sexual exploitation among young males to encourage the understanding of this type of trauma and determine its frequency. Of the 166 investigations, the commonality of abuse changed extensively. The researchers concluded that young males less than 13 years old who were not White Americans, who lived in poverty, and did not have a relationship with their fathers were at extreme danger for sexual abuse (Stuber, Resnick, & Galea, 2006). They found,

Boys who had suffered sexual abuse had higher rates of the following: PTSD, major depression, anxiety disorders, borderline personality disorder, antisocial personality disorder, aranoia, dissociation, somatization, bulimia, anger, aggressive behavior, poor self-image, poor school performance, running away from home, legal trouble, suicide attempts, substance use, sexually related problems, and dropping out of school. (Stuber et al., 2006, p. 64).

Additionally, admission levels were minor, representing a substantial obstacle to therapy.

Margolin and Gordis (2000) examined studies of child maltreatment, community violence, and parental abuse and their impact on children. In general, the investigations associated the categories of trauma with external behaviors, internal behaviors, and PTSD symptoms (Margolin

& Gordis, 2000). They also found other significant outcomes of these trauma including “psychobiological effects, cognitive consequences, and peer relations” (Margolin & Gordis, 2000, p. 459). Among juvenile criminals who have been victims of trauma and abuse, there is additional strain which may need to be overcome for vocational education to have its desired effects. However, it is also possible that vocational education provides therapeutic help to traumatized individuals. So vocational education may benefit both the person and society in more ways than would be seen in recidivism statistics alone.

### **Cyclical Nature of Behavior Problems and Academic Underachievement**

Arnold et al. (1999) explained the cyclical nature of misconduct issues and academic low achievement. These authors found that, “Adolescents who are not making academic progress are more likely to participate in aggressive behavior, to feel increasingly frustrated, to disengage, and to have lower self- esteem” (Arnold et al, 1990, p. 591). These behaviors have been shown to be correlated with noncompliance, lack of attention, and elevated activity levels (Arnold et al., 1990). The comprehensive review of literature from 1961 to 2003 on the educational achievement of juveniles who were deemed mentally and psychologically disturbed organized by Trout, Nordness, Pierce, and Epstein (2003) focused on children with emotional and behavior disorders. They established that problem behaviors and academic underachievement have a reciprocal relationship. In an investigation of juveniles who developed behavior disability, Holmes, Slaughter, and Kashani (2001) “detected that the related behavior problems, including delinquency and disruptiveness, often promoted academic underachievement, although, educational issues may also have contributed to the development of behavior problems, as predicted by strain theory” (p.186).

## **Challenges for Education in Juvenile Residential Treatment Centers**

Educators and administrators attempting to meet the educational demands of incarcerated youth face numerous systemic challenges that are inherent in any juvenile justice facility. These ordeals consist of complex arrangements of misunderstanding, employee resignations, the competing demands of safety and security versus providing appropriate education and resources, difficulty in obtaining educational records, and transferring records between facilities and programs (Young, Phillips, & Nasir, 2010).

Young et al. (2010) explored schooling in a youth prison. Forty youth (31 males) in a midsize youth prison on the U.S. West Coast were interviewed about their past educational experiences, their educational experiences in the prison, and their future educational plans. In a typical classroom inside the living units there was a balcony space which doubled as a makeshift classroom that accommodated up to eight students and a teacher. Cell doors encircled the balcony classroom, and large windows were painted black so the students could not see outside. Time spent in the classroom was reduced due to organizational importance on security and domination and the need for staff to transfer students back to their cells between classes. Classes were not held in a normalized environment; rather, they were held in the living units for safety and security reasons. Students did not have the opportunity to engage with students in other parts of the prison. Due to transportation issues, residential staff controlled the schedule regarding when class began and ended. Computer use was limited, and the one computer that worked was in a closet due to safety concerns with one group of students. The prison did not allow research using the internet, which reduced the use of and training with technology and research. Pencil use was closely monitored in the classroom, and pencils were cataloged and counted when handed out and returned. In the investigative interviews, students commented on these restrictions and were aware

of the potential dangers of a pencil being used as a weapon. Further, stigmatization of students was rampant in the classroom. Both teachers and students made jokes about their status as delinquents and their criminal charges as well as about being a convict (Young et al, 2010).

Students' perseverance was also identified by Young et al. (2010) as an issue for educators in juvenile facilities. Due to varying lengths of stay related to sentence lengths and changes in security level or treatment units, teachers were faced with trying to deliver a curriculum to students with a wide range of academic skills who moved frequently between different units and the makeshift classrooms. As a result, some teachers resorted to character lessons instead of academic lessons to incorporate whole class instruction to an academically diverse and transient student population. There was a disconnect between the juvenile facility and the residential school after the student received the commitment order. The guidance counselors experienced difficulty receiving the students' academic records sent from previous schools and the juvenile detention facility, so students were given schedules that included classes they already had the credit for. One student who attended school in several different facilities reportedly waited 4 months to get his transcripts to guide his education and record his credits and progress. Difficulty obtaining regular public-school records, including Individualized Education Plans (IEPs), was identified as a barrier by Morris and Thompson (2008). Additionally, there tended to be very little parental participation in the academic process of incarcerated youth, and a few punitive procedures (such as solitary confinement or withholding a youth from class due to disciplinary issues) interfered with school attendance, which provided yet another challenge to teaching incarcerated youth (Morris & Thompson, 2008). Educators need to provide quality educational services to a diverse group of learners with greater than average learning disabilities, and correctional staff need to maintain safety and security at all times.

The issues raised by these researchers are inherent in the juvenile rehabilitation setting for teachers and students trying to pursue educational goals. To further multiply the challenges, the juvenile justice subpopulation is a biased sample of ethnic backgrounds within the larger population (Foley, 2001). This provides additional challenges related to assimilation, language, and providing culturally appropriate instructional resources.

### **Summary**

General strain theory is a way of understanding delinquency as an individual response to stressors and frustrated goal-seeking. In a correctional setting, the programs offered to incarcerated juveniles should take account of this causal chain. Building vocational skills has the potential to make individuals employable and promote defenses against strain.

The literature demonstrates that a juvenile rehabilitation setting presents challenges to the investigation of how educational programs may affect recidivism. Juvenile offenders are probably more likely than other students to have experienced extreme strains and trauma that must be overcome in the pursuit of their goals. It is possible that engagement in vocational education may provide therapeutic benefit. The literature also documents that juvenile rehabilitation centers have difficult organizational and management challenges that pose another set of obstacles to student success.

### **Chapter 3: Research Method and Design**

This quantitative study consisted of an archival investigation of records from an RTC in the Mid-Atlantic region of the United States. The RTC data were supplemented by data on recidivism and other outcomes from other agencies involved with the young men placed at the academy. The documents used in this study provided information about education, ACEs, and recidivism. In this study, I made comparisons between two groups of students with comparable experiences who had been subjected to various educational tracks. I also examined variables that may interact with academic track, such as hometown and ACEs.

This chapter provides an explanation of the research design, the population, and the sample. It also includes the materials, instruments, and the variables. The chapter concludes with sections on data collection and analysis, threats to validity, ethical procedures, and assumptions.

#### **Research Design**

My focus in this investigation was analyzing distinctions among groups of students from an RTC in the Mid-Atlantic region of the United States. This investigation compared IVALIDATE outcomes between vocational and academic tracks. It also compared recidivism rates between the tracks.

IVALIDATE includes measures of individuality, vocation, activities, life skills, individual strengths, demonstrated behavior change, aftercare, treatment, and education. IVALIDATE is a checklist of successful measures similar to those of Positive Youth Development (Butts et al., 2010). IVALIDATE is used at the RTC as a progress monitoring tool. When a student completes the program, he is said to have “IVALIDATED” and is recognized as a program graduate who will soon be released from his commitment. Adverse childhood experiences, as measured by the ACE scale score, is used in this study as another outcome variable to compare vocational and

academic groups. Adverse childhood experiences were also used as a potential mediator of differences in other outcomes of the two groups.

## **Population**

The target population for this investigation involved 671 students with records from the RTC, a regional training center in the Mid-Atlantic region. The records pertained to male high school students committed by the Maryland Department of Juvenile Justice. All of the students were between the ages of 14–19 years of age and enrolled in grades 9 through 12. Permission was granted to conduct the study at the training center. See Appendix A for the approval letter.

## **Sample**

A random sample of 200 records were drawn for this research. The sample was large enough to provide virtually the same information as would be obtained by studying the entire population. The group of students for this investigation is the official data set of juveniles in the RTC contained in the secondary database. The initial data set covered the previous 6 years of archival data that included all students who departed the facility before June 30, 2018. This allowed a 6-month recidivism score to be recorded for all the participants in the sample. All information regarding the youth was kept confidential. The only persons who had contact with the youth's information were me, the center's program director (Kevin McLeod), and Dr. Charles Collyer, a member of the researcher's doctoral committee who assisted with the matching of agency information with school records. I numbered each participants' materials (i.e., permission/assent forms, the Demographic Juvenile Survey, and assessment instruments) without names and separately maintained a crosswalk with the list of names and numbers in locked storage containers. At the conclusion of the study, I matched all study materials according to assigned numbers and destroyed the list of numbers and names. Preservation and destruction of all



study material was in accordance with Abilene Christian University's (ACU's) IRB standards.

### **Materials/Instruments (Quantitative)**

Three main quantitative data sources were used for this study. The data were gathered from records and questionnaires including the treatment plans, the ACE scale questionnaire, and the Demographic Juvenile Survey. The information collected was previously gathered for institutional purposes.

I used the treatment plans to identify students' individual strengths, vocations, activities, life skills, treatment, and education (IVALIDATE). The treatment plans are used by the RTC as a tool to track students' successes and failures with their education track and behaviors. Jeffrey A. Butts, a leading advocate for positive youth development for incarcerated youth, provided the RTC its monitoring framework that included the concepts and theories of positive youth development (Butts et al., 2010). The RTC's treatment plan encompassed IVALIDATE, the design of successful treatment interventions for youthful offenders based on the principles of positive youth development (Butts, et al., 2010). A copy of a treatment plan is included as Appendix B.

Trauma exposure for the students was evaluated using the Adverse Childhood Experiences (ACE) scale (Anda et al., 2006). This questionnaire is an assessment tool used to detect ACEs or trauma. It consists of 10 dichotomous questions scored with values of 0 for *no* or 1 for *yes*. Elevated scores signify advanced stages of criminal influences and, finally, advanced probability for reoffending. The impact of a person's early adverse events on recidivism has been apparent in investigations performed by numerous examiners (Altintas & Bilici, 2018; Glantz et al., 2012; Kim, Park, & Kim, 2016; Levenson & Grady, 2016). A study by Zanotti et al. (2018) on college athletes indicated a modest reliability for the ACE measure of  $r = .71, p < .001$ . The need for

further reliability studies of this measure with different populations was noted.

The ACE scale questionnaire encompasses both adolescent and family events. It assesses a broad range of childhood experiences such as psychological harm, maltreatment, molestation, negligence, human negligence, aggressive actions against parents, domestic additions, domestic psychological disability, parental estrangement or divorcement, and an imprisoned family member (Anda et al., 2006). The participants are asked to respond to 10 yes or no questions that screen for the exposure to abuse and neglect prior to the age of 18. The items are then added up for a total ACE score which provides a useful understanding of an adolescent's environment. This measure is appropriate from an environmental viewpoint because it includes the influence that other individuals from the various systems have on an adolescent's experiences. A copy of the ACE is included as Appendix C.

The Demographic Juvenile Survey was the third instrument. I used it to identify if participants have been to placements or jail before and to determine how many times the participant had been incarcerated. A copy of the survey is included as Appendix D.

### **Operationalization of Variables**

I selected the following variables for analysis in this research.

**DOB:** This acronym is used for the adolescent's date of birth.

**Home:** This variable denotes hometown. In this research, most of the records are from Baltimore and the District of Columbia with smaller numbers from Philadelphia, PA, and Prince George's County, MD, and other localities.

**RTC start date:** This date is the intake date or start of the program for the student.

**Risk:** Risk constitutes the verbal assessment of students' risk to reoffend as estimated by the clinicians at the RTC. Students are labeled high risk (most likely to reoffend) and low risk

(most likely not to reoffend).

**ACE scale questionnaire:** This instrument yields an adversely juvenile involvement score. The instrument was developed by the Centers for Disease Control and Prevention (Anda et al., 2006).

**Track:** The chosen educational path or track is either vocational or academic, based on the student's choice of elective courses. Each student in the population can be classified as on either the vocational or the academic track.

**Duration:** The length of stay at the RTC expressed in months constitutes the duration for this study.

**INVALIDATE:** The completion or noncompletion of the RTC's program standard is designated by INVALIDATE. This variable is coded pass/fail although it consists of several components.

**Recidivism:** This variable indicates that a released student returns to incarceration within a given time period. In this study the time period was 6 months. Three levels of recidivism are used in this research: felony, misdemeanor, and no recidivism.

**Rwhen:** The length of time from RTC exit to reincarceration is denoted by Rwhen.

### **Data Collection and Analysis**

This study is archival (ex post facto) research rather than a collection of new data. An ex post facto design refers to an investigation that uses existing data. Existing data are defined as data that have already been collected and obtained from preformed groups in which the independent variable is not manipulated (O'Dwyer, 2013). The sources of the data included RTC clinical records and recidivism information from the RTC juvenile records. I entered data into SPSS v23.0 to prepare for data analysis.

I conducted three specific analyses that represent high priority research questions. They included the following: (a) a chi-square test conducted using the relationship between track and recidivism, primarily because the variables are categorical rather than score variables; (b) a *t* test to determine whether recidivists differed from non-recidivists in their ACEs scores; and (c) a chi-square test of the association between hometown and recidivism. Other analyses were also possible.

### **Threats to Validity**

Validity or fidelity is a significant influence in a scholarly investigation because it verifies that the results of an investigation lead to valued results. With respect to external validity, no strong claim is made that the sample under study here is representative of a specific larger population. The students at this RTC were selected juvenile offenders who arrived at the institution based on several decisions by different officials. The sample of 200 was randomly drawn from the population of student records at this RTC. Randomization was done using the Microsoft Office Excel program.

With respect to internal validity, all of the comparisons in this research are between-group (as opposed to longitudinal or repeated-measures). The main threat to between-group comparisons in an experiment is non-comparability of the groups involved. In nonexperimental work, such as the present study, this concern is less relevant but is partly addressed by checking for unequal variances when performing statistical tests. The random sampling also ensured that there was no bias in how the vocational and academic groups were formed.

### **Ethical Procedures**

The primary ethical consideration is confidentiality. Access to the data was limited. The data were made anonymous prior to any reporting and only aggregate results were reported.

Abilene Christian University IRB approval for the research was sought and received. The IRB approval is included as Appendix E.

**Assumptions**

Data were examined for any violation of normality and homogeneity of variance assumptions in the analysis of  $t$  test and in other parametric tests that were performed.

## Chapter 4: Results

This study is an archival investigation of records from one Mid-Atlantic regional RTC. The study focused on recidivism among youth who had attended the center. Other areas of interest included ACEs and the two education tracks, vocational and academic. The research questions for this study included:

**RQ1.** Is there a statistically significant relationship between tracks (vocational vs. academic) and recidivism (felony, misdemeanor, or no recidivism)?

**H<sup>0</sup>.** There is no statistically significant relationship between track and recidivism.

**H<sup>a</sup>.** There is a statistically significant relationship between track and recidivism.

**RQ2.** Is there a statistically significant relationship between IVALIDATE completion (Yes vs No) and recidivism?

**H<sup>0</sup>.** There is no statistically significant relationship between IVALIDATE completion and recidivism.

**H<sup>a</sup>.** There is a statistically significant relationship between IVALIDATE completion and recidivism.

**RQ3.** Is there a statistically significant relationship between hometown (Baltimore vs other) and recidivism?

**H<sup>0</sup>.** There is no statistically significant relationship between hometown and recidivism.

**H<sup>a</sup>.** There is a statistically significant relationship between hometown and recidivism.

This chapter includes a description of the study variables and the result of the various statistical tests used to address the research questions.

### Study Variables

Four of the variables used in this study are categorical, and one (ACE) is a quantitative

score variable. Recidivism is the outcome variable of interest. The other variables are conceptualized as predictors of recidivism. Table 1 displays the variables used in the analyses.

Table 1

*Properties of the Major Study Variables*

Variables	Type	Levels - Variable or Descriptive Statistics
Track	Categorical, Predictor	Academic, Vocational
IVALIDATE	Categorical, Predictor	Yes (completed IVALIDATE), No (incomplete)
Hometown	Categorical, Predictor	Baltimore MD, Other
Recidivism	Categorical, Outcome	Felony, Misdemeanor, No Recidivism
ACE	Score (1 to 5), Predictor	$M = 4.15$ , $Mdn = 5$ , $SD = 1.291$ , Skew = -1.290

The statistical tests described below address the questions of interest in the research by examining how each of the in-house predictor variables—track, hometown, and IVALIDATE—was related to recidivism. Each of these three relationships was examined for the whole sample and for the two levels of ACE, the measure of ACEs associated with strain theory. To define high and low levels of ACE, I performed a median split on the variable.

However, ACE is a scale ranging from 1 to 5, and the median value in our sample happened to be 5. Therefore, the high-ACE group was defined as all students with a score of 5 ( $n = 126$ ), and the low-ACE group was defined as all remaining students ( $n = 74$ ). The mean ACE score for the low-ACE group was 2.70,  $SD = 1.08$ ,  $Mdn = 3$ .

### **Education Tracks and Recidivism**

**RQ1.** Is there a statistically significant relationship between tracks (vocational vs. academic) and recidivism (felony, misdemeanor, or no recidivism)? I examined the relationship

between track and recidivism using two (academic track vs vocational track) vs three (felony vs. misdemeanor vs. no recidivism) chi-square tests of independence. This allowed me to analyze for the impact of track for the whole group and recidivism. It also allowed me to test for high versus low ACE and the relationship between track and recidivism. The contingency Table 2 displays results for the whole sample, Table 3 for the high-ACE group, and Table 4 for the low-ACE group.

Table 2

*Contingency Table for the Relationship Between Track and Recidivism for the Whole Sample*

Track	Whole Sample ( $n = 200$ ) Recidivism			Total
	Felony	Misdemeanor	No Recidivism	
Academic	72	45	37	154
Vocational	8	17	21	46
Total	80	62	58	200

*Note.*  $p = .0009$ , significant.

Table 3

*Contingency Table for the Relationship Between Track and Recidivism for High-ACE Students*

Track	High-ACE Group ( $n = 126$ ) Recidivism			Total
	Felony	Misdemeanor	No Recidivism	
Academic	51	27	26	104
Vocational	6	9	7	12
Total	57	35	33	126

*Note.*  $p = .0009$ , significant.



Table 4

*Contingency Table for the Relationship Between Track and Recidivism for Low-ACE Students*

Track	Whole Sample ( $n = 74$ ) Recidivism			Total
	Felony	Misdemeanor	No Recidivism	
Academic	21	18	11	50
Vocational	2	8	14	24
Total	23	26	25	74

*Note.*  $p = .0009$ , significant.

In the full sample, track and recidivism were found to be related [ $\chi^2(2, N = 200) = 14.030$ ,  $p = .0009$ , Cramér's  $V = 0.264$  (a moderate effect size)]. Students in the vocational track demonstrated lower recidivism than those in the academic track. Further, academic students showed a decline from felony to misdemeanor to no recidivism, while vocational students showed an increase across these levels. Figure 1 displays this interaction of track and recidivism, with the data frequencies converted to proportions of each track falling into each of the three recidivism outcomes. This pattern of three proportions across felony, misdemeanor, and no recidivism is termed a recidivism profile.

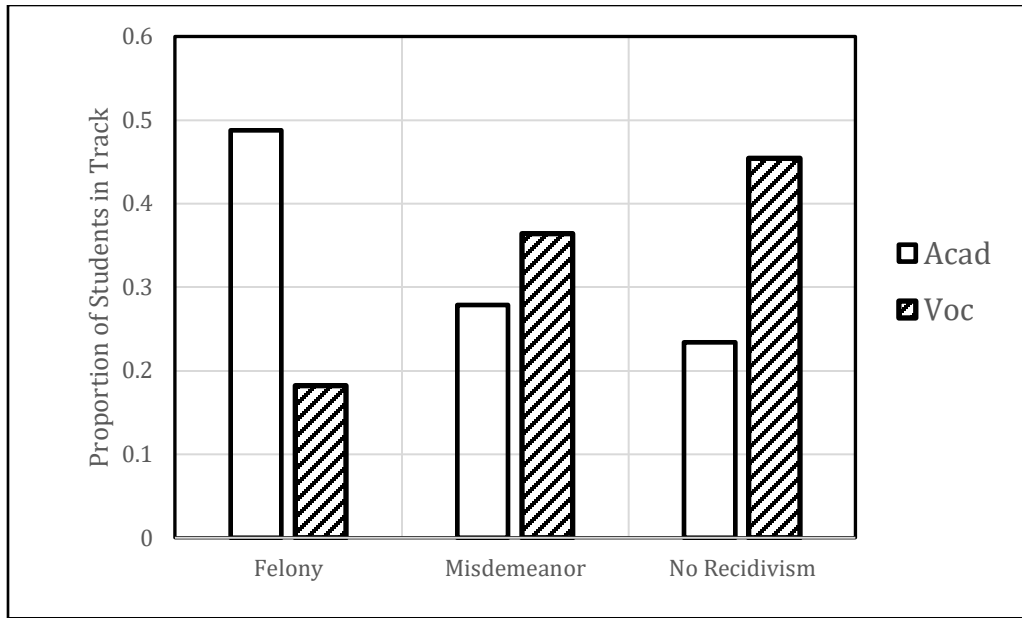


Figure 1. Recidivism profiles of academic and vocational students in the whole sample.

In the high-ACE group, track and recidivism were not significantly related [ $\chi^2(2, n = 126) = 3.644, p = .1617$ , Cramér's  $V = 0.170$  (a small effect)]. Figure 2 shows the recidivism profiles for high-ACE students.

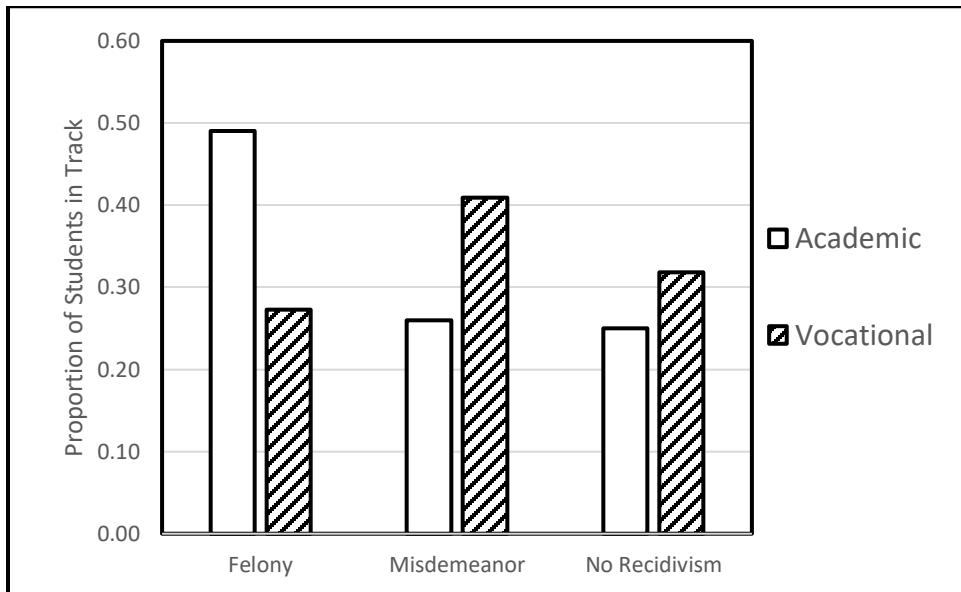
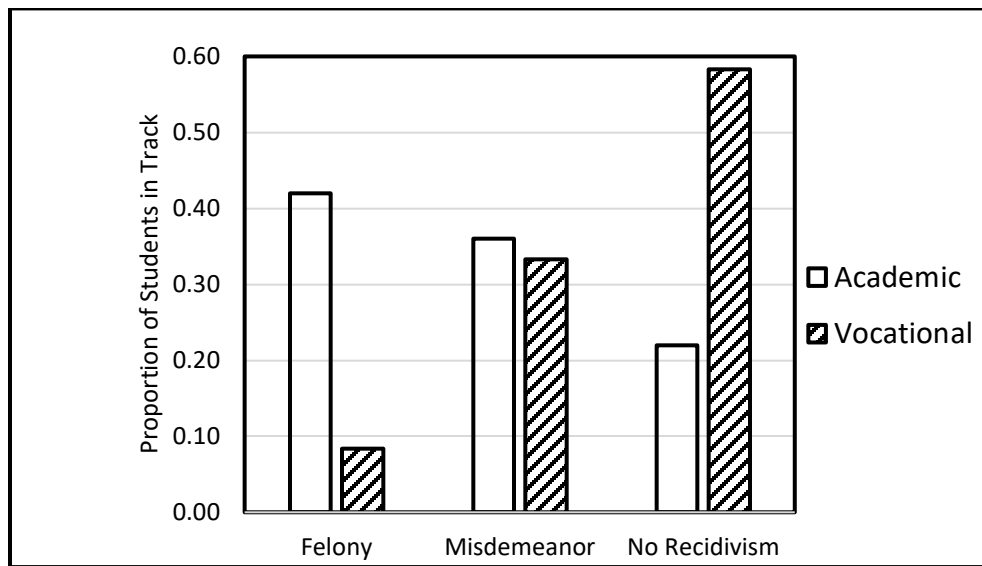


Figure 2. Recidivism profiles of academic and vocational students in the high-ACE group.

In the low-ACE group, there was a significant relationship between track and recidivism [ $\chi^2(2, n = 74) = 12.283, p = .0022$ , Cramér's  $V = 0.407$  (a large effect)]. As shown in Figure 3, the form of the effect resembled that in the full sample but was more pronounced. However, the contingency table for the low-ACE group included one value less than 5 (there were only two vocational students with felony recidivism), which is a circumstance that can render chi-squared tests unstable. Therefore, I recalculated the analysis more conservatively, with a constant of three (3) added to each of the six cells in the table. With this change, the relationship between track and recidivism was still significant [ $\chi^2(2, n = 92) = 9.255, p = .0098$ , Cramér's  $V = 0.317$  (a moderate to large effect)]. Figure 3 shows the recidivism profiles for low ACE students.



*Figure 3.* Recidivism profiles of academic and vocational students in the low-ACE group.

In summary, track was a significant predictor of recidivism for low-ACE students, but the relationship did not reach statistical significance for high-ACE students. The significant result seen in the full sample could therefore be attributed primarily to the low-ACE students. The form of the relationship was that vocational students showed a very low rate of felony recidivism, a moderate rate of misdemeanor recidivism, and a high rate of no recidivism, whereas academic

students showed the reverse pattern: a relatively high rate of felony recidivism, a moderate rate of misdemeanors, and a relatively low rate of no recidivism. Figures 1 and 2 illustrate these contrasting recidivism profiles of the two tracks.

### **The IVALIDATE Checklist and Recidivism**

To further delve into the relationship of academics and recidivism, I addressed the question: Is completion of the school's IVALIDATE checklist a predictor of recidivism? Three 3x2 chi-square tests were used to examine the relationship between recidivism and IVALIDATE, a checklist used to measure program achievement at the school. Because ACEs may be related to the completion of this checklist, the analysis was carried out for the full sample ( $N = 200$ ), for the high-ACE group ( $n = 126$ ), and for the low-ACE group ( $n = 74$ ). The contingency tables are shown in Tables 5, 6, and 7.

Table 5

*Contingency Table for the Relationship Between INVALIDATE and Recidivism for the Whole Sample*

IVALIDATE	Whole Sample Recidivism			Total
	Felony	Misdemeanor	No Recidivism	
Completed	28	32	21	81
Not Completed	52	30	37	119
Total	80	62	58	126

*Note.*  $p = .0990$ , not significant.

Table 6

*Contingency Table for the Relationship Between IVALIDATE and Recidivism for High-ACE Students*

IVALIDATE	High-ACE Group Recidivism			Total
	Felony	Misdemeanor	No Recidivism	
Completed	24	18	8	50
Not Completed	33	18	25	76
Total	57	36	33	126

*Note.*  $p = .0810$ , not significant.

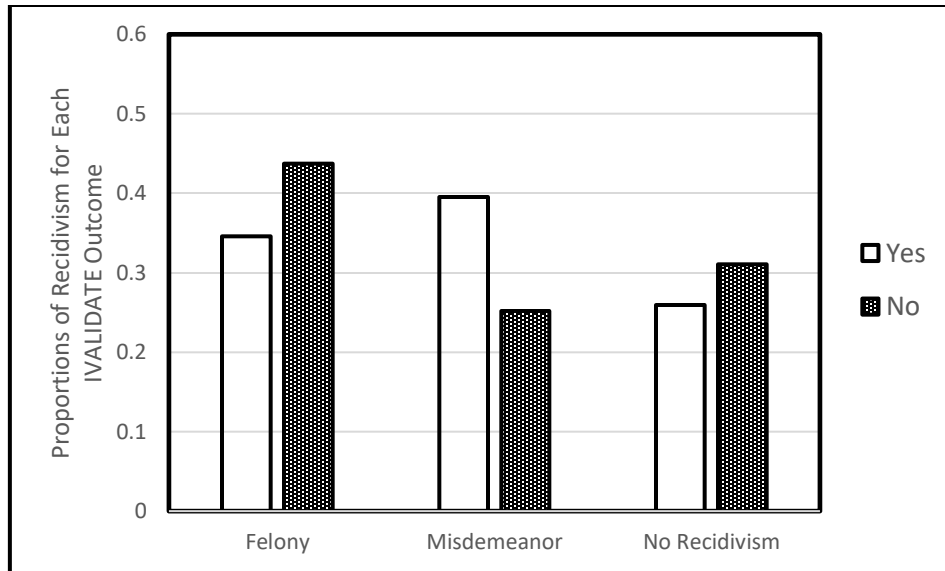
Table 7

*Contingency Table for the Relationship Between IVALIDATE and Recidivism for Low-ACE Students*

IVALIDATE	Low-ACE Group Recidivism			Total
	Felony	Misdemeanor	No Recidivism	
Completed	4	14	13	31
Not Completed	19	12	12	43
Total	23	26	25	74

*Note.*  $p = .0162$ , significant.

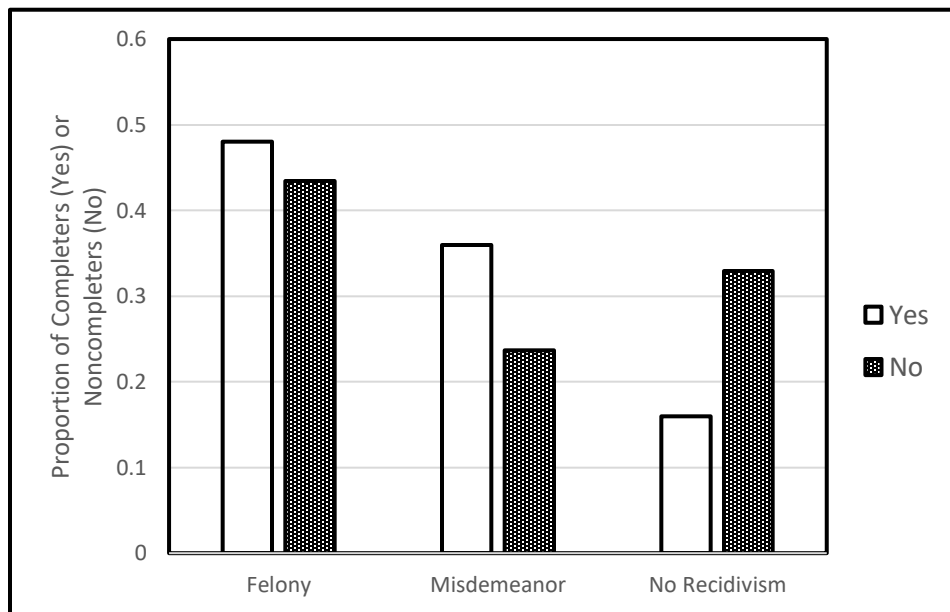
For the whole sample, no significant association between the two variables was found [ $\chi^2(2, n = 200) = 4.6253, p = .0990$ , Cramér's  $V = 0.108$  (small effect)]. Figure 4 shows the recidivism profiles for students who successfully completed the IVALIDATE standard and those who did not.



*Figure 4.* Recidivism profiles for IVALIDATE completers (Yes) and noncompleters (No) in the whole sample.

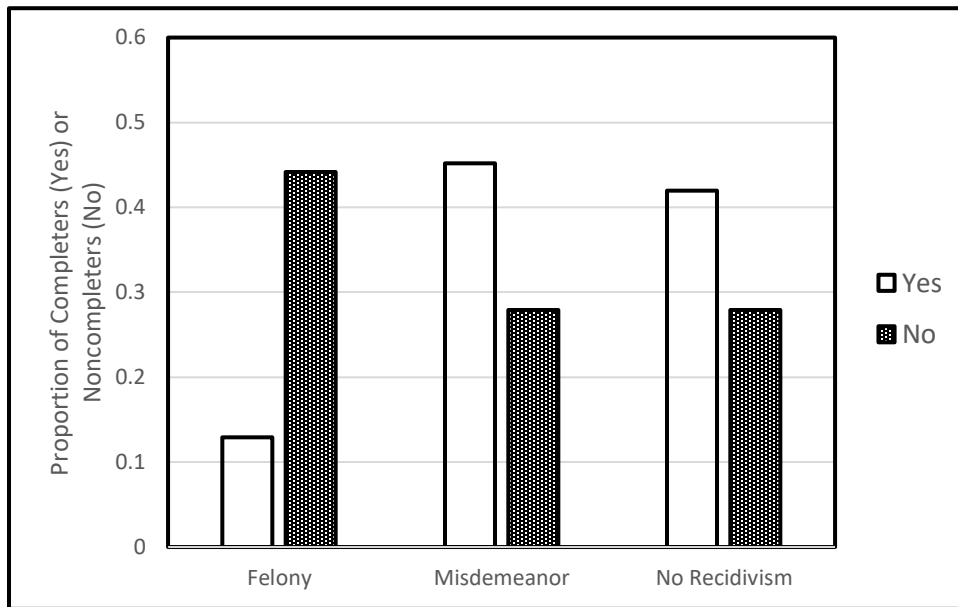
For the high-ACE group, there was no significant relationship between IVALIDATE completion and recidivism [ $\chi^2(2, n = 126) = 5.028, p = .0810$ , Cramér's  $V = 0.199$  (small effect)].

Figure 5 shows the recidivism profiles.



*Figure 5.* Recidivism profiles for IVALIDATE completers (Yes) and noncompleters (No) in the high-ACE group.

For the low-ACE group, there was a significant relationship between IVALIDATE completion and recidivism [ $\chi^2(2, n = 74) = 8.2474, p = .0162$ , Cramér's  $V = 0.333$  (large effect)]. However, because one cell in the contingency table had a value lower than 5 (there were only four felony cases among low-ACE students who completed IVALIDATE), the analysis was recalculated with a constant of 1 added to each of the six cells. In this more conservative test, the relationship was still significant [ $\chi^2(2, n = 80) = 7.5498, p = .0229$ , Cramér's  $V = 0.307$  (large effect)]. The recidivism profiles, based on the original cell frequencies, are shown in Figure 6.



*Figure 6.* Recidivism profiles for IVALIDATE completers (Yes) and noncompleters (No) in the low-ACE group.

In summary, the IVALIDATE checklist was a significant predictor of recidivism for the low-ACE group, but not for the high-ACE group, and not overall for this sample. For the low-ACE students, completion of IVALIDATE was associated with a low rate of felony recidivism, and noncompletion was associated with a relatively high rate of felony recidivism.

## Hometown and Recidivism, Vocational Track Placement, and Adverse Childhood Experiences

To determine whether hometown was associated with recidivism, I addressed the question: Does recidivism differ for youth from Baltimore compared to those from other hometowns? Three 3x2 chi-square tests were used to compare recidivism profiles for students from Baltimore ( $n = 102$ ) and students from all other hometowns ( $n = 98$ ). The contingency tables for the whole sample and for high-ACE and low-ACE students are shown in Tables 8, 9, and 10.

Table 8

*Contingency Table for the Relationship Between Hometown and Recidivism for the Whole Sample*

Hometown	Whole Sample ( $N = 200$ ) Recidivism			Total
	Felony	Misdemeanor	No Recidivism	
Baltimore	51	30	21	102
Other	29	32	37	98
Total	80	62	58	200

*Note.*  $p = .0054$ , significant.

Table 9

*Contingency Table for the Relationship Between Hometown and Recidivism for High-ACE Students*

Hometown	High-ACE Students ( $n = 126$ ) Recidivism			Total
	Felony	Misdemeanor	No Recidivism	
Baltimore	45	25	15	85
Other	12	11	18	41
Total	57	36	33	126

*Note.*  $p = .0046$ , significant.



Table 10

*Contingency Table for the Relationship Between Hometown and Recidivism for Low-ACE Students*

Hometown	Low-ACE Students ( $n = 74$ ) Recidivism			Total
	Felony	Misdemeanor	No Recidivism	
Baltimore	6	5	6	17
Other	17	21	19	57
Total	23	26	25	74

*Note.*  $p = .8408$ , not significant.

For the whole sample, a significant difference between Baltimore and the other group was found [ $\chi^2 = 10.453$ ,  $p = .00537$ , Cramér's  $V = 0.229$  (moderate effect)]. Figure 7 shows the recidivism profiles for students from the Baltimore and other hometown groups. The profiles have opposite directions; for Baltimore students, the most likely outcome is felony recidivism. For the other students, the most likely outcome is no recidivism.

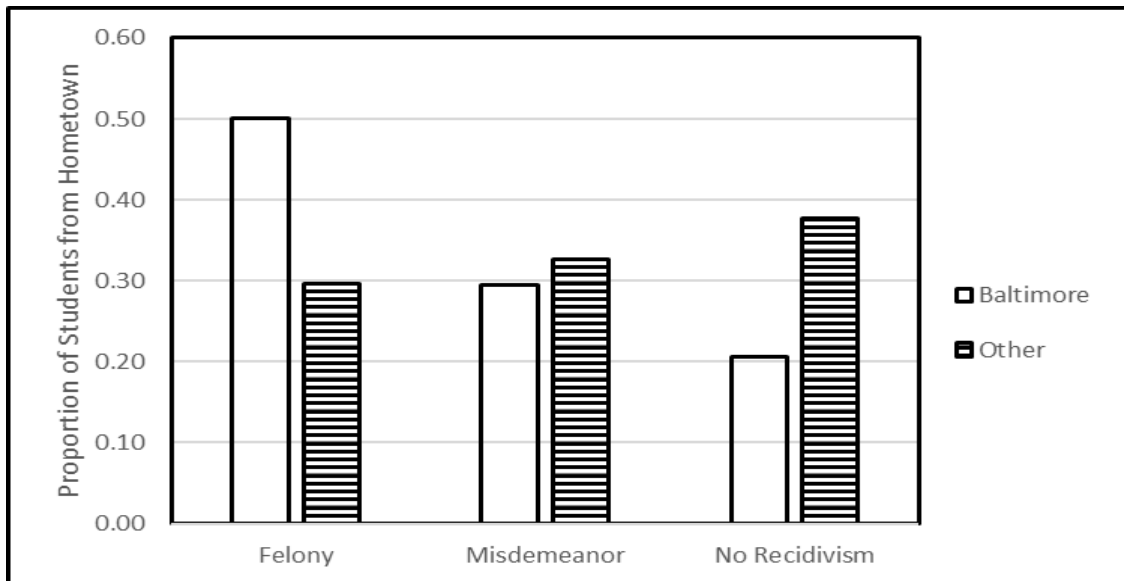


Figure 7. Recidivism profiles for Baltimore and other hometown group in the whole sample.

For the high-ACE students, a significant difference between Baltimore and the other

group, similar to that for the whole sample, was found [ $\chi^2 = 10.771$ ,  $p = .0046$ , Cramér's  $V = 0.292$  (moderate to large effect)]. Figure 8 shows the recidivism profiles for students from the Baltimore and other hometowns for this subgroup.

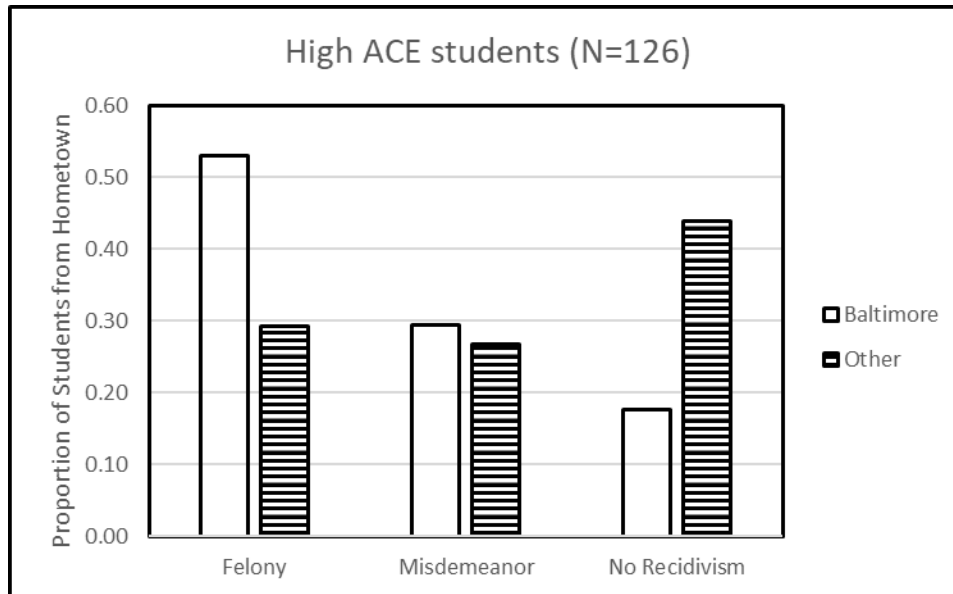


Figure 8. Recidivism profiles for Baltimore and other hometowns group in the high-ACE group.

For the low-ACE students, there was no significant difference between Baltimore and the other group [ $\chi^2 = 0.3467$ ,  $p = .8408$ , Cramér's  $V = 0.068$  (a negligible effect)]. Figure 9 shows the recidivism profiles for the two hometown subgroups.

In sum, a significant difference between Baltimore and other hometowns existed for high-ACE students but not for low-ACE students. Baltimore, as a hometown, is associated with an increased risk of recidivism, most notably felony offenses.

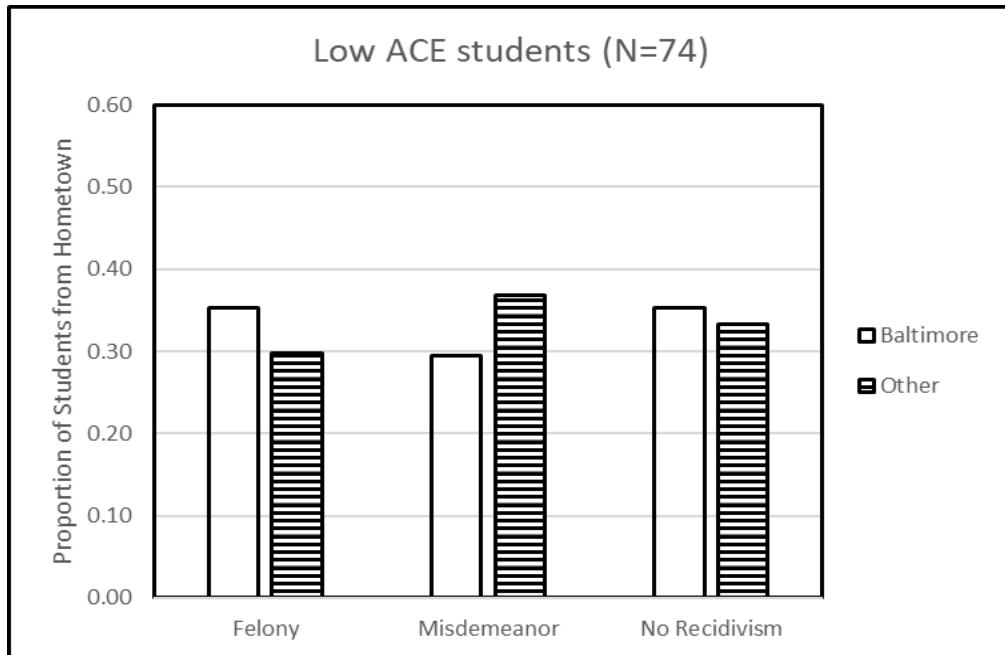


Figure 9. Recidivism profiles for Baltimore and other hometowns group in the low-ACE group.

### Hometown and Vocational Track Placement

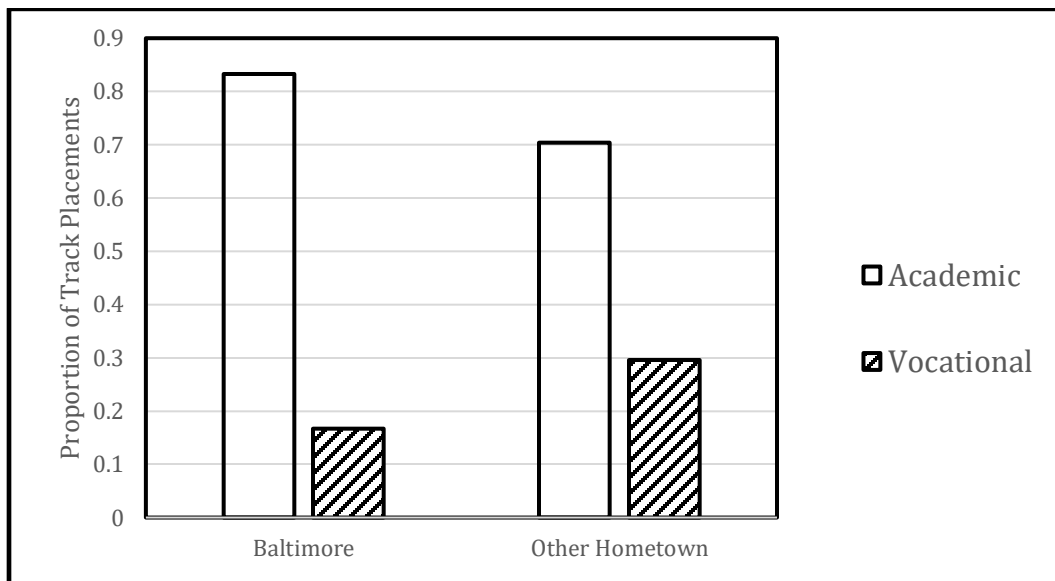
To further probe the relationship of hometowns and track placement, I addressed the question: Are students from other hometowns disproportionately placed in the vocational track? A 2x2 chi-square test was carried out to determine whether the variables, track and hometown, were independent. There was a small but significant relationship between these two factors [ $\chi^2(1) = 4.715, p = .030, \phi = 0.150$  (small effect)]. The contingency table is shown in Table 11. There was a somewhat higher likelihood of vocational placement for students from the other (not Baltimore) hometowns. The pattern of proportions is shown in Figure 10.

Table 11

*Contingency Table for the Relationship Between Hometown and Track*

Hometown	Track		Total
	Academic	Vocational	
Baltimore	85	17	102
Other	69	29	98
Total	154	46	200

*Note.*  $p = .0054$ , significant.



*Figure 10.* Placement rates of students from Baltimore and other hometowns.

### Hometown and Adverse Childhood Experiences

To determine the relationship of ACEs and hometown, I addressed the question: Does Baltimore differ from other hometowns in ACEs? An independent groups  $t$  test was used to compare Baltimore with other hometowns on mean ACE, the ACEs scale score. A significant difference was found between the Baltimore mean ( $M = 4.67$ ) and the other hometown mean ( $M = 3.61$ ) [ $t(198) = 6.315, p < .00001$ , Cohen's  $d = 0.898$  (large effect)]. Because the ACE measure is

taken at intake, this finding is evidence that Baltimore students came to the school with more ACEs than did students from other jurisdictions.

### **Summary of Results**

ACEs, as measured by the ACE scale score, moderated the relationships between track and recidivism, between IVALIDATE and recidivism, and between hometown and recidivism. There was a track effect when the ACE score was low, with the vocational track showing lower recidivism. There was an IVALIDATE effect when the ACE score was low, with completers of this checklist showing lower recidivism. And there was a hometown effect when the ACE score was high, with students from other (non-Baltimore) hometowns showing lower recidivism. Students from other hometowns tended to be placed in the vocational track more than students from Baltimore, but the effect was small. Students from Baltimore showed a markedly higher mean ACE score than students from other hometowns.

## **Chapter 5: Discussion**

This chapter presents the interpretation of the data analysis and the results. The chapter also includes limitations and implications for practice. It ends with recommendations for further research.

The purpose of this quantitative ex post facto study was to analyze secondary data provided by a Mid-Atlantic region RTC to determine the effects of recidivism from participation of adjudicated youth in academic or vocational training programs. I used the findings to determine if there were predictive relationships among recidivism, educational tracks, ACEs, hometown, and INVALIDATE. This investigation of the RTC's educational program offerings and measures of the effectiveness of its educational track programs will aid in discussions concerning the role of its educational programs in reducing recidivism among juvenile clients.

### **Educational Tracks and Recidivism**

The results indicated that the rate of recidivism was lower in the vocational track than in the academic track for low-ACE students and consequently for the whole sample. Students enrolled in the vocational track recidivated less and had a lower rate of felonies compared to students enrolled in academic tracks. This aligns with the previous investigations that identified vocational education as a contributor to lowering recidivism in comparison to general academics (Davis & Michaels, 2015). It should be noted that the rates of recidivism for both tracks are disappointingly high. However, the advantage shown by the vocational type of education provides important information for addressing the general problem. The highest recidivism rates observed at this RTC were still far below the 73% reported by Miller and Miller (2015) for Baltimore.

### **Educational Tracks and Adverse Childhood Experiences**

The results indicated that there was a higher level of ACEs for students who eventually

enrolled in an academic track compared to students who enrolled in a vocational track. This is an alarming finding in the sense that students with higher ACE scores would benefit greatly from project-based learning activities for exposure to experiential learning and opportunity available in vocational education. We need a better understanding of why students with a history of higher stress do not opt into a track that could provide them with more help.

### **Adverse Childhood Experiences and Recidivism**

The results indicated that there was a significant predictive relationship between ACEs and recidivism. The higher the ACE scale score, the more likely the student recidivated. This finding aligns with general strain theory, the framework supporting this study (Agnew, 2001). The emphasis of the theory is that delinquency occurs when juveniles have lower educational achievement, poverty, poor health, and other issues that prevent them from accomplishing success through hard work, determination, and initiative. In juveniles, the strain builds up to the point where the person may commit a criminal offense to get rid of the strain (Agnew, 2001).

### **IVALIDATE Program Completion and Recidivism**

The results of this analysis indicated that there was no significant relationship between recidivism and IVALIDATE for the sample as a whole. However, IVALIDATE completion was associated with lower recidivism in students who were in the low-ACE group. Completing the RTC checklist program signifies that students had successfully completed the program in areas of vocation, activities, life skills, independent strengths, behavior change, athletics, treatment, and education. Completion of IVALIDATE was rewarded and celebrated.

As with the track finding, the IVALIDATE finding highlights the importance of a student's ACE scale score as a predictor of success. RTCs should attempt to clinically mitigate the effects of ACE in order to increase the chances of success of the school's other interventions

and programs.

### **Hometowns and Recidivism**

The results of the analysis indicated that students from Baltimore were more likely to recidivate than other students from the other hometowns group if they were in the high-ACE category. At the time of this study, Baltimore had the nation's highest homicide rate among large metropolitan areas, and the arrests for selling drugs and armed robberies filled the local newspaper with headlines such as: “Juvenile crime in Baltimore ‘out of control;’ leaders want action” (Anderson, 2017) and “Heading off rise in juvenile crime is top issue for Baltimore” (Clarke, 2018). These and many other “sound bites” were indicative of juvenile crimes or recidivism; they drove a negative public perception of the city that was sadly rooted in a harsh reality.

### **Hometowns and Adverse Childhood Experiences**

The results also indicated that the average scale score on the ACE for Baltimore students was higher than that for those from other hometowns. Apart from this specific measure, it must be said that the concrete adverse experiences of Baltimore students included extreme poverty, family problems, the witnessing of violence and the threat of violence, experience of trauma first-hand, post-traumatic stress disorder, and abuse from both adults and peers. Christina Bethell, Director of Johns Hopkins’ Child & Adolescent Health Measurement Initiative, explained that adolescents in Baltimore were more likely to have experienced a traumatic event than those elsewhere in Maryland (Anderson, 2017).

### **Hometowns and Track Placement**

The results indicated that there was a small but significant tendency for students from other (non-Baltimore) hometowns to enroll in vocational track placement. At the academy, it was



known that this was because most students from Baltimore had attained fewer credits toward high school graduation requirements than those from other areas. Students from Baltimore enrolled with more elective credits than core academic credits due to being placed in several juvenile placement programs. Other students from Baltimore had fewer credits due to not attending school. An education goal for the Mid-Atlantic region RTC was to place all students on a progression toward a high school diploma.

## **Conclusion**

A complex picture emerges from this study that is both discouraging and hopeful. Students came to the Mid-Atlantic region RTC with high levels of ACEs, especially the students from Baltimore. Most students found their way into the academic track, but that track's recidivism outcomes were worse than those of the smaller proportion of students who pursued the vocational track.

What accounts for the more favorable outcome in the vocational track? It could be that the vocational track's emphasis on hands-on skill building carried with it lessons that protected against reoffending. This hypothesis suggests that bringing more hands-on engagement into the academic program might lower the recidivism rate. Or it could be that the certificates earned in specific vocational disciplines (e.g., barbering, welding, construction, culinary arts, automotive) confer higher employability, and that employment itself is protective. Either of these hypotheses suggests that a larger number of students should be pointed toward the vocational track. Or it could also be that, because of the lower ACE scale scores of students who enrolled in the vocational disciplines, an advantage already existed for them that promoted greater success and less recidivism. These three possibilities are not mutually exclusive, and it is very possible for all of them to be operating. In any case, the findings confirm informal observations that vocational

students are often the most successful ones.

Many studies and individual cases could be cited showing that RTCs like the Mid-Atlantic region RTC can turn a juvenile offender's life around. But the continuing prevalence of recidivism shows that programs like the one used at this RTC are no guarantee of lasting personal redemption. Graduates from the academy still face many challenges after they leave the school. If they return to their old neighborhoods, they will be subjected again to many of the stressors that gave them high ACE scores. They will compete for jobs with others whose young lives have not been sidetracked and who do not bear the stigma of incarceration. In many ways, they will still be trying to catch up with their peers who were granted a smoother path to adulthood.

### **Implication for Practice**

Numerous discussions occurring in academic settings, juvenile justice corrections, and political systems that deal with young offenders are focusing and planning on how to reduce recidivism. The Mid-Atlantic region RTC represented in this research will utilize the results of this study to problem-solve on how to incorporate younger students with higher ACEs into vocational tracks. The RTC will also use this information as an indicator to request more funds to develop and implement more vocational courses.

The information provided from the study results should be beneficial to policymakers as well as correctional professionals who must develop and implement programs to enable juveniles to become productive, self-sufficient members of the workforce and society. The statistically significant relationship between vocational tracks and recidivism suggests that policymakers and correctional professionals should work together to create opportunities for vocational offerings and alternatives for students to receive their high school diplomas along with vocational training. This Mid-Atlantic region RTC needs to incorporate ACE scores into IVALIDATE as a tool for

measuring completion due to its impact on recidivism. The high-ACE group showed no significant relationship between IVALIDATE completion and recidivism. The low-ACE group demonstrated a significant relationship between IVALIDATE completion and recidivism.

The Mid-Atlantic region academy where this investigation took place offered students trauma-focused cognitive behavior, interactive parent-student, and non-violence therapy sessions. In addition, it offered opportunities for students to experience things they could only hope for and imagine, such as a trip to France, civil rights tours, in-state and out-of-state college visits, participation with Navy Seals, enlistment in the military, graduation from high school, and apprenticeships and internships in different employment sectors. Waters (2017) explained that hope can emerge naturally as a person's sense of support and motivation increases.

The Mid-Atlantic region RTC counteracted ACEs with positive experiences, including counseling that provided hope as an essential part of the change process. It is possible that a deliberate focus on hope can add value in this process. The academy may consider implementing hope therapy groups as a mandatory initial group for all students experiencing ACEs. This will allow students at the beginning of their stay to buy into and think about actions that are needed toward possible outcomes that hold personal significance for their futures (Miceli & Castelfranchi, 2010).

### **Limitations**

Despite the scientific merit and contributions of this study, limitations exist due to the nature of the study. One limitation is that the study included only one institution. Another limitation was the small number of participants. The third limitation was the lack of geographic variability because the study was conducted exclusively in one area of the country.

**Recommendations for Future Research**

This study is the foundation for many other viable studies to help aid in planning and implementing future programs needed by RTCs to decrease recidivism. One possible future study is to compare outcomes for juveniles in several facilities. Another possible future study could consist of an in-depth analysis of relevant educational policies at several facilities serving juvenile offenders.

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## Appendix A: Permission to Complete Study

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Advisory Board President

Improving the Lives of Youth

Board Members

Friday March 8, 2019

ATTN: Program Director

As you may or may not know, I am pursuing my Ed.D. through ACU. I was just approved to move forward, and my next steps will be IRB approval through my university. My committee recommended reaching out to you now regarding the specifics of my study rather than waiting to formally clear IRB.

With my previous work with students involved in special education and my current work with adjudicated students involved in the juvenile justice system for the last 12 years, I have decided to focus on specific program or track assignments, whether and to what extent there is differential success of specific program tracks at our juvenile residential treatment center. My investigation is: Relationships Among Education Track, Adverse Childhood Experience, and Recidivism among Juveniles.

More than 30% of juveniles released are rearrested within 5 years and return to RTCs or jails within 6 months (Durose, Cooper, & Snyder, 2014). Consequently, recidivism and reentry are among the most significant challenges for the criminal justice system today (Miller & Miller, 2015). The problem that I seek to address is the differential success of specific program tracks within a juvenile residential treatment center.

The purpose of the present study is to determine whether these effects of education can be replicated in data from XXXXXXXXXX, an RTC offering both vocational education and academic education tracks. The results from this study will provide a relatively controlled comparison. The results will also provide formative program evaluation data for XXXXXXXXXX to guide future decisions about programming. General Strain Theory (GST) is the theoretical foundation being used in the investigation. GST highlights that delinquency occurs when individuals are unable to accomplish their purposes in life through legal and reasonable channels (Agnew, 2001). GST proposes that "strains or stressors increase the likelihood of negative emotions like anger and frustration (Agnew, 1992). Individuals with lower educational achievement, poverty and poor health are limited in attaining success and prosperity. This limitation strengthens the probability of crimes. GST implies that we can reverse delinquency behavior by providing inmates an opportunity to expect and achieve; believe in themselves and provide counseling for adverse childhood experiences.

I am requesting permission to review 671 archival records (Treatment Plans, Adverse Childhood Experiences (ACE) Questionnaires, and Demographic Survey Questionnaire) from XXXXXXXXXX to determine whether the differential success rate, favoring vocational over general programming can be replicated in data from XXXXXXXXXX, an RTC offering both vocational education and academic education tracks. Although, a random sample of two hundred records will be drawn for this research investigation. Records requested are from the years 2012 to 2018 that include data on student characteristics, adverse childhood experiences, clinical and academic status and progress, program of study or training, and measures of success both within the school and after graduation. Data will be extracted from these records in order to examine predictors of recidivism and measures of program progress.

If given permission to proceed all records and student identification will be kept confidentially during and after the collection of records and data analysis. I am requesting to review an archival of records from 2012-2018. Please sign the follow document if permission is granted.

Respectfully,

*Catherine Gammage*

Catherine Gammage

**Permission approved:**

**Permission denied:**

Signature:

*Len M. Ford 3/12/19*

\_\_\_\_\_

**"Dedicated to improving the lives of youth"**

**"Where students achieve academic excellence and demonstrate respect and responsibility"**



## Appendix B: Treatment Plan

**MID REGION RESIDENTIAL TREATMENT CENTER**

## MONTHLY MULTI-DISCIPLINARY TEAM (M.D.T.)

## TREATMENT PLAN / COURT REPORT

**STUDENT NAME:**  
**DATE OF ADMISSION:**  
**REFERRING AGENCY:**  
**UNIT ASSIGNED:**  
**DATE REPORT WAS COMPLETED:**

**DATE OF BIRTH:**  
**LENGTH OF STAY:**  
**AGENCY REPRESENTATIVE:**  
**CASE MANAGER:**  
**ASSIST#:**

<b>Psychological Evaluation</b>	
<b>Diagnosis/NA</b>	
<b>Treatment Domains of Highest Need: (Risk Factors)</b>	
<b>Recidivism Risk Level: (SAVRY)</b>	
<b>Student's Strengths /Assets:</b>	

## PROGRAM DESCRIPTION

Mid-Atlantic region RTC for Residential Treatment is a private secure program serving male youth between the ages of 14 and 18. The RTC offers an academy model and promotes diverse social and educational interactions essential to the competency development of students. Parents and students are encouraged to keep in contact through letter writing, telephone calls and personal visits. Visitations and family treatment services are responsive to the unique needs of students and their families. Parents are involved in the treatment planning process. Family visits are offered, and home passes are encouraged as the students develop, allowing the student to spend quality time with the family. The RTC recreation program is designed to improve physical fitness and promote healthy, positive lifestyle choices. Additionally, the RTC features include education, treatment and behavioral modification. Students' progress through the program using the VALIDATE Program. The acronym VALIDATE describes eight elements (Vocations, Athletics, Life Skills, Individual Graduation Plan, Demonstrated Behavioral Change, Aftercare, Treatment, and Education) of the program that students will experience as they progress through their levels. Levels include Orientation, Rookie, Intern, and RAM, each phase is self-paced, and achievement based. Students will Validate the program after maintaining RAM status and completing successful home passes showing a demonstration of changed positive behavior and reduction of high risk criminogenic thinking.

### Services

**Education & Career Certification:** ROP is a year-round school that focuses on academic achievement. Students will be participating in grade equivalent classes as they relate to their education plan. Students will take state required assessments and could advance grade levels. All school credits earned will be forwarded to the youth's home school. The school offers a post-secondary track, GED and high school diploma track. The goal is to: Enroll, Enlist or Employ at the point of transition. Students will have an opportunity to earn certifications transferable to employment opportunities such as: Serve Safe, ABC, OSHA, CPR and CNC Welding.

**Counseling:** Students will have opportunities to participate in individual, group, and family counseling as determined through an assessment process that identifies individual needs. Counseling will be provided by trained staff in evidence-based curriculums. Groups include; Seeking Safety for Adolescents (Trauma Focused), Thinking for a Change (T4C), Aggression Replacement Training (ART), CBIS Cognitive Behavioral Interventions for Substance Abuse, Motivational Interviewing (MI), Positive Skill Development Groups (PSD), Positive Organizational Community Group (POC) as well as individual and family therapy.

**Recreation:** Leisure and recreation activities will be offered daily. The campus includes a gymnasium with Health and Wellness classes, Cardio Vascular Circuits and 18/20s. All students are encouraged to participate in recreational activities to the best of their ability and be offered the opportunity to compete against other high schools in both individual and team sports. Team Sports that are offered are football, basketball, wrestling, track & field, and cross country.

**Volunteerism & Restorative Justice:** Students will have the opportunity to participate in off campus community services program that will offer instruction and hands-on "real-world" projects. We strive to give opportunities to our young men that allow them to give back to the community.

**Religious:** ROP will provide non-denominational religious services that is voluntary and provide activates. If a student has a specific religious requirement or would like to request religious counseling they should advise their case manager. Students will be offered a scheduled time to worship and every attempt will be made to ensure religious services of all denominations.

**Health Care:** Medical care is available to students daily. Each student is required to complete a health screen and sports physical within the first week. Dental services are given monthly. Medications will be administered at its required time and monitored for compliance.

**Specialized Services:** Students will complete a comprehensive battery of assessments during the intake process to identify individualized services. If a student demonstrates a need for specialized services, the program will submit the appropriate referral to address the specified need. Mental health referrals will be made through the case manager in conjunction with the treatment team to ensure medication and special needs are being met. The Clinical Director or equivalent will provide oversight of all specialized services offered in the program. Referrals for specialized services will be completed by licensed practitioners.

**Specifications for supervision of the child:** ROP will supervise all students located on campus as well as offsite. As students' progress through their

Problem Resolution Process	Treatment Groups	Behavior Chain Worksheet (EPICS)	Refocus Process
Community Group	Medication Management	IEP & 504 plans	Daily Progress and Force Field Analysis
Disciplinary Hearing	Community Service	Relapse Prevention Plan	Target Skill/Role Play and POC Groups
Clinical Assessments	Status Probation/Demotion	Setting Limits & Boundaries	Safety Plans
Loss of Privileges	Safe Crisis Management Techniques	Positive Feedback	Proactive Levels of Intervention

Signed Release of Information Form:	Yes or No	Pre-Participation Sports/Nursing Intake Assessment:	MM-DD-YYYY	Initial Sports Physical:	MM-DD-YYYY	Most Recent Sick Call:	MM-DD-YYYY	Most Recent Dental Visit:	MM/DD/YYYY	Most Recent Psychiatric Evaluation:	MM/DD/YYYY
Medical Concerns: Ex., Allergies, Head Injuries, Surgeries, Past or Current Medical Conditions											
Sick Calls/Off-site Appointments:											
Current Medications // Dosage: (Date – Results)											
Missed Doses of Psychotropic Medications											
MIRs:											
Nursing Notes:											
Date of Last Psychiatric Review:											

ACADEMIC SUMMARY					
<b>Current GPA:</b>		<b>Current Grade Level:</b>		<b>Total Number of Credits:</b>	
<b>IEP: “Yes” or “No”</b>		<b>Annual Review Date:</b>		<b>Expected H.S. Grad. Date:</b>	
<b>STAR Testing: (Date – Results)</b>		<b>STAR Testing: (Date – Results)</b>			
<b>Current Vocation and/or Sport:</b>					
<b>30 Day Progress for Academic and Behavioral Performance:</b>					
TREATMENT GOAL			EDUCATION		
<b>Treatment Goal:</b>					
<b>Time-frame for Achievement &amp; Responsibility:</b>					
<b>Objectives</b>	<b>Evidence of Progress (Lack of Progress)</b>			<b>Completion, Review or Revision Date</b>	
1.					
2.					
REPORTABLE INCIDENTS & DATES					
AWARDS AND CERTIFICATES					

MONTHLY SUMMARY:			
<b>Treatment Goal:</b>			
<b>Time-frame for Achievement &amp; Responsible party:</b>			
<b>Objectives</b>	<b>Evidence of Progress (Lack of Progress)</b>	<b>Completion or Revision Date</b>	
2.			
DISCHARGE & AFTERCARE PLANS "PLACEMENT PLANS UPON DISCHARGE"			
<b>Legal Guardian // Relationship:</b>		<b>Living Arrangement upon Discharge (Address):</b>	
<b>APPROVED VISITATORS for STUDENT-ATHLETE: (Name &amp; Relationship Must Be Included)</b>			
<b>Tentative PLAN for follow-up TREATMENT and professional SERVICES: (Summarize Aftercare Plan and Recommendations)</b>			
<b>ANTICIPATED transition date:</b>			
SIGNATURE PAGE			
<b>Title</b>	<b>Name (Printed)</b>	<b>Signature</b>	<b>Date</b>
<b>Student:</b>			
<b>Parent/Guardian:</b>			
<b>Case Manager:</b>			

<b>Therapist:</b>			
<b>Clinical Director:</b>			
<b>Medical/Director of Student Service:</b>			
<b>Education Representative:</b>			
<b>Group Living:</b>			
<b>Placing Agency Representative:</b>			
<b>Other:</b>			
<b>Other:</b>			

## Appendix C: Adverse Childhood Experiences (ACE)

### Finding your ACE Score

While you were growing up, during your first 18 years of life

1. Did a parent or other adult in the household often . . .  
Swear at you, insult you, put you down, or humiliate you?  
or  
Act in a way that made you afraid that you might be physically hurt?  
Yes No If yes enter 1 \_\_\_\_\_
2. Did a parent or other adult in the household often . . .  
Push, grab, slap, or throw something at you?  
or  
Ever hit you so hard that you had marks or were injured?  
Yes No If yes enter 1 \_\_\_\_\_
3. Did an adult or person at least 5 years older than you ever . . .  
Touch or fondle you or have you touch their body in a sexual way?  
or  
Try to or actually have oral, anal, or vaginal sex with you?  
Yes No If yes enter 1 \_\_\_\_\_
4. Did you often feel that . . .  
No one in your family loved you or thought you were important or special?  
or  
Your family didn't look out for each other, feel close to each other, or support each other?  
Yes No If yes enter 1 \_\_\_\_\_
5. Did you often feel that . . .  
You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?  
or  
Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?  
Yes No If yes enter 1 \_\_\_\_\_
6. Were your parents ever separated or divorced?  
Yes No If yes enter 1 \_\_\_\_\_
7. Was your mother or stepmother . . .  
Often pushed, grabbed, slapped, or had something thrown at her?  
or  
sometimes or often kicked, bitten, hit with a fist, or hit with something hard?  
or  
Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?

Yes No If yes enter 1 \_\_\_\_\_

8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?

Yes No If yes enter 1 \_\_\_\_\_

9. Was a household member depressed or mentally ill or did a household member attempt suicide?

Yes No If yes enter 1 \_\_\_\_\_

10. Did a household member go to prison?

Yes No If yes enter 1 \_\_\_\_\_

NOW ADD UP YOUR "YES" ANSWERS: \_\_\_\_\_ THIS IS YOUR ACE SCORE



#### Appendix D: Demographic Juvenile Survey

1. What is your ethnicity?
2. Do you have a disability? If yes what is your disability?
3. What grade are you in?
4. How old are you?
5. How many times have you been arrested?
6. How many times have you been committed or detained by the Juvenile Justice System?
7. How old were you when you first were committed to the Juvenile System?
8. How much time have you spent in the Juvenile System?
9. Do you have any siblings in the Juvenile System?
10. Do you live with your natural parents or an adoptive family?
11. Were you reunited with your family after your commitment?

## Appendix E: IRB Approval

## ABILENE CHRISTIAN UNIVERSITY

*Educating Students for Christian Service and Leadership Throughout the World*

Office of Research and Sponsored Programs  
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103  
325-674-2885



Dear Catherine,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled

(IRB# 19-030 ) is exempt from review under Federal Policy for the Protection of Human Subjects as:

- ☐ Non-research, and  
☒ Non-human research

Based on:

If at any time the details of this project change, please resubmit to the IRB so the committee can determine whether or not the exempt status is still applicable.

I wish you well with your work.

Sincerely,

*Megan Roth*

Megan Roth, Ph.D.  
Director of Research and Sponsored Programs